

Vacation Application

For the

Block 21 Development

February 5, 2015

prepared for

Seattle Department of Transportation

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Block 21 Development

Alley Vacation Petition

February 5, 2015

1. **Filing Fee:** A check in the amount of \$450.00 and made payable to City of Seattle Department of Finance is included as part of this petition application.
2. **Required Signatures:** *Signed and completed petition with signatures representing ownership of 2/3 of the property abutting the right-of-way to be vacated as required by state law. Specifically, the petition must contain the signatures of the property owners on both sides of the affected street (alley), even though only a portion (or side) is sought for vacation. For property owned by a business entity, the petition must contain notarized signatures of two authorized officers. The submittal must include documentation (such as articles of incorporation or other organizational documents demonstrating the authority to bind the organization) and names and titles of officers who are authorized to bind the corporation.*

The property adjoining this alley is owned by Acorn Development LLC. See **Figure 14** in the *Figures Section* of this Vacation petition application for reference.

The petition is signed and included in **Appendix A** of this Vacation petition application.

3. **Community Information:** *The Street Vacation Policies require community notification prior to beginning the vacation review process. List the community or neighborhood organizations and business groups that were provided information about the project, and include contact names, addresses, phone numbers, and e-mail addresses.*

Listed below are the community and neighborhood organizations that have been contacted to date in order to communicate information regarding the proposed project:

- Downtown Seattle Association – Smart Growth Committee (12.01.14)
- Denny Triangle Neighborhood Association – Executive Committee (02.03.15)

Contact information from this meeting is included as **Appendix B** to this Vacation petition application.

Ongoing outreach to discuss the proposed vacation will continue with the following organizations:

- Denny Triangle Neighborhood Association (meeting date 02.24.15);
- Belltown Community Council – Housing and Land Use Committee (meeting date 02.26.15);
- South Lake Union Community Council – Policy and Planning Committee.

In addition, examples of press coverage of the proposed development are listed below (articles are provided in **Appendix B**). The geographic area of this press coverage was the Greater Seattle area.

Date	Press	Title
11.04.14	Seattle Times	Amazon's new campus to be heated with recycled energy
11.11.14	Geek Wire	Amazon is taking over Seattle: New plans call for up to 3 more buildings
11.11.14	Seattle Times	Amazon expands footprint with latest plan for more buildings

4. Development Team: Provide information about the development team, including the architect, engineer, land use attorney, artist, or other team members and include name, address, phone number and e-mail address.

This information is included as **Appendix C** to this Vacation petition application.

5. Right of Way Proposed for Vacation: Identify the public right-of-way proposed for vacation. Provide a legal description of the right-of-way proposed to be vacated; survey and title work may be required.

Figure 1 is a regional map and **Figure 2** is a vicinity map, and are provided for overall orientation. **Figure 3** shows the block that comprises the project site, **Figure 4** illustrates the proposed right-of-way to be vacated, and **Appendix D** contains a plat map depicting **Block 21**. Figures are located in the *Figures Section* of this Vacation petition application.

As indicated by **Figure 3**, the right-of-way that is proposed for vacation is a northwest-southeast trending alley. The alley is 16 feet wide with a length of 360 feet. The legal description of Block 21 is as follows:

LOTS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 AND 12, BLOCK 21, SECOND ADDITION TO THE TOWN OF SEATTLE, AS LAID OFF BY THE HEIRS OF SARAH A. BELL, DECEASED (COMMONLY KNOWN AS HEIRS OF SARAH A. BELL'S SECOND ADDITION TO THE CITY OF SEATTLE), ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 1 OF PLATS, PAGE(S) 121, IN KING COUNTY, WASHINGTON;

EXCEPT THOSE PORTIONS CONDEMNED IN KING COUNTY SUPERIOR COURT CAUSE NUMBER 193437 FOR THE WIDENING OF 7TH AVENUE, AS PROVIDED BY ORDINANCE NUMBER 50890 OF THE CITY OF SEATTLE.

The legal description of the alley within **Block 21** is described as follows:

ALLEY IN BLOCK 21, SECOND ADDITION TO THE TOWN OF SEATTLE, AS LAID OFF BY THE HEIRS OF SARAH A. BELL, DECEASED (COMMONLY KNOWN AS HEIRS OF SARAH A. BELL'S SECOND ADDITION TO THE CITY OF SEATTLE), ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 1 OF PLATS, PAGE(S) 121, IN KING COUNTY, WASHINGTON

6. Project Location: Provide the project address; the boundaries of the block where the project is located; the neighborhood or area of the City; the Neighborhood Planning Area; the current zoning for the area and any zoning overlays or special review districts.

- **Address of Block 21:** 2200 Seventh Avenue, Seattle, WA
- **Streets Bordering Block 21:** Bell Street on the north, Eighth Avenue on the east, Blanchard Street on the south and Seventh Avenue on the west.

- **Neighborhood Planning:** The Block 21 site is located within Seattle's Downtown Urban Center, which is an Urban Center Overlay that is comprised of five neighborhoods for planning and growth monitoring purposes. Specifically, Block 21 is located within the Denny Triangle Neighborhood of the Downtown Urban Center (see **Figure 4**).
- **Zoning:** Block 21 is zoned Downtown Mixed Commercial (DMC) 340/290-400 (see **Appendix H** for a zoning map).

7. Reason for the Vacation: *Describe why the vacation is being sought and list specifically what the vacation contributes to the development of the project. Provide a "no vacation" alternative that describes what could be built on the site without a vacation. Include existing conditions and any constraints, such as the topography that impact the potential development of the site.*

Current Site Conditions and Use

As indicated by **Figure 3** in the *Figures Section* of this Vacation petition application, **Block 21** is a rectangular-shaped block. The block currently contains surface parking (93 spaces) and three buildings, including: The former Hurricane Café (a 1-story, 5,652 sq. ft. masonry building, built in 1940) located in the northwest corner of the block; Budget Car Rental (a 1-story, 15,964 sq. ft. masonry building, built in 1953) located in the southwest corner of the block; and, a former motel, 3-story, 34,560 sq. ft. masonry building built in 1957 (that is currently leased by Cornish College for student housing) located in the northeast corner of the block. Street trees border portions of the site along the roadways that bound the block. There is no other vegetation or landscaping present on the block.

Site Constraints

Block 21 is constrained because each of the numbered avenues in this area was widened by 12 feet on either side by the City in 1926. This resulted in half blocks with a depth of 108 feet, which is reduced further to 106 feet when the alleys are widened to current standards (from 16 feet to 20 feet). Redevelopment on the half blocks would result in long and narrow buildings that block east west views and are inefficient – both above-grade for office use and below-grade for underground parking.

Additional site constraints include:

- a. A sizable drop in grade (~20 feet) across the site.
- b. The site will be shaded almost entirely by projects to the south (currently under construction).
- c. Bell Street to the north and Blanchard Street to the south are both designated green streets.

Why the Vacation is Requested

The alley vacation for **Block 21** is requested to improve the project in a manner consistent with the public interest and to allow for better urban form. Vacation of the alley would allow the tower to be rotated 90 degrees, providing more light and air at-grade to benefit street level uses than otherwise could be achieved with the alley intact. The rotation of the

building continues the alternating rhythm of massing two buildings on a block initiated on Blocks 14, 19 and 20, all part of the Rufus 2.0 development. This configuration provides better public circulation functions by reinforcing the importance of 7th Avenue as a key boulevard to accommodate pedestrians and cyclists, and by providing for a diagonal public through-block connection connecting the corner of 7th and Blanchard to 8th and Bell. This highly visible and desirable pedestrian pathway will be more gradual in grade and provide a more direct connection between Denny Park and South Lake Union and the office, retail and residential neighborhoods to the south and west, than the steeper grades of Bell and Blanchard Streets.

What the Vacation Contributes to the Proposed Project (bulleted list)

The alley vacation associated with proposed development of **Block 21** would contribute to the project in the following ways:

- Improved provisions of light and air;
- Greater ability to control solar heat with an east-west building orientation;
- More efficient underground parking;
- Improved vehicular access by allowing driveways to be located along 8th Avenue, which has the lowest pedestrian function of the adjacent roadways and is at the low end of the site. Without the alley vacation, all access would occur from the alley, which intersects both Bell Street and Blanchard Street Green Streets;
- Opportunities for enhanced public benefits as discussed in Section _ (pg. of the petition); and,
- Establishment in the surrounding neighborhood.

Development that Could Occur as No Vacation Alternative

Under the *No Alley Vacation* scenario, based on current zoning, two office buildings could be built on **Block 21**. The buildings would be aligned parallel to Seventh and Eighth Avenues, one on each side of the mid-block alley (**Figures 6 and 7**). The buildings would be separated from each other by the 16-foot wide alley, which would be widened to 20 feet at the street level. As indicated by **Figure 6**, the tallest building would effectively create a wall that would restrict westerly territorial views from the area east of Westlake Avenue. The *No Alley Vacation* scenario would provide only limited opportunities for street-level amenities and public open space. No public benefits associated with the proposed alley vacation would be provided.

8. ***Project Description: Describe the current conditions on the site and the existing uses. Provide specific project information. This should include a clear description of the project, including: the uses, dimensions, height, stories, parking spaces, etc in sufficient detail to understand how the site will be developed and how the project will function.***

Current Site Conditions and Use

Current site conditions are discussed under Item #7 above.

Proposed Project

Development that is proposed for **Block 21** would include a 24-story (340-foot tall) office tower with street-level retail space located in the northern portion of the project site, a 9-story office building with street-level retail space located in the southeast portion of the project site, and up to 4 levels of below-grade parking to accommodate 814 vehicles. In total, approximately 859,000 sq. ft. of office space is proposed with roughly 23,000 sq. ft. of commercial retail space. It is proposed that the two office buildings be connected by a two-story link internal to the block. A total of 27,000 sq. ft. of street-level open space, pedestrian amenities, and a diagonal pedestrian through-block connection are also proposed. **Figure 8** shows the proposed site plan, and **Figures 9** through **12** are aerial perspectives and character sketches of the project.

The alley vacation that is requested for **Block 21** is integral to redevelopment of this block. The alley vacation would enable both buildings to be rotated 90 degrees on the block, minimizing the long facades along the avenues that would otherwise occur without an alley vacation. The proposed building could be wider than 108 ft. (the east-west dimension of the buildable parcel without the alley vacation) with opportunities for greater variety and interest in massing. A broad range of public benefit opportunities are proposed. They are described in greater detail in **Sections 13** and **14** [pgs. 14 and 16] of this vacation petition application; in summary, they include: publicly accessible plazas and public stairways, streetscape enhancements, pedestrian and bicycle improvements, enhancement of the pedestrian environment with through block circulation, the provision of view corridors through the block, street trees, and utility modifications.

9. ***Other Land Use Actions: Provide information about other land use actions, such as a rezone, Major Institution Master Plan, or administrative or Council conditional use, or review from the Landmarks Preservation Board, or any other special review. SDOT will need final recommendations resulting from these reviews when it becomes available.***

The applicant is seeking a Master Use Permit (MUP). An EIS Addendum to the *Downtown Height and Density* EIS (herein referred to as the *Downtown* EIS) is being prepared in conjunction with this MUP; the Seattle Department of Planning and Development (DPD) is coordinating preparation of the EIS Addendum.

The Department of Neighborhoods has determined that *Appendix A* reports are not required to be submitted for the existing buildings on the project site because the buildings were identified as a part of the City's 2007 *Downtown Survey* as structures that have been so altered that they would not qualify as Seattle landmarks.¹

For the City's initial consideration, the applicant is proposing a public benefits package as set forth in **Appendix G**.

¹ Email correspondence from Sarah Sodt, Department of Neighborhoods, November 12, 2014.

10. Vacation Policies/Transportation Impacts: Describe the transportation impacts and address both the impacts from the loss of the right-of-way currently and in the future as well as the transportation impacts from the new development. Describe any impacts on the transportation system, which includes impacts to pedestrians, bicycles, transit and vehicles. Describe impacts to the street grid and development pattern in the area and open space value of the street right-of-way; address both current and future impacts. A traffic analysis will be required but you may submit the traffic analysis later in the process with any other required environmental documents.

Policy 1 – Circulation and Access: Vacations may be approved only if they do not result in negative effects on both the current and future needs for the City's vehicular, bicycle, or pedestrian circulation systems or on access to private property, unless the negative effects can be mitigated.

Guideline 1.1 (F) Alleys

Proposed alley vacations will be considered according to the following guidelines.

1. The primary purpose of an alley is to provide access to individual properties for loading functions and to provide utility corridors and access to off-street public services such as water, sewer, solid waste and electricity. In addition, alleys may provide other public purposes and benefits including pedestrian and bicycle connections, and commercial and public uses. Alleys should be retained for their primary purposes and other public purposes and benefits. Alley vacations may be provided only when they would not interrupt an established pattern in a vicinity, such as continuity of an alley through a number of blocks or a grid, which is a consistent feature of neighborhood scale. The impacts on future service provision to adjacent properties if utilities are displaced will be reviewed.

4. Downtown. The following criteria will be considered for specific downtown alley vacation petitions:

a) may be vacated only when their loading, service and access functions can be continued within the development site, and curbcuts are provided in conformance with the comprehensive plan;

b) alleys which are part of the primary pedestrian circulation system, such as Post Alley, may be vacated only when comparable public pedestrian circulation is provided and the pedestrian environment along the corridor is improved; and

c) to ensure compatible scale and character of infill development, for example, alleys in special review districts or historic districts may be vacated only when compatible scale and character of development is assured.

Guideline 1.2 Traffic Code Compliance

Proposed vacations, which would encourage violation of the traffic code will not be approved. An example is a vacation eliminating one exit to an alley, requiring vehicles to back from the alley on to a street.

Guideline 1.3 Cumulative Effects to be Assessed

When several vacations are proposed for a particular area of the City, such as within the boundaries of a major institution, a comprehensive review will be undertaken to determine the cumulative effects of the vacations on circulation and access.

Guideline 1.5 Circulation/Access Conditions on Vacations

The City Council may impose conditions on vacations to mitigate negative effects of the vacation on vehicular, pedestrian, and bicycle travel.

Guideline 1.6 Vehicular and Pedestrian Access by Agreements with Property Owners

A. Vehicular Access

Vehicular traffic functions will not be provided by agreement across private property. When the traffic functions of a street are necessary to the operation of the circulation system, the street will be retained as a dedicated right-of-way.

B. Pedestrian Access

Pedestrian circulation functions may be provided by an agreement which provides for public access across private property only when a major public benefit is provided by such an arrangement.

DISCUSSION: The **Block 21** alley that is proposed for vacation does not provide continuity for the grid in the site vicinity. The alley immediately to the south of the subject block has been vacated (Block 20) and the **Block 21** alley, therefore, extends only one block north, to Denny Way. For the block north of the site, the alley intersects diagonally into the Denny Way/Dexter Avenue intersection. Because of this awkward connection to Denny Way, existing use and likely future use of the alley is compromised.

Vacation of the alley on **Block 21** would not affect access to any other properties since the project would redevelop the entire block. Vacation of the alley allows the full site to share parking garage and truck loading dock access driveways, which are proposed to be located on 8th Avenue with a second egress-only driveway on Bell Street. No driveways are proposed on 7th Avenue, where the applicant proposes pedestrian and bicycle-focused frontage improvements similar to those that the City previously approved for Blocks 14, 19 and 20. The applicant will continue to work with City staff to find the optimal access configuration and location of site driveways.

If the alley is not vacated, then all parking garage and truck loading access would occur from the existing alley with connections to Bell Street and Blanchard Street, both of which are designated Green Streets.

Detailed transportation analysis for **Block 21** is being performed as part of an *EIS Addendum* for the project, which will update the City's *Downtown Height & Density Changes EIS*. A preliminary assessment of the site's access was performed based on prior findings from the *Rufus 2.0 Transportation Impact Analysis*² and *EIS Addendum*³. Based on the preliminary analysis, the proposed **Block 21** alley vacation would not adversely affect the area's transportation system or access; specifically:

- The alley vacation would not adversely affect the existing grid of streets or continuity of the grid. The existing alley is part of a two-block remnant that does not extend south of the block or north of Denny Way. The existing connection to Denny Way compromises access to and from the alley.
- Without the alley vacation, separate vehicle and truck access points would be provided for buildings on each side of the alley. Traffic would enter the alley from Bell and Blanchard Streets and exit the alley to Bell and Blanchard Streets; both streets are designated Green Streets.
- The alley vacation allows the truck loading areas to be enclosed within the office building in lieu of being open to the alley. No backing maneuvers would be required to access or depart the site.
- Access to both parking garage and truck loading areas would be located adjacent to each other on 8th Avenue, removing the 20' alley access point on Blanchard Street, a Green Street. A 12' egress only point is proposed on Bell Street, in lieu of the 20' alley access. This 12' egress point would reduce on-street circulation and potential conflicts with pedestrians at the 8th Avenue/Bell Street intersection by allowing vehicles circulating to the north to choose the driveway that offers the shorter travel route.
- The proposed vacation would not encourage violation of the traffic code
- On-street parking would not be reduced by the vacation.
- The proposed alley vacation would likely improve transit conditions adjacent to the site. Bell and Blanchard Streets, where the existing alley intersects, are used by King County Metro Routes 26, 28, and 40, which connect the Fremont and Ballard neighborhoods to downtown Seattle. Although there are no bus stops located adjacent to the site, there is transit layover space on Blanchard Street, Bell Street, and the east side of 8th Avenue, and those streets are also used to circulate between various layover areas and the start of Metro routes in the Denny Triangle and Belltown. Vacating the alley would eliminate potential conflict from these transit routes, and elimination of the alley curb cuts could increase the curb space available on Blanchard and Bell Streets for layover functions. If the alley is vacated, the site's primary entrance would be located on 8th Avenue, which would not affect existing transit layover or transit routes.
- The proposed alley vacation would not adversely affect bicycle facilities in the area. The project proposes pedestrian and bicycle-focused frontage improvements along 7th Avenue; no driveways are proposed for that frontage.

² Transportation Technical Report, Heffron Transportation, Inc. August 9, 2012.

³ *Rufus 2.0 (Amazon) EIS Addendum*, City of Seattle, April 5, 2012.

- The proposed alley vacation would improve the pedestrian realm. In addition to on-site plazas and pedestrian amenities, the vacation would allow a pedestrian route to be created that crosses diagonally through the site from the northeast corner to the southwest corner.

11. Vacation Policies/Utility Impacts: *During the City review of the proposed vacation, the Petitioner should work with the utilities that may be impacted by the vacation and develop a utility mitigation plan to address, in detail, how utilities impacts will be addressed. This plan must be completed before the petition proceeds to City Council review.*

Policy 2 – Utilities: *Rights-of-way which contain or are needed for future utility lines or facilities maybe vacated only when the utility can be adequately protected with an easement, relocation, fee ownership or similar agreement satisfactory to the utility owner.*

Public rights-of-way provide utilities with corridors for the efficient transportation and delivery of utility services to the public in the least costly manner possible. Utilities generally assess vacation petitions from an operational perspective in order to ensure that a vacation will not impair current service reliability and capacity levels nor limit the ability to expand services in the future. The growth of telecom utilities above and below ground, increased urban densities, and demand for undergrounding of utility facilities all place pressure on the value of public rights-of-way, particularly alleys, for future utility needs.

Guideline 2.1 Review of Petitions by Affected Utilities

Utilities will be given an opportunity to review the proposed vacation, to identify its existing and future interests in the right-of-way and to indicate what actions would be necessary to protect its interests. The Petitioner is responsible for working with the various utilities to identify and address the utility issues. The Petitioner bears the costs of addressing the utility issues relating to the vacation and shall ensure that the utility is in a similar position as prior to the vacation without a detriment to current or future utility services. Enhancement of utility services at the Petitioner's expense shall not be required.

Guideline 2.2 Utility Conditions on Vacations

The City Council may impose conditions on vacations to assure continued service to the public in the most efficient, least costly manner possible.

Guideline 2.3 Utility Easement Provisions/Property Owners Risk and Responsibility

A. Easement agreements should clearly state the rights and responsibilities of each party.

B. Utilities may prohibit construction of buildings, structures, grading and filling, and other uses over or under their easements where such activities would inhibit operation of or prevent access to the utility facilities for maintenance and repair, or would cause extra cost or liability to the utility, or would affect the safety and integrity of those facilities.

C. Any costs for the repair of damages to the improvements placed on or over the utility easement by the property owner due to the utility maintenance repair or installation will be the express responsibility of the property owner.

DISCUSSION: All services to existing structures within this block would be disconnected and demolished; services would be re-routed. Three utilities currently have infrastructure within the alley on **Block 21** that would need to be relocated as part of the proposed alley vacation -- Seattle City Light, Century Link, and Comcast. These utility providers have been consulted and each has provided conceptual approval to re-route lines/ducts around the block into 7th and 8th Avenues. Each of these utilities has also indicated that adequate capacity exists to serve the proposed project. To-date, preliminary engineering plans have been provided to the Seattle Department of Transportation and Seattle City Light, the utility permitting process has been initiated with the City, and bi-weekly meetings to coordinate a design and construction schedule are occurring. The applicant will continue to coordinate with utility providers to mitigate the loss of infrastructure due to the proposed alley vacation. All utilities and planned easements for future utilities located within vacated rights-of-way would be adequately protected by easements, relocation, or agreement(s) satisfactory to the utility owner.

See **Appendix E** for further information regarding consultation that has occurred to-date, as well as conceptual drawings depicting existing and proposed utility locations. As project design evolves, additional information will be provided and details will be added to the mitigation plans.

12. Vacation Policies/Land Use Impacts: *Address the land use impacts; specifically address the increase in development potential attributable to the vacation. Provide specific information on the difference in the development of the site with or without a vacation. Address issues such as scale, building orientation, and access to the site that may be impacted by the vacation. Address neighborhood character and design issues and describe how your project fits into the specific neighborhood in which it is located. Discuss applicable Comprehensive Plan goals and other City and neighborhood land use and planning goals for the area.*

POLICY 4 –Land Use: *A proposed vacation may be approved only when the increase in development potential that is attributable to the vacation would be consistent with the land use policies adopted by the City Council. The criteria considered for making individual vacation decisions will vary with the land use policies and regulations for the area in which the right-of-way is located. The City Council may place conditions on a vacation to mitigate negative land use effects.*

Vacations can affect the land use and development patterns in an area by adding to the developable land base, altering the local pattern of land division, and increasing the development potential on the vacated and abutting properties. These changes may allow development that is inconsistent with adopted land use policies and have a negative effect on the area of the proposed vacation and other rights-of-way. The Petitioner shall provide the City with information about the expected completed density of the project and the development potential of the property without a vacation. Such information should be provided as both the percentage increase in the development potential and the additional square footage added to the project. The Petitioner shall also provide the City with information as to how the project advances City planning goals and meets the zoning criteria in the area where the project is located. It is the obligation of the Petitioner to provide a

justification for the vacation and to provide information on whether there are feasible alternatives that do not require a vacation.

Guideline 4.6 Zone Specific Review

Adopted City Land Use Policies to be Used

In addition to the general street vacation policies and guidelines contained in this document, the adopted City land use policies for the zone in which a vacation is located, will be used to determine whether or not the land use effects of each vacation are in the public interest. These include policies such as the Comprehensive Plan, particularly its land use, urban village, transportation and neighborhood elements. Vacations will be reviewed according to Land Use Policies as now constituted or hereafter amended.

Area Specific Guidelines

Guidelines related to various land use areas are stated below. They are provided in order to highlight special concerns related to each area. They shall be used to supplement the general provisions and guidelines of the Seattle Vacation Policies and other land use policies for protection of the public interest.

A. Downtown

Petitions for vacations of right-of-way in the downtown area shall be reviewed according to the Comprehensive Plan, particularly its land use, urban village, transportation and neighborhood elements of the plan and other relevant adopted plans or goals.

DISCUSSION: The proposed **Block 21** project is located within one of the City of Seattle's six designated Urban Centers – the Downtown Urban Center. The applicant represents one of the largest employers located in Downtown Seattle, with its existing presence in South Lake Union providing a vital and active urban employment environment. Following on the approval of the recent *Rufus 2.0* development project, **Block 21** would contribute to providing a “bridge” that would connect the existing high-density urban development of the Downtown Urban Center with the emerging high-density neighborhood of the South Lake Union Urban Center (see **Figure 5** in the *Figures Section*). The potential vacation for the **Block 21** project would promote increased mixed-use density (office and retail), which is consistent with the intent of Urban Centers and the *Denny Triangle Neighborhood Plan*.

The site of the proposed **Block 21** project is zoned Downtown Mixed Commercial (DMC) 340/290-400. The DMC 340/290-400 zoning district allows buildings with a maximum height limit of 340 ft. for portions of the project containing non-residential and live-work uses. A base height limit of 290 ft. applies to portions of the project that are in residential use, and a maximum residential height limit of 400 feet in this zone.

Besides the applicable height limit, the other major development standard that applies in this Downtown zone and which regulates the bulk and scale of development in the DMC 340/290-400 zone is floor area ratio (FAR). The base FAR that is allowed in the DMC 340/290-400 zone is 5 and the maximum FAR is 10. The area of the **Block 21** site is approximately 77,700 sq. ft. (excluding the alley); therefore, the amount of development that

is allowed outright on the site is 388,500 sq. ft. (FAR 5); a maximum FAR of 10 would allow 777,000 sq. ft. of development on-site.

In order to achieve the maximum building height in this zone, seventy-five percent of additional FAR beyond the base FAR of 5 requires the proponent to enter into an agreement to provide low-income housing and/or childcare, or provide payment-in-lieu to the city to build low-income housing, or a combination of both (23.49.012). Twenty-five percent of additional FAR beyond the base FAR is allowed in the DMC zone if public benefit features can also be incorporated into the project (23.49.013); these features include a broad range of amenities, such as public open space, hill climb assists / shopping corridors, human services, public restrooms, restoration / preservation of landmarks, performing arts theatres, and transit station access for fixed rail facilities.

In terms of parking, recent changes to the Land Use Code eliminated parking requirements in much of Downtown, including the DMC zone where the proposed project is located. The code does not propose modifications associated with the present maximum parking limit for nonresidential uses.

Block 21 would be a mixed-use project that is consistent with the City's Land Use Code. The proposed development would include a 24-story (340-foot tall) office tower with street-level retail space located in the northern portion of the project site, a 9-story office building with street-level retail space located in the southeast portion of the project site, and up to 4 levels of below-grade parking to accommodate 814 vehicles. In total, approximately 859,000 sq. ft. of office space is proposed with roughly 23,000 sq. ft. of commercial retail space. It is proposed that the two office buildings be connected by a two-story link internal to the block. A total of 27,000 sq. ft. of on-site street-level open space, pedestrian amenities, including a diagonal pedestrian through-block connection, are also proposed. The development proposes to achieve the proposed building height and FAR via the provision of public open space and the purchase of Transferrable Development Rights ("TDR's"). Of the sq. ft. of on-site open space, only 12,000 sq. ft. is needed to satisfy the FAR bonus. The 15,000 sq. ft. balance is open space. This additional open space is above and beyond the stated public benefits outlined in **Section 13** of this Vacation Petition. See **Figure13** in the *Figures Section* for reference.

The alley vacation that is proposed within **Block 21** is requested to improve the overall project in a manner consistent with the public interest and to provide for better urban form from the proposed development. Vacation of the alley could also provide improved vehicular and pedestrian circulation in the immediate area with the proposal diagonal pedestrian through-block connection on site; pedestrian, vehicle and service access; public open space; and territorial views through the site. Long term public benefits could better be provided, and potential land use impacts could be better mitigated.

Increase in Development Potential

Net development potential for **Block 21** would increase by approximately 57,565 sq. ft. based on the DMC 340/290-400 zoning for the site and the proposed FAR⁴ of 10. The area of the alley vacation measures approximately 5,756.5 sq. ft. and thus increases maximum development potential by approximately 57,565 sq. ft. The site's development potential

⁴ FAR is a measure of the relationship between the amount of gross floor area permitted in a structure and the area of the lot on which the structure is located.

without the alley vacation is 777,000 sq. ft. (77,700 sq. ft. site x FAR 10). The 57,565 square foot net increase in proposed development potential is approximately a 7.4% increase and would not significantly alter the land use impacts of development on the project site.

The increase in development potential attributable to the proposed vacation associated with **Block 21** is consistent with the provisions of the City's *Comprehensive Plan* and the *Denny Triangle Neighborhood Plan*. Proposed development associated with potential alley vacation for **Block 21** is also consistent with the City's *Land Use & Zoning Code*.

Refer to the *Development Matrix* in **Appendix F** of this vacation petition application for more detailed calculations.

Scale, Building Orientation and Access to the Site

The design of **Block 21** includes features to enhance the compatibility with surrounding uses and minimize potential land use conflicts between the proposed site and existing uses. Such features include: building location and orientation, building design and materials, provisions for landscaping, a pedestrian through-block connection, creation of open space/gathering areas, and provisions for street and pedestrian improvements.

As noted previously, development that is proposed for **Block 21** would include a 24-story (340-foot tall) office tower with street-level retail space located in the northern portion of the project site, a 9-story office building with street-level retail space located in the southeast portion of the project site, and up to 4 levels of below-grade parking to accommodate 814 vehicles. In total, approximately 859,000 sq. ft. of office space is proposed with roughly 23,000 sq. ft. of commercial retail space. It is proposed that the two office buildings be connected by a two-story link internal to the block. A total of 27,000 sq. ft. of on-site street-level open space, pedestrian amenities, and a diagonal pedestrian through-block connection are also proposed.

The office building is approximately 60' lower in height to surrounding buildings currently under construction in this portion of Downtown, including the proposed 2220 Eighth Avenue residential building; the three *Rufus 2.0* office towers on Blocks 14, 19, and 20, and approximately 100' lower than the Insignia high-rise residential towers that are currently under construction to the west. Landscaping, as well as street trees and associated landscaping on and adjacent to **Block 21** would integrate the proposed office buildings and adjacent uses.

The office tower on **Block 21** would be oriented to the adjacent streets (Bell Street and Blanchard Street), rather than to the avenues (7th and 8th Avenues). This orientation enables existing views east and west of **Block 21** to be maintained through the site -- than if the buildings were oriented based on the alignment of the avenues.

Under the *No Alley Vacation* scenario, based on current zoning, two office buildings could be built on **Block 21** -- each to a height of 340 feet. The buildings would be aligned parallel to 7th and 8th Avenues, one on each side of the mid-block alley (**Figures 6 and 7**). As indicated by **Figure 6**, the tallest building would effectively create a wall that would limit westerly territorial views from areas east of Westlake Avenue. The *No Alley Vacation* scenario would provide only limited opportunities for street-level amenities and public open

space and no public benefits associated with the proposed alley vacation would be provided.

Neighborhood Character and Design

The Denny Triangle neighborhood is transitioning from an underdeveloped area of low- and mid-rise development and surface parking lots, to an area with an urban mixed-use character with greater density. Development in the neighborhood that is illustrative of the change in progress includes: the 2201 Westlake project, a mixed use retail, residential and office complex that is anchored by a Whole Foods grocery store; 2200 Westlake and Enso, a twin tower office and residential complex; West 8th an office building with street level retail; the Metropolitan Tower, a residential tower with street level retail; and 1918 Eighth Avenue, an office tower located to the east. Up until *Rufus 2.0*, the majority of the recent redevelopment that has occurred in this part of Downtown has taken place on the east side of Westlake Avenue, while the west side of Westlake Avenue has retained a low density, under-utilized land use pattern. The *Rufus 2.0* project, which is under currently construction and is adjacent to and south of the **Block 21** site, will redevelop a 3-block area west of Westlake Avenue into a coherent ensemble of buildings, integrating public open space and retail uses at street level, and private open space for occupants of the office buildings.

Development associated with **Block 21**, in combination with *Rufus 2.0*, would provide a “bridge” connecting the existing high density urban development of the Downtown Urban Center with the emerging high density character of the South Lake Union Urban Center (see **Figure 5**). The overall project is consistent with the vision for the neighborhood that is articulated in the *Denny Triangle Neighborhood Plan*, and would be reflective of ongoing development trends that have been occurring east and west of Westlake Avenue. The alley vacation that is proposed as part of the **Block 21** project is integral to the overall development concept in that it would allow more flexibility in building orientation, spacing and design, improved access and circulation, and a greater amount of open space at the street level.

Comprehensive Plan and other City and Neighborhood Land Use and Planning Goals

See Questions 20 and 21 below, for a discussion of applicable *Comprehensive Plan* and other City and neighborhood land use and planning goals for the area.

- 13. Vacation Policies/Public Benefit:** *Provide a discussion of the public benefit proposal including how the public benefit proposal serves the general public. Include an itemized list that provides a detailed description of each element of the proposed public benefit. Benefits must be long term and must serve the general public not merely the users of the development. The public benefit must be benefits that are not required by the land use code or other regulations and for which no other development credit is sought.*

Policy 5 – Public Benefit.

A. A vacation petition shall include a public benefit proposal. The concept of providing a public benefit is derived from the nature of street right-of-way. Right-of-way is dedicated for use by the general public in perpetuity whether or not a public purpose can be currently identified. The City acts as a trustee for the public in its administration of rights-of-way.

Case law requires that in each vacation there must be an element of public use or benefit, and a vacation cannot be granted solely for a private use or benefit. Therefore, before this public asset can be vacated to a private party, there must be a benefit that accrues to the general public.

B. Proposed vacations may be approved only when they provide a long-term public benefit. Vacations will not be approved to achieve short-term public benefits or for the sole benefit of individuals. The following do not constitute a public benefit: Mitigation of the adverse effects of a vacation; Meeting code requirements for development; Paying the required vacation fee; Facilitating economic activity; or Providing a public, governmental or educational service; while the nature of the project is a factor in determining the adequacy of a public benefit proposal, it does not in and of itself constitute an adequate public benefit.

Guideline 5.1 Public Benefits Identified

Public benefits may include, but are not limited to:

A. On-site Public Benefits: on-site benefits are favored as the provision of the public benefit can also act to offset any increase in scale from the development. On-site public benefits may include:

- Publicly accessible plazas or other green spaces, including public stairways;*
- Streetscape enhancements beyond that required by codes such as widened sidewalks, additional street trees or landscaping, street furniture, pedestrian lighting, wayfinding, art, or fountains;*
- Pedestrian or bicycle trails;*
- Enhancement of the pedestrian or bicycle environment;*
- View easement or corridors; or*
- Preservation of landmark buildings or other community resources.*

B. Off-site Public Benefits: where it is not practicable to provide the public benefit or more than a portion of the public benefit on the development site, the public benefit may be provided off-site. This may include:

- Pedestrian or bicycle trails or public stairways;*
- Enhancement of the pedestrian or bicycle environment;*
- Enhancement of existing public open space such as providing playground equipment in a City park;*
- Improvements to designated Green Streets;*
- Funding an element from an adopted Neighborhood Plan;*
- Providing wayfinding signage; or*
- Providing public art.*

DISCUSSION: Consistent with City of Seattle criteria for the approval of alley vacations, a broad range of improvements are proposed that are intended to provide long term public benefits. The public benefits associated with the vacation for **Block 21** focus on public improvements surrounding the site to improve the overall project in a manner consistent with the public interest and to enable better urban form. In particular, the applicant has initiated discussions with the community and the City to develop a Street Concept Plan as defined by http://www.seattle.gov/transportation/rowmanual/manual/6_1.asp on Bell Street from Fifth Avenue to Denny Way. This plan is intended to reinforce the connection between the Bell

Street Park west of Fifth Avenue and Denny Park, and to guide frontage and right-of-way improvements that occur both on the block as well as on other blocks in the corridor as they are developed. The public benefits proposed as part of this project include the following:

- 7th Avenue Cycle Track
- Enhanced Green Streets, including Voluntary Setbacks along Bell and Blanchard Streets
- Enhanced Right-of-Way Improvements
- Bell Street Street Concept Plan from 5th Avenue to Denny Way.

Please see **Appendix G** for more detailed information.

14. Public Benefit Matrix: *A number of factors will be considered in balancing your public benefit proposal with the public interest, provide a matrix that includes:*

- *Zoning designation: i.e. commercial, industrial, residential*
- *Street classification: i.e. arterial, alley, residential*
- *Assessed value of adjacent property: per square foot*
- *Lease rates in the general vicinity for similar projects: per square foot*
- *Size of project: in square feet*
- *Size of area to be vacated: in square feet; and*
- *Contribution of vacated area to the development potential of the site: percentage increase of the project and additional square feet.*

DISCUSSION: The proposed public benefit matrix is contained in **Appendix G**.

15. Site Maps: *A copy of the plat map is required. Provide maps of the block(s) containing the project site that show all dimensions of the property and the development, and include total square footage. Provide the current ownership of each lot on the subject block.*

A copy of the plat map and a site survey map are provided in **Appendix D**. A project site map with dimensions and current ownership is also included as **Figure 8** in the *Figures Section*.

16. Project Maps: *Provide maps and sketches of the project design; include plot plans, elevations, project sketches or conceptual drawings.*

Project maps including sketches of the proposed project design include: plot plans, elevations, project sketches and conceptual drawings are included as **Figures 8** through **13** in this Vacation petition application (*Figures Section*).

17. 9-block Urban Design Analysis: *Provide maps of the 9-block area to show the urban design context of the proposed project. Include current development showing current uses and development patterns, zoning of the area, the street grid and traffic patterns, and public uses.*

A 9-block urban design analysis is included as **Appendix H** to this Vacation petition application.

18. Impact on Public Transportation Projects: *If your project site is in the vicinity of a major transportation project such as Sound Transit, provide information about how your project responds to the public project.*

The proposed **Block 21 Development** would concentrate employment growth in a location with direct access to the Seattle Streetcar network, major bus routes, and Sound Transit Light Rail. The proposed project would not negatively impact any proposed public transit projects. See **Appendix H** for the location of the **Block 21** project in relation to major transit routes and stops.

19. Environmental Impact Statement (EIS): *If DPD determines that an EIS is required, the Petition may not proceed to City Council until this work is completed. DPD will require that the EIS contain a “No Vacation” alternative. Provide a copy of the Draft and Final EIS with vacation/no vacation alternatives, or an environmental checklist, if applicable.*

A programmatic EIS has been prepared for Downtown Seattle -- the *Downtown Height and Density Changes* EIS; the Draft EIS was issued in 2003 and the Final EIS in 2005. The *Downtown* EIS identifies and evaluates probable significant environmental impacts that could result from possible changes to Downtown zoning, including increases in height for residential, office, and mixed-use projects in portions of Downtown, which includes the site of the proposed **Block 21 Development**.

The *Downtown* EIS was found to be adequate, and copies of the *Downtown* EIS are contained in **Appendix I** to this vacation petition.⁵ The proposed scale of the **Block 21 Development** is consistent with the *Preferred Alternative* that was analyzed in the *Downtown* EIS.

DPD has determined that an EIS Addendum will be prepared to the *Downtown* EIS -- in order to provide additional, site-specific analysis and information concerning the **Block 21 Development**. The EIS Addendum will evaluate probable, significant environmental impacts that may result from the proposed project and the *No Action Alternative*. The EIS Addendum will compare those impacts from the project and the *No Action Alternative* with probable environmental impacts that are identified in the *Downtown* EIS.

20. Neighborhood Plan: *If your project is located within the boundaries of an adopted neighborhood plan, demonstrate how your project advances the goals of the plan. Provide a map of the neighborhood planning area.*

The **Block 21** site is located within the Denny Triangle Neighborhood; see **Figure 5** for a map of this neighborhood planning area.

The Denny Triangle Neighborhood Plan, adopted in 1998, outlines goals and recommendations for housing, land use, urban form and transportation.

⁵ The adequacy of the Downtown EIS was appealed on grounds that it did not address impacts of the proposal on air quality, water quality, light and glare, and plants and animals. Specifically, the appellant contended the Downtown EIS did not analyze the impacts the proposed height changes would have on reducing sunlight necessary for oxygen production by marine plant life on Elliott Bay. The City's Hearing Examiner held an appeal hearing on February 28, 2005 and thereafter issued a decision that the Director of Planning and Development's determination of adequacy for the Downtown EIS was not shown to be in error and, therefore, was affirmed.

Key Integrated Activities identified in the plan include:

1. *Amend Zoning and Bonus System to Stimulate Housing Development*
 - *Many of the items listed under this activity relate to desired changes in the FAR, height limits, bonus provisions, and TDRs in order to promote housing development; other items relate to creating bonus provisions for the creation of open space; and one item relates to simplifying and creating a means to expedite the alley vacation process to encourage residential and commercial development.*
2. *Neighborhood Improvements to Create Residential Enclaves Along Designated Green Streets*
 - *Items listed under this activity relate to promoting residential enclaves at 9th/Terry and Bell/Blanchard, as well as enhancing designated green streets within the neighborhood.*
3. *Transportation and Traffic Circulation Improvements*
 - *Items listed under this activity relate to alleviating traffic congestion in the neighborhood.*
4. *Convention Place Station (Long-Term)*
 - *Items listed under this activity relate to promote development associated with the Sound Transit station and the Convention Center.*

General goals and objectives outlined under the plan's land use element include: Creating a mixed-use urban neighborhood that meets the City's Comprehensive Plan growth targets for households and employment through changes in the City's current land use/zoning policies that will stimulate both residential and commercial development within the Denny Triangle; Creating a mixed-use neighborhood that combines commercial office development, retail sales and services, social and public services, and residential households throughout the Denny Triangle neighborhood; and, using zoning changes, bonusable public benefit features, increased height limits and public amenities to encourage a blend of commercial and residential development and public open spaces.

General goals and objectives outlined under the plan's urban form element include: installing street trees throughout the neighborhood; installing gateway markers and redeveloping small triangles as gateways; developing major new civic open spaces, pocket parks, and a community garden; developing Westlake Avenue as a linear urban design element to provide pedestrian amenities; and developing designated green streets.

Many of the recommendations outlined in this plan were incorporated into the City's Comprehensive Plan, under the neighborhood planning element.⁶

DISCUSSION: Many of the objectives outlined in the *Denny Triangle Neighborhood Plan* were furthered with the implementation of the Downtown Height and Density zoning changes in 2006, which permitted increases in height for residential, office, and mixed-use projects in this portion of Downtown Seattle. The **Block 21 Development** proposes to achieve the proposed building height and FAR via the provision of public open space and the purchase of Transferrable Development Rights ("TDR's"). Of the 27,000 sq. ft. of on-site open space only 12,000 sq. ft. is needed to satisfy the FAR bonus. The 15,000 sq. ft. balance is open space. This additional open space is above and beyond the stated public benefits outlined in **Section 13** of this Vacation Petition. See **Figure 13** for reference.

⁶ Comprehensive Plan Ordinance #119365.

Consistent with the goals and policies identified in the *Denny Triangle Neighborhood Plan*, the **Block 21 Development** would redevelop a 1-block area into a coherent ensemble of buildings, integrating public open space, a diagonal through-block pedestrian connection, pedestrian amenities, and retail uses at the street level, and above-grade private open space for occupants of the office buildings. The project would increase employment density within the neighborhood and the Downtown Urban Center, which would help to create a mixed-use area in close proximity to services, employment, numerous bus routes, the South Lake Union Streetcar, and Sound Transit's Link Light Rail Westlake Station. The alley vacation that is proposed as part of the **Block 21** project is integral to the overall development concept in that it would allow more flexibility in building orientation, spacing and design, improved access and circulation, and a greater amount of open space at street level.

21. Comprehensive Plan and Other City Plans and Goals: Provide information as to how your project advances City goals as identified in the Comprehensive Plan and any other relevant plans.

City of Seattle Comprehensive Plan

*The City of Seattle's Comprehensive Plan – Toward a Sustainable Seattle, was originally adopted in 1994, amended each year, and substantially updated in 2005. The City's updated Comprehensive Plan consists of eleven major elements – urban village, land use, transportation, housing, capital facilities, utilities, economic development, neighborhood, human development, cultural resources and environment. Each element contains goals and policies that are intended to “guide the development of the City in the context of regional growth management” for the next 20 years. The **Block 21 Development** project site is part of the Downtown Urban Center, which emphasizes medium density mixed-use residential land uses.*

Urban Village Element

Summary: *The Urban Village Element establishes the City's urban village strategy for growth, by guiding the designation of urban centers, urban villages, and manufacturing industrial centers (all of which are broadly referred to as “urban villages”), and by defining the priorities for land use in these areas. General goals and policies for urban villages call for: promoting densities, mixes of uses, and transportation improvements that support walking use of public transportation, and other transportation demand management (TDM) strategies, especially within urban centers and urban villages (UVG4); directing the greatest share of future development to centers and urban villages, and reducing the potential for dispersed growth not conducive to walking, transit use, and cohesive community development (UVG5); accommodating planned levels of household and employment growth (UVG6); Accommodating a range of employment activity to ensure employment opportunities are available for the city's diverse residential population, including maintaining (UVG7); using limited land resources more efficiently and pursuing a development pattern that is more economically sound by encouraging infill development on vacant and underutilized sites, particularly within urban villages (UVG9);and, promoting physical environments of the highest quality, which emphasize the special identity of each of the City's neighborhoods, particularly within urban centers and villages (UVG13). The Urban Village element designates the **Block 21 Development** site as an Urban Center (UV15 and UV16) with a functional designation of “mixed residential and employment” (UV17). The 20-*

year growth estimates (2004-2024) for the Downtown Urban Center's Denny Triangle are identified as 9,515 new jobs and 3,000 new households (Urban Villages Appendix A to the Comprehensive Plan). Relevant goals and policies guiding the distribution of growth call for: concentrating a greater share of employment growth in locations convenient to the City's residential population to promote walking and transit use and reduce the length of work trips (UVG31); planning for urban centers to receive the most substantial share of Seattle's growth, consistent with their role in shaping the regional growth pattern (UVG32); and, encouraging growth in Seattle between 2004-2024, to be generally distributed across the City (UVG33).

DISCUSSION: The proposed **Block 21 Development** is located within one of the City of Seattle's six designated Urban Centers – the Downtown Urban Center. The applicant represents one of the largest employers located in Downtown Seattle, with its existing presence in South Lake Union providing a vital and active urban employment environment. The potential vacation for the **Block 21 Development** would promote increased mixed-use density (office and retail), which is consistent with the intent of Urban Centers and the Denny Triangle Neighborhood Plan.

The potential vacation would enable the establishment of a coherent ensemble of buildings, integrating public open space, pedestrian amenities, and retail uses at the street level. The project would increase employment density within the Downtown Urban Center, which would help to create an urban mixed-use area in close proximity to services, employment, numerous bus routes, the South Lake Union Streetcar, and Sound Transit's Link Light Rail Westlake Station. The alley vacation for **Block 21** is requested to improve the overall project in a manner consistent with the public interest and to allow for better urban form. Vacation of the alley could also provide improved vehicular and pedestrian circulation in the immediate area; pedestrian, vehicle and service access; public open space; and territorial views through the site.

Land Use Element

Summary: The Land Use Element defines land use city-wide and in specific use categories. In the City of Seattle Comprehensive Plan, the GMA requirement for a Land Use Element is fulfilled by both this element and the Urban Village Element (described above), which further defines land use policies to implement the City's urban village strategy. This element also provides a framework for land use regulations contained in the City's Land Use Code (Seattle Municipal Code Title 23). Relevant land use goals and policies that apply city-wide call for: providing for a development pattern consistent with the urban village strategy by designating areas within the City where various types of land use activities, building forms, and intensities of development are appropriate (LG1); Relevant goals and policies that apply to Downtown Areas call for: Promoting Downtown Seattle as the home to the broadest mix of activities and greatest intensity of development in the region. Promoting the continued economic vitality of Downtown Seattle, with particular attention to the retail core and the tourism industry (LUG30); Promoting the integration of high capacity transit stations into the neighborhoods surrounding them and foster development appropriate to significant increases in pedestrian activity and transit ridership. Use overlay districts or other adjustments to zoning to cultivate transit-oriented communities (LU178).

DISCUSSION: The proposed **Block 21 Development** involves the establishment of new office and retail uses. The redevelopment concept proposed would be consistent with the

current Downtown Urban Center/Urban Village land use designation, and would be consistent with promoting increased density and a broader mix of activities in Downtown Seattle.

The potential vacation would enable the establishment of a coherent ensemble of buildings, integrating public open space, pedestrian amenities, and retail uses at the street level, as well as above-grade private open space for the office building occupants. The project would increase employment density within the Downtown Urban Center, which would help to create an urban mixed-use area in close proximity to services, employment, numerous bus routes, the South Lake Union Streetcar, and Sound Transit's Link Light Rail Westlake Station. The alley vacation for **Block 21** is requested to improve the overall project in a manner consistent with the public interest and to allow for better urban form. Vacation of the alley could also provide improved vehicular and pedestrian circulation in the immediate area; pedestrian, vehicle and service access; public open space; and territorial views through the site.

City of Seattle Neighborhood Plans

Summary: *The City of Seattle Comprehensive Plan established guidelines for neighborhoods to develop their own plans to allow growth in ways that provide for a neighborhood's unique character needs and livability. The proposed **Block 21 Development** is located within the Denny Triangle Neighborhood. A discussion of relevant goals and policies from this neighborhood plan is provided below.*

Goal DEN-G2 -- A mixed-use neighborhood that combines commercial office space, retail sales and services, social and public services, and a residential population

Goal DEN-G3 -- A diverse, mixed-use character that provides a transit and pedestrian-friendly atmosphere.

Policy DEN-P9 -- Encourage the creation of new open spaces, including at Westlake Circle and at the Olive/Howell wedge.

Policy DEN-P11 -- Support redevelopment of Westlake Boulevard as a boulevard.

Policy DEN-P12 -- Designate and support the development of green streets in the neighborhood.

Policy DEN-P13 -- Strive to accomplish goals for open space as defined for urban center villages, such as:

- One acre of Village Open Space per 1,000 households;*
- All locations in the village must be within approximately 1/8 mile of Village Open Space;*
- Dedicated open space must be at least 10,000 square feet in size, publicly accessible and usable for recreation and social activities;*
- There should be at least one usable open space of at least one acre in size where the existing and target households total 2,000 or more;*
- One indoor, multiple use recreation facility*

- One dedicated community garden for each 2,500 households in the Village, with at least one dedicated garden site.

Goal DEN-G4 -- Reduce external transportation impacts while improving internal access and circulation

Policy DEN-P14 -- Encourage the integration of Westlake Avenue into the neighborhood physically, aesthetically, and operationally, while maintaining its arterial functions.

Policy DEN-P15 -- Use partnerships with transit providers to improve the basic transit route structure, system access and connectivity to better serve the neighborhood.

Policy DEN-P16 -- Seek ways to improve safety and convenience of bicycle travel within and through the neighborhood.

Policy DEN-P17 -- Explore ways to improve pedestrian safety and convenience along and across the arterials in the neighborhood.

Policy DEN-P18 -- Consider development of traffic improvement plans to lessen the impact of regional automobile traffic on the Denny Triangle neighborhood

DISCUSSION: Consistent with the goals and policies identified in the *Denny Triangle Neighborhood Plan*, the **Block 21** project would redevelop a site that consists mainly of low-rise commercial buildings and surface parking areas into a coherent ensemble of buildings, integrating public open space, pedestrian amenities, and retail uses at the street level, and above-grade private open space for the office building occupants. Development associated with **Block 21**, in combination with *Rufus 2.0*, would provide a “bridge” connecting the existing high density urban development of the Downtown Urban Center with the emerging high density of the South Lake Union Urban Center. The project would increase employment density within the neighborhood and the Downtown Urban Center, which would help to create a mixed-use area in close proximity to services, employment, numerous bus routes, the South Lake Union Streetcar, and Sound Transit’s Link Light Rail Westlake Station. The alley vacation proposed as part of the **Block 21** project is integral to the overall development concept in that it would allow more flexibility in building orientation, spacing and design, improved vehicular and pedestrian access and circulation, and a greater amount of public open space and amenities at the street level.

22. Sustainable Practices: *Provide information on green and sustainable construction and operational practices and the level of LEED certification associated with the project.*

The **Block 21 Development** would be built and operated to meet LEED Gold standards. Specific sustainable strategies include high performance glazing, energy efficient lighting and connection into a “heat transfer” system. This system works by capturing excess heat generated at data centers in neighboring buildings and recycling that heat through underground water pipes instead of venting it to the atmosphere.

23. Design Review Board: *Provide copies of the minutes and design material presented to the Design Review Board.*

The proposed **Block 21 Development** was presented to the Downtown Design Review Board (DRB) in an Early Design Guidance Meeting on November 18, 2014 and a second meeting on January 20, 2015. Design review materials and meeting minutes from the first meeting are provided in **Appendix J**. Design review materials and meeting minutes from future meetings with the Downtown DRB will be provided when they become available.

24. Company/Agency Information: *Include background information about your business or agency, its history, how long at your present location, number of employees, etc. Describe how your business or agency will grow with the vacation, such as number of employees or patients, or students served by the proposed development.*

Nature of the Operation

Acorn Development LLC is a wholly-owned subsidiary of Amazon.com Inc.

History of the Institution

The proposed **Block 21 Development** site is owned by Acorn Development LLC. The alley vacation is requested in order to accommodate future office use by Amazon and Amazon-related entities. Amazon.com Inc. was incorporated in 1994 in the state of Washington and reincorporated in 1996 in the state of Delaware. Its principal corporate offices are located in Seattle, Washington. The company completed its initial public offering in May 1997 and its common stock is listed on the Nasdaq Global Select Market under the symbol "AMZN". Amazon is a global internet retailer and provides its customers with additional services including in-the-cloud infrastructure services. Additional information can also be found at:

<http://phx.corporate-ir.net/phoenix.zhtml?c=176060&p=irol-mediaKit>.

How Long at the Present Location

Acorn Development LLC acquired the parcels of this block in 2013.

Number of Employees

Amazon has over 9,000 employees in the City.

How the Company will Grow with the Vacation (e.g., # of Employees, etc.)

The vacation will enable construction of commercial office/ retail buildings consisting of approximately 882,000 sq. ft. This could accommodate job growth in the range of up to 3,436⁷ additional office employees and up to 77 retail employees⁸.

⁷ This amount is based on the City's typical average of 1 office employee per 250 sq. ft.

⁸ This amount is based on the average of 1 employee per 300 sq. ft. of retail space.

25. Development Schedule: *Provide a proposed development timeline and schedule.*

Proposed significant schedule milestones include:

Submit Alley Vacation Petition – February 2015

Design Commission Meetings – March/April/May 2015

MUP Submittal – March 2015

Design Commission Recommendation to SDOT– May/June 2015

SDOT prepares Vacation Analysis/Recommendation – June/July 2015

Vacation Public Hearing – September 2015

City Council Vacation Concept Approval – October 2015

MUP Issuance – December 2015

Building Permit Submittal – November 2015

Building Permit Issuance – June 2016


Begin Demolition and Abatement – Summer/Winter 2015

Begin Construction – April 2016

Occupancy – October 2018

Figures Section

Block 21 Development Alley Vacation Petition



Source: EA, 2015



Figure 1
Regional Map

Block 21 Development Alley Vacation Petition

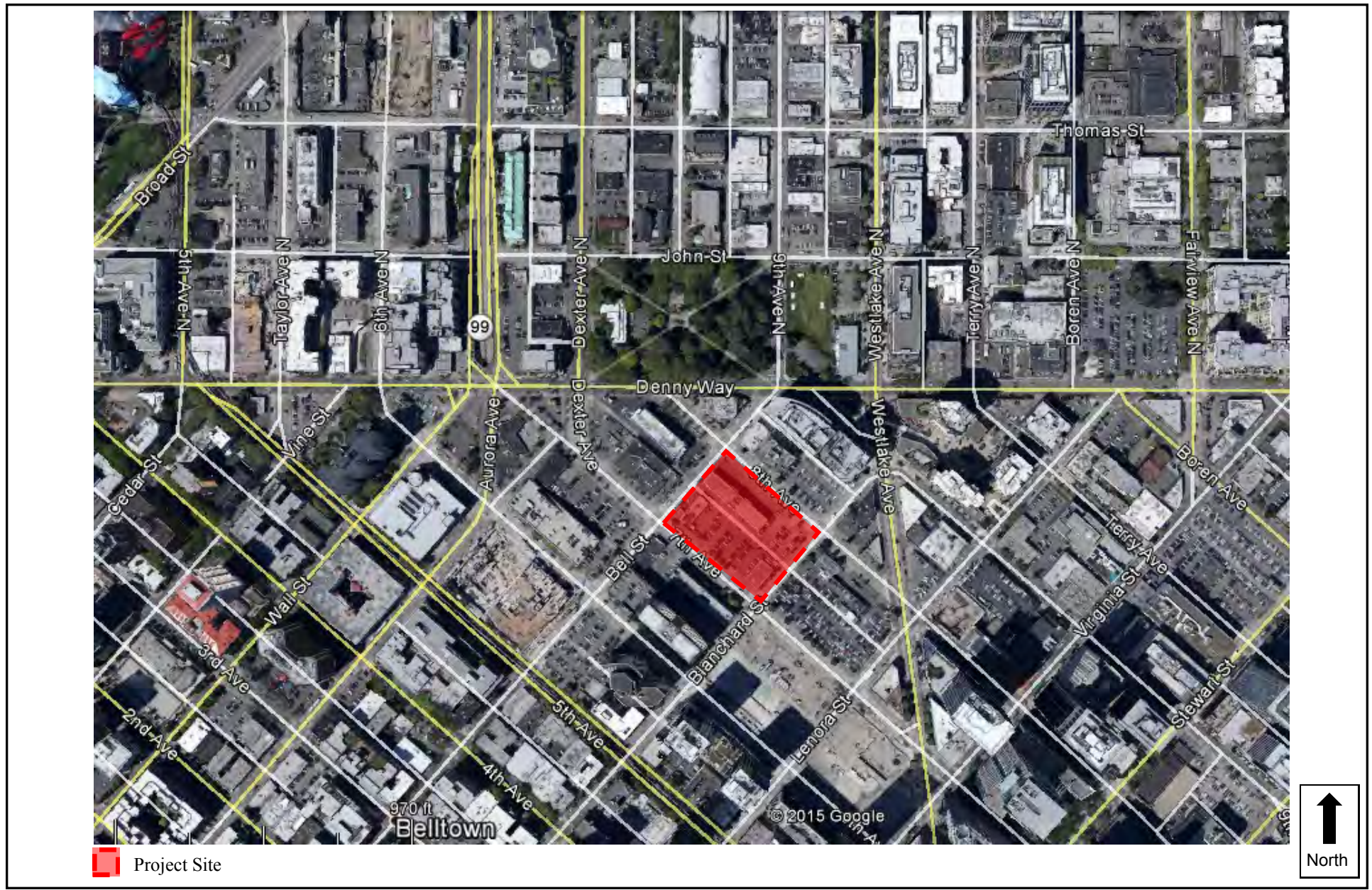
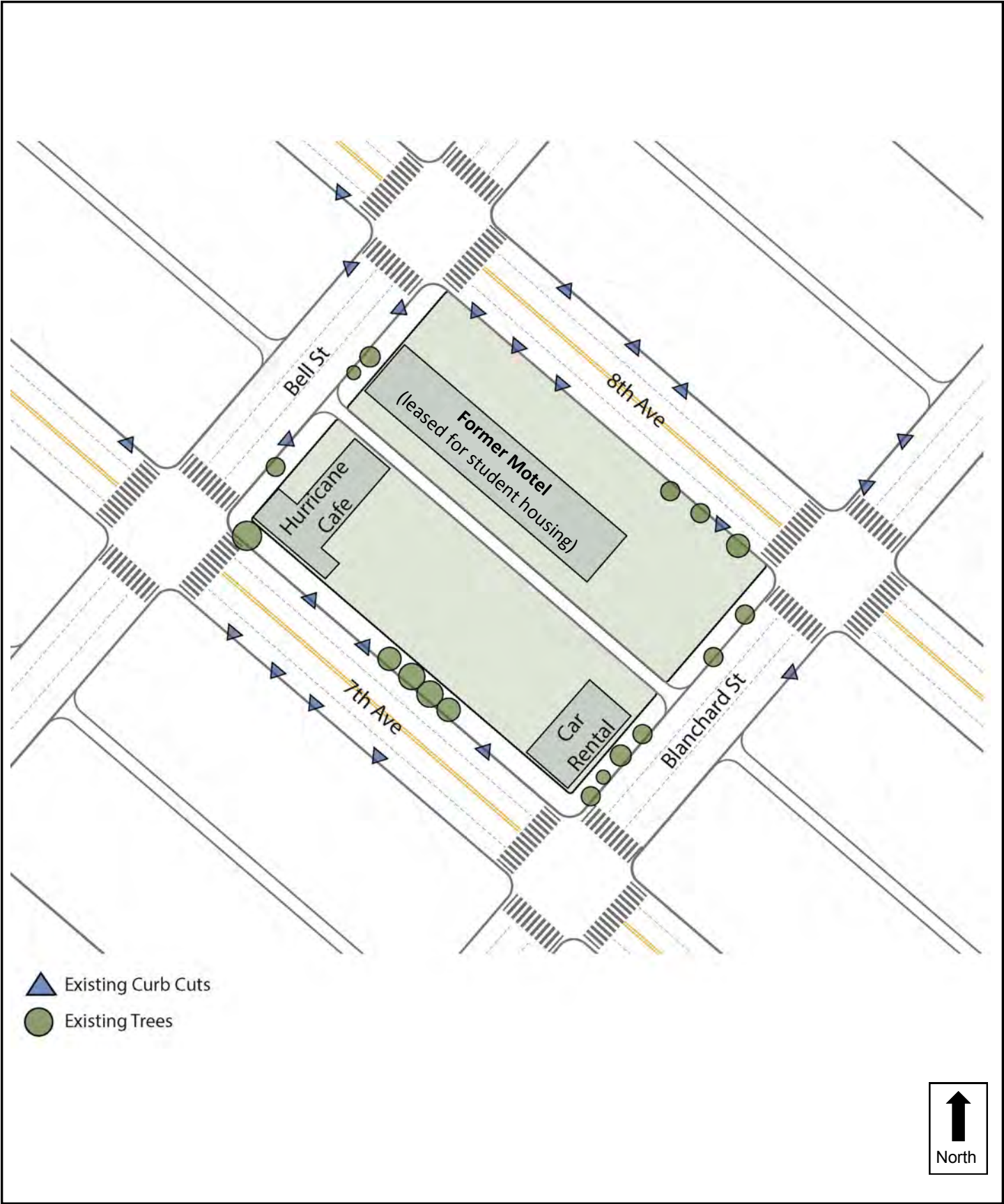


Figure 2
Vicinity Map

Block 21 Development
Alley Vacation Petition

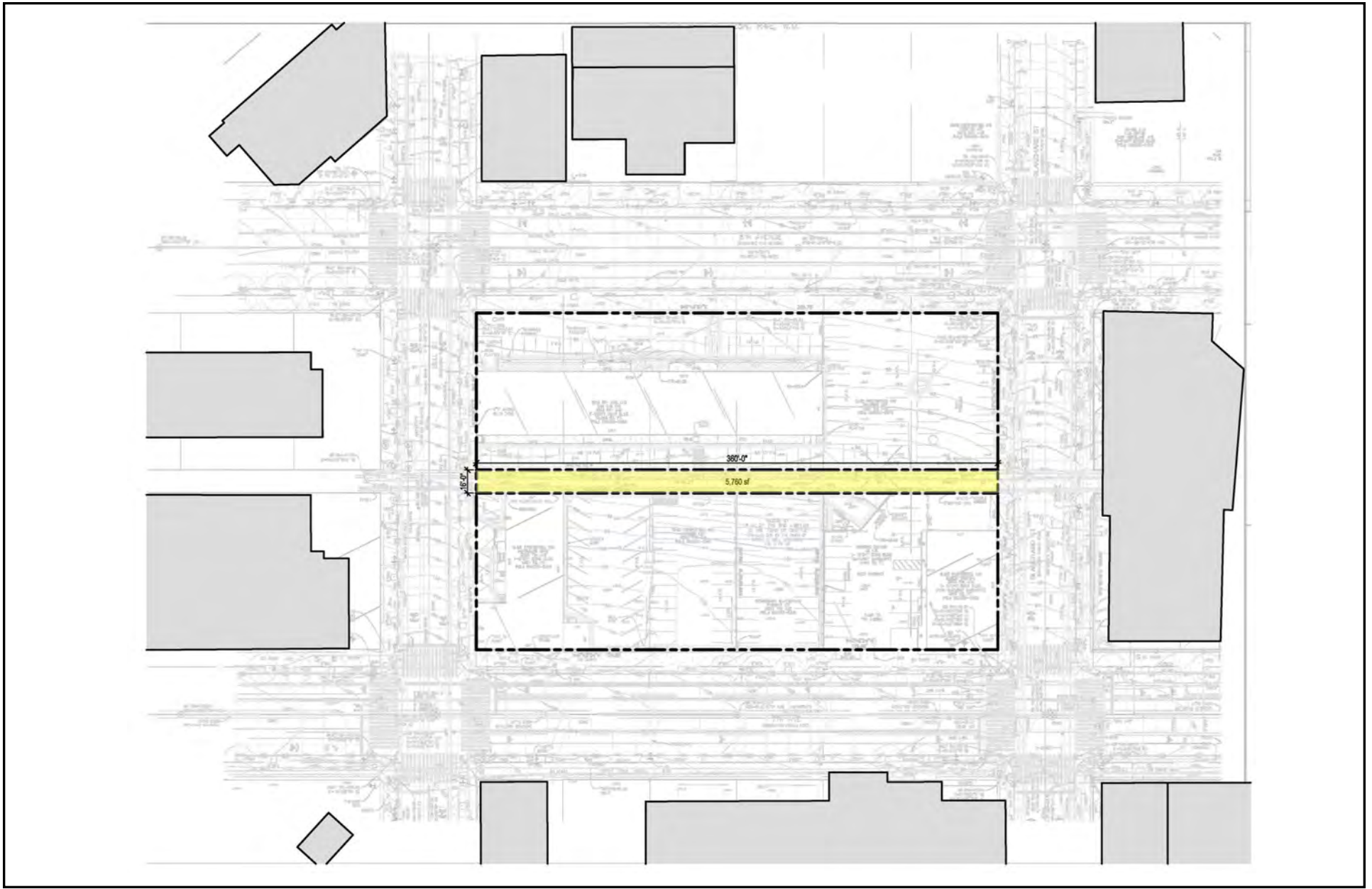


Source: Graphite Design Group, 2015



Figure 3
Project Site

Block 21 Development Alley Vacation Petition



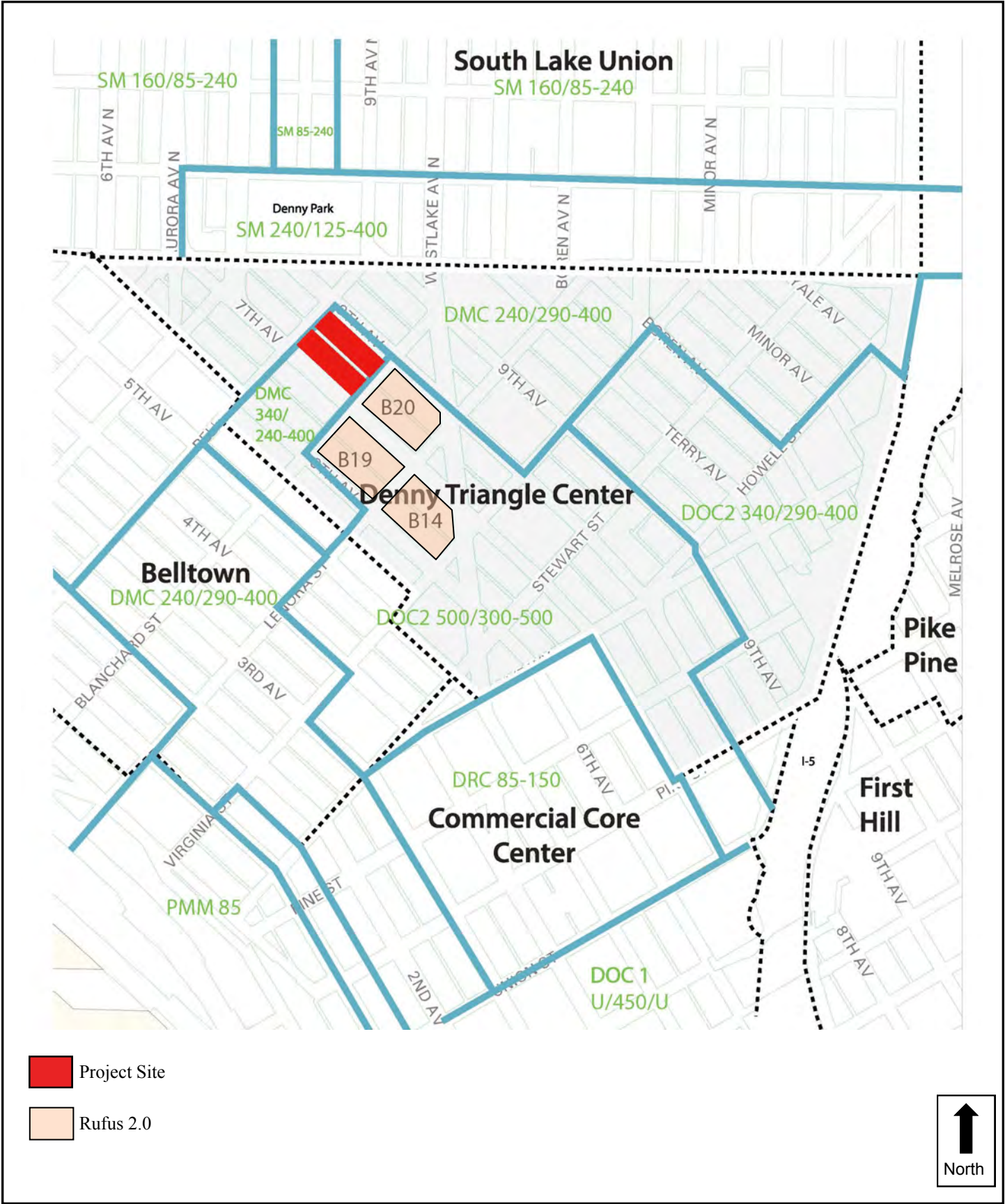
Source: Graphite Design Group, 2015



Figure 4

Alley Proposed for Vacation

Block 21 Development
Alley Vacation Petition



Source: Graphite Design Group, 2015



Figure 5
Urban Context and Zoning

**Block 21 Development
Alley Vacation Petition**



Source: Graphite Design Group, 2014



Figure 6
No Alley Vacation Alternative—Site Plan

**Block 21 Development
Alley Vacation Petition**



Source: Graphite Design Group, 2014



Figure 7
No Alley Vacation Alternative—Character Sketch of Project
Looking South

Block 21 Development Alley Vacation Petition



Source: Graphite Design Group, 2015

Figure 8

Site Plan with Alley Vacation

**Block 21 Development
Alley Vacation Petition**



Source: Graphite Design Group, 2015



Figure 9
Aerial of Project with Alley Vacation Looking
East

**Block 21 Development
Alley Vacation Petition**



Source: Graphite Design Group, 2015



Figure 10
Character Sketch of Project with Alley Vacation—7th Ave. and
Blanchard St.

**Block 21 Development
Alley Vacation Petition**



Source: Graphite Design Group, 2015



Figure 11
Character Sketch of Project with Alley Vacation—8th Ave. and
Blanchard St.

**Block 21 Development
Alley Vacation Petition**



Source: Graphite Design Group, 2015



Figure 12
Character Sketch of Project with Alley Vacation—7th Ave. and Bell St.

Block 21 Development Alley Vacation Petition



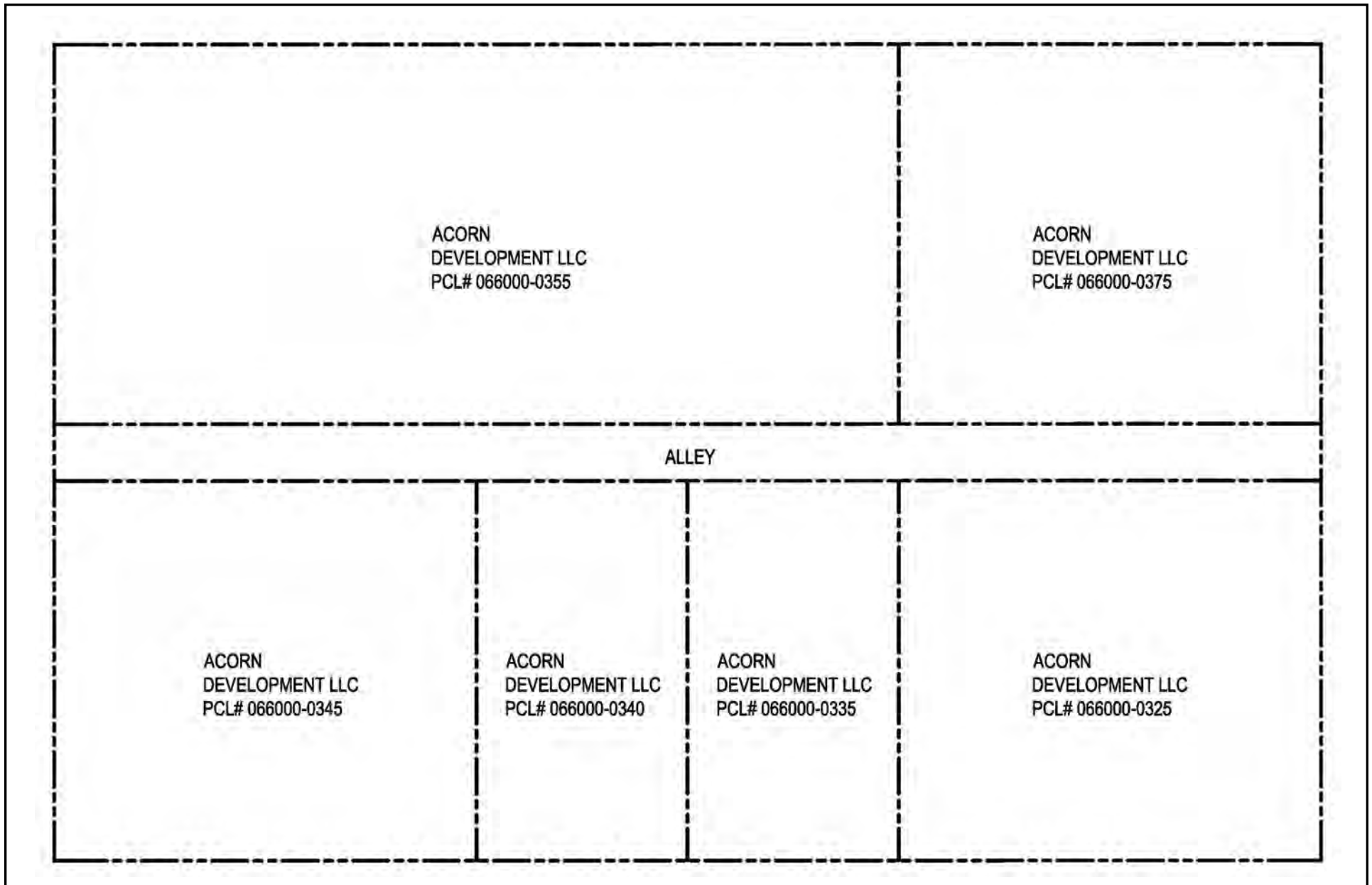
Source: Graphite Design Group, 2015



Figure 13

Project Open Space—with Alley Vacation

**Block 21 Development
Alley Vacation Petition**



Source: Graphite Design Group, 2015

Figure 14
Site Ownership

Signed Vacation Petition

**VACATION PETITION TO THE HONORABLE CITY COUNCIL OF THE
CITY OF SEATTLE**

We, the undersigned, being the owners of more than two-thirds of the property abutting on:

The alley in Block 21 that is 16 feet wide and 360 feet long within the block that is bounded by Bell Street on the north, 8th Avenue on the east, Blanchard Street on the south and 7th Avenue on the west.

herein sought to be vacated, petition the City to vacate:

THE ALLEY LYING WITHIN BLOCK 21, SARAH A. BELL'S SECOND ADDITION TO THE CITY OF SEATTLE, RECORDED IN VOLUME 1 OF PLATS, PAGE 121, RECORDS OF KING COUNTY, STATE OF WASHINGTON

OR in the alternative, to vacate any portion of said right-of-way so particularly described;

RESERVING to the City of Seattle the right to make all necessary slopes for cuts or fills upon the above described property in the reasonable original grading of any right-of-way abutting upon said property after said vacation; and further,

RESERVING to the City of Seattle the right to reconstruct, maintain and operate any existing overhead or underground utilities in said rights-of-way until the beneficiaries of said vacation arrange with the owner or owners thereof for their removal.

SIGNATURE OF PETITIONERS:

I hereby declare that I am the owner of property that abuts the particular right-of-way described in the petition to the City Council for the above noted right-of-way. I understand the discretionary nature of the City Council decision and I have been informed of the vacation review process and all fees and costs and time frame involved. **For corporately held property, provide documentation of signatory authority.**

OWNER(S)

(Printed Name, Signature and Title)

Acorn Development LLC

By: 

Timothy N. Halladay, President

Date: 1/22/15

By: 

John Schoettler, Vice President

Date: 1/22/15

PROPERTY:

Parcel #'s 066000-0355, 066000-0375,
066000-0345, 066000-0340, 066000-0335,
066000-0325, Lots 1-12, Block 21

**VACATION PETITION TO THE HONORABLE CITY COUNCIL OF THE
CITY OF SEATTLE**

ACKNOWLEDGEMENT:

I/we ACORN DEVELOPMENT LLC acknowledge that:

X any expense that may be incurred in preparing, applying or obtaining any land use or construction permits in contemplation of such vacation is the sole risk of the petitioners;

X the City Council decision is at the end of the review process;

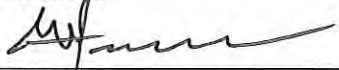
X the City Council decision on the vacation is discretionary, and will be based on the City's Street Vacation Policies contained in Clerk File 310078 and other adopted policies; and

X a Council decision to grant the vacation request does not exempt the property from the requirements of the City's Land Use Code or from conditioning of development pursuant to the State Environmental Policy Act (SEPA).

X I/we have been informed of the cost, obligations, petition requirements, Street Vacation Policies, the time frame involved in the review of a vacation petition.

X I/we understand that property owners abutting the vacation area are obligated to pay a vacation fee in the amount of the appraised value of the right-of-way. State, federal or city agencies are not required to pay a vacation fee but are required to pay for all other fees and processing costs.

Petitioners:


By: Timothy N. Halladay, President

1/22/15
Date


By: John Schoettler, Vice President

1/22/15
Date

CONTACT INFORMATION:

Petitioners:

Timothy N. Halladay, President
Acorn Development LLC
P.O. Box 81226
Seattle, WA 98108-1232
Telephone No: 206-266-1000

John Schoettler, Vice President
Attn: Real Estate Manager
Acorn Development LLC
P.O. Box 81226
Seattle, WA 98108-1232
Telephone No: 206-266-1000

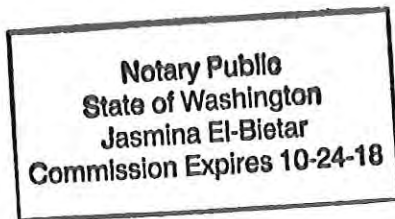
Contact:


Lindy Gaylord, Principal
Seneca Group
1191 Second Ave, Suite 1500
Seattle, WA 98101
Telephone No: 206-626-3150
Email: lindy@senecagroup.com

If you have any questions regarding the vacation process, please call street vacation staff at 206.684.7564.

STATE OF WASHINGTON)
)
COUNTY OF KING) ss.

On this 22nd day of January, 2015 before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared TIMOTHY N. HALLADAY and JOHN SCHOETTLER, to me known to be the President and Vice President, respectively, of ACORN DEVELOPMENT LLC, a Washington limited liability company and acknowledged it to be the free and voluntary act of such corporation for the uses and purposes mentioned in the instrument, and on oath stated that they were authorized to execute this instrument on behalf of such limited liability company.



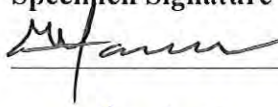
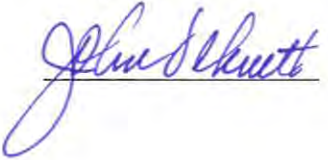

(Signature)
JASMINA EL-BIETAR
(Please print name legibly)

NOTARY PUBLIC in and for the State of
Washington, residing at KENMORE
My commission expires 10/24/2018

ACORN DEVELOPMENT LLC
CERTIFICATE OF SECRETARY

The undersigned, Aaron McGrath, does hereby certify that:

1. I am the duly elected, qualified and acting Secretary of Acorn Development LLC, a Delaware limited liability company (the "Company"). As Secretary of the Company, I am authorized to execute and deliver this Certificate in the same name of and on behalf of the Company.
2. The following individuals are duly elected and qualified officers of the Company as of the date hereof and hold the office specified opposite their names below:

Name	Title	Specimen Signature
Timothy N. Halladay	President	
John Schoettler	Vice President	

3. The officers named above are duly authorized for and on behalf of the Company to execute the following documents by and between Acorn Development LLC and the City of Seattle: Block 21 Vacation Petition, and such other agreements, documents and instruments necessary, appropriate or desirable to be executed in connection therewith.

IN WITNESS WHEREOF, the undersigned has executed this certificate this 23rd day of January, 2015.

ACORN DEVELOPMENT LLC

By 
Aaron McGrath, Secretary

STATE OF WASHINGTON)
)
COUNTY OF KING) ss.

On this 23rd day of January, 2015 before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared Aaron McGrath, to me known to be the Secretary, of ACORN DEVELOPMENT LLC, a Washington limited liability company and acknowledged it to be the free and voluntary act of such corporation for the uses and purposes mentioned in the instrument, and on oath stated that they were authorized to execute this instrument on behalf of such limited liability company.



Cindy Chang
(Signature)

Cindy Chang
(Please print name legibly)

NOTARY PUBLIC in and for the State of
Washington, residing at Seattle, WA
My commission expires 10/19/2018

Exhibit A

Alley Vacation Area

(see attached pages)

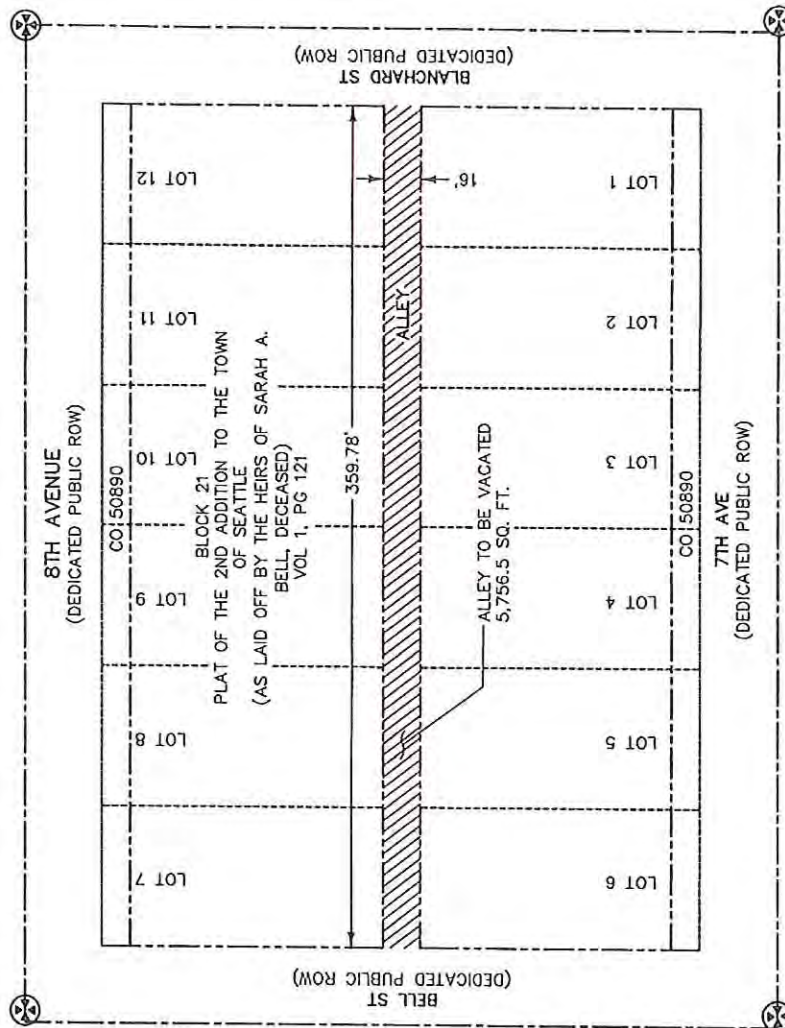
ALLEY VACATION DESCRIPTION

THE ALLEY LYING WITHIN BLOCK 21, SARAH A. BELL'S SECOND
ADDITION TO THE CITY OF SEATTLE, RECORDED IN VOLUME 1 OF
PLATS, PAGE 121, RECORDS OF KING COUNTY, STATE OF WASHINGTON;

AMAZON
BLOCK 21 - BELL'S 2ND ADD
DARRELL C. NANCE, P.L.S. 30448
BRH JOB NO. 2012025
11/06/14

BUSH, ROED & HITCHINGS, INC.
2009 MINOR AVENUE EAST
SEATTLE, WA 98102
(206) 323-4144





BUSH, ROED & HITCHINGS, INC.

CIVIL ENGINEERS & LAND SURVEYORS
2009 MINOR AVE. EAST
SEATTLE, WA 98102 (206) 323-4144
BRH JOB NO. 2012025.17 11/04/2014
U:\C3D\2012\2012025\DWG\X-EXHIBIT-BLK 21.DWG

ALLEY VACATION EXHIBIT
BLOCK 21
PREPARED FOR: SENECA GROUP

Community Outreach

Appendix B

Block 21 Vacation Petition – Community Outreach

The applicant has presented information regarding the proposed project at a Downtown Seattle Association meeting (12.01.14) and Denny Triangle Neighborhood Executive Committee Briefing (02.03.15). Ongoing outreach to discuss the proposed vacation will continue, including meetings with the Denny Triangle Neighborhood Association (February 24, 2015), the Belltown Community Council – Housing and Land Use Committee (02.26.15), and the South Lake Union Community Council. As well, articles about the proposed project have appeared in the Seattle Times and Geek Wire. This appendix contains sign-in sheets and/or contact information from the meetings at which the applicant has presented information regarding the proposed project, as well as copies of articles that have appeared in local media.



Economic Development Issue Work Group

Sign In Sheet

NAME	EMAIL
Lindy Anloed	
MARK BRANDS	markh@siteworkshop.net
BOB BRUCKNER	robert.bruckner@adidas.com
Paul Shema	pshema@hewittseattle.com
SHAUNA DECKER	SHAUNA.D@RC#0.COM
Brett Richards	brichards@egs.com
Plaine Kitzmuth	clerkchannel.com
DENNY ONSLOW	DENNY. ONSLOW@gmail.com
PATRICK DISTEFANO	PATRICK.DISTEFANO@GRAPHITDESIGNGROUP.COM
PETER KRECH	PETER.KRECH@GRAPHITDESIGNGROUP.COM
DAVID YUAN	DAVID.YUAN@NB3D.COM
Inger Johnson	inger.johnson@cbre.com
JOSH BROWER	josh@VERISLAWGROUP.COM
Casey Schuchart	caseys@schuchart.com
JULIE WUKELIC	JKW@HARTCROWSER.COM
Brent Carson	BRC@UNF.COM
Terry McCann	WA.fugate@mccann@ecest.com
NATHAN T. CHARLTON	nathan@SECHARLTON.COM
JAY GELOSE	JGELOSE@DLRGROUP.COM
BRAD TONG	bradt@gojsea.com
Chusnow DeMunere	chusnowad@chusnowsmith.org

Work Group Purpose:

Convene and facilitate conversations with community leaders and DSA members on key issues that enhance smart growth, investment and economic development in Downtown. Provide networking opportunities for members and access to key leaders and information.

Denny Triangle Neighborhood Executive Committee Briefing

02.03.15 - 1809 7th Avenue, Suite 700

Name	Email
Howard Anderson, President	Anderson_info@qwestoffice.net
Lyn Krizanich, Secretary	lkrizanich@cliseproperties.com
Joe Quintana	joeq@theindexgroup.com
Peter Krech	peter.krech@graphitedesigngroup.com
Mark Brands	markb@siteworkshop.net
Marni Heffron	marni@hefftrans.com
Ian Kell	iank@senecagroup.com
Lindy Gaylord	lindyg@senecagroup.com



Local News

Originally published Tuesday, November 4, 2014 at 5:44 PM

Amazon's new campus to be heated with recycled energy

Amazon's new Denny Triangle campus to get its heat from a data center across the street.

By Daniel Beekman

Seattle Times staff reporter



Partnering with other companies, Amazon will use waste heat from a data center in a Seattle skyscraper to warm its soaring new Denny Triangle campus across the street.

The project, believed to be the first of its kind in the country, will send water coursing back and forth through pipes under Sixth Avenue and could pave the way for a large swath of Seattle to recycle energy, City Councilmember Mike O'Brien said.

"I think it's outstanding," O'Brien said. "It's one of the most exciting things I've seen in a while. I see it as having huge potential for our community."

The system involving Amazon, Clise Properties and building-design firm McKinstry will help Amazon and Clise use less electricity and water and save money, they say.

The project is worth supporting because it will be a model for energy efficiency, O'Brien said. The council voted in September to grant conceptual approval for the pipes.

"We have a commitment as a city to become carbon-neutral by 2050," O'Brien said. "Some structural changes need to happen, and one of them is having district energy systems that allow us to manage energy use and reduce waste."

The system will use heat generated by computers and servers inside the Westin Building, a 34-floor office tower at Virginia Street and Sixth Avenue.

The building, owned by Clise, houses a vast data center and a high-tech Internet exchange point where communication networks connect with each other.

The three-block campus that Amazon is constructing between Westlake Avenue, Blanchard Street and Sixth Avenue will include three high-rise towers and three smaller buildings, including one made out of glass and steel spheres.

The first tower is rising and is scheduled for completion next year.

The Westin Building now gets rid of its waste heat by sending water from the data center to cooling towers on the roof of the building.

During cold weather, the new system designed by McKinstry will send the Westin Building's hot water under the street to the Amazon campus. The water then will be returned to the Westin Building to cool the data center again.

The timeline for the project isn't set because it needs final city approval to build, maintain and operate the underground pipes.

"The nuts and bolts are relatively straightforward," said Ash Awad, McKinstry's vice president for energy and facility services. "You have this data center that puts off a lot of heat. The question really comes down to what you do with the heat."

The finished system will save Amazon about 80 million kilowatt hours of electricity over 25 years, Awad says, which could equal hundreds of thousands of dollars a year. The average Seattle home uses about 10,000 kilowatt hours each year.

"We'll have the world's largest Internet retailer heating its office space with waste heat created by the Internet," said Richard Stevenson, president of Clise.

The project won't stop Seattle City Light from building new infrastructure to accommodate other growth in Denny Triangle and South Lake Union, officials say.

That means the project won't provide much relief for ordinary electricity customers, who are helping to pay for the infrastructure improvements through rate increases.

Mayor Ed Murray's Capital Improvement Program for 2015 to 2020 includes hundreds of millions of dollars for City Light work on and around Denny Way.

Still, proponents of the district energy system insist it will have broad benefits.

"By not using as much power during the winter months, we'll save energy for other people to use," Stevenson said.

Amazon is building its new campus in a particular way so it can use hydronic heating, he said.

The shared system will be "nearly four times more efficient than a traditional heating system," said Amazon spokesman Ty Rogers.

City Light is enthusiastic about the project and will likely offer the partners a financial incentive, said Scott Thomsen, a spokesman for the utility.

There are other systems around the country, including several on university campuses, which share heat generated in a centralized location throughout a district. But Stevenson and Awad think the Denny Triangle system will be the first to transfer energy in a closed loop between properties owned by different firms.

While Seattle officials have been interested in district energy for years, their involvement with the Denny Triangle system will be limited to permitting the project.

But as the city revamps the grid in Denny Triangle and South Lake Union, officials may be able to lay the groundwork for an expanded system, O'Brien said.

"The hope is that we could get more buildings to come on," he said, noting that the city could offer more incentives to businesses and property owners.

Information from The Seattle Times archives is included in this report. Daniel Beekman: 206-464-2164 or dbeekman@seattletimes.com



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Business / Technology

Originally published November 11, 2014 at 11:25 AM | Page modified November 11, 2014 at 9:22 PM

REUTERS

Amazon expands footprint with latest plan for more buildings

Amazon is still a year away from moving into the first of its trio of planned 37- and 38-story office towers on three blocks in Seattle's Denny Triangle, but already the tech juggernaut is planning more construction.

By Sanjay Bhatt

Seattle Times business reporter



Amazon is still a year away from moving into the first of its trio of planned 37- and 38-story office towers on three blocks in Seattle's Denny Triangle, but already the tech juggernaut is planning more construction.

The rapidly expanding company will meet with a city design-review panel next week to discuss plans for large office buildings on an adjacent fourth block it owns.

If Amazon follows through on that proposal, it will have nearly 9 million square feet of office space occupied, under construction or proposed, based on a Seattle Times review of public records and interviews with office brokers.

The latest plan, for more than 800,000 square feet on a block Amazon bought in January, underscores its huge and still growing presence: Even without the construction under way, Amazon already leases or owns about 4.2 million square feet of offices — equal to one-eighth of downtown Seattle's roughly 32.5 million square feet of Class A office space.

"We have never seen a tenant anywhere near this size or with this much impact on the Seattle market," said Matt Christian, executive director at Cushman & Wakefield Commerce.

Investors' enthusiasm for Amazon has cooled somewhat this year as the company rang up quarterly losses while spending heavily on faster distribution systems, new hardware devices and expanded cloud services.

But the company shows no sign of easing up on its growth or its appetite for real estate.

Amazon owns its 1.7 million-square-foot main South Lake Union campus, leases more than 2.5 million square feet, and has a whopping 4.7 million square feet under construction or proposed.

Based on industry standards, that footprint could accommodate more than 45,000 workers in downtown

Seattle.

Only one company has a larger footprint in the region's office market: Microsoft has nearly 15 million square feet, two-thirds in buildings it owns. Most of that is on the Eastside, including its Redmond campus.

The region's other tech players pale by comparison. T-Mobile has about 800,000 square feet in the Interstate 90 corridor; Google, about 750,000 square feet across the region; and Expedia, about 477,000 square feet on the Eastside.

When Washington Mutual was the shining star of downtown Seattle's corporate world — before its 2008 collapse — the nationwide banking giant leased or owned less than 3 million square feet in downtown Seattle, brokers say.

The city already has approved Amazon to build a 3.3 million-square-foot office complex on the three Denny Triangle blocks it acquired from Clise Properties in December 2012. On each block, Amazon is building a 37- or 38-story tower and a smaller building.

The company is on track to move into the buildings on the first block late next year, Amazon spokesman Ty Rogers said Tuesday. It expects to occupy the two remaining blocks where it has permits in 2016 and 2017.

Last summer, Amazon inked leases for about 572,000 square feet across four sites in Seattle's Belltown, Denny Triangle, Cascade and waterfront areas.

Amazon also has signed a lease with Seattle Children's to occupy a building — code-named "Andes" — at 1915 Terry Ave. after renovations are completed.

Landlords cash in

Amazon's spreading presence has powered the market for new buildings downtown, but as it now builds more for itself, developers doing speculative construction "need to assume they're not going to get Amazon," said Jesse Ottele, a senior vice president at commercial brokerage CBRE in Seattle.

Still, Amazon has been a boon to office landlords, who often have been quick to sell their buildings once they sign the company to a long-term lease:

- July 2013: Spear Street Capital in San Francisco sold the Metropolitan Park North to Los Angeles real-estate investment trust Hudson Pacific Properties in a package deal for \$367 million.
- September 2013: Spear Street and First Western Development Services in Edmonds sold 202 Westlake to Munich, Germany-based GLL Real Estate Partners for about \$97 million, which set a new sales record on a per-square-foot basis for the region.
- Last December, a joint venture of Talon Private Capital and Prudential Real Estate Investors sold 1800 Ninth Avenue to Chicago-based Heitman for \$150 million, nearly double what it traded for two years earlier.

Now, commercial real-estate brokerage JLL is listing 15-story Blanchard Plaza at 2201 Sixth Ave. for sale. In April, Amazon leased the entire building, about 256,000 square feet, from owner Shorenstein Properties, records show.

Amazon's expansion has kept apartment construction purring, too. Nearby, GID Development Group is building a 41-story luxury apartment tower.

And Clise Properties is proposing a 40-story apartment tower at Eighth Avenue and Blanchard.

2 visions for Block 21

On Tuesday, Amazon is scheduled to share with the city's design-review board the initial plans for what it calls Block 21, before applying for a master permit.

The block, bounded by Seventh and Eighth avenues and Bell and Blanchard streets, is currently home to Budget Car Rental, the Hurricane Cafe, parking lots and a former motel leased to Cornish College of the Arts. Amazon paid Clise Properties \$52.2 million in January for all but one parcel on the block. It bought the other parcel for \$4.3 million in 2012, records show.

Amazon has proposed two separate but similar visions for the block, depending on whether the city grants its request to privatize a through-block public alley.

The block's zoning allows for nonresidential structures up to 340 feet high.

If the city allows the alley to be vacated, Amazon proposes three buildings with a total 835,200 square feet of offices and 35,000 square feet of street-level retail, as well as underground parking for 835 vehicles.

Given that option, Amazon would develop a 24-story tower along Seventh Avenue and Bell Street connected to an adjacent seven-story structure at Eighth Avenue and Blanchard Street. The plan also calls for a one-story building on Seventh.

If the city denies Amazon the alley, the company would build a 24-story structure along Seventh and a six-story building along Eighth.

For this block, Amazon's latest plans don't offer anything as whimsical as the attention-grabbing, five-story bubblelike office building it proposed last year as part of its three-block tower complex.

Sanjay Bhatt: 206-464-3103 or sbhhatt@seattletimes.com On Twitter @sbhatt



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LEVEL 11

L11

Amazon is taking over Seattle: New plans call for up to 3 more buildings

BY TODD BISHOP ([HTTP://WWW.GEEKWIRE.COM/AUTHOR/TODD/](http://www.geekwire.com/author/todd/)) on November 11, 2014 at 1:00 pm

2 Comments (http://www.geekwire.com/2014/amazon-submits-plans-3-buildings-near-downtown-seattle/#disqus_thread)

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in Share (<http://www.linkedin.com/shareArticle?mini=true&url=http%3A%2F%2Fwww.geekwire.com%2F2014%2Famazon-submits-plans-3-buildings-near-downtown-seattle%2F>)

3+ Share (<https://plus.google.com/share?url=http%3A%2F%2Fwww.geekwire.com%2F2014%2Famazon-submits-plans-3-buildings-near-downtown-seattle%2F>)

Reddit (<http://www.reddit.com/submit?url=http%3A%2F%2Fwww.geekwire.com%2F2014%2Famazon-submits-plans-3-buildings-near-downtown-seattle%2F>)



(<http://cdn.geekwire.com/wp-content/uploads/2014/11/amazon1.png>)

A map in the latest filing shows projects planned and under development. (Click for larger image)

Amazon's building boom isn't stopping.

Architects for the e-commerce giant have filed plans with the city to build up to three additional buildings north of downtown Seattle, on a plot of land acquired by the company earlier this year for \$52 million (<http://www.geekwire.com/2014/amazon-expands-footprint-buys-downtown-seattle-block-52m/>) — adjacent to the three-block Amazon development project already in the works.

The company is asking the city to vacate an alley that divides the property, allowing for the construction of one 24-story tower, one seven-story tower and a single story building on the property bounded by Seventh and Eighth avenues, and Bell and Blanchard



Rendering © Graphite Design Group



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streets, with more than 835,000 square feet. Under an alternative plan, if the city doesn't allow the alley to be vacated, the company would develop the property with about 777,000 square feet of space.

The Seattle Times reported on the filing earlier today

(http://seattletimes.com/html/business/technology/2025002020_amazonblock21planxml.html).

The city's Design Review Board is slated to start considering the proposal next week

(<http://www.seattle.gov/dpd/aboutus/news/events/DesignReview/upcomingreviews/>).

The proposed development site is home to the Hurricane Cafe, a Budget Car Rental office, a Cornish College of the Arts residence hall and parking lots.

It's just north of the three blocks where Amazon is already developing a new campus, complete with a set of biodomes

(<http://www.geekwire.com/2013/amazons-giant-biodomes-blessing-seattle-design-board/>). This is all in addition to the company's large complex of buildings in Seattle's South Lake Union neighborhood, which is connected to the new properties via streetcar.

Here's the Design Review filing (PDF

(<http://www.seattle.gov/dpd/AppDocs/GroupMeetings/DRProposal3018578AgendaID5159.pdf>))

for the three-building proposal with the alley vacation.

The new buildings come as Amazon experiences rapid growth, approaching 150,000 employees worldwide (<http://www.geekwire.com/2014/holy-crap-amazon-added-40000-employees-past-year-nearing-150000-staffers-worldwide/>).



The new development site, in orange above, is adjacent to the three-block Amazon campus already under development north of downtown Seattle.



(<http://www.geekwire.com/author/todd/>)

Todd Bishop is GeekWire's co-founder and editor, covering subjects including smartphones, tablets, PCs, video games, and tech giants such as Amazon, Apple, Microsoft and Google. Follow him @toddbishop (https://twitter.com/intent/user?screen_name=toddbishop) and email todd@geekwire.com (<mailto:todd@geekwire.com>).

2 Comments (http://www.geekwire.com/2014/amazon-submits-plans-3-buildings-near-downtown-seattle/#disqus_thread)

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in Share (<http://www.linkedin.com/shareArticle?mini=true&url=http%3A%2F%2Fwww.geekwire.com%2F2014%2Famazon-submits-plans-3-buildings-near-downtown-seattle%2F>)

8+ Share (<https://plus.google.com/share?url=http%3A%2F%2Fwww.geekwire.com%2F2014%2Famazon-submits-plans-3-buildings-near-downtown-seattle%2F>)

Reddit (<http://www.reddit.com/submit?url=http%3A%2F%2Fwww.geekwire.com%2F2014%2Famazon-submits-plans-3-buildings-near-downtown-seattle%2F>)

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(<http://www.geekwire.com/events/geekwire-game-night-november-11/>)



(<http://www.geekwire.com/events/geekwire-gala-2014/>)

Development Team

Block 21 Development Team Summary (Appendix C)

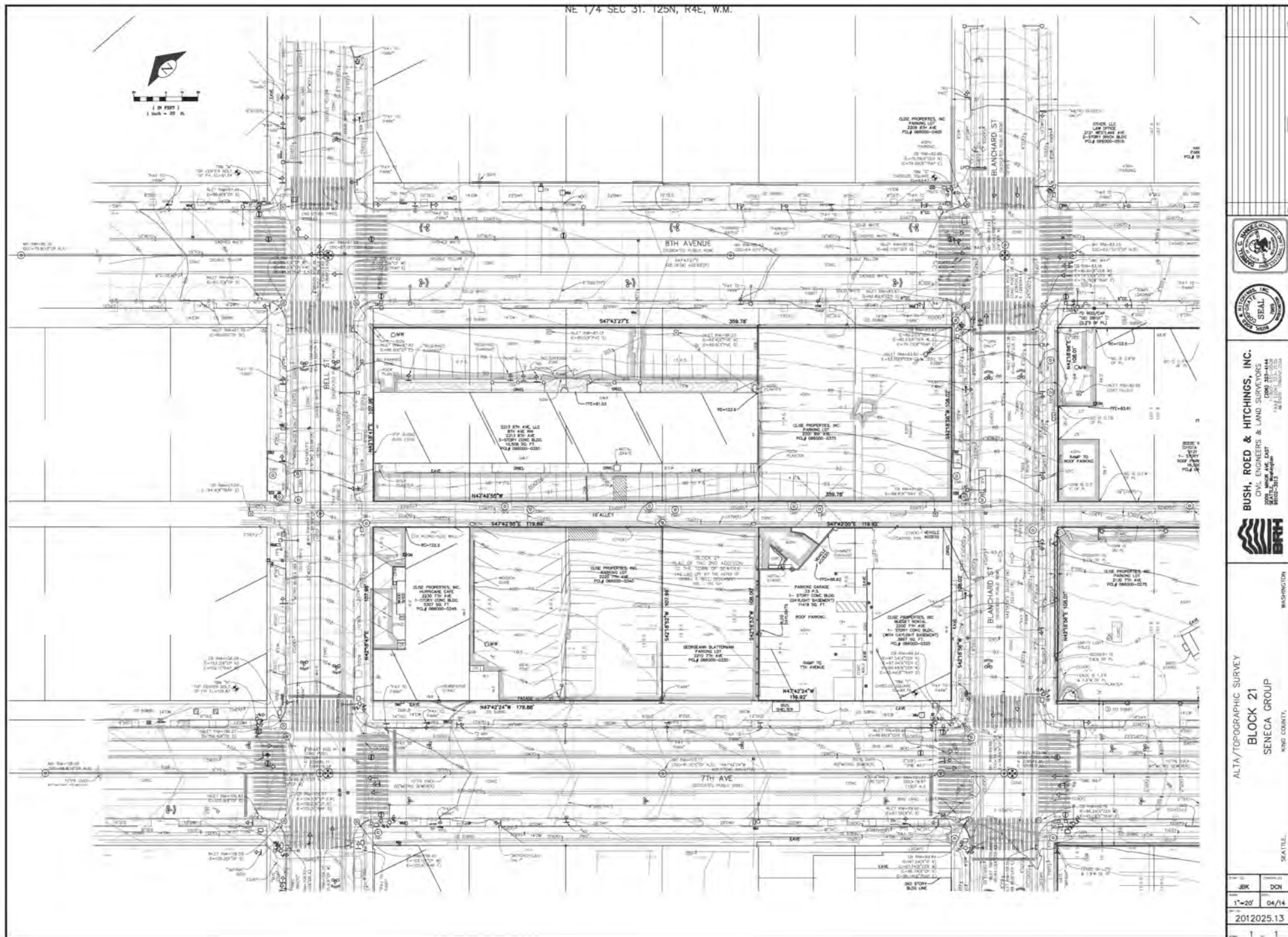
Prepared by: Seneca Group

Prepared: November 2014

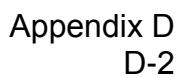
Seneca Group			Development Manager
1191 Second Ave., Suite 1500, Seattle WA 98101			
Name	Role	Phone	E-mail
Lindy Gaylord	Principal (Entitlement)	206-628-3150	lindy@senecagroup.com
Debi Hudacek	Principal (Design & Construction)	206-628-3150	debi@senecagroup.com
Craig Parsons	Principal	206-628-3150	craigp@senecagroup.com
Ian Kell	Project Manager	206-628-3150	iank@senecagroup.com
Vanna Nguyen	Administrative Assistant	206-628-3150	vannan@senecagroup.com
Hillis Clark Martin & Peterson P.S.			Land Use Attorney
1221 Second Avenue, Suite 500, Seattle, WA 98101			
Name	Role	Phone	E-mail
Ryan Durkan	Land Use Attorney	206-623-1745	trd@hcmp.com
Holly Golden	Land Use Attorney	206-623-1745	Holly.Golden@hcmp.com
Graphite Design Group			Architect (Shell & Core)
80 Vine St, Seattle, WA 98121			
Name	Role	Phone	E-mail
Michael Medina	Architect	206-223-5222	michael.medina@graphitedesigngroup.com
Peter Krech	Architect	206-223-5222	peter.krech@graphitedesigngroup.com
Patrick DiStefano	Architect	206-223-5222	patrick.distefano@graphitedesigngroup.com
Heffron Transportation			Traffic Engineer
6544 NE 61st Street, Seattle, WA 98115			
Name	Role	Phone	E-mail
Marni Heffron	Transportation Consultant	206-523-3939	marni@hefftrans.com
Tod McBryan	Transportation Consultant	206-523-3939	tod@hefftrans.com
EA Engineering, Science and Technology, Inc.			Environmental Consultant
2200 6th Ave #707, Seattle, WA 98121			
Name	Role	Phone	E-mail
Terry McCann	SEPA Consultant	425-284-5401	tmccann@eaest.com
Michele Sarlitto	SEPA Consultant	425-284-5401	msarlitto@eaest.com
Coughlin Porter Lundeen			Civil & Structural Engineer
801 2nd Ave #900, Seattle, WA 98104			
Name	Role	Phone	E-mail
Steve Porter	Civil Engineer	206-343-0460	stevep@cplinc.com
Jeff Peterson	Civil Engineer	206-343-0460	jeffp@cplinc.com
GeoEngineers			Geotechnical Engineer
600 Stewart St #1700, Seattle, WA 98101			
Name	Role	Phone	E-mail
Dave Cook	Geotechnical Engineer	206-728-2732	dcook@geoengineers.com

Appendix D

Site Survey Plat Map



BUSH, ROED & HITCHINGS, INC. CIVIL ENGINEERS & LAND SURVEYORS 1000 3RD AVE, SUITE 100 SEATTLE, WA 98101 (206) 461-1144 FAX: (206) 461-1145	
ALTA/TOPOGRAPHIC SURVEY BLOCK 21 SENECA GROUP KING COUNTY, WASHINGTON	
JBK 1" = 20' 2012025.13	DON 04/14 2012025.13



Utility Impacts

November 7, 2014

Terry McCann
EA Engineering Science and Technology Inc.
2200 Sixth Avenue, Suite 707
Seattle, WA 98121

RE *Block 21 Alley Vacation*
 Utility Review

Dear Terry:

The intent of this letter is to summary the potential utility impacts associated with the proposed alley vacation for the Block 21 project located in the Denny Triangle. The proposed alley vacation is located between 7th Avenue and 8th Avenue connecting Bell Street and Blanchard Street. This proposal will vacate the complete alley as part of the proposed Block 21 Commercial Office development. We have conducted several site visits, reviewed topographic surveys, GIS information and contacted several utility purveyors to determine the potential impacts to existing and future infrastructure due to the subterranean alley vacation and provided our findings below.

We have reached out to both public and franchise utilities that could potentially be located in the alley and identified three utilities that currently have infrastructure in the alley per the attached e-mails. We have received conceptual approval from the three utility providers to re-route their systems and have additionally received confirmation from the other utilities that they do not have, nor do they plan to have, infrastructure in the subject alley.

The design team has been working with Seattle City Light, Comcast and Century Link to develop conceptual plans to re-route their respective infrastructure outside of the alley prior to development of the block. Below is a summary of our discussions with the utilities with infrastructure in the alley to date.

Seattle City Light

Gerard Legall Service Representative

The team has been meeting with Gerard and his team for over 1-year to coordinate design, permitting and construction of a two block area including both Block 21 and Block 20. Bi-Weekly meetings coordinated by SCL have been on-going since November of 2013 to coordinate the design and permitting of both the Block 20 and Block 21 utility re-route.

Century Link and Comcast

Century Link: Christopher Mapes, Engineer III

Comcast: Michael Dale, Construction Coordinator

The team has met multiple times with representatives from both Comcast and Century Link and have received conceptual approval to re-route their respective systems from the subject alley.

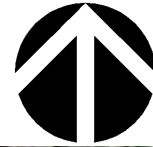
The design team has identified three utilities currently located within the subject alley and have been working with these providers to develop replacement pathway to mitigate the alley vacation. Other utility providers have been contacted and confirmed their systems will not be impacted by the proposed alley vacation and have included correspondence with these utility providers as part of this letter.

Sincerely,

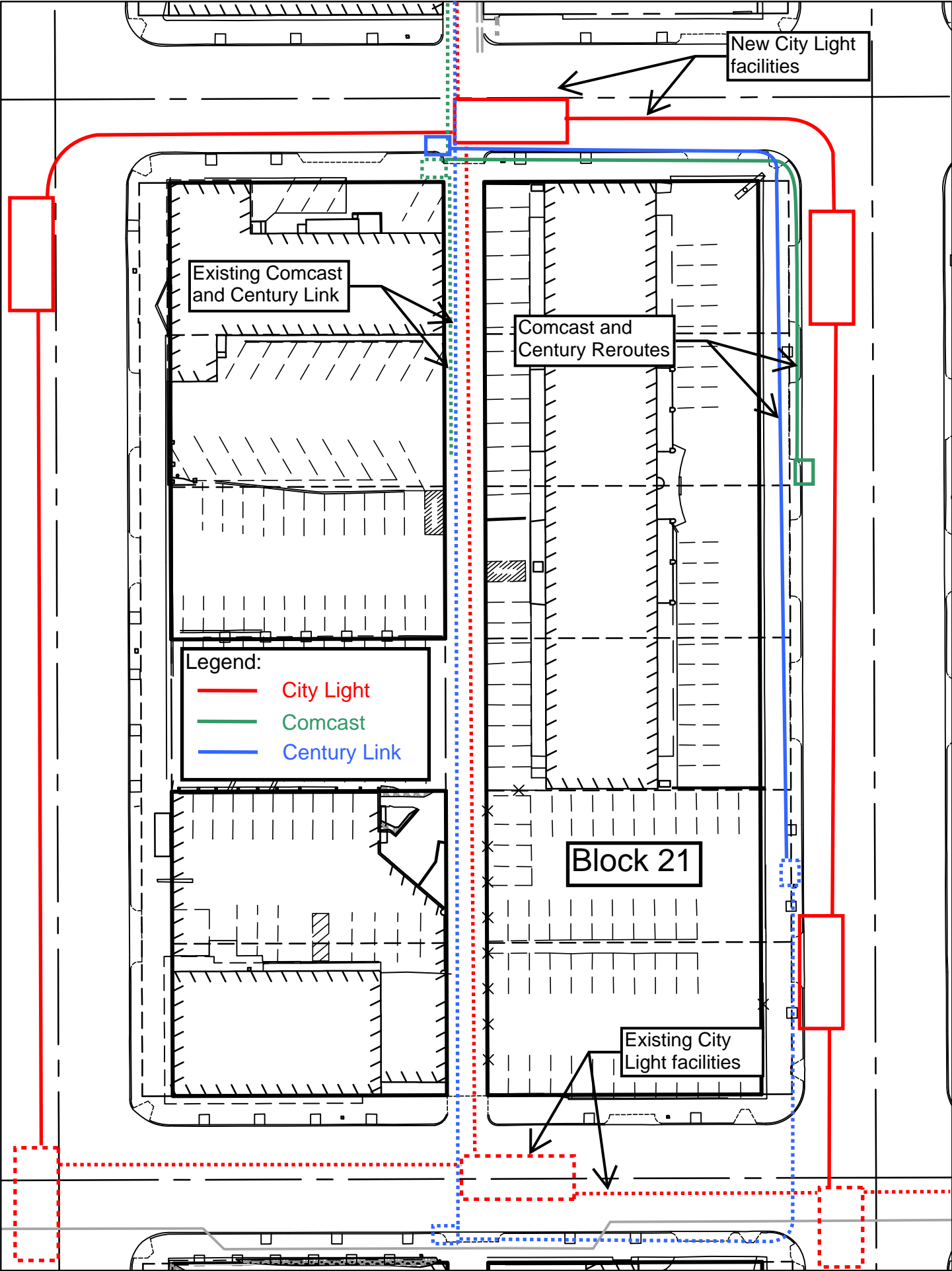
COUGHLIN PORTER LUNDEEN, INC.

A handwritten signature in black ink, appearing to read 'JP', with a long horizontal line extending to the right.

Jeff Peterson, PE



Block 21 Alley Vacation Petition - Utility Impacts



Jeff Peterson

From: Legall, Gerard <Gerard.Legall@seattle.gov>
Sent: Wednesday, October 29, 2014 4:57 PM
To: Jeff Peterson; Bob Risch
Cc: Kyle Malaspino
Subject: RE: Block 21 Denny Triangle Proposed Alley Vacation

Categories: Filed by Newforma

Seattle City has been working with the Block 21 team to develop a design to vacate Block 21 Alley. We are in general agreement with the current design concept



Seattle City Light | **Gerard Legall** | Electrical Service Engineer |
(206) 233-2172, direct office phone | (206) 459-8156, cell
Gerard.Legall@seattle.gov, email | www.seattle.gov/light/electricservice, website |

From: Jeff Peterson [<mailto:JeffP@cplinc.com>]
Sent: Wednesday, October 29, 2014 4:54 PM
To: Risch, Bob; Legall, Gerard
Cc: Kyle Malaspino
Subject: RE: Block 21 Denny Triangle Proposed Alley Vacation

Correction. The second paragraph should read “The intent of this *e-mail* is to confirm.....”

Apologies for any confusion.

Jeff Peterson, P.E.
Associate Principal
COUGHLINPORTERLUNDEEN
STRUCTURAL CIVIL SEISMIC ENGINEERING
801 SECOND AVE / SUITE 900 / SEATTLE WA 98104
P: 206.343.0460 / cplinc.com

From: Jeff Peterson
Sent: Wednesday, October 29, 2014 4:47 PM
To: Bob Risch (bob.risch@seattle.gov); Gerard Legall
Cc: Kyle Malaspino
Subject: Block 21 Denny Triangle Proposed Alley Vacation

Bob and Gerard,

We are working with Seneca Real Estate Group on the full block development in Denny Triangle referred to as Block 21. The block is located between 7th Avenue, 8th Avenue, Bell Street and Blanchard Street adjacent to Block 20. We have been working with Seattle City Light since about December 2013 on the planning and design of the SCL Network Infrastructure to replace the systems that will be displaced as part of the proposed alley vacation along with SDOT and other agencies under SDOT Utility Major Permit # 229683.

The intent of this letter is to confirm the project team has been working diligently to develop a design to replace those systems impacted by the proposed alley vacation are being coordinated with your office adequately such that SCL will

support the proposed alley vacation. The developer understands the costs associated with the SCL infrastructure replacement and, if the alley vacation is granted, will work with SCL to construct the new infrastructure prior to the alley vacation. Can you please confirm SCL is in general agreement with the alley vacation under these conditions. Please give us a call with any questions.

Regards,

Jeff Peterson, P.E.

Associate Principal

COUGHLINPORTERLUNDEEN

STRUCTURAL CIVIL SEISMIC ENGINEERING

801 SECOND AVE / SUITE 900 / SEATTLE WA 98104

P: 206.343.0460 / cplinc.com

Jeff Peterson

From: Oakley, Jack <Jack.Oakley@CenturyLink.com>
Sent: Thursday, October 30, 2014 8:50 AM
To: Jeff Peterson
Subject: FW: Block 21 Alley Vacation
Attachments: Block 20/21 - CTL Site Visit

Jeff,

Yes we can support the vacation of the alley with the understanding the petitioner is responsible for replacing the displaced infrastructure. The design you have attached is an old one from January 2014 and there have been subsequent revisions.

Jack Oakley
Engineer II
1208 NE 64th St
Seattle, WA 98115
206.346.7489

"The strength of the team is each individual member. The strength of each member is the team." - Phil Jackson



[To Order Services - Click Here](#)

From: Mapes, Christopher
Sent: Wednesday, October 29, 2014 4:16 PM
To: Oakley, Jack
Subject: FW: Block 21 Alley Vacation

I know you have communicated changes in the alignment of the vaults they want to place at the alley alignments on both Bell and Blanchard.

Can you respond to Jeff on this?

Thank You,

Christopher Mapes
Engineer III
CenturyLink, Inc.
1208 NE 64th St. (Rm #402)
Seattle, WA 98115
Main: (206) 346-7484
Fax: (206) 345-5754
Email: Christopher.Mapes@CenturyLink.com



From: Jeff Peterson [<mailto:JeffP@cplinc.com>]
Sent: Wednesday, October 29, 2014 4:12 PM
To: Michael Dale
Cc: Mapes, Christopher
Subject: Block 21 Alley Vacation

We are working with Seneca Real Estate Group on the full block development known as Block 21 in the Denny Triangle located between 7th Avenue and 8th Avenue and Bell Street and Blanchard Street. The project is proposing to vacate the alley connecting Bell Street and Blanchard Street. We have identified that Century Link has infrastructure located in this alley and have been working with your office to develop a plan to re-locate the infrastructure in the adjacent streets to allow the alley vacation to move forward. We have been designing the new infrastructure based on the general direction provided by your office in the attached e-mail and included sketch.

The intent of this e-mail is to confirm the presence of Century Link infrastructure in the alley and that Century Link is in general agreement on the routing of the new infrastructure to replace the systems displaced due to the alley vacation. Can you please confirm Century Link is in support of the alley vacation with the understanding the petitioner is responsible for replacing the infrastructure displaced due to the alley vacation as generally described in the attached e-mail and on-going design discussions. Please let us know if you have any questions or concerns.

Regards,

Jeff Peterson, P.E.
Associate Principal
COUGHLINPORTERLUNDEEN
STRUCTURAL CIVIL SEISMIC ENGINEERING
801 SECOND AVE / SUITE 900 / SEATTLE WA 98104
P: 206.343.0460 / cplinc.com

Jeff Peterson

From: Knight, Bob <bob.knight@integratelecom.com>
Sent: Thursday, October 30, 2014 7:46 AM
To: Jeff Peterson
Subject: RE: Block 21 Proposed Alley Vacation

Jeff,

Integra/Electric Lightwave doesn't have facilities in the alley according to our records. There are no plans to install conduit or cable. Integra has fiber optics cable existing along 7th Avenue that could serve the new project if the owner is interested.

Thanks for the notification!

Bob Knight | Senior OSP Engineer | 425.970.7764
TEK Systems
Integra

From: Jeff Peterson [<mailto:JeffP@cplinc.com>]
Sent: Wednesday, October 29, 2014 4:32 PM
To: Knight, Bob
Subject: Block 21 Proposed Alley Vacation

Bob,
We are working with Seneca Real Estate Group on the full block development known as Block 21 in the Denny Triangle located between 7th Avenue and 8th Avenue and Bell Street and Blanchard Street. The project will re-develop the entire block and is proposing to vacate the alley connecting Bell Street and Blanchard Street. We have reviewed available GIS and survey information and have not identified the presence of utilities owned by Electric Lightwave in the alley that would be impacted by the proposed alley vacation. Can you please review and confirm Electric Lightwave does not have, nor does it plan to have, infrastructure within the alley proposed to be vacated. Please feel free to contact us with any questions.

Regards.

Jeff Peterson, P.E.
Associate Principal
COUGHLINPORTERLUNDEEN
STRUCTURAL CIVIL SEISMIC ENGINEERING
801 SECOND AVE / SUITE 900 / SEATTLE WA 98104
P: 206.343.0460 / cplinc.com

Jeff Peterson

From: Brandon Oyer <boyer@seattlesteam.com>
Sent: Thursday, October 30, 2014 10:27 AM
To: Jeff Peterson
Subject: RE: Block 21 Denny Triangle - Proposed Alley Vacation

Jeff,
Thanks for reaching out, we do not currently have any infrastructure in 7th alley between Bell and Blanchard St. However, we are 1 block away and would like to entertain the idea of being utilized in this project. Is Craig Norsen heading up this project for Seneca?

Thanks,

Brandon Oyer, P.E.
Director of Engineering
Seattle Steam Company
1325 Fourth Ave., Ste. 1440
Seattle, WA 98101
206-658-2027 direct
206-550-1086 cell



Sustainably Reliable

From: Jeff Peterson [<mailto:JeffP@cplinc.com>]
Sent: Wednesday, October 29, 2014 4:39 PM
To: Brandon Oyer
Subject: Block 21 Denny Triangle - Proposed Alley Vacation

Brandon,
We are working with Seneca Real Estate Group on the full block development known as Block 21 in the Denny Triangle located between 7th Avenue and 8th Avenue and Bell Street and Blanchard Street. The project will re-develop the entire block and is proposing to vacate the alley connecting Bell Street and Blanchard Street. We have reviewed available GIS and survey information and have not identified the presence of utilities owned by Seattle Steam in the alley that would be impacted by the proposed alley vacation. Can you please review and confirm Seattle Steam does not have, nor does it plan to have, infrastructure within the alley proposed to be vacated. Please feel free to contact us with any questions.

Regards.

Jeff Peterson, P.E.
Associate Principal
COUGHLINPORTERLUNDEEN

Jeff Peterson

From: Luco, Fred <Fred.Luco@twtelecom.com>
Sent: Thursday, October 30, 2014 7:01 AM
To: Jeff Peterson; Pettibone, Shawn
Subject: FW: Block 21 Denny Triangle Proposed Alley Vacation
Attachments: Block 21-Denny Triangle.pdf

Jeff,

We do not have facilities in the alley , our running line is on the west of 7th Ave.

Regards



Frederick Luco
Senior Outside Plant Engineer, Seattle
223 Taylor Ave N, Suite 250
Seattle, Wa 98109
D 206.676.8066
C 206.459.7180 Texting available
fred.luco@twtelecom.com

From: Jeff Peterson [<mailto:JeffP@cplinc.com>]
Sent: Wednesday, October 29, 2014 4:36 PM
To: Luco, Fred
Subject: Block 21 Denny Triangle Proposed Alley Vacation

Fred
We are working with Seneca Real Estate Group on the full block development known as Block 21 in the Denny Triangle located between 7th Avenue and 8th Avenue and Bell Street and Blanchard Street. The project will re-develop the entire block and is proposing to vacate the alley connecting Bell Street and Blanchard Street. We have reviewed available GIS and survey information and have not identified the presence of utilities owned by Time Warner in the alley that would be impacted by the proposed alley vacation. Can you please review and confirm Time Warner does not have, nor does it plan to have, infrastructure within the alley proposed to be vacated. Please feel free to contact us with any questions.

Regards.

Jeff Peterson, P.E.
Associate Principal
COUGHLINPORTERLUNDEEN
STRUCTURAL CIVIL SEISMIC ENGINEERING
801 SECOND AVE / SUITE 900 / SEATTLE WA 98104
P: 206.343.0460 / cplinc.com

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Jeff Peterson

From: Landis, Brad A <brad.landis@verizon.com>
Sent: Wednesday, October 29, 2014 5:08 PM
To: Jeff Peterson
Subject: RE: Block 21 -Denny Triangle Proposed Alley Vacation

Hi Jeff,

It does not appear that Verizon's Legacy MFS, MCI or Western Union facilities (which I represent) are within this alley.

Thanks,

Brad Landis
Engineer IV Spec, Network Engineering &
Operations-VzB Access Engineering
[Tel:425-201-0901](tel:425-201-0901)
Cell:425-766-1740 - Fax:425-201-0906
[Verizon Global Network Service Delivery &
Assurance](http://www.verizon.com)
www.verizon.com



From: Jeff Peterson [<mailto:JeffP@cplinc.com>]
Sent: Wednesday, October 29, 2014 4:33 PM
To: Landis, Brad A
Subject: Block 21 -Denny Triangle Proposed Alley Vacation

Brad
We are working with Seneca Real Estate Group on the full block development known as Block 21 in the Denny Triangle located between 7th Avenue and 8th Avenue and Bell Street and Blanchard Street. The project will re-develop the entire block and is proposing to vacate the alley connecting Bell Street and Blanchard Street. We have reviewed available GIS and survey information and have not identified the presence of utilities owned by Verizon in the alley that would be impacted by the proposed alley vacation. Can you please review and confirm Verizon does not have, nor does it plan to have, infrastructure within the alley proposed to be vacated. Please feel free to contact us with any questions.

Regards.

Jeff Peterson, P.E.
Associate Principal
COUGHLINPORTERLUNDEEN
STRUCTURAL CIVIL SEISMIC ENGINEERING
801 SECOND AVE / SUITE 900 / SEATTLE WA 98104
P: 206.343.0460 / cplinc.com

Development Matrix

Appendix F

Block 21 Vacation Petition – Development Matrix

Site and Project Description

Zoning Designation: DMC 340/290-400

Street Classification: Alley

Assessed Value of Adjacent Property:

- Parcel 069700-0435 Total Assessed Value = \$20,977,000 / \$600 per sq. ft.¹
- Parcel 069700-0400 Total Assessed Value = \$21,265,000 / \$600 per sq. ft.²
- Parcel 069700-0305 Total Assessed Value = \$15,552,000 / \$600 per sq. ft.³
- Parcel 066000-0130 Total Assessed Value = \$7,777,000 / \$600 per sq. ft.⁴
- Parcel 066000-0150 Total Assessed Value = \$15,553,000 / \$600 per sq. ft.⁵
- Parcel 066000-0405 Total Assessed Value = \$11,664,000 / \$600 per sq. ft.⁶

Lease rates in the General Vicinity for Similar Projects: Denny Regrade Direct Class A, Average Asking Rate - \$32.45/SF/Yr full service. Operating expenses, not including real estate taxes, account for \$10/SF/Yr of that amount and real estate taxes make up an additional approximately \$2/SF/Yr. Resulting NET Class A Average Asking Rental Rate - \$30.45/SF/Yr.⁷

Size of the Project:

- 859,000 sq. ft. office
- 23,000 sq. ft. retail
- 814 parking spaces
- 275 bicycle parking stalls

Size of the Alley to be Vacated: 5,756.5 sq. ft.

Block 21 Development Potential and Proposed Development

Property	Lot Area – Project Sites	Land Area – Alley	Maximum Development Potential (FAR of 10) ⁸	Proposed Development FAR <u>without</u> Alley Vacation	Proposed Development FAR <u>with</u> Alley Vacation
Alley – Block 21	77,700 sq. ft.	5,756.5 sq. ft.	777,000 sq. ft.	777,000 sq. ft.	834,565 sq. ft.

¹ Based upon *King County Assessor's Office* data - \$20,977,000 total assessed value/34,960 sq. ft. = \$600 per sq. ft.

² Based upon *King County Assessor's Office* data - \$21,265,000 total assessed value/35,440 sq. ft. = \$600 per sq. ft.

³ Based upon *King County Assessor's Office* data - \$15,552,000 total assessed value/25,920 sq. ft. = \$600 per sq. ft.

⁴ Based upon *King County Assessor's Office* data - \$7,777,000 total assessed value/12,960 sq. ft. = \$600 per sq. ft.

⁵ Based upon *King County Assessor's Office* data - \$15,553,000 total assessed value/25,920 sq. ft. = \$600 per sq. ft.

⁶ Based upon *King County Assessor's Office* data - \$11,664,000 total assessed value/19,440 sq. ft. = \$600 per sq. ft.

⁷ The CoStar Office Report/Year-End 2014/Seattle-Puget Sound Office Market.

⁸ DMC 340/290-400 has a base FAR of 5, max FAR of 10.

Public Benefits Matrix

Appendix G

Block 21 Vacation Petition – Proposed Public Benefits

Site and Project Description

Zoning Designation: DMC 340/290-400

Street Classification: Alley

Assessed Value of Adjacent Property:

- Parcel 069700-0435 Total Assessed Value = \$20,977,000 / \$600 per sq. ft.¹
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- Parcel 066000-0405 Total Assessed Value = \$11,664,000 / \$600 per sq. ft.⁶

Lease rates in the General Vicinity for Similar Projects: Denny Regrade Direct Class A, Average Asking Rate - \$32.45/SF/Yr full service. Operating expenses, not including real estate taxes, account for \$10/SF/Yr of that amount and real estate taxes make up an additional approximately \$2/SF/Yr. Resulting NET Class A Average Asking Rental Rate - \$30.45/SF/Yr.⁷

Size of the Project:

- 859,000 sq. ft. office
- 23,000 sq. ft. retail
- 814 parking spaces
- 275 bicycle parking stalls

Size of the Alley to be Vacated: 5,756.5 sq. ft.

Proposed Public Benefits: Consistent with City of Seattle criteria for the approval of alley vacations, a broad range of improvements are proposed that are intended to provide long term public benefits. The public benefits associated with the vacation for **Block 21** focus on public improvements surrounding the site to improve the overall project in a manner consistent with the public interest and to enable better urban form. In particular, the applicant has initiated discussions with the community and the City to develop a Street Concept Plan as defined by http://www.seattle.gov/transportation/rowmanual/manual/6_1.asp on Bell Street from Fifth Avenue to Denny Way. This plan is intended to reinforce the connection between the Bell Street Park west of Fifth Avenue and Denny Park, and to guide frontage and right-of-way improvements that occur both on the block as well as on other blocks in the corridor as they are developed. Proposed public benefits for the alley vacation include the following:

¹ Based upon *King County Assessor's Office* data - \$20,977,000 total assessed value/34,960 sq. ft. = \$600 per sq. ft.

² Based upon *King County Assessor's Office* data - \$21,265,000 total assessed value/35,440 sq. ft. = \$600 per sq. ft.

³ Based upon *King County Assessor's Office* data - \$15,552,000 total assessed value/25,920 sq. ft. = \$600 per sq. ft.

⁴ Based upon *King County Assessor's Office* data - \$7,777,000 total assessed value/12,960 sq. ft. = \$600 per sq. ft.

⁵ Based upon *King County Assessor's Office* data - \$15,553,000 total assessed value/25,920 sq. ft. = \$600 per sq. ft.

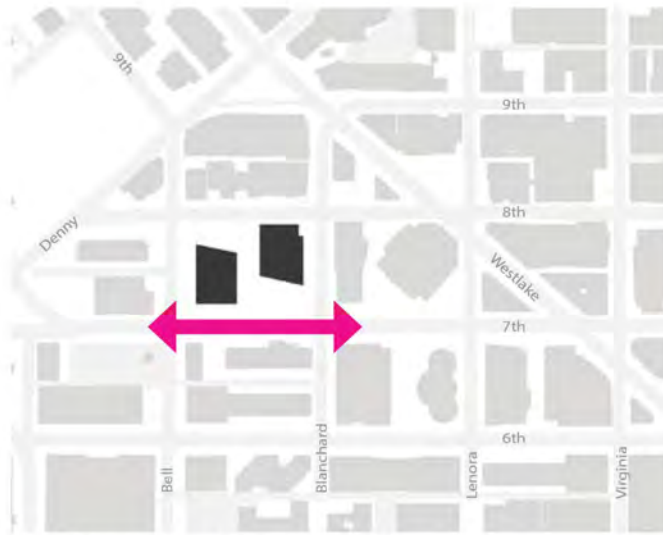
⁶ Based upon *King County Assessor's Office* data - \$11,664,000 total assessed value/19,440 sq. ft. = \$600 per sq. ft.

⁷ The CoStar Office Report/Year-End 2014/Seattle-Puget Sound Office Market.

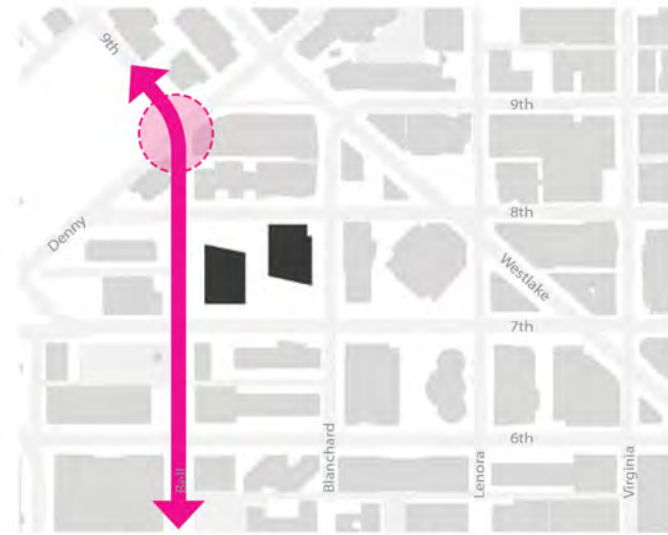
- 7th Avenue Cycle Track
- Enhanced Green Streets, including Voluntary Setbacks along Bell and Blanchard Streets
- Enhanced Right-of-Way Improvements
- Bell Street Street Concept Plan from 5th Avenue to Denny Way.

Figure G1 depicts graphically the proposed alley vacation public benefits.

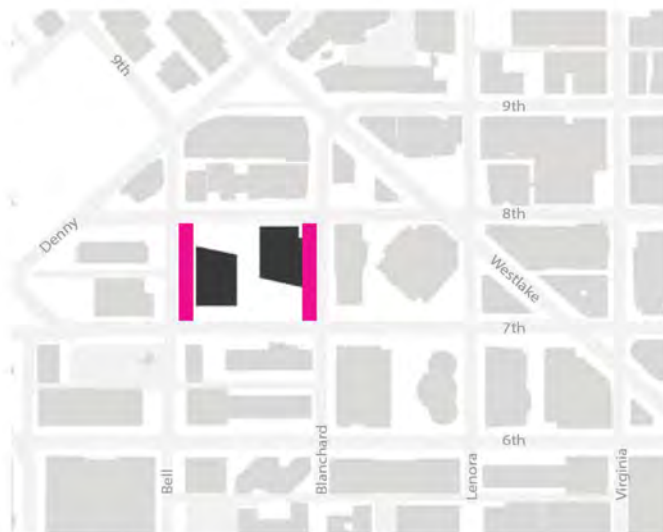
Appendix G



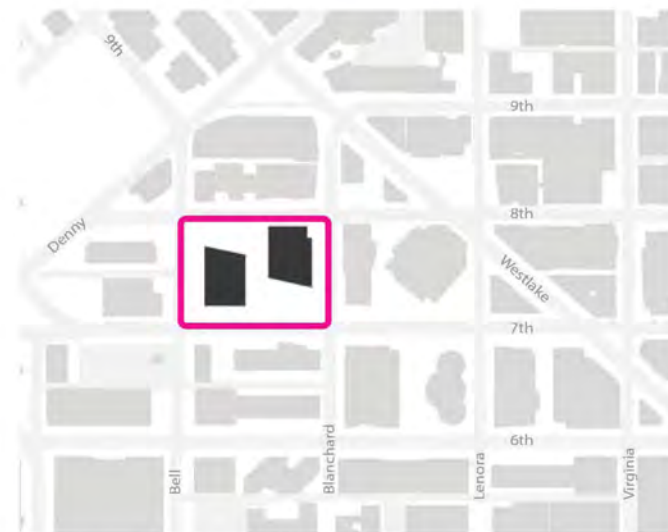
7th Avenue Cycle Track



Preparation of Bell Street Street Concept Plan from 5th Avenue to Denny Way



Enhanced Green Streets including Voluntary Setbacks along Green Streets, Bell and Blanchard



Enhanced Right-of-Way Improvements

9-Block Urban Analysis

[illegible]

H-1

Block 21 Development Alley Vacation Petition



Source: Graphite Design Group, 2015



Appendix H

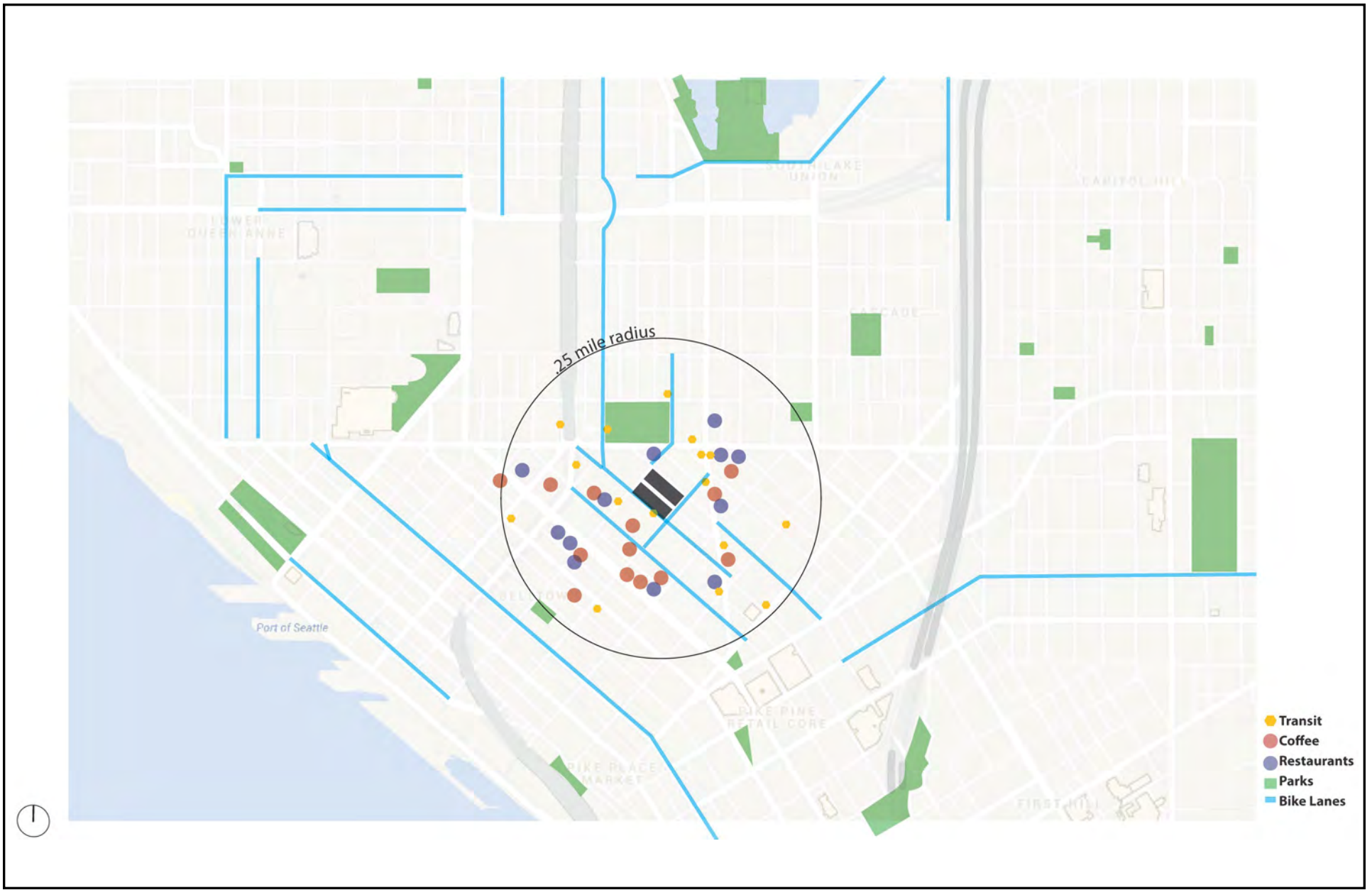
9-Block Urban Design Analysis—Zoning

Block 21 Development Alley Vacation Petition



Source: Graphite Design Group, 2015

Block 21 Development Alley Vacation Petition



Source: Graphite Design Group, 2015



Appendix H
9-Block Urban Design Analysis—Public Uses

Downtown Height and Density EIS

DRAFT

ENVIRONMENTAL IMPACT STATEMENT

FOR

DOWNTOWN HEIGHT AND DENSITY CHANGES

November 2003

City of Seattle

Department of Planning and Development

Prepared in compliance with:
State Environmental Policy Act
Chapter 43.21, Revised Code of Washington
Chapter 197-11, Washington Administrative Code

PREFACE

Introduction

On May 3rd, 2001, the City of Seattle Strategic Planning Office issued a SEPA Determination of Significance (DS) for a proposal to change several existing zoning provisions for a portion of Downtown Seattle. This proposal originates from concepts expressed in the neighborhood plans for the Denny Triangle neighborhood and the Commercial Core, as well as the plan prepared by the Downtown Urban Center Planning Group (DUCPG). Numerous discussions between neighborhood representatives and City staff since 1999 have helped define a proposal that is being advanced for further discussion and decisionmaking.

EIS ORGANIZATION

This EIS is organized as follows: **Chapter 1** provides an overview of the proposal, impacts and mitigation measures; **Chapter 2** contains a description of the alternatives; and **Chapter 3** contains impact analysis for the elements of the environment identified in the EIS scope. The elements of the environment studied for this proposal include: Population/Employment, Housing, Land Use, Height/Bulk/Scale, Historic Preservation, Public Views and Aesthetics, Climate—Shadows and Wind, Pedestrian Amenities and Open Space, Transportation, Parking, Energy, Water Utilities and Sewers/Stormdrains.

SEPA NON-PROJECT REVIEW

Pursuant to the State’s SEPA requirements, this environmental impact statement has been prepared to examine the potential for environmental impacts from this proposal. This is a “non-project” proposal in that it involves decisions on policies, plans or regulations rather than a single site-specific project. In this case, the proposal is for changes to regulations in the Land Use Code. The analysis is intended to describe how the proposed regulatory changes would affect future long-term development patterns, and whether those changes would result in significant adverse impacts. The intent of this EIS is to provide substantive analysis of impact implications (at a programmatic level of detail), to aid in making final decisions on the proposal.

The State’s SEPA rules and handbook provide for flexibility in the content and formatting of environmental review for non-project proposals, because details about the proposal are typically limited. Topics that should be addressed include: background, objectives, existing conditions, description of the proposal and alternatives, and environmental impact analysis. The level of analysis should be consistent with the specificity of the proposal and available information.

Broad analyses of non-project proposals can facilitate “phased review” by addressing bigger-picture concerns and allowing review of future proposals to focus on a smaller range of more specific concerns. This means that future proposals in the study area could incorporate or refer to portions of this EIS to fulfill their SEPA requirements. This could increase the efficiency of environmental review and expedite permitting processes.

FACT SHEET

Project Title	Downtown Seattle Height and Density Changes
Nature and Location of Proposal	<p>This EIS examines four alternatives that cover a range of possible actions for the City Council’s consideration. Three of the alternatives consist of different combinations of increases in allowable maximum heights and densities (volumes) of buildings in several Downtown zones. A “No Action” Alternative is also included to assess what is likely to occur over time under the current Land Use Code.</p> <p>The area affected by the proposal includes portions of the Denny Triangle, Commercial Core and Belltown neighborhoods within Downtown, but does not include the retail core (zoned DRC), the International District, or Pioneer Square neighborhoods.</p> <p>Alternative 1 (High End Height and Density Increase) would increase height and density provisions in portions of Downtown zoned Downtown Office Core 1 and 2 (DOC 1, DOC 2), and Downtown Mixed Commercial (DMC). The proposed density changes would increase allowable densities by 3 or 4 FAR (floor area ratio), equivalent to three or four times the property area of a given site. Within the affected area, maximum heights under Alternative 1 would increase by up to:</p> <ul style="list-style-type: none">135 feet in the central DOC 1 zone;100 feet in all of the northern DOC 2 and DMC zones in the Denny Triangle;40 and 48 feet (approximately 30 percent increase) in the central DMC zones along 1st Avenue between Pike and Virginia Streets, and in the Western Avenue vicinity, respectively; and72 feet (30 percent increase) in the southern DOC 2 zone, and the DMC zone along 1st Avenue between Union and Columbia, adjacent to the central office core. <p>The other alternatives consist of height and density increases in fewer areas or lesser amounts of change. Alternative 2 (Concentrated Office Core) would limit changes to the Downtown Office Core zones. Alternative 3 (Residential Emphasis) would increase height and density in most of the office core zones, but would re-orient zoning in some areas to better encourage housing production.</p>
Proponent	City of Seattle
Lead Agency	City of Seattle Dept. of Planning and Development 700 Fifth Avenue, Suite 2000 Seattle, WA 98104-5070
Responsible Official	Diane Sugimura
Date of Implementation	The City Council anticipates making decisions on this proposal in 2004.

Contact Person	Dennis Meier City of Seattle Dept. of Planning and Development 700 Fifth Avenue, Suite 2000 Seattle, WA 98104-5070 206-684-8270
Required Approvals	Actions on the proposal will require approval by the City Council.
EIS Authors and Principal Contributors	<p>Primary author, EIS coordination City of Seattle Dept. of Planning and Development staff: Dennis Meier, Gordon Clowers, Lish Whitson</p> <p>Real Estate/Economic consultants Craig Kinzer & Associates The Seneca Group Cushman & Wakefield</p> <p>Transportation consultant Parsons Brinckerhoff Quade & Douglas, Inc.</p> <p>Urban Design consultant Otak, Inc.</p>
Location of Background Data	City of Seattle Dept. of Planning and Development 700 Fifth Avenue, Suite 2000 Seattle, WA 98104-5070
DEIS Date of Issuance	November 7, 2003
Date Comments are Due	January 31 st , 2004
Public Hearing	A public hearing on the Draft EIS is tentatively scheduled for December 10th, at the Seattle Police Department's West Precinct building at 810 Virginia Street (check www.seattle.gov/dpd for up-to-date meeting information).
Nature and Date of Final Action	The City Council is expected to take action in 2004 on the proposal to amend the allowable heights and densities within portions of Downtown.
Cost of Draft EIS	Copies of the Draft EIS are available for public review at several branches of the Seattle Public Library. Interested parties may purchase copies of the Draft EIS for \$10 at DPD, 20 th floor Key Tower, 700 Fifth Avenue. An appendix volume of technical analyses is also available for a purchase price of \$10. Please send your request to the Dept. of Planning and Development (address above) with a check made payable to "City of Seattle."

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CHAPTER ONE

SUMMARY

Introduction

Chapter One is a summary of this Draft Environmental Impact Statement (DEIS) on proposed changes to height and density limits in some Downtown zones. The chapter briefly describes background, features of the four alternatives (including a No Action Alternative), anticipated impacts, major issues to be resolved and mitigation strategies. At this stage, a preferred alternative has not been identified. A chart included in this chapter is a comparative overview of impacts identified for each alternative. For a more detailed discussion, please see Chapters 2 and 3 and the accompanying technical appendices.

Background

The City engaged in an extensive neighborhood planning process following the adoption of Seattle's Comprehensive Plan in 1994. As part of this process, neighborhood plans were developed for five subareas of the Downtown Urban Center. Some of these plans included proposals for changes to height and density limits in some Downtown areas. As part of ongoing planning, the City has studied and made decisions on a number of individual proposals:

With the City Council's initial approval of Downtown neighborhood plans in early 1999, proposals for rezones in the Commercial Core and Pioneer Square neighborhoods were implemented, along with limited amendments to bonus and TDR provisions.

In collaboration with King County and the Denny Triangle, the Transfer of Development Credits (TDC) program was adopted in late 1999, which allowed for a 30% height increase for residential and mixed-use development in zones within the Denny Triangle to preserve rural lands and generate resources for public amenities in the neighborhood. An area of approximately four acres was also upzoned from DMC 240 to DOC 2 300' to increase employment capacity in the neighborhood.

More recently, the City amended the provisions of the Downtown bonus and TDR programs through legislation adopted in mid-2001. Conditional height increases ranging from 10% to 30% were also adopted under this legislation for DOC 1, DOC 2 and portions of DRC zones. The bonus and TDR programs specify how projects can gain approval for greater density by providing for affordable housing, public open space, landmark preservation, human services and other public amenities.

This EIS studies another discrete set of actions that could be taken to implement changes recommended by Downtown neighborhood plans. It analyzes changes to height and density limits in three Downtown zones (see Study Area Map, Figure 1). The alternatives represent a range of possible actions that would increase zoning capacity within these areas to accommodate additional employment and residential growth. Alternative 1 represents the "high end" of possible changes, while Alternatives 2 and 3 emphasize changes supporting the commercial core and residential uses, respectively. A preferred alternative has not been identified. It is likely that City decisionmakers will combine actions from different alternatives as a result of public input and the findings of the EIS.

The purpose of this EIS is to disclose impacts associated with actions proposed under each alternative. This analysis makes it possible to compare outcomes of these different actions. It assists in identifying major issues that should be addressed in the course of developing a final proposal for implementation. Public review of this document and discussion of these issues will provide additional input about desired outcomes and the best approach for achieving them. This review will also help focus on key concerns that

may require further attention, either with additional work for the Final Environmental Impact Statement or as part of developing mitigation strategies to accompany a final proposal.

Features of the Alternatives

SUMMARY OF THE ALTERNATIVES

Alternative 1. Alternative 1 is a composite of proposals included in different Downtown neighborhood plans and recommendations by the advisory committee that participated in revising the Downtown bonus and TDR programs. This alternative calls for the greatest increases to both base and maximum density limits and height limits for all DOC 1, DOC 2 and DMC zones within the study area.

Alternative 2. This alternative limits height and density increases to the DOC 1 and DOC 2 zones and maintains existing limits in the DMC zones within the study area. There would be no changes to base density limits, and use of housing bonuses or housing TDR would be required to gain all floor area above base density (FAR) limits.

Alternative 3. Alternative 3 would further limit height and density increases to DOC 1 and a portion of DOC 2. To increase capacity for housing, mixed-use provisions would apply to DMC zones, and some DMC areas would be rezoned to DMR/C, a more residential-oriented zone.

Alternative 4. Alternative 4 is a No Action Alternative reflecting current zoning conditions, including the previously-adopted amendments that helped implement neighborhood plans.

ASSUMED AMOUNT OF GROWTH

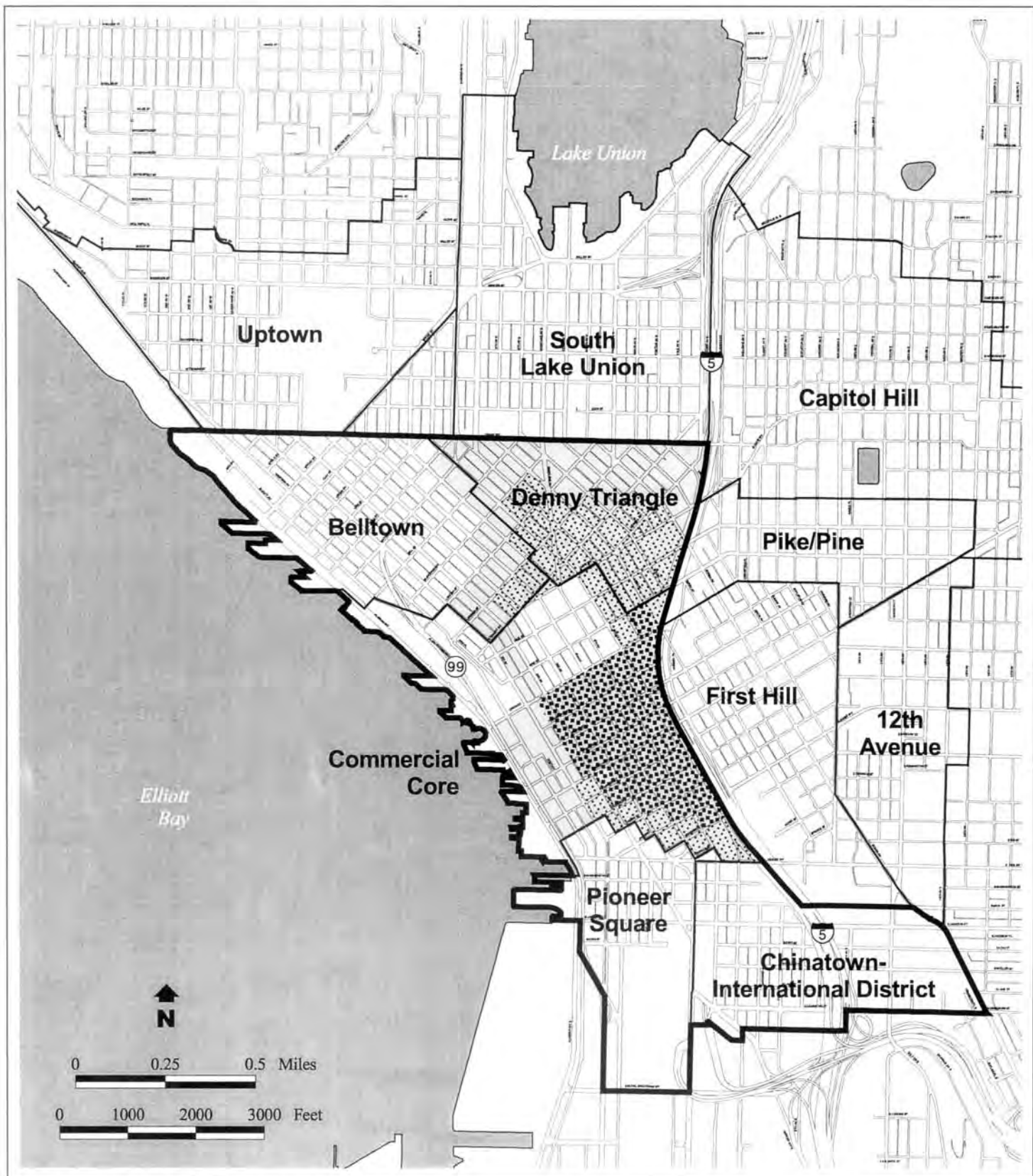
Different proposals for height and density increases vary the capacity of commercial and residential growth that can ultimately be accommodated within Downtown under each alternative. However, the projected demand for housing and commercial floor area Downtown over the 20-year period between 2000 and 2020 is assumed to be constant, regardless of overall zoning capacity. Because developers build for perceived demand rather than building the maximum that zoning will allow, the zoning changes will not significantly alter Downtown's growth over twenty years. Therefore, for all alternatives, the assumption is that from 2000 to 2020, the Downtown Urban Center will add 70,000 jobs and housing to accommodate 17,500 households (equivalent to 18,400 units).

Employment growth. The majority of the employment growth—90% (63,000 jobs)—is assumed to occur within the study area where height and density increases are being considered, with the remaining 10% (7,000 jobs) occurring in Pioneer Square, the International District, the retail core and Belltown.

Residential growth. Of the 18,400 units added Downtown, approximately 7,350 units (40%) would be accommodated in development within the study area, with the remaining 11,050 units occurring in other areas, including Belltown, Pioneer Square and the International District. It is estimated that accommodating 11,050 units outside the study area would require utilizing about 87% of the remaining development capacity in these areas. Depending on the alternative, between 69% (Alternative 3) and 87% (Alternative 4) of the total available development capacity would be needed to accommodate the additional 7,350 units forecasted for the study area.

ASSUMED PATTERN OF GROWTH

Infill and growth outward from the core. The analysis assumes future development will seek to infill remaining sites in the Downtown Office Core (DOC 1 and DOC 2) zones, and also grow outward from the office/retail core. Thus, redevelopable properties in or near the existing core are likely to be the most attractive for the next round of development.



DOWNTOWN EIS STUDY AREA

FIGURE 1

- Downtown Urban Center Boundary
- Urban Center/Urban Village Boundaries

EIS STUDY AREA:

- DOC1 Zone
- DOC2 Zone
- DMC Zone

Strategic Planning Office
City of Seattle
May 17, 2002

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Larger sites and sites already assembled are more attractive. The “grow from the core” assumption is tempered by an assumption that larger sites under single ownership will be as likely to develop as sites in better locations that are challenged by small site sizes or multiple owners.

Similarities among alternatives in the pattern of growth. Under all of the alternatives, most of the growth projected for the 20-year period can be accommodated on the same sites, resulting in only limited distinctions between alternatives in the geographic distribution of growth. However, more distinctive growth patterns would likely emerge as additional growth occurs in later years, due primarily to changes in the DMC zones affecting available capacity for housing.

Relationship to Plans and Policies. All of the alternatives provide sufficient capacity to accommodate housing and job growth targets established for the Downtown Urban Center in Seattle's Comprehensive Plan.

The various Downtown Neighborhood Plans and the Downtown Urban Center Plan include a wide range of goals and policies about how Downtown should grow and the desired type of urban environment. Of particular relevance to this EIS analysis are housing affordability goals and policies with regard to lower-income households. Other relevant goals and policies seek to maintain the positive characteristics of existing development conditions, promote high-quality livable residential environments, and maintain desired physical relationships between Downtown areas and adjacent neighborhoods. Impacts related to these goals and policies are discussed in more detail below.

Major Conclusions

Development over 20 years under existing zoning, as reflected in Alternative 4, will result in substantial changes to some Downtown areas, particularly the Denny Triangle. For some studied topics, Alternatives 1, 2 and 3 would result in only subtle differences in impacts from the 20-year “baseline condition.” But for quite a few topics, future development under these alternatives would likely generate distinctly different levels of impacts. This section discusses several overall conclusions. Table 1 later in this chapter compares the impacts of the alternatives.

Population and Employment

Depending on the source of the projection, Downtown Seattle is expected to grow by 16,000-26,000 new residents and 50,000-70,000 new employees. This level of population and employment growth can be accommodated through development permitted by the zoning under all alternatives.

Housing

All of the alternatives provide enough capacity for new residential units to meet demand between 2000 and 2020. However, after 2020 the capacity for residential development will be limited.

The Denny Triangle Transfer of Development Credits (TDC) program would be eliminated under Alternative 1. This program encourages residential development in the Denny Triangle, provides funds for amenities in the Denny Triangle and preserves land from development in rural King County. Its use would be restricted under Alternatives 2 and 3. By retaining existing zoning under Alternative 4 (No Action), the TDC program would continue to be available throughout the Denny Triangle.

Funding for low-income housing would increase under Alternatives 1, 2 and 3, above that projected with existing zoning. Alternative 2, followed by Alternative 3, would provide the most funds for low-income housing development.

Six existing residential buildings containing 300 units are identified as sites where redevelopment could occur in the future. Three of the six buildings, with 141 dwelling units, receive subsidies to

keep their units affordable to households earning less than 50% of the median area income. Under all alternatives, more subsidized units would be built through housing bonus funds than might be demolished.

Land Use

There will be little difference among the alternatives in the mix of land uses in the study area. Under all alternatives, the mix of uses in the Denny Triangle would significantly change with the redevelopment of many of the neighborhood's vacant and underutilized blocks. Alternative 1 would result in fewer but larger office and residential buildings mixed in a high-density environment, whereas Alternative 4 (existing zoning) would likely result in more sites developed with slightly smaller buildings. Alternative 3 would provide the most difference from the other alternatives, with the projected development of residential enclaves in Belltown and the Denny Triangle.

As redevelopment occurs, less expensive office space is likely to be lost, and those human service providers that do not own their own space may find it more difficult in the future to find affordable space in Downtown Seattle.

One City of Seattle landmark and a number of buildings considered important to various Downtown neighborhoods were identified as sites where redevelopment might occur, due to the small size of the landmark compared to the potential maximum development permitted on the site.

Height, Bulk and Scale

Among the alternatives, Alternative 1 allows the greatest increases in height and density throughout the study area. With these increases, projected growth could be accommodated in fewer but larger projects than the other alternatives. Taller, bulkier structures would be permitted in some sensitive transition areas, resulting in a more abrupt change in scale and intensity of development along edges where the study area abuts other neighborhoods.

Under all the alternatives, the absence of a density limit on residential use, along with exemptions for above-grade residential parking from floor area limits, creates the potential for very bulky residential and mixed-use developments.

The likely scale and character of residential development, and the general mixing of housing with high-density commercial projects, could hinder development of areas with a strong residential character, except in Alternative 3 where additional residential zones are established in part of the Denny Triangle and the southern edge of Belltown.

In some zones where the bulky appearance of recent development is attributed to current height limits, the proposed density increases are proportionally greater than proposed height increases. Consequently, the outcome could be taller buildings with similar bulky characteristics rather than more slender, taller towers.

The narrower street widths and longer block sizes in portions of the Denny Triangle could exacerbate impacts associated with bulkier development.

Pedestrian Amenities and Streetscape

Only minimal development standards for enhancing the pedestrian environment apply in the portion of the Denny Triangle west of Westlake Avenue. This could result in a low level of pedestrian amenity and limited street level activity in what is likely to emerge as a high-density office district.

Parks and Open Space

Future development under any of the alternatives will increase Downtown employment and residential populations, creating more demand for the use of existing open space resources. Some of this demand

will be met through open space provided as a result of zoning requirements and incentives, as well as common development practices. Development will provide required open space to meet the needs of building occupants, as well as public open space to help augment existing public resources.

The greatest increase in employment and residential population is projected for the Denny Triangle, where open space resources are currently limited. Under any alternative, open spaces are unlikely to increase sufficiently to meet all of the open space goals in the Comprehensive Plan.

Elimination of the Transfer of Development Credits program due to height increases, or reduction of the program's area, represents a potential loss of a funding source for desired open space improvements in the Denny Triangle.

Views and Aesthetics

Potential impacts on views were considered for public viewpoints, view-protected landmarks, scenic routes, the skyline and other non-protected views. In many cases, differences between the alternatives in visual impacts would be relatively subtle. However, Alternatives 2, 3 and 4 would promote differences in allowable building bulk that would be detectable when viewed from some locations.

Urban Climate (Shadows and Wind)

Future development of taller buildings in the Denny Triangle, edge of Belltown and 1st Avenue/Western Avenue vicinities would add to the shading of city streets. The possibility of higher building heights on a few properties near Denny Way creates slightly greater potential for shading impacts on Denny Park.

Future development of new buildings in Downtown would create the potential for additional wind effects near street level, depending upon the design of specific buildings and the general grouping of buildings.

Transportation

For all alternatives, traffic volumes in 2020 entering and leaving Downtown at the studied locations would increase by approximately 10% in the AM Peak hour and 20% in the PM peak hour compared to existing conditions. This reflects the relatively high level of growth over 20 years studied by this EIS.

In the northeast corner of Downtown (Denny Triangle), Alternative 1 would generate traffic approaching the rated capacity of key commuting corridors near the Stewart Street and Denny Way intersection by the year 2020. For the other alternatives, traffic volume/capacity conditions in this vicinity would be approximately 5-10% better than Alternative 1.

Impacts of the alternatives in other portions of Downtown would not be as substantial as in the Denny Triangle.

By 2020, even with no zoning changes, the number of intersections experiencing significant or severe congestion in the key studied corridors (e.g., Stewart, Howell, Olive Way, Denny Way) would increase from 5 intersections today to approximately 17 intersections in the PM peak hour. Alternatives 1, 2 and 3 would cause 2 to 5 additional intersections to experience this level of congestion (level of service E or F) in the PM peak hour. This would adversely affect travel times through the studied corridors for general traffic and buses, and cause some queuing (lane backup) issues in several locations.

Future development over time could contribute to displacement of several existing King County Metro bus layover locations, primarily in the Denny Triangle.

Parking

With future development under any of the alternatives, at least 17,000 additional off-street parking spaces would be provided, and approximately 7,100-7,500 existing off-street parking spaces would be displaced, largely in the Denny Triangle and edge of Belltown vicinities.

Future growth would increase overall parking demand, for approximately 19,500 to 23,750 spaces, depending upon how many commuters choose to use transit rather than automobiles. Depending upon the strength of demand, it is possible that developers or private parking providers would provide a greater supply of parking.

Competition for on-street parking spaces would likely increase, especially in areas of concentrated future development.

Energy

The EIS growth assumptions are approximately consistent with levels of growth in City Light projections. City Light predicts that a new substation serving Downtown needs to be energized by 2012. Under Alternative 1, potential future development resulting from higher zoning height/density limits in the Denny Triangle area east of 8th Avenue could result in capacity limitations more quickly than would otherwise occur, due to increased commercial loads. These limitations and needed improvements will be closely monitored and addressed in City Light's Capacity Plan in 2004. Alternatives 3 and 4 would generate comparatively lesser impacts on the electrical system than Alternatives 1 and 2.

Water and Sewer/Stormwater Utilities

The alternatives would generate additional water consumption and sanitary sewage volumes due to future development of commercial and residential uses. However, the capacity of existing systems in general would be adequate to provide for this future growth.

Better stormwater control requirements with future development will likely improve overall stormwater flow conditions in the combined sewer facilities.

Major Issues to be Resolved

Some questions relating to the magnitude of impacts or the design of mitigation strategies are still unresolved. These issues will be addressed in ongoing review and planning, and in the Final EIS. Major issues requiring further study and resolution include the following:

Balance between employment and housing growth Downtown

The proposed changes studied in the EIS raise an important policy question about Downtown growth that needs to be addressed to guide the City's decisions. Should actions be taken to expand areas Downtown dedicated primarily for concentrated employment growth, with the potential risk of foreclosing opportunities for more housing development in these areas? Or should actions to increase Downtown's capacity for employment growth be balanced with actions to create additional capacity for residential growth?

Below are two potential policy choices related to the nature of Downtown growth:

Expand Downtown's role as employment center. Changes to height and density limits in the study area will expand Downtown's ability to accommodate more jobs by increasing employment capacity. Higher commercial densities beyond the core will provide opportunities for more concentrated employment growth in areas currently intended for a mix of both housing and moderate-density employment activity. As more of the Downtown area absorbs employment growth, housing will be

accommodated in peripheral areas, like Belltown, or in areas adjacent to Downtown where land is available.

As growth continues under the proposed changes, residential capacity will be "built-out" while capacity remains for continued employment growth. Consequently, the amount of housing that can continue to be provided Downtown for Downtown employees will diminish. Housing for Downtown employees will increasingly need to be provided in areas outside of Downtown. With constraints on housing capacity in adjacent areas, including First Hill, Capitol Hill, South Lake Union, and Uptown Queen Anne, opportunities for housing future Downtown employees in these areas will be limited as well.

Promote a balance between both employment and housing growth. This approach first requires defining the appropriate balance between the amount of jobs and housing to be accommodated Downtown over the long term, beyond the 2014 timeframe of the Comprehensive Plan growth targets. As the Comprehensive Plan is updated in 2004 to cover the timeframe between 2014 and 2024, housing and employment growth targets may be updated to cover those additional ten years. Measures then need to be considered for ensuring sufficient capacity to maintain this balance—either by reserving more areas for housing, linking increased employment density to provisions for additional housing production, or some other means.

Livability of Downtown residential environments

Assumptions about the type and location of housing to be built in the study area in the future imply that a certain type of residential environment will emerge, with larger, denser residential projects mixed with high-density commercial development. These assumptions raise questions about the type of residential environments desired to accommodate future housing, as well as the measures needed to achieve these environments. Included among these questions: how best to accommodate a desired mix of incomes and provide necessary amenities and services needed to support different residential populations? With higher land costs in areas where commercial densities are increased, will subsidized affordable housing continue to be built in these areas? If so, will there be sufficient support services available to this population?

Two options for future Downtown residential environments that are explored in the EIS include:

- General mixing of housing development with commercial development;
- Creation of residential areas or "enclaves" where housing is the predominant use.

Continuation of the Transfer of Development Credit Program

The City established the TDC program in the Denny Triangle jointly with King County in 1999. While no projects have yet purchased development credits, at least a half-dozen have expressed interest, and the County has already committed limited resources to be used in the design and implementation of a demonstration Green Street block.

In varying degrees, the proposed alternatives reduce the area of the Denny Triangle where the TDC program would continue to operate. Alternative 1, with proposals for the greatest height and density increases in the Denny Triangle, would likely result in the elimination of the program altogether. Alternative 2 would keep the program active in roughly half of the area, while Alternative 3 would maintain the program in about 2/3 of the area.

The TDC program provides a means to target public and private resources into a high-growth area. It is also seen as a way to make residential development a more competitive option for developers in zones that allow relatively high densities for commercial development. Because residential use is not subject to a density limit under Downtown zoning, the TDC program provides the only mechanism for requiring market-rate residential development to contribute to public amenities in exchange for allowing additional residential floor area above current height limits.

Accommodating transition between high-density Downtown commercial areas and less intensive adjacent neighborhoods

Downtown zones were originally established and mapped to accommodate a gradual transition in the density, height and scale of development in areas separating the "core" commercial zones and adjacent residential and mixed-use areas. Increases in height and density would create a more abrupt change in the scale and intensity of development along the "edges" of these transition areas.

Under what circumstances should measures be applied to maintain a development transition? This is especially an issue for portions of DMC areas abutting Belltown, the Cascade neighborhood and the waterfront; as well as portions of the DOC 2 zone abutting the historic districts of Pioneer Square and the International District to the south, Pike/Pine to the east, and the residential enclave desired in the northeast corner of the Denny Triangle.

Accommodating additional open space

With only limited open space, the affected area currently has the greatest employment density in the region (over 300 jobs per acre), which is projected to increase further in 20 years to over 460 jobs per acre. Furthermore, projections call for adding a substantial amount of housing to the area—over 7,350 new units. With about 6,000 units currently in the affected area, the amount of housing will more than double, increasing density to about 32 units per acre. With only a limited increase in the amount of open space planned for the area, this additional growth is likely to raise concerns about being adequately served.

Promoting a desired development scale

Preliminary studies have identified several issues related to the bulk of development under any of the EIS alternatives, including:

Residential and mixed-use development. Current conditions create the potential for very bulky residential and mixed-use development due to the fact that FAR density limits do not apply to residential uses and accessory parking provided in above-grade structures. In the absence of such limits, current bulk controls have only a limited impact on overall building bulk. With increased height limits, the issue of development bulk is likely to gain more attention as more residential and mixed-use developments occur in Downtown commercial zones, and projects increasingly push the building envelope to maximize development potential. However, addressing this issue raises another dilemma. Measures to promote more desirable building forms (slender towers, tower spacing, etc.) will reduce the number of units that can be accommodated on a site—appearing to contradict efforts to promote more housing.

Commercial development. Increasing density limits, even when coupled with height increases, could result in the unintended consequence of producing bulkier buildings. For example, the Alternative 1 proposal to raise density limits from 10 FAR to 14 FAR (40% increase) in DOC 2 areas of the Denny Triangle, while increasing height limits from 300 feet to 400 feet (33% increase), will create a similar situation to that of the DOC 1 zone, where problems have been cited with the bulkiness of development built to the current maximum 14 FAR and 450-foot height limit. Given the larger site sizes and lower height limit of the DOC 2 zone, this condition would likely be repeated here. Similarly, the proposed 10 FAR in DMC zones with height limits of 240 feet or less could raise the same issues cited in DOC 2 zones under the current 10 FAR limit and 300-foot height limit.

Table 1
Summary of Impacts

Alternative 1 High End Height and Density POPULATION AND EMPLOYMENT Impacts	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
<p>Employment Growth: Commercial capacity could accommodate as much as 48 years worth of employment growth, resulting in as many as 338,000 employees in Downtown Seattle.</p> <p>In 20 years, there could be an increase of between 50,000 and 71,000 new Downtown employees.</p> <p>Population Growth: Residential capacity could accommodate as much as 26 years of demand for Downtown housing.</p> <p>In 20 years there could be an additional 21,900 new Downtown Seattle residents in 17,500 new Downtown households.</p> <p>Approximately 13% of new households could earn less than 80% of the median income in King County.</p> <p>HOUSING Impacts</p> <p>Capacity for Housing: There could be capacity for as many as 22,855 new units in Downtown Seattle.</p> <p>TDC Program: The Denny Triangle Transfer of Development Credits</p>	<p>Commercial capacity could accommodate as much as 42 years worth of employment growth, resulting in as many as 319,000 employees in Downtown Seattle.</p> <p>Same as Alternative 1</p> <p>Population Growth: Residential capacity could accommodate as much as 27 years of demand for Downtown housing.</p> <p>Same as Alternative 1.</p> <p>Approximately 17% of new households could earn less than 80% of the median income in King County.</p> <p>Capacity for Housing: There could be capacity for as many as 24,800 new units in Downtown Seattle.</p> <p>TDC Program: The Denny Triangle TDC program would</p>	<p>Commercial capacity could accommodate as much as 38 years worth of employment growth, resulting in up to 305,000 Downtown Seattle employees.</p> <p>Same as Alternative 1</p> <p>Population Growth: Residential capacity could accommodate as much as 30 years of demand for Downtown housing.</p> <p>Same as Alternative 1</p> <p>Approximately 15% of new households could earn less than 80% of the median income in King County.</p> <p>Capacity for Housing: There could be capacity for up to 27,440 new units in Downtown Seattle.</p> <p>TDC Program: The Denny Triangle TDC program would</p>	<p>Commercial capacity could accommodate as much as 37 years worth of employment growth, resulting in up to 300,000 employees in Downtown Seattle.</p> <p>Same as Alternative 1</p> <p>Population Growth: Residential capacity could accommodate as much as 29 years of demand for Downtown housing.</p> <p>Same as Alternative 1</p> <p>Approximately 11% of new households could earn less than 80% of the median income in King County.</p> <p>Capacity for Housing: There could be capacity for as much as 26,410 new units in Downtown Seattle.</p> <p>TDC Program: The Denny Triangle TDC program would</p>

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
<p>(TDC) program would no longer be viable under this Alternative.</p> <p>Housing Types: Market-rate housing is most likely to be built in towers as part of mixed-use projects. Subsidized units are more likely going to be built in lower-scale residential structures.</p> <p>Housing Bonus Program: The Housing bonus program might leverage sufficient funds to build up to 2,675 units affordable to households earning less than 80% of King County's Median Household Income (MAI) over twenty years.</p> <p>Demolition of Existing Residential Buildings: Up to six residential buildings with 300 residential units are on sites that could be redeveloped. Three of the six buildings, with 141 dwelling units, receive subsidies to keep their units affordable to households earning less than 50% MAI.</p> <p>LAND USE Impacts</p> <p>Development Capacity: There would be capacity for over 38 million square feet of new commercial space and 10,500 new units within the study area.</p>	<p>only be active in the DMC zones. It would create additional capacity for as many as 2,630 new units.</p> <p>Same as Alternative 1</p> <p>Housing Bonus Program: The Housing bonus program might leverage sufficient funds to build up to 3,225 units affordable to households earning less than 80% of MAI over twenty years. Same as Alternative 1.</p> <p>Development Capacity: There would be capacity for over 33 million square feet of new commercial space and as many as 11,900 new units within the study area.</p>	<p>be active in the DMC zones and portions of the DOC2 zone. It would create additional capacity for as many as 4,400 new units.</p> <p>Same as Alternative 1</p> <p>Housing Bonus Program: The Housing bonus program might leverage sufficient funds to build up to 2,775 units affordable to households earning less than 80% of MAI over twenty years. Same as Alternative 1.</p> <p>Development Capacity: There would be capacity for over 30 million square feet of new commercial space and as many as 14,600 new units within the study area.</p>	<p>be active in all Denny Triangle neighborhoods. It would create additional capacity for as many as 5,300 new units.</p> <p>Same as Alternative 1</p> <p>Housing Bonus Program: The Housing bonus program might leverage sufficient funds to build up to 2,025 units affordable to households earning less than 80% of MAI over twenty years. Same as Alternative 1.</p> <p>Development Capacity: There would be capacity for over 28 million square feet of new commercial space and 13,750 new units within the study area.</p>

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
Up to 244 Downtown parcels containing 72 acres have been identified as potential sites for redevelopment.	Same as Alternative 1.	Same as Alternative 1.	Same as Alternative 1.
Over twenty years, approximately 17.5 million square feet of commercial space would be built in the study area. Almost 45% of the commercial space might be built within the Denny Triangle DOC2 zone, with another 25% built in the Commercial Core DOC1 zone.	Similar to Alternative 1.	Similar to Alternative 1.	Similar to Alternative 1.
Over twenty years, approximately 7,400 units would be built within the study area. Approximately 60% of those units might be built in mixed-use projects in the Denny Triangle DOC2 zone.	Similar to Alternative 1.	Similar to Alternative 1.	Similar to Alternative 1.
One City of Seattle Landmark and one site on the National Register have been identified as potential development sites.	Same as Alternative 1.	Same as Alternative 1.	Same as Alternative 1.
HEIGHT, BULK AND SCALE Impacts Height: New buildings by height range: Approx. 36 structures greater than 250 feet in height (65% of new structures). Bulk/Density: Predicted to result in 39 devs with 55 structures by 2020.	Approx. 31 structures greater than 250 feet (55% of new structures). Nearly the same as Alt. 1—40 devs with 56 structures.	Approx. 28 structures greater than 250 feet (47% of new structures). Bulk would be spread across more projects: 44 devs and 60 structures.	Approx. 26 structures greater than 250 feet (41% of new structures). Bulk would be spread across more projects: 48 devs and 63 structures.
Additional bulk from exempted residential uses and a few “other” uses would contribute to actual	Similar to Alt. 1, but fewer devs would achieve the higher end of densities.	Fewer devs than Alt. 1 or 2 would reach higher densities, due to lower height limits and	Similar to Alt. 3.

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
<p>building bulk legally exceeding maximum density limits.</p> <p>Bulk Massing Patterns: Greatest massing of bulk would occur in the Denny Triangle. Rectangular shape of blocks would contribute to perceived bulkiness of development in the Denny Triangle.</p> <p>New development in peripheral areas would be more dispersed, except for potential concentration at edge of Belltown.</p> <p>Bulk—Height/density relationships: Alt. 1 changes may not resolve an existing zoning issue (relating to allowable height and bulk) that results in bulkier building designs.</p> <p>It may be difficult to fit all of the maximum commercial density within proposed DMC height limits between 165 and 225 feet (near Denny Way, and 1st Ave/Western Ave vicinity).</p> <p>Scale—Transitions: Greatest differences among the alternatives in zoning height/density with adjacent areas (Pike/Pine, Denny Way, Belltown, Pioneer Square/Int. District, harborfront, retail core).</p> <p>Scale—Compatibility with existing development: Intensity of new development in Denny Triangle would generate greatest differences in compatibility with existing</p>	<p>Similar to Alt. 1, but lower scale of development at periphery.</p> <p>Similar to Alt. 1, but lower scale of development at periphery.</p> <p>Similar to Alt. 1</p> <p>Without these changes, this impact would not occur.</p> <p>Fewer changes in transitions than Alt. 1, due to no changes in zoning near Belltown, Denny Way, or 1st Ave/Western Ave vicinity.</p> <p>Less impact than Alt. 1 in the peripheral DMC zones. Similar impacts to Alt. 1 in Commercial Core.</p>	<p>Retention of existing height and density at east and west edges of Denny Triangle DOC 2 zone would provide some “stepping down” in massing of bulk.</p> <p>Similar to existing zoning, but more bulk controls in some areas may result in residential towers that are more slender.</p> <p>Similar to Alt. 1.</p> <p>Without these changes, this impact would not occur.</p> <p>Lower commercial density limit and additional bulk limits for towers would make transitions more gradual in the Denny Way, Belltown and 1st Ave./Western Avenue vicinities.</p> <p>Alt. 3 changes would promote greater compatibility in residential-oriented zones. Similar to Alt. 1 for the DOC office core zones.</p>	<p>Similar to Alt. 1, but less-bulky development spread over more sites in Denny Triangle.</p> <p>Similar to Alt. 3 but no additional bulk controls would allow some bulkier new development.</p> <p>The existing zoning issue would remain.</p> <p>Not applicable.</p> <p>Transitions provided by the existing zoning pattern would be maintained.</p> <p>Similar to Alt. 1, except for DMC zones where no zoning changes would occur.</p>

Alternative 1 High End Height and Density development.	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
<p>Scale—Effect on development diversity: The amount of redevelopment in Denny Triangle could potentially result in a more homogeneous character.</p> <p>Scale—Effect on residential character: Overall additional bulk of development and mixing of residential and non-residential projects could discourage achievement of a beneficial residential character.</p> <p>PEDESTRIAN AMENITIES & STREETSCAPE Impacts</p> <p>Positive Impacts:</p> <p>Narrow sidewalks would be widened.</p> <p>Additional street trees would be provided.</p> <p>Green Street improvements would be provided.</p> <p>Continuous street level uses would be promoted along several streets, aided by infill development over time.</p> <p>New public open spaces in developments should benefit pedestrians.</p> <p>Adverse Impacts:</p> <p>Above-grade parking could detract from street-level character.</p> <p>In some areas, non-requirement of street level uses could limit street level activity in buildings.</p> <p>There would be a greater sense of</p>	<p>Similar to Alt. 1.</p> <p>Similar to Alt. 1.</p> <p>Positive Impacts:</p> <p>Similar to Alt. 1. Even in areas with retained zoning (in DMC zones), the streetscape conditions as perceived by pedestrians would not be much different than would occur under Alt. 1.</p> <p>Adverse Impacts:</p> <p>Similar types of impacts as under Alt. 1. However, lack of zone changes in DMC areas would mean buildings less dense and lower in height in</p>	<p>Similar to Alt. 1, but broader potential range of scale in new structures.</p> <p>Residential-oriented zoning in some areas creates some greater potential for achieving beneficial residential character.</p> <p>Positive Impacts:</p> <p>Similar to Alt. 1, except greater chance for positive street environment in the residential-zoned areas, due to lower bulk limits. Lack of zone changes in some DOC 2 areas would avoid some streetscape effects related to greater building bulk.</p> <p>Adverse Impacts:</p> <p>Similar types of impacts as under Alternative 1, but somewhat less potential for impacts, due to residential-oriented zoning changes in some areas, and lack of</p>	<p>Similar to Alt. 1, but the broadest potential range of scale in new structures.</p> <p>Similar to Alt. 1.</p> <p>Positive Impacts:</p> <p>Same amount of growth would be accommodated on more properties than under Alt. 1, providing more opportunities for streetscape improvements, including Green Streets.</p> <p>Adverse Impacts:</p> <p>Same amount of growth on more properties than under Alt. 1 would have additional risk of adverse impacts occurring along some streets, as listed</p>

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
<p>“enclosure” within several streets. In some areas, possible loss of older structures may diminish variety and pedestrian orientation at street level.</p> <p>PARKS & OPEN SPACE</p> <p>Impacts</p> <p><i>Predicted on-site open space developed in future projects:</i></p> <p>1.7 acres</p> <p><i>Use of open space TDR:</i></p> <p>The potential supply of open space TDR is approx. 1-1.3 million sf. Demand not expected to exceed supply.</p> <p>Open space required for office uses: 7.9 acres</p> <p>Common rec. area open space required for residential uses:</p> <p>7.2 acres</p> <p>Predicted Contributions to TDC Amenity Credit Fund:</p> <p>None, since Alt. 1 would likely terminate the use of the TDC program.</p> <p>Relationship to Open Space Goals - Denny Triangle</p> <p>Even with predicted open space in future developments, this area would fall a bit short of meeting the residential and employee-oriented open space goals. However, would likely meet the distribution goal.</p>	<p>these areas than under Alt. 1.</p> <p>1.9 acres</p> <p>Supply would remain the same. Changes in DOC zones would increase demand similar to Alt. 1.</p> <p>7.7 acres</p> <p>7.2 acres</p> <p>Est. \$1.2 million</p> <p>Similar to Alternative 1.</p>	<p>change in some DOC 2 areas.</p> <p>1.9 acres</p> <p>Similar to Alt. 1 and 2, but areas rezoned to DMR/C would allow slight increase in use of open space TDRs.</p> <p>7.8 acres</p> <p>6.5 acres</p> <p>Est. \$3.5 million</p> <p>Nearly the same as Alternative 1, except residential-zoned area could promote more residentially-oriented open space.</p>	<p>under Alt. 1.</p> <p>2.9 acres</p> <p>Supply would be less than under Alt. 1, but Alt. 4 would allow for the greatest use of open space TDR among the alternatives.</p> <p>7.8 acres</p> <p>6.5 acres</p> <p>Est. \$4.3 million</p> <p>Slightly more open space in Denny Triangle, possibly spread over more area than Alternative 1.</p>

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
<p>Open Space - Commercial Core</p> <p>Would meet or exceed the residential and employee-oriented open space goals, and would likely meet the distribution goals.</p> <p>Number of future development sites adjacent to Green Streets: 10 sites</p> <p>VIEWS AND AESTHETICS</p> <p>Impacts</p> <p>Public Viewpoints</p> <p>Harborview Viewpoint: Possible future development at a site between Yesler Way and Jefferson St., 5th and 6th Avenues would block a view toward the south end of Elliott Bay from the Harborview Viewpoint.</p> <p>Four Columns Park: With future development in the Denny Triangle, views from Four Columns Park toward the Space Needle, Olympic Mountains and Queen Anne (including the landmark Q.A. High School) would gradually be obscured. The additional increment of height/density would obscure additional sky area, but would not cause different types of visual impairment than are already possible under existing regulations.</p> <p>Views Toward Landmarks</p> <p>Additional building bulk (greatest allowable under Alt. 1) adjacent to or near some landmarks would</p>	<p>Similar to Alternative 1.</p> <p>10 sites</p> <p>Same impacts as Alternative 1.</p> <p>Similar impacts to Alternative 1, but slightly less potential for impairment of more northerly views toward the vicinity near I-5 and Denny Way. Similar to Alternative 1 in potential for impairment of Space Needle and Olympic Mountains views.</p> <p>Less potential for impacts than Alternative 1 because Terminal Sales Building and 1st Avenue</p>	<p>Similar to Alternative 1.</p> <p>11 sites</p> <p>Same impacts as Alternatives 1 and 2.</p> <p>Similar impacts to Alternative 2, but less potential for impairment due to omission of DOC 2 zone change east of 8th Avenue. However, similar to Alternative 1 in potential for impairment of Space Needle and Olympic Mountains views.</p> <p>Slightly less potential for impacts than Alternatives 1 or 2, because of modest changes</p>	<p>Similar to Alternative 1.</p> <p>14 sites</p> <p>No impacts. Slightly less potential for view impacts than Alternatives 1, 2 or 3 due to lower height limits in property.</p> <p>No impacts. However, similar to Alternative 1 in potential for impairment of Space Needle and Olympic Mountains views. Generally, less potential for impacts than Alternatives 1, 2 or 3.</p> <p>No impacts. However, the potential for impacts on views to landmarks is roughly similar</p>

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
<p>contribute to their diminished prominence in the urban setting. Examples include the Camlin Hotel, Rainier Club & Terminal Sales Bldg.</p> <p>Skyline Views</p> <p>Kerry Park: Future development in the Denny Triangle vicinity would further obscure views toward Cascade foothills to the southeast (already partially blocked by existing development).</p> <p>Belvedere Viewpoint: Future development in the Denny Triangle would fill in a portion of the skyline and further obscure views toward Cascade Mountains in the background of views from the Belvedere (W. Seattle) viewpoint.</p> <p>Other skyline views: Changes in skyline views would be most apparent in views from the east, from Pike-Pine and Capitol Hill areas, and views from the north.</p> <p>Scenic Routes</p> <p>Changes in views from scenic routes would primarily involve changes in the skyline and greater presence of denser buildings in the middle ground and background. Routes most affected include: Westlake and Fairview Aves, I-5 southbound between Lakeview Blvd and Olive Way, Yesler Way, Dexter Avenue, and SR 99 southbound before Battery Street Tunnel.</p>	<p>group of landmark buildings would not be subject to influence of zone changes.</p> <p>Slightly less potential for impacts than Alternative 1 due to omission of some zone changes.</p> <p>Slightly less potential for impacts, due to lesser bulk and height in the 1st Avenue and Western Avenue vicinity.</p> <p>Somewhat less potential than Alternative 1 for skyline view impacts from the east and north due to omission of zone changes in the Denny Way vicinity.</p> <p>Slightly less potential for impacts due to omission of zone changes in the Denny Way and 1st Avenue and Western Avenue vicinities.</p>	<p>near Terminal Sales Building and 1st Avenue group, and lack of rezone adjacent to the Times Square Building.</p> <p>Slightly less potential for impacts than Alternative 1 due to different set of zone changes that maintains transitions.</p> <p>Slightly less potential for impacts than Alternatives 1 and 2.</p> <p>Somewhat less potential than Alternatives 1 or 2 for skyline view impacts due to omission of zone changes in portion of Denny Triangle.</p> <p>Slightly less potential for impacts due to different zone changes in the Denny Way and 1st Avenue and Western Avenue vicinities.</p>	<p>under any alternative.</p> <p>No impacts. Somewhat less potential for identified types of view impacts with future development.</p> <p>No impacts. Somewhat less potential for identified types of view impacts with future development.</p> <p>No impacts. However, existing opportunities for height increases would remain. Over time, future development will change the skyline in ways similar under any alternative.</p> <p>No impacts. Over time, future development will add building bulk in ways generally similar under any alternative.</p>

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
CLIMATE—SHADOWS AND WIND Impacts Shadows Taller buildings in all of Denny Triangle would add to shading of city streets. Taller buildings in 1 st /Western Ave. vicinity and edge of Belltown would add to shading of city streets. Additional shading of Downtown SEPA-identified parks not likely to occur due to zoning changes.	No zone changes in peripheral areas of Denny Triangle would result in somewhat less potential for shading of city streets than Alternative 1. No zone changes in 1 st Ave./ Western Ave. vicinity or edge of Belltown would avoid additional shading effects. Similar to Alternative 1.	Less intensive zoning in peripheral areas of Denny Triangle would result in less potential for shading of city streets than Alternatives 1 or 2. Less intensive zoning in edge of Belltown and 1 st Avenue/ Western Ave. vicinities would result in less potential for shading of city streets than Alternatives 1 or 2. Similar to Alternative 1.	No changes, but future developments under existing height/density limits could add to total extent of shading of city streets. No changes, but future developments under existing height/density limits could add to shading of city streets.
The possibility of higher building heights with future development near Denny Park at Denny Way creates slightly greater potential for shading impacts on the park. Wind Future new buildings in the office core and some peripheral areas would create the potential for additional wind effects near street level. However, interspersing of new buildings with existing buildings may help protect them from some wind exposure.	No zone changes near Denny Way would avoid additional shading effects on Denny Park. Nearly the same as Alternative 1.	Changes would not affect zoned height/density near Denny Way, thus avoiding additional shading effects on Denny Park. Slightly less potential for wind effects than Alternatives 1 or 2.	No changes relative to Downtown SEPA-identified parks, although future development closer to protected parks could possibly trigger the need to use SEPA protections. No changes Slightly less potential for wind effects than Alternatives 1, 2 or 3.
The additional bulk and distribution	Due to somewhat less height	Somewhat less potential for	Slightly less potential for wind

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
<p>of future development in the Denny Triangle may provide some additional buffering of winds from the north. However, the new buildings at the northern periphery would be exposed to those winds and their effects.</p> <p>ENERGY Impacts</p> <p>City Light predicts that a new substation serving Downtown needs to be energized by 2012. Growth rates studied in the EIS are comparable to City Light load growth projections.</p> <p>Factors that could accelerate growth in electrical loads include:</p> <ul style="list-style-type: none"> --higher-than-forecasted economic activity; --greater-than-expected high-density loads (such as "server hotels") --higher "system redundancy" needs. <p>Potential future development arising from higher zoned height/density limits in the Denny Triangle area east of 8th Avenue could result in capacity limitations more quickly than would otherwise occur, due to increased commercial loads. These limitations and needed improvements will be closely monitored and addressed in City Light's Capacity Plan in 2004.</p>	<p>and bulk of future buildings in the Denny Triangle and peripheral areas, potential wind effects would be somewhat less than for Alternative 1.</p> <p>Nearly the same as Alternative 1.</p> <p>Same as Alternative 1.</p> <p>Impacts approximately similar to Alternative 1, except slightly less-intensive zoning changes in portions of Denny Triangle east of 8th Avenue could reduce the worst case potential for electrical infrastructure impacts in that area.</p>	<p>wind effects than Alternatives 1 or 2.</p> <p>Nearly the same as Alternative 1.</p> <p>Same as Alternative 1.</p> <p>Impacts slightly less than Alternative 1 and 2. Alternative 3's greater residential emphasis in zoning of the portion of Denny Triangle east of 8th Avenue would reduce the magnitude of impacts on the electrical system compared to Alternatives 1 and 2.</p>	<p>effects than Alternatives 1, 2 or 3.</p> <p>Nearly the same as Alternative 1.</p> <p>Same as Alternative 1.</p> <p>Under Alternative 4 (existing zoning), impacts would be nearly the same as for Alternative 1. However, growth may spread over a few more properties in the Commercial Core, and overall commercial development capacity would approximately 25% less than Alternative 1 (and residential capacity 19% less).</p>

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
<p>There is considerable potential for additional growth in both Downtown and South Lake Union. However, due to the presence of separate distribution systems for these two areas, they would not compete for the same substation transformer or distribution capacity.</p>	<p>Similar to Alternative 1.</p>	<p>Similar to Alternative 1.</p>	<p>Similar to Alternative 1.</p>
<p>TRANSPORTATION Impacts</p> <p>Approximately 1.285 million person trips are projected to have an origin and/or destination in Downtown Seattle on an average weekday in year 2020, 58% greater than today's 815,000 person trips. This reflects the high-end growth forecast used in this EIS.</p>	<p>Same as Alternative 1.</p>	<p>Same as Alternative 1.</p>	<p>Same as Alternative 1.</p>
<p>For Alternative 1, volumes across all screenlines are projected to increase by 10.1% in the AM peak and 20.9% in the PM peak hour (year 2020).</p> <p>At Screenline 8 (NE Denny Triangle), eastbound PM peak hour traffic is projected to be approximately 8% greater than projected for the 2020 Baseline Condition (Alt. 4).</p>	<p>For Alternative 2, volumes across all screenlines are projected to increase by 9.3% in the AM peak and 19.7% in the PM peak hour.</p> <p>At Screenline 8, eastbound PM peak hour traffic is projected to be approximately 1.3% greater than the 2020 Baseline Condition (Alt. 4).</p>	<p>For Alternative 3, volumes across all screenlines are projected to increase by 10.1% in the AM peak and 20.4% in the PM peak hour.</p> <p>At Screenline 8, eastbound PM peak hour traffic is projected to be approximately 2.3% greater than the 2020 Baseline Condition (Alt. 4).</p>	<p>In 2020 Baseline Condition, volumes across all screenlines are projected to increase by 9.4% in the AM peak hour, and by 19.4% in the PM peak hour.</p> <p>At Screenline 8, eastbound PM peak hour traffic is projected to be approximately 41% greater than <u>existing conditions</u>.</p>
<p>At Screenline 8 (NE Denny Triangle), the predicted PM peak hour volume-to-capacity (v/c) ratio would reach 1.20 by 2020. A v/c ratio of 1.20 is the City's maximum arterial level of service standard.</p>	<p>Predicted v/c ratio of 1.13 by 2020, 0.07 less than predicted for Alternative 1.</p>	<p>Predicted v/c ratio of 1.12 by 2020, 0.08 less than predicted for Alternative 1.</p>	<p>Predicted v/c ratio of 1.11 by 2020, 0.09 less than predicted for Alternative 1.</p>

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
<p>Other screenlines' v/c ratios for the 2020 PM peak hour include: --approx. 0.80-0.84 in both directions on Avenues near Seneca St.; --approx. 0.90 for eastbound traffic near 9th Ave in Denny Triangle; --approx. 0.93 for eastbound traffic near 6th Ave in the Commercial Core.</p> <p>In the studied corridors of Denny Way, Stewart St., Olive Way and Howell St., 13 of 38 intersections in the AM peak hour are projected to experience operating conditions at LOS E or F.</p> <p>In the studied corridors, 19 of 38 intersections in the PM peak hour are projected to experience operating conditions at LOS E or worse.</p> <p>Travel Times: For the 2020 PM peak hour, westbound Stewart St. would be approximately 6 minutes slower than the 2020 Baseline Condition. However, travel times would be 3 minutes faster westbound on Denny Way and one minute faster eastbound on Olive Way.</p>	<p>Nearly the same as Alt. 1.</p> <p>Nearly the same as Alt. 1.</p> <p>Nearly the same as Alt. 1.</p> <p>In the studied corridors, 8 of 38 intersections in the AM peak hour are projected to experience operating conditions at LOS E or F.</p> <p>In the studied corridors, 19 of 38 intersections in the PM peak hour are projected to experience operating conditions at LOS E or worse.</p> <p>For the 2020 PM peak hour, westbound Stewart St. travel time would be slightly faster than the 2020 Baseline Condition. Travel times would also be 5 minutes faster westbound on Denny Way and 2 minutes faster eastbound on Olive Way.</p>	<p>Nearly the same as Alt. 1.</p> <p>Nearly the same as Alt. 1.</p> <p>Nearly the same as Alt. 1.</p> <p>In the studied corridors, 8 of 38 intersections in the AM peak hour are projected to experience operating conditions at LOS E or F.</p> <p>In the studied corridors, 22 of 38 intersections in the PM peak hour are projected to experience operating conditions at LOS E or worse.</p> <p>For the 2020 PM peak hour, westbound Stewart St. travel time would be approximately 3 minutes slower than the 2020 Baseline Condition. Also, travel times would be 3 minutes faster westbound Denny Way and approximately one minute slower eastbound on Olive Way.</p>	<p>Nearly the same as Alt. 1.</p> <p>Nearly the same as Alt. 1.</p> <p>Nearly the same as Alt. 1.</p> <p>In the studied corridors, 10 of 38 intersections in the AM peak hour are projected to experience operating conditions at LOS E or F. This would be 8 more than under existing conditions.</p> <p>In the studied corridors, 17 of 38 intersections in the PM peak hour are projected to experience operating conditions at LOS E or worse. This would be 12 more than under existing conditions.</p> <p>For the 2020 Baseline Condition PM peak hour, westbound Stewart Street travel time would be approximately 9 minutes slower than existing conditions. Also, travel times would be nearly 14 minutes slower westbound on Denny Way, and 2 minutes slower eastbound on Olive Way.</p>

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
<p>Transit Service:</p> <p>--North of Seneca Street screenline: Similar to the 2020 Baseline Condition (Alt. 4).</p> <p>--Olive/Stewart corridors: The cumulative amount of travel time spent by transit vehicles in these corridors would increase by 10% and 24% in the AM and PM peak hours, respectively.</p> <p>--Denny Way screenline: Similar (2% less) than the 2020 Baseline Condition (Alt. 4).</p> <p>Transit Layover: Slightly less impact than the 2020 Baseline Condition (Alt. 4). Potentially, 5 existing layover locations displaced.</p>	<p>-- North of Seneca Street screenline: Similar to the 2020 Baseline Condition (Alt. 4).</p> <p>--Olive/Stewart corridors: The cumulative amount of travel time spent by transit vehicles in these corridors would decrease by 1% and 15% in the AM and PM peak hours, respectively.</p> <p>--Denny Way screenline: Transit delay notably greater (21%) than the 2020 Baseline Condition (Alt. 4).</p> <p>Slightly less impact than the 2020 Baseline Condition (Alt. 4). Potentially, 5 existing layover locations displaced</p>	<p>-- North of Seneca Street screenline: Similar to the 2020 Baseline Condition (Alt. 4).</p> <p>--Olive/Stewart corridors: The cumulative amount of travel time spent by transit vehicles in these corridors would decrease by 4% in the AM peak but increase by 25% in the PM peak hours.</p> <p>--Denny Way screenline: Sum of AM and PM peak hour transit delay approximately the same as Baseline Condition. However, this occurs with a 28% (18-minute) improvement in the AM peak hour and 18% (20-minute) degradation, compared to the 2020 Baseline Condition (Alt. 4).</p> <p>Similar impact to the 2020 Baseline Condition (Alt. 4). Potentially, 10 existing layover locations displaced.</p>	<p>-- North of Seneca Street screenline: Nearly the same level of delay in the AM peak hour as existing conditions. Modest increase in transit delay could occur, on 2nd, 3rd and 4th Avenues.</p> <p>--Olive/Stewart corridors: The cumulative transit travel time in these corridors would increase by 40% in the AM peak and 45% in the PM peak hour, compared to <u>existing conditions</u>.</p> <p>--Denny Way screenline: Total minutes of transit delay projected to increase by 34 minutes (115%) in the AM peak hour and 68 minutes (168%) in the PM peak hour, compared to <u>existing conditions</u>.</p> <p>Worst-case transit layover impact: future development by 2020 could displace 10 existing Metro layover locations.</p>

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
<p>Queuing (lane back-up) problems are predicted at several locations, mostly similar to the 2020 Baseline Condition. However, fewer queuing impacts on Olive Way for the eastbound PM peak, compared to the 2020 Baseline.</p> <p>PARKING Impacts</p> <p>Future residential and employment growth would increase overall parking demand, for approximately 19,500 to 23,750 spaces, depending upon the amount of commuters that choose to use transit rather than automobiles.</p> <p>An estimated supply of approximately 17,005 off-street parking spaces would be provided with future development.</p> <p>Approximately 7,137 existing off-street parking spaces would be displaced by development through 2020, largely in the Denny Triangle and edge of Belltown.</p> <p>Competition for on-street parking spaces would likely increase, especially in the areas of concentrated future development.</p> <p>WATER UTILITY Impacts</p> <p>An additional 6.3 to 7.1 million gallons per day of water demand if full buildout was achieved, a 24-</p>	<p>PM peak hour impacts would be generally similar to the Baseline Condition, but with fewer queuing impacts on Olive Way than Alternative 1 or the Baseline Condition.</p> <p>Nearly the same as Alternative 1.</p> <p>Nearly the same as Alternative 1.</p> <p>Same as Alternative 1.</p> <p>Same as Alternative 1.</p> <p>An additional 5.7 to 6.4 million gallons per day of water demand if full buildout was</p>	<p>PM peak hour impacts would be generally similar to the Baseline Condition, except conditions would be slightly worse along Stewart Street and somewhat improved along Denny Way, Olive Way and Howell Street.</p> <p>Slightly less than Alternative 1.</p> <p>Slightly less than Alternative 1.</p> <p>Approximately 180 more spaces displaced than Alt. 1.</p> <p>Slightly more probable impact than Alternative 1.</p> <p>An additional 5.4 to 6.0 million gallons per day of water demand if full buildout was</p>	<p>Queuing problems for some traffic movements would occur at a greater majority of inter-sections along Stewart, Denny Way and Olive Way, compared to <u>existing conditions</u>.</p> <p>Slightly more than Alternative 1.</p> <p>Nearly the same as Alternative 1.</p> <p>Approximately 410 more spaces displaced than Alt. 1.</p> <p>Somewhat greater impact than Alternative 1.</p> <p>An additional 5.4 to 6.0 million gallons per day of water demand if full buildout was</p>

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
<p>25% increase over buildout of existing zoning. Less than 1 percent of total city water demand.</p> <p>No significant adverse infrastructure capacity impacts identified. Two existing minor deficiencies relating to fire flows can be corrected over time.</p> <p>The typical location of water meters within public rights-of-way makes accessibility and repair costly and difficult.</p>	<p>achieved, a 12-13% increase over buildout of existing zoning. Approximately 0.5 percent of total city water demand.</p> <p>Less potential for adverse impacts than Alternative 1.</p>	<p>achieved, a 6% increase over buildout of existing zoning. Approximately 0.25 percent of total city water demand.</p> <p>Less potential for adverse impacts than Alternative 1.</p>	<p>achieved.</p> <p>No impacts identified.</p>
<p>SEWER & STORMWATER UTILITIES</p> <p>Impacts</p> <p>Future development could occur in a denser manner and generate more total sanitary sewage volume than development under current zoning.</p>	<p>Same as Alternative 1</p>	<p>Same as Alternative 1.</p>	<p>Same as Alternative 1.</p>
<p>By 2020, peak sanitary sewage flows in the Denny Triangle would be approximately 3,750 gallons per minute.</p> <p>Better stormwater controls required with future development would reduce peak stormwater volumes, thus helping to avoid or minimize the risk of overflows during major storm events.</p> <p>No significant adverse sewer/ drainage infrastructure or capacity impacts identified.</p>	<p>Similar to Alt. 1, with slightly greater sewage volumes in the Denny Triangle.</p> <p>By 2020, peak sanitary sewage flows in the Denny Triangle would be approximately 3,822 gallons per minute, 1.5% greater than Alt. 1.</p> <p>Similar to Alt. 1.</p> <p>Similar to Alt. 1.</p>	<p>Similar to Alt. 1, with slightly greater sewage volumes in the Denny Triangle.</p> <p>By 2020, peak sanitary sewage flows in the Denny Triangle would be approximately 3,805 gallons per minute, 1.5% greater than Alt. 1.</p> <p>Similar to Alt. 1.</p> <p>Similar to Alt. 1.</p>	<p>Similar to Alt. 1, with slightly lesser sewage volumes in the Denny Triangle.</p> <p>By 2020, peak sanitary sewage flows in the Denny Triangle would be approximately 3,616 gallons per minute, 3.6% less than Alt. 1.</p> <p>Improvements will occur even under the No Action Alternative.</p> <p>No impacts identified.</p>

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative
Worst-case additional sewage volume from full buildout would represent approximately 0.75 percent of treatment plant annual average daily flow.	Worst-case additional sewage volume from full buildout would represent less than 0.5 percent of treatment plant annual average daily flow.	Worst-case additional sewage volume from full buildout would represent less than 0.2 percent of treatment plant annual average daily flow.	No additional impacts from this No Action Alternative.

Significant Unavoidable Adverse Impacts

Population and Employment

No significant unavoidable adverse impacts are identified for any of the alternatives. Over the long term, the alternatives could have differing impacts on the number and composition of Downtown households and Downtown employees, but none of these impacts are identified as significant unavoidable adverse impacts.

Housing

Under all alternatives, large public and private subsidies would be required to meet ambitious targets for housing preservation and production. If these subsidies are not available, some buildings currently providing affordable housing may be lost and other potential housing opportunities may not be created.

In spite of the number of programs currently available to assist households earning less than 30% MAI with housing, some households with employees in new Downtown Seattle office buildings and hotels would have difficulty finding affordable housing to meet their needs in King County. They would need to live in overcrowded conditions, pay more than 30% of their income for rent, or commute from lower-priced housing outside of King County. Those few households not able or willing to make these choices could potentially become homeless.

The TDC program would be eliminated under Alternative 1. The TDC program would no longer be available to projects in some portions of the Denny Triangle DOC2 zone under Alternatives 2 and 3.

Land Use

Under all alternatives, if forecasted development occurs, land uses in the study area would be significantly transformed by the increased density of residential and commercial development. This transformation is interpreted to be consistent with the City's Comprehensive Plan and neighborhood plans for the study area, and is not interpreted to be a significant unavoidable adverse impact.

Similar to existing conditions, some City of Seattle landmarks, some existing housing and some buildings containing human service uses might be demolished. This could occur under any of the alternatives, including the No Action Alternative, and is not interpreted to be a significant unavoidable adverse impact.

Urban Design: Height, Bulk and Scale

Additional height and bulk enabled by proposed zoning changes would add incrementally to the scale of development, resulting in greater differences from the development authorized by existing zoning. This increase in the scale and intensity of development would have the greatest impact in transition areas separating Downtown commercial zones from less intensive residential and mixed-use neighborhoods.

Urban Design: Streetscape and Pedestrian Amenity

Under all the alternatives, future development will reduce solar access to the pedestrian environment and increase the physical enclosure of the street level environment.

Urban Design: Parks and Open Space

Under all the alternatives, the per capita amount of public open space available for use by Downtown residents and employees will diminish.

Views and Aesthetics

Additional height and bulk enabled by proposed zoning changes would add incrementally to the potential future impairment or blockage of views from some areas, predominantly portions of the Capitol Hill (south of Denny Way), Pike/Pine and First Hill neighborhoods.

Climate—Shadows and Wind

None are identified.

Transportation

Without mitigation, future development through the year 2020 would generate additional traffic volumes and increase congestion in portions of Downtown, most notably in the Denny Triangle area. Much of this impact would occur with or without zoning changes. However, if Alternative 1 or Alternative 3 is implemented, congestion in the northeastern Denny Triangle could be approximately 5-10 percent worse than under the other alternatives, including the 2020 baseline condition (Alternative 4 - No Action). Under all the alternatives considered, additional congestion will likely increase overall travel times on Denny Way, Stewart Street and Olive Way, including transit travel time. Implementation of mitigation strategies, at the City's discretion, would likely improve overall transportation conditions, so that a portion of the impacts of traffic congestion could be avoided.

Parking

Additional development over the long term would contribute to increased commuter vehicle trips to and from the Downtown study area, and increased parking demand.

Energy

With implementation of recommended mitigation strategies, significant unavoidable adverse energy impacts are unlikely to occur.

Water Utility

None identified.

Sewer and Stormwater Utilities

None identified.

Mitigation Strategies

A range of possible mitigation strategies for key topics analyzed in this EIS is summarized below. Most of these mitigation strategies are not considered mandatory actions that must be taken if any of the alternatives are chosen. However, the City should consider implementing several strategies to avoid or reduce negative consequences that may occur over time with future development Downtown, as identified in this EIS.

Land Use

Residential Character. Rezones of some areas to promote residential uses could encourage the type of residential character envisioned in some of the Downtown neighborhood plans.

Human Services. A variety of measures are proposed that would encourage the retention of existing buildings currently housing human service agencies and the development of new space for human service agencies, including the development of a human services bonus or TDR program.

Historic Preservation. The City currently has a number of programs in place to help preserve City Landmarks. The City could take a number of measures to direct those resources in ways that would help protect the most threatened structures.

Housing

Funding for Low-Income Housing. The City could undertake a number of different measures to increase the amount of floor area that would be subject to the low-income housing bonus program, including increasing the maximum floor area limit, or applying the program to DMC zones.

Capacity for residential development. A number of changes to Downtown's zoning scheme are identified, to ensure that housing remains a viable component of development Downtown after twenty years.

Housing for larger households. Potential strategies are defined to encourage the development of housing for families with children and other larger households. These include: incentives for units with multiple bedrooms, design review guidelines focused on designing open spaces to meet the needs of families with children, and the development of Downtown facilities for children.

Urban Design

Height, Bulk and Scale. A variety of strategies for addressing bulk issues are identified, including: restrictions on alley vacations; better coordination between height and density limits to ensure desired building forms; density limits and/or additional bulk controls on residential use; special bulk controls in sensitive transition areas and/or areas where more residential character is desired; and provisions conditioning height increases to achieve desired development conditions.

Pedestrian and Streetscape Amenities. Strategies for improving pedestrian circulation and streetscape conditions are identified, especially for areas expected to experience substantial growth.

Parks and Open Space. Potential mitigation strategies include funding key open space improvements by: pooling open space contributions generated through requirements and incentives for individual projects; adding provisions to increase the participation of commercial and residential development in addressing increased demand for public open space; and providing public investments in open space with priorities placed on areas where substantial growth is anticipated.

Views and Aesthetics

Potential mitigation strategies range from:

- exempting the Downtown area and vicinity from consideration of view impacts as currently directed under SEPA; to
- preparing a comprehensive view protection strategy that would identify critical views and the protective measures to be employed.

Transportation and Parking

DEMAND REDUCTION STRATEGIES

Transportation Demand Management (TDM) Strategies. Continue and strengthen the use of TDM strategies. The City and other public agencies should continue to promote (and require as possible) greater implementation of TDM strategies, coordinated through worksites. The following TDM strategies should be promoted:

- Discounted transit passes (e.g., Flex Pass)
- Promotion of other alternative modes (walking, biking)
- Increased telecommuting
- Business use of vans
- Carsharing
- Preferential parking for carpools/vanpools
- Guaranteed ride home
- Enhanced computerized ridematching database and mapping services
- Parking cashout (discontinuing parking subsidies and providing incentives for alternative modes)
- Enhanced real-time transit information via Internet and on-street kiosks.
- FlexCar and residential-based bus pass incentives.

Transportation Management Association (TMA). The City should promote formation of a TMA by Downtown stakeholders to aid in future TDM planning activities.

Area-specific rezones. The City could pursue area-specific rezones to reduce trip generation.

MITIGATION FUNDING STRATEGIES

Transportation mitigation program for Downtown. The City should develop a comprehensive approach to defining transportation mitigation requirements for projects in Downtown or portions of Downtown. A transportation mitigation program could include defining a set of improvements to address significant adverse impacts, and a mechanism by which new development and redevelopment would contribute a fair share toward transportation system improvements. These improvements could address impacts to all mode choices, including roads, transit facilities, bicycle, pedestrian and ride-sharing programs. A transportation mitigation program could provide more certainty and clarity for Downtown property owners and developers, and greater certainty that significant transportation impacts would be remedied over the long term.

MOBILITY STRATEGIES

Define physical improvement options that would enhance the capacity of the transportation network. A comprehensive set of physical improvement options or specific improvement projects could be identified, and related to a transportation mitigation program. This could include previously-identified capital improvement projects, new capital improvements and/or changes (such as lane restriping or designation changes) that would make better use of existing rights-of-way. It could also

include projects needing additional right-of-way, such as adding travel lanes or turn lanes to streets, and/or pedestrian/bicycle-oriented improvements, transit facilities, and improvements such as grade-separation of selected intersections. Lane modifications could also include changes to better accommodate transit vehicles and reduce transit delay. The Transportation section of Chapter 3 discusses options for Stewart Street, Howell Street, Olive Way and Denny Way.

Curb lane management. Locate loading zones in alleys or on side streets, and locate access drives (preferably right-in and right-out only) on side streets rather than key arterials. Consider time-of-day restrictions on use of loading zones and pick-up/drop-off zones to avoid peak hour conflicts

Retiming traffic signals to optimize corridor traffic flow. This is a long-term operational strategy best implemented within the context of the entire Downtown street network, and on an ongoing periodic basis as actual changes in traffic volumes and patterns are experienced. More funding would allow more frequent updates to signal timing to better meet changing demands and travel patterns.

Funding for additional staffing of the City's Traffic Management Center. More funding would allow the City to increase staffing and better utilize the capabilities of its traffic management center, including providing quicker signal timing responses to incidents, special events or other fluctuations in day-to-day traffic flows.

PARKING STRATEGIES

Other possible mitigation strategies that could be pursued:

Financial mechanisms. Influence parking demand through financial mechanisms, such as taxes or other user fees.

Reduce parking requirements. Lower the minimum and maximum parking requirements in Downtown, to encourage transit and carpool modes and discourage single-occupant-vehicle commuting by employees.

Area-specific rezones. The City could reduce potential parking demand and trip generation through area-specific rezones.

Energy

To mitigate identified impacts, a combination of mitigation strategies should be selected from the following range of possible strategies, or other strategies not yet identified.

Implement recommendations of City Light's Capacity Plan: Complete City Light's Capacity Plan in 2004 and implement the recommendations that result from that Plan.

Strategically address high-energy-demanding uses: A combined land use and energy strategy could be developed to address impacts of new large loads or staged new large loads in the Downtown.

Incorporate LEED into the Downtown Density Bonus program: Incentives or requirements to use the LEED system's Green Building energy efficiency strategy could promote better energy conservation in future development. In response to the City Council's Resolution 30280, City staff have discussed integration of sustainable building incentives into the building permitting process, and integration of the LEED system into the Downtown density bonus system. The LEED system could be required for participation in the Downtown Density Bonus program as a mitigation strategy to help offset impacts on the electrical system.

A particular threshold of performance in the energy category could be established. Consistent with the City's own internal sustainable building policy, this requirement could be set as a minimum achievement in energy efficiency.

A minimum overall LEED performance could also be set in order to capture other benefits of the program, such as mitigating increased demands on water and wastewater infrastructure, reduction of stormwater impacts, and mitigation of global climate effects. If this was implemented, a development project would go through the certification process administered nationally by the US Green Building Council. A copy of the certification package could be submitted to the City to endorse the required participation in the program. Since LEED certification is not fulfilled until after construction, a strategy would be needed to handle projects that did not meet performance targets when built.

Incorporate LEED into Land Use Code, Design Review, or Building Code: Alternatively, the City could seek to incorporate elements of the LEED system into the Land Use Code, the design review guidelines, and potentially the Building Code. Measures and tools developed as part of LEED would be required or encouraged to be met before a project receives its land use approval. For example, the Downtown design guidelines could be amended to include guidelines on floorplate design, encouraging designs that would allow natural light to intrude to the center of buildings, potentially reducing the amount of lighting required during the day.

More efficient design of buildings' electrical systems: Developers could be required to design their buildings' electrical services so that their average monthly power factor is no less than 0.97. The present financial penalty for having a power factor below 0.97 could be increased to encourage installation of better equipment and/or power factor correction equipment.

Coordination with the building permit process: DPD and City Light will continue their efforts to work with developers during the pre-application process, before issuing building permits.

Water Utility

In response to an existing shortcoming of development regulations, a potential mitigation strategy is:

Implement code changes to require future development to locate water meters in on-site spaces, to improve accessibility and avoid needless utility maintenance work within public rights-of-way. This would also contribute to better metering of water use and greater cost-effectiveness in the City's utility operations.

CHAPTER TWO

DESCRIPTION OF ALTERNATIVES

Introduction

This EIS studies three alternatives for possible changes to height and density regulations within portions of the Downtown Urban Center, plus a No Action Alternative. These changes, if adopted, would influence the maximum height and size of future building projects allowed in the Commercial Core, Denny Triangle and an edge of Belltown. None of the alternatives have been chosen as a preferred alternative. Rather, this EIS is intended to analyze the impact implications of alternative courses of action, for the benefit of decisionmakers, agencies and interested citizens.

OVERALL OBJECTIVES

The following are general objectives of the alternatives studied in this EIS.

- Designate adequate zoned development capacity in the Downtown Urban Center to encourage long-term residential and commercial growth and economic development in a manner consistent with Downtown's position as the largest urban center in the metropolitan area.
- Define regulatory requirements that will encourage development consistent with the City's Comprehensive Plan and neighborhood plans, and will support Downtown's vibrant urban character. Make changes that will aid in realizing a mix of low, moderate and market rate affordable housing throughout Downtown, particularly in areas intended to be "residential enclaves."
- Study possible changes to height and density regulations in selected Commercial Core (particularly Office Core zones), Denny Triangle and Belltown portions of Downtown.
- Determine how to best accommodate growth while maintaining a functional transportation system, including the street network, transit, and non-motorized modes of travel. Similarly, determine how to best accommodate growth while maintaining the function and capacity of utility systems, including but not limited to electrical energy, water, sewer and stormdrain systems.
- Achieve a high quality urban environment that can accommodate high-density development while ensuring livability and enhancing Downtown's positive existing characteristics.

All of the Alternatives analyzed provide sufficient development capacity to accommodate the next 20 years of projected growth. The various actions proposed under any of the Alternatives are not expected to influence the amount of growth occurring in the affected area within this timeframe. The proposed changes may influence the distribution of growth within the study area and the character of development that accommodates it, and these conditions are analyzed in this EIS to help decisionmakers evaluate different approaches to managing the next 20 years of Downtown growth.

REGULATORY FRAMEWORK

The regulatory context of Downtown includes its Urban Center designation, the City's Comprehensive Plan (and relationship to State growth management requirements), neighborhood plans, land use policies, the Land Use Code and other procedural requirements such as master use permits and design review.

The City's **Comprehensive Plan**, "*Toward a Sustainable Seattle*," is a 20-year policy plan completed in 1994 that articulates a vision of how Seattle will grow. The Comprehensive Plan makes policy choices and provides a flexible framework for adapting to real conditions over time. The Comprehensive Plan emphasizes an "urban village" strategy seeking to promote and reinforce the pattern of residential and employment growth in larger urban centers and several smaller "urban village" neighborhood districts spread throughout the city. The Plan includes 20-year growth targets for the urban centers and villages. The Comprehensive Plan satisfies requirements of the State's Growth Management Act and fits within King County's framework of Countywide Planning Policies. The Urban Center designation for Downtown is part of the regional growth strategy outlined in the Countywide Planning Policies calling for the concentration of a significant share of the region's employment and housing growth within a limited number of urban centers linked together by high capacity transit. In addition, the City's Comprehensive Plan includes numerous **Land Use Policies** that help define the basis for the City's zoning and Land Use Code regulations.

Following adoption of the City's Comprehensive Plan, approximately 37 **neighborhood plans** were prepared through the Neighborhood Planning Office to address future conditions in subareas in and around urban centers and villages. Within Downtown, five neighborhood plans were prepared for Belltown, Denny Triangle, Commercial Core, Chinatown/International District, and Pioneer Square. Also, an overall plan addressing the entire Downtown Urban Center was prepared. The alternatives in this EIS include actions to implement recommendations included in these neighborhood plans.

The **Land Use Code** contains extensive land use and zoning regulations addressing the various zones within the City, including several distinct zones defined for Downtown. The Land Use Code defines numerous requirements for future development, such as setbacks, allowable heights and densities, and parking requirements to name a few. Applications for development are reviewed through the City's Master Use Permit (MUP) process, and often go through the "design review" process that provides for public input and City input on how a development is designed, with the intent of improving overall design quality.

Certain other land use regulatory concepts are defined within the Code, such as "transfer of development rights" (TDR), bonus features, and "transfer of development credits" (TDC). These are concepts that allow for some flexibility in the amount of development that can occur in different Downtown locations.

- ***TDRs*** allow transfer of unused portions of allowable density from one property to another. TDRs can help preserve desirable features such as landmark structures, affordable housing, and public open space that otherwise might be threatened by redevelopment.
- ***Bonus features*** allow additional height or density to be obtained if a developer provides features or amenities that have public benefit or offset impacts.
- ***TDC*** is a program that allows a developer to purchase development rights from rural lands in King County to gain additional density in portions of Downtown, to aid in preservation of rural land and accommodate more residential growth in Downtown.

Several sections in Chapter 3 and selected appendices further discuss the alternatives' relationship to plans and policies.

BACKGROUND

The proposal to consider changes to zoned height and density arises from neighborhood plans for the Denny Triangle and Commercial Core neighborhoods, as well as the overall urban center plan prepared by the Downtown Urban Center Planning Group (DUCPG). These plans contain visions, goals, policies and action recommendations to achieve the vision for future growth in the Downtown Urban Center. All

of the plans include objectives of promoting vibrant, diverse mixed-use neighborhoods containing housing for households of all income ranges, as well as objectives for open space, urban design character, transportation and other matters. These plans recommend changes to zoning and land use regulations to promote their objectives.

The Commercial Core, Denny Triangle and DUCPG plans all included proposals for increasing the capacity of the Downtown area, intended to accommodate further employment and residential growth, stimulate residential development and provide resources for affordable housing. To implement these proposals, major revisions to the incentive zoning Downtown were recommended, including an overhaul of the bonus and TDR programs to reprioritize their focus on achieving housing goals. In the Commercial Core Plan, interim height and density increases through a "super bonus" were also proposed to capture opportunities for increasing development density and the use of incentives during the economic boom underway at the time. Permanent height increases were also proposed to promote less bulky development and achieve other urban design objectives. The Denny Triangle Plan included recommendations for permanent height and density increases for all zones in that neighborhood.

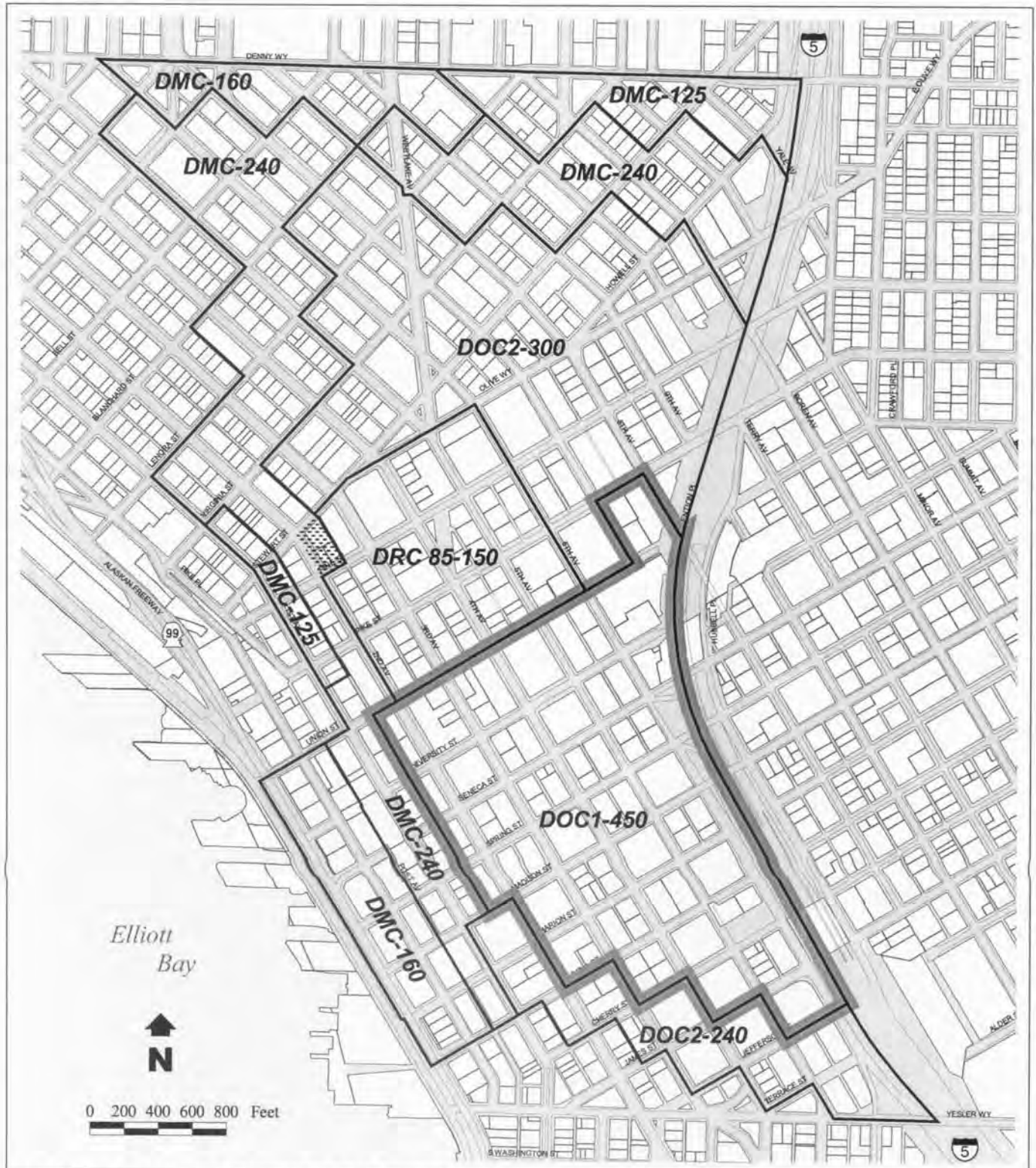
Immediately following the City Council's approval of the Downtown neighborhood plans in early 1999, a limited number of proposals were implemented through revisions to the Land Use Code, including:

- expanding the use of TDR to allow mixed-income structures including low- and low-moderate income housing to qualify as TDR sending sites;
- removing some density restrictions on residential use in the DOC 1 zone;
- rezoning portions of Pioneer Square and the northwest corner of the retail core to promote mixed use development; and
- amending the Pioneer Square Preservation District provisions to better promote neighborhood development objectives.

The locations where these changes apply are shown on Figure 2.

In November of 1999, the City enacted the Transfer of Development Credit (TDC) program in the Denny Triangle to allow height and density increases as an incentive for residential development. The TDC program allows up to a 30 percent increase above mapped height limits for residential and mixed-use projects that purchase conservation credits from rural properties in King County and contribute to an amenity credit fund for open space and Green Street improvements consistent with the Denny Triangle Neighborhood Plan. The program also establishes a partnership with King County for ongoing public investment in amenities in the area, in conjunction with the purchase of development credits by private developers. Also as part of the TDC legislation, an area of approximately 4.5 acres adjacent to the office core zoned Downtown Mixed Commercial 240 (DMC 240) was rezoned to Downtown Office Core 2 300' (DOC 2 300') to expand the office core and increase capacity for commercial development. Figure 3 shows the areas affected by these changes.

As part of the City's ongoing neighborhood plan implementation activities in 2000 and 2001, City staff met frequently with an advisory committee of Downtown stakeholders to discuss regulatory changes that would further support and foster the types of changes advocated by the neighborhood plans. As a result of this work, additional proposals for addressing height and density increases were recommended for further consideration. These proposals were documented in a report entitled, "City of Seattle TDR/Bonus Program Review Advisory Committee Recommendations," dated May 31, 2000.



CHANGES IMPLEMENTED FOLLOWING APPROVAL OF DUCPG PLAN February 1999

FIGURE 2

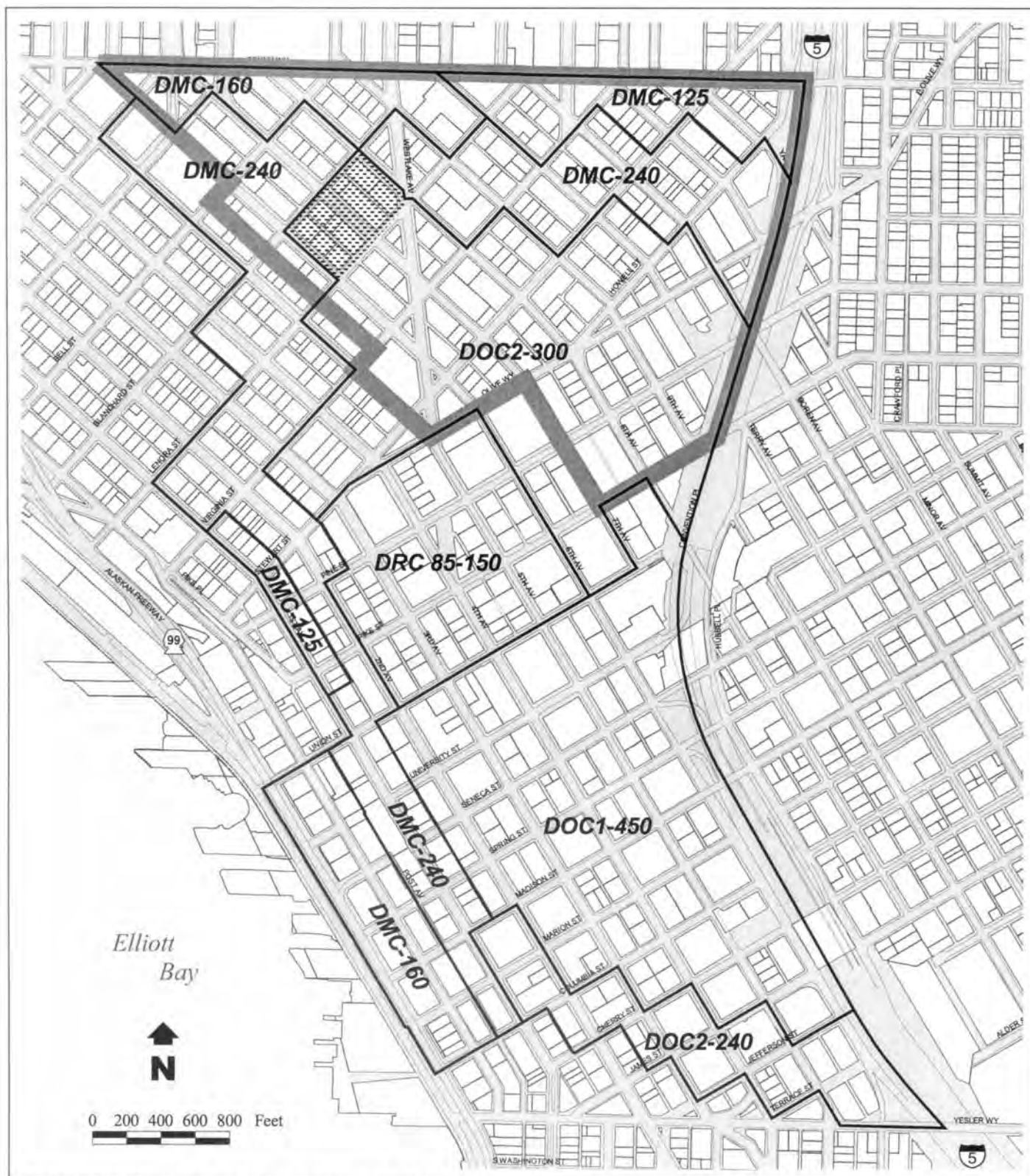
- Reduced Restrictions on Residential Density in DOC1
- Rezone Portion of Retail Core (DRC 85-150) to DMC-240

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City of Seattle
May 17, 2002

Note: Extend eligible TDR sending sites to include mixed income housing with units affordable to households with incomes up to 80% of median.

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**CHANGES IMPLEMENTED WITH ADOPTION OF
TRANSFER OF DEVELOPMENT CREDIT (TDC) PROGRAM
November 1999**

FIGURE 3

Strategic Planning Office
City of Seattle
May 17, 2002

- Denny Triangle TDC Area: 30% height increase above existing mapped limits (and additional 37.5' and 90' depending on zone) for mixed use and residential projects
- Rezone Area: Approximately 5.5 acres of DMC-240 rezoned to DOC2-300

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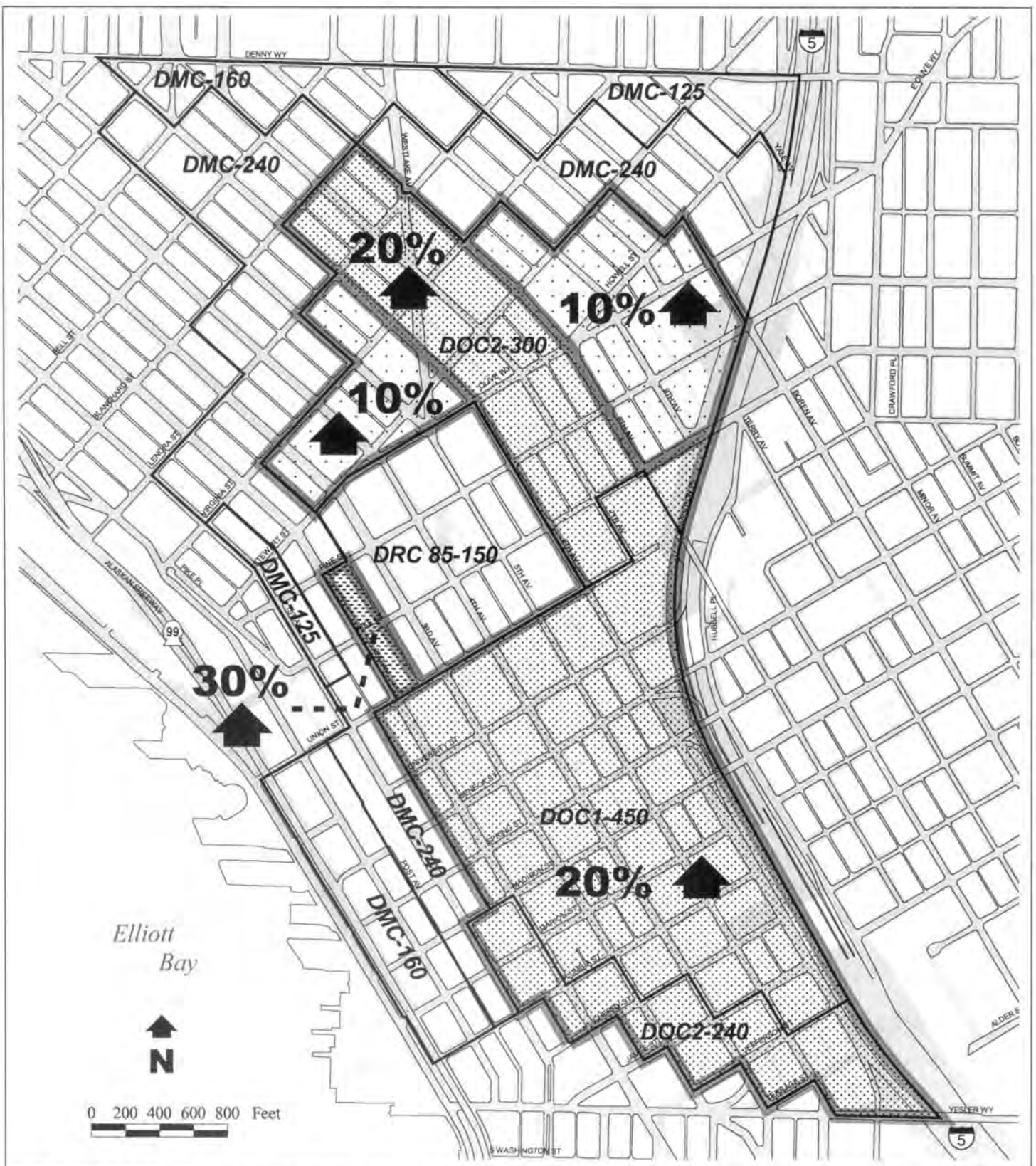
Upon reviewing the breadth of these requested changes, the decision was made to first pursue revisions to the bonus and TDR provisions of the Downtown incentive zoning, within the context of the existing maximum density limits. Because this set of changes did not substantively change the permitted density or location of future development, environmental review proceeded with expeditious review and issuance of a Determination of Non-Significance. In July 2001, the City Council adopted revisions to the bonus and TDR provisions, as well as: 1) related increases to the base FAR limits in the office core (DOC 1 and DOC 2) and retail core (DRC) zones; 2) allowances for increasing height by 10 or 20 percent, without any increase in permitted density, in specified areas of the DOC 1 and DOC 2 zones; and 3) limited adjustments to height and bonus provisions in the DRC retail core zone (see Figure 4).

Proposals for increasing maximum density limits and height limits are a second set of actions now proceeding through the SEPA process to assess potential adverse impacts on the Downtown area. On May 3^d, 2001, the Strategic Planning Office issued a Determination of Significance indicating that an environmental impact statement (EIS) will be prepared for this proposal. In preparation for this EIS, City staff examined the neighborhood plans and advisory committee recommendations, considered the input from interest groups and citizens during the EIS scoping process, and defined alternatives that cover a range of possible actions. One of these alternatives includes proposed regulatory changes that collectively represent the maximum extent (“high-end”) of changes requested by the neighborhood plans, as well as additional recommendations made by a citizen advisory committee convened to guide the development of proposals undertaken in the first phase. The other alternatives include a No Action Alternative, and two intermediate alternatives defining different options for height and density changes that could support the City’s and neighborhoods’ goals.

City staff conducted a “scoping” period for this EIS, to receive public comments about EIS study topics and definition of alternatives. Several citizens and groups submitted written and verbal comments during the scoping period. A formal scoping meeting was held on May 23rd, 2001, and a general forum summarizing Downtown planning activities was held on May 16th, 2001. These comments were considered in defining the alternatives and elements of the environment studied in this EIS.

Location of Proposal

The proposal affects portions of the Downtown area generally bounded by Denny Way, Interstate 5, Yesler Way, Alaskan Way, as well as Lenora Street and 5th Avenue in the Belltown vicinity (refer to Figure 1). The areas most affected by the proposal include the following zones: Downtown Office Core (DOC 1 and DOC 2), and Downtown Mixed Commercial (DMC). While the proposals are primarily focused on the Commercial Core and Denny Triangle neighborhoods, edges of the Belltown neighborhood zoned DMC 240’ and DOC 2 300’ are also included in the study area. No changes are proposed to the Downtown retail core (DRC) zone in any of the alternatives.



CHANGES IMPLEMENTED WITH ADOPTION OF REVISED BONUS/TDR PROVISIONS July 2001

- 10% Height Increase in Portions of DOC2-300
 - 20% Height Increase in DOC1 and Portions of DOC2
 - 30% Height Increase on Western Edge of Retail Core (DRC)
- Base density limit increased by 1.0 FAR in DOC1 and DOC2 and 0.5 FAR in DRC.

FIGURE 4

Strategic Planning Office
City of Seattle
May 20, 2002

Description of Alternatives

This EIS examines a total of four alternatives that cover a range of possible actions. Three of the alternatives consist of different sets of changes in allowable maximum height and density of development (measured by floor area) in several Downtown zones. Alternative 4—the “No Action” Alternative—is also included to assess what is likely to occur over time if no changes are made to the Land Use Code. This “baseline” alternative assumes that projected development will occur under the height and density limits that now apply (including July 2001 amendments) to accommodate changes to the bonus and TDR provisions that apply to zones in the study area. A summary and comparison of the alternatives is provided in Table 5 on page 2-23.

For all of the Alternatives, the same amount of residential and commercial growth is assumed to occur within the study area over the 20-year planning horizon. This amount, approximately 63,000 additional jobs and 7,350 additional residential units, represents a relatively high forecast of 20-year growth. Preliminary economic analysis indicated that this level of growth could be accommodated under existing zoning conditions, and that changes to zoning would not alter the demand for residential and commercial space generating the growth. Consequently, even though the actions proposed in different alternatives may add capacity for future growth, the actual demand for additional commercial space and residential units is expected to be the same for the 20-year study period. Therefore, the differences between alternatives are not in the overall amount of growth accommodated, but rather in how the same amount of growth may be accommodated differently in terms of the number, size, location and type of projects required.

ALTERNATIVE 1 – HIGH END HEIGHT AND DENSITY INCREASE

Overview

Alternative 1 is a composite of the initial recommendations for height and density increases included in Downtown neighborhood plans, supplemented by later recommendations from the Bonus/TDR Advisory Committee. As such, it represents the higher-end of possible changes to height and density, related to concepts from the Denny Triangle Neighborhood Plan (refer to Figure 2) and the Commercial Core Neighborhood Plan (refer to Figure 3), with the support of the DUCPG Downtown Urban Center Plan. It also includes recommendations from the TDR/Bonus Program Review Advisory Committee for consideration of additional changes (not from neighborhood plans) on the edges of Belltown and within the Commercial Core neighborhood (refer to Figure 4). The primary intent of proposals for increasing height and density limits is to: 1) provide sufficient zoned capacity to accommodate continued residential and employment growth Downtown, 2) stimulate housing production, and 3) provide resources to increase the supply of affordable housing.

Alternative 1 proposes the greatest magnitude of changes in height and density studied in this EIS, for areas including all of the Denny Triangle, most of the Commercial Core, and the southern and eastern edges of the Belltown neighborhood. Specific proposals from each of the sources of Alternative 1 are presented below. For the purposes of EIS analysis, those recommendations calling for the highest increases to height and density limits in an area were incorporated in this alternative.

Commercial Core. Both the Commercial Core Neighborhood Plan and the DUCPG Downtown Urban Center Plan include a proposal for a “super bonus” that was intended to allow height and density increases during the peak of the last economic cycle as an incentive to stimulate housing production. As initially proposed, the super bonus concept would have applied on an interim basis in the DOC 1, DOC 2 and DMC 240 zones of the Commercial Core, allowing increases in the base and maximum floor area ratio (FAR) limits and a 30% height increase for projects including a specified housing incentive bonus package. Proposals for permanent changes to height controls in the Commercial Core Plan were limited

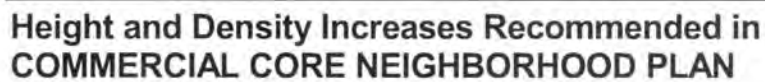
to increasing height limits by 20 to 25% in the DOC 1 and DOC 2 zones though a building height variance, while maintaining "current FAR provisions to control overall building bulk." This proposal was implemented as part of the legislation amending the Downtown bonus/TDR provisions adopted by Council in July 2001, and therefore is represented in Alternative 4: No Action. Proposals from the Commercial Core Neighborhood Plan are presented on Figure 5.

Denny Triangle. The Denny Triangle Neighborhood Plan calls for increasing height limits in all zones in that neighborhood by 100 feet. This Plan also includes proposals for specific increases to base and maximum FAR limits in the DOC 2 zone, with increases also to be considered in all DMC zones. The proposed increases were not linked to a super bonus and were intended to be permanent. The extent of the height increases, which in some areas represent an 80% increase above existing limits, and the intended purpose to increase capacity for both employment and residential development, would supplant the existing transfer of development credits (TDC) provisions, which only allow a 30% height increase and limit the incentive to residential and mixed-use developments. Proposals from the Denny Triangle Neighborhood Plan are presented on Figure 6.

Bonus/TDR Advisory Committee. The recommendations of the TDR/Bonus Program Review Advisory Committee included proposals for increasing height and density limits in the DOC 1, DOC 2 and DMC 240 zones, as called for in the Commercial Core "super bonus" proposal, but on a permanent rather than interim basis. Furthermore, increasing height and density limits was recommended throughout all DMC zones "consistent with requirements developed for other zones." The report, "Advisory Committee Recommendations," dated May 31, 2000 calls for consideration of the following increases to height and density limits:

- DOC 1 Zone: 2 FAR increase in base FAR and 3 FAR increase in Maximum FAR; 30% height increase.
- DOC 2 Zone: 2 FAR increase in base FAR and 3 FAR increase in Maximum FAR; 30% height increase (note: these are lower than recommendations in Denny Triangle Plan for DOC 2 zone in that neighborhood).
- DMC Zone: Consider increases in height and density throughout the DMC zones; for the area north of Union, not in Denny Triangle, consider mirroring TDC program features as the DMC zone is further considered for additional height/density consistent with requirements developed for other zones. (note: density increases not specified; does not address any changes to DMC zones in Denny Triangle).
- DRC Zone: 1 FAR increase in Base FAR; replace 85-foot height limits with 150-foot height limits; consider increase above 150 feet for housing only (up to 30% increase in height). (note: changes to height and density limits in the DRC Zone were implemented under previous legislation related to revisions to bonus/TDR bonus programs).
- DMR Zone: no change.

The location of these proposed changes are shown on Figure 7.

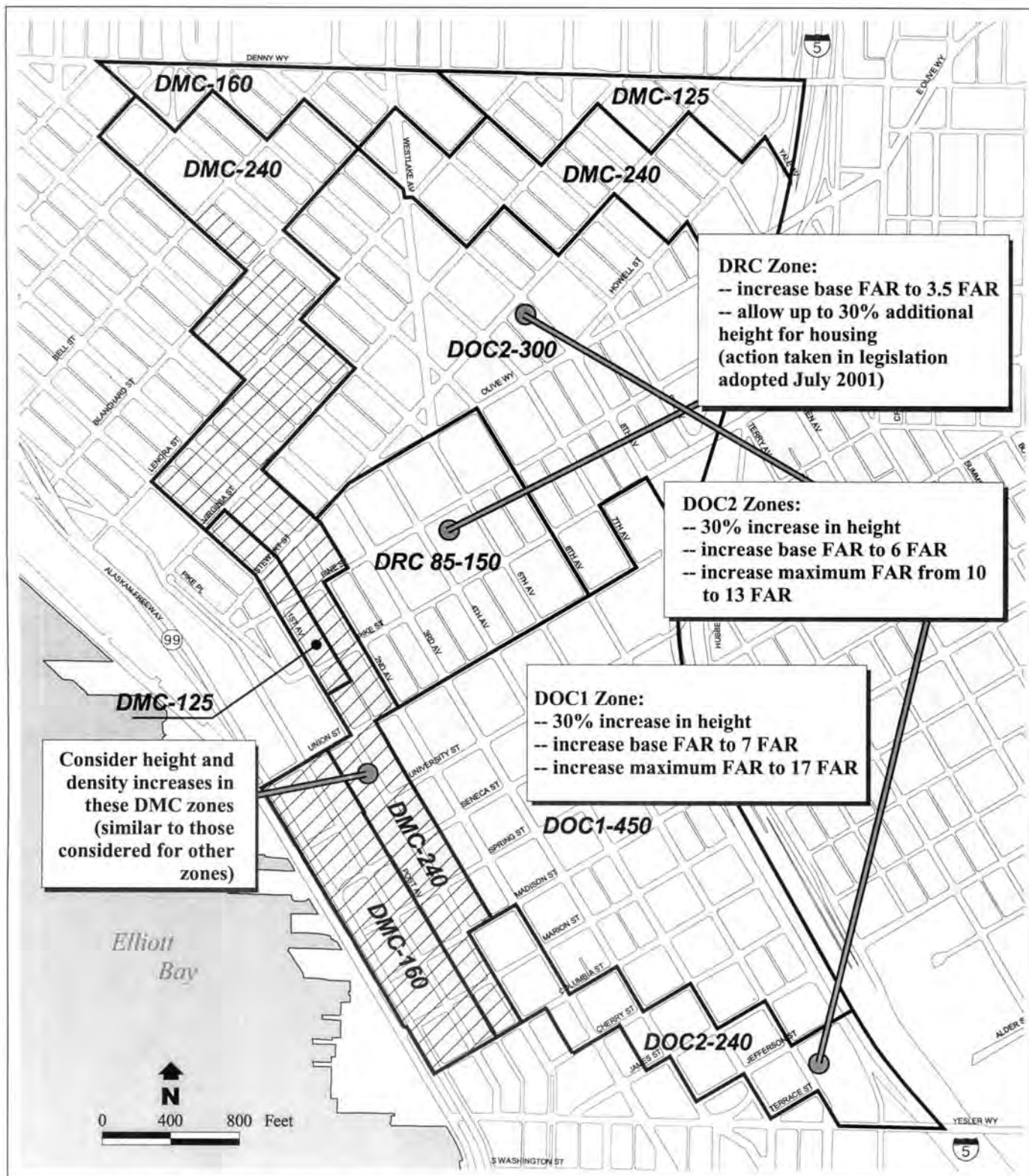


Strategic Planning Office
City of Seattle
May 20, 2002

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**Height and Density Increases Recommended
for Further Consideration by
BONUS/TDR ADVISORY COMMITTEE**

FIGURE 7

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City of Seattle
May 20, 2002

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Alternative 1 Height and Density Changes

The proposed height and density changes in Alternative 1 would add 72-135 feet and 3-4 FAR (floor area ratio¹) to the office core zones, and would also extend similar increases to DMC zones across the rest of the Denny Triangle neighborhood south of Denny Way (see Figure 8). Given the existing height limits of 125-240 feet of zones in this area, the proposed heights would represent an increase of 40-80% in allowable heights; the proposed increases of 3-4 FAR would represent an increase of 30-43% in allowable density.

Alternative 1 also includes a proposal for a 30% increase in height and 3 FAR increase in density (over the existing 7 FAR) for the Downtown Mixed Commercial (DMC) zones at the periphery of the office and retail cores. These areas include the southern edge of Belltown, the area east of the Pike Place Market, and the 1st Avenue and Western Avenue corridors. Existing height limits in these areas are 125 feet, 160 feet, and 240 feet.

Height: Within the affected area, maximum height limits would increase by:

- 135 feet in the central DOC 1 zone;
- 100 feet in all of the northern DOC 2 and DMC zones in the Denny Triangle;
- and 48 feet (30% increase) in the central DMC zones along 1st Avenue between Pike and Virginia Streets, and in the Western Avenue vicinity, respectively; and
- 72 feet (30% increase) in the southern DOC 2 zone, the DMC zone on the southern edge of Belltown and along 2nd Avenue on the western edge of the retail core, and the DMC zone along 1st Avenue between Union and Columbia, west of the central office core.

Density: The proposed density increases for this alternative would increase maximum FAR by 3 (additional floor area equal to three times the area of a given site) in most areas and by 4 in the Denny Triangle DOC 2 zone. Specific proposed density and height changes for the various zones are summarized on Table 2, below.

Bonus/TDR provisions. Under Alternative 1, all floor area above the new base FARs in the DOC 1, DOC 2 and DMC zones would be gained through bonuses and/or the transfer of development rights (TDR) according to a split that requires 75% of the additional floor area to be gained through affordable housing TDR, payment to an affordable housing/child care fund, and/or a bonus for providing affordable housing. The remaining 25% can be gained through other eligible bonuses or TDRs, including specified open space and on-site amenities, human services, open space TDR, variable scale TDR, and landmark TDR, within the limits and conditions prescribed in the Code. In the DMC zone, the current option to use the newly adopted bonuses and TDR provisions establishing the 25%/75% split, or to use the bonus options available prior to this amendment, would be eliminated. Also, the provision that now allows a wider range of bonus choices to be used to gain the first FAR above the base FAR in the DOC 1 and DOC 2 zones would be eliminated.

¹ Floor area ratio is a measure of allowable building density. On any given site, the FAR value multiplied by the site area is the total floor area allowed to be built. On a 10,000 square foot site, an FAR of 5 allows a 50,000 square foot building.



FIGURE 8

Alternative 1: High End Height and Density Increases (Downtown Neighborhood Plans and Advisory Committee Proposals)

1. EXISTING OFFICE CORE
 - increase maximum FAR from 14 to 17
 - increase height limit from 450' to 585'
2. OFFICE EXPANSION AREA/DENNY TRIANGLE
 - increase maximum FAR from 10 to 14
 - increase height limit from 300' to 400'
3. OFFICE EXPANSION AREA/SOUTH DOWNTOWN
 - increase maximum FAR from 10 to 13
 - increase height limit from 240' to 312'
4. COMMERCIAL MIXED USE AREA/DENNY TRIANGLE
 - increase maximum FAR from 7 to 10
 - increase height limits by 100' (125' to 225', 160' to 260', 240' to 340')
5. COMMERCIAL MIXED USE AREA/
SOUTH BELLTOWN AND COMMERCIAL CORE
 - increase maximum FAR from 7 to 10
 - increase height limits by 30% (125' to 165', 160' to 208', 240' to 312')

Faded text
No change from existing conditions



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SCALE IN 100 FEET

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Table 2
Alternative 1—High End Height and Density Increases

ID #	Location	Existing Zone	Maximum Density (FAR)		Maximum Height (feet)	
			Existing	Proposed	Existing	Proposed
1	Commercial Core <i>Advisory Committee Recommendation as permanent action; Comm. Core and DUCPG Plan recommendation as interim "super bonus" proposal</i>	DOC 1 – 450'	14	17	450 ft.	585 ft.
2	Denny Triangle—office expansion area <i>Denny Triangle Neighborhood Plan recommendations</i>	DOC 2 – 300'	10	14	300 ft.	400 ft.
3	Commercial Core—southern edge <i>Advisory Committee Recommendation as permanent action; Commercial Core and DUCPG Plan recommendation as interim "super bonus" proposal</i>	DOC 2 – 240'	10	13	240 ft.	312 ft.
4	Denny Triangle—mixed use area <i>Denny Triangle Neighborhood Plan recommendations</i>	DMC – 125' DMC – 160' DMC – 240'	7 7 7	10* 10* 10*	125 ft. 160 ft. 240 ft.	225 ft. 260 ft. 340 ft.
5	Commercial Core—1st and 2nd Avenue Corridor <i>Advisory Committee Recommendation as permanent action; Commercial Core and DUCPG Plan recommendation as interim "super bonus" proposal</i>	DMC – 240'	7	10	240	312 ft.
6	Commercial Core—western edge, Belltown—southern and eastern edges <i>TDR/Bonus Advisory Committee Recommendation</i>	DMC – 125' DMC – 160' DMC – 240'	7 7 7	10 10 10	125 ft. 160 ft. 240 ft.	165 ft. 208 ft. 312 ft.

* The Denny Triangle Plan does not include a specific proposal for increase to maximum FAR in DMC zones; 10 FAR represents an increase that is proportionally similar to what the Plan proposes for the DOC 2 Zone.
TDC=Transfer of Development Credits. DOC=Downtown Office Core. DMC=Downtown Mixed Commercial.

ALTERNATIVE 2 – CONCENTRATED OFFICE CORE

Overview

Alternative 2 would limit height and density changes to the existing office core zones, DOC 1 and 2. Zoning would not change in the DMC zones peripheral to the office core, where it is desirable to balance residential and employment growth and maintain a gradual transition between the concentrated development intensity in the office core zones and surrounding neighborhoods of Belltown, the Harborfront, Pike/Pine and South Lake Union (see Figure 9). Height increases through the TDC program would still be possible, to provide height incentives for mixed-use and residential development in the

DMC zones of the Denny Triangle. However, the 100-foot height increase in the Denny Triangle DOC 2 zone would displace TDC provisions for height increases in that zone.

Alternative 2's theme is that greater height and density for office/commercial development is most preferable in central core areas where Downtown zoning favors high concentrations of development and there is sufficient infrastructure to accommodate growth. Within the office core zones of the Commercial Core, the proposed changes in height and maximum density are the same as for Alternative 1. In the Denny Triangle, the maximum density in the DOC 2 zone would increase by 3 FAR rather than the 4 FAR increase proposed in Alternative 1. The concentrated office core theme is similar to concepts of urban growth expressed in past Downtown land use planning, emphasizing continued concentration of higher-density employment growth and redevelopment within the existing DOC 1 core, with limited expansion into adjacent DOC 2 areas, primarily in the Denny Triangle.

Alternative 2 Height and Density Changes

Height: Within the affected area, maximum heights would increase by:

- 135 feet in the central DOC 1 zone;
- 100 feet in the northern DOC 2 zone; and
- 72 feet (30% increase) in the southern DOC 2 zone.

Density: The proposed density increases for Alternative 2 would increase maximum FAR by 3. However, no density changes would occur in the DMC zones in the Denny Triangle, Commercial Core or Belltown edge. Specific proposed density and height changes are summarized in Table 3.

Table 3
Alternative 2—Concentrated Office Core

ID #	Location	Existing Zone	Maximum Density (FAR)		Maximum Height (feet)	
			Existing	Proposed	Existing	Proposed
1	Commercial Core	DOC 1 – 450'	14	17	450 ft.	585 ft.
2	Denny Triangle—office expansion area	DOC 2 – 300'	10	13	300 ft.*	400 ft.
3	Commercial Core—southern edge	DOC 2 – 240'	10	13	240 ft.	312 ft.
4	Denny Triangle—mixed use area and Belltown—southern edge	DMC – 125'	7	7	125 ft.*	No change
		DMC – 160'	7	7	160 ft.*	No change
		DMC – 240'	7	7	240 ft.*	No change
5	Commercial Core—western edge	DMC – 125'	7	7	125 ft.	No change
		DMC – 160'	7	7	160 ft.	No change
		DMC – 240'	7	7	240 ft.	No change

Notes: *Height increases up to 30% above mapped height are allowed in the Denny Triangle through the TDC program. TDC = Transfer of Development Credits. FAR = floor area ratio. DOC = Downtown Office Core. DMC = Downtown Mixed Commercial.



Bonus/TDR provisions. Under Alternative 2, no changes to current base FARs are proposed. All floor area above the base FAR would be gained through bonuses and/or transfer of development rights (TDR) according to a split that requires 75% of the additional floor area to be gained through affordable housing TDR, payment to an affordable housing/child care fund, and/or a bonus for providing affordable housing. The remaining 25% can be gained through other eligible bonuses or TDRs, including specified open space and on-site amenities, human services, open space TDR, variable scale TDR, and landmark TDR, within the limits and conditions prescribed in the Code. In the DMC zone, the current option to use the newly adopted bonuses and TDR provisions establishing the 25%/75% split, or to use the bonus options available prior to this amendment, would be eliminated. Also, the provision that now allows a wider range of bonus choices to be used to gain the first FAR above the base FAR in the DOC 1 and DOC 2 zones would also be eliminated.

ALTERNATIVE 3 – RESIDENTIAL EMPHASIS

Overview

Alternative 3 places a greater emphasis on regulatory changes tailored to specific areas to help encourage provision of housing. This alternative's theme supports increased height and densities in the office core zones, but with transitions in development intensity provided by sub-areas of variable height and density limits in the DOC 2 zones in Belltown and the eastern portion of the Denny Triangle. While the TDC program would be displaced for a portion of the DOC 2 zone in the Denny Triangle allowing the greatest increase in commercial density, the program would continue to provide height incentives limited to housing and mixed use projects in other DOC 2 and DMC areas of the Denny Triangle (see Figure 10).

In Downtown areas peripheral to the office and retail core, maximum commercial densities would not increase, but would be reduced in some areas by rezoning to designations that promote residential development and limit commercial development. In addition to increasing residential capacity, the intent of regulatory changes in these peripheral areas is to provide zoning that will: 1) ensure a concentration of housing consistent with neighborhood plan objectives for creating "enclaves" of residential development in the north central portion of the Denny Triangle, 2) increase the emphasis on housing and promote a more compatible residential scale of development along the southern edge of Belltown to extend the predominantly residential character emerging throughout the rest of the neighborhood, and 3) encourage mixed uses by requiring housing in projects developed to maximum commercial density limits in other DMC zones within the study area. The latter objective would occur by making non-residential density (above the base density) contingent upon providing on-site housing.

Alternative 3 Height and Density Changes

Height: Within the affected area, maximum heights would increase by:

- 135 feet in the central DOC 1 zone;
- 100 feet in the portion of the DOC 2 zone in between 8th Avenue and 5th/6th Avenues; and
- 72 feet (30% increase) in the southern DOC 2 zone;

Density: In the DOC 1 and approximately half of the Denny Triangle DOC 2 zone, the maximum density would increase by 3 FAR. In other portions of the DOC 2 zone, the maximum density would remain unchanged. Densities in DMC zones would not change, but portions of the DMC zone in north central Denny Triangle and the southern edge of Belltown would be rezoned from DMC to Downtown Mixed Residential/Commercial (DMR/C). With this zone, the maximum density would decrease from 7 to 4 or 5. This is summarized in Table 4.

Table 4
Alternative 3—Residential Emphasis

ID	Location	Existing Zone (zone change in bold)	Maximum Density (FAR)		Maximum Height (feet)	
			Existing	Proposed	Existing	Proposed
1	Commercial core	DOC 1 – 450'	14	17	450 ft.	585 ft.
2a	Denny Triangle—office expansion, 5 th to 8 th	DOC 2 – 300'	10	13	300 ft.*	400 ft.
2b	Denny Triangle —office expansion, between 8 th and Boren	DOC 2 – 300'	10	10	300 ft.*	300 ft.*
	Belltown, office expansion, between 3 rd & 5 th and Olive and Virginia	DOC 2 – 300'	10	10	300 ft.	300 ft.
3	Commercial core—southern edge	DOC 2 – 240'	10	13	240 ft.	312 ft.
4a	Denny Triangle—mixed use area, roughly between Westlake, Howell, and Minor	DMC → DMR/C	7	4	125 ft.*	125 ft.*
		DMC → DMR/C	7	5	160 ft.*	160 ft.*
		DMC → DMR/C	7	5	240 ft.*	240 ft.*
5a	Belltown—southern edge	DMC → DMR/C	7	5	240 ft.*	240 ft.*
4b	Denny Triangle—mixed use areas west of Westlake, and near I-5	DMC – 125'	7	7**	125 ft.*	125 ft.*
		DMC – 160'	7	7**	160 ft.*	160 ft.*
		DMC – 240'	7	7**	240 ft.*	240 ft.*
5b	Commercial core—western edge	DMC – 125'	7	7**	125 ft.	125 ft.
		DMC – 160'	7	7**	160 ft.	160 ft.
		DMC – 240'	7	7**	240 ft.	240 ft.

Notes:

* Height increases up to 30% above mapped height are allowed in the Denny Triangle through TDC.

**Increases in non-residential density above base FAR would be contingent on including on-site housing.

FAR = floor area ratio. TDC = Transfer of Development Credits. DOC = Downtown Office Core.

DMC = Downtown Mixed Commercial. DMR/C = Downtown Mixed Residential/Commercial.

Bonus/TDR provisions. Under Alternative 3, current base FARs would remain for DOC 1 and DOC 2 zones and areas proposed to remain designated DMC. In DMC areas proposed for a DMR/C designation, the base FAR would be reduced from 5 to 1 or 2 FAR, depending on the height limit of the zone. In DOC 1 and DOC 2 zones, all floor area above the base FAR would be gained through bonuses and/or the transfer of development rights (TDR) according to a split requiring 75% of the additional floor area to be gained through affordable housing TDR, payment to an affordable housing/child care fund, and/or a bonus for providing affordable housing. The remaining 25% can be gained through other eligible bonuses or TDRs, including specified open space and on-site amenities, human services, open space TDR, variable scale TDR, and landmark TDR, within the limits and conditions prescribed in the Code. The provision that now allows a wider range of bonus choices to be used to gain the first FAR above the base FAR in the DOC 1 and DOC 2 zones would be eliminated. The DMC zone would continue to allow the option to use the newly adopted bonuses and TDR provisions establishing the 25%/75% split, or to use the bonus options available in this zone prior to this amendment. The DMR/C zone would have more options for gaining floor area above the base FAR, including gaining floor area according to the prescribed 25%/75% split, or through the use of available bonuses for on-site amenities and the full range of TDR choices.

ALTERNATIVE 4 – NO ACTION ALTERNATIVE

Overview

Under the No Action Alternative, the existing zoning and Land Use Code regulations would continue to apply for the foreseeable future. Projected economic growth would continue to generate demand for additional residential and nonresidential development in the City as well as the region. However, this alternative assumes no major changes would be made to further augment the zoned development capacity in the Denny Triangle or Commercial Core, or to increase or reduce the emphasis on particular uses beyond conditions established under current zoning. The general development pattern of a concentrated commercial core surrounded by less intensive mixed-use areas promoted under existing zoning would be maintained.

Current Height and Density Limits

The maximum allowable densities and mapped height limits would continue to apply, with the existing opportunities to gain additional height above these limits (see Figure 11). These include: 10% additional height in DOC 1 and DOC 2 zones when prescribed measures are taken to control the overall bulk of a project; 20% additional height in DOC 1 and some DOC 2 areas with bulk controls and open space provision, landmark preservation or small-scale structures on-site; and up to 30% additional height for residential and mixed-use development through participation in the TDC programs in the Denny Triangle.

Bonus/TDR provisions. Under Alternative 4, in DOC 1 and DOC 2 zones, there are two options for gaining floor area above the base FAR. One option allows additional floor area to be gained through bonuses and/or the transfer of development rights (TDR) according to a split that requires 75% of the additional floor area to be gained through affordable housing TDR, payment to an affordable housing/child care fund, and/or a bonus for providing affordable housing. The remaining 25% can be gained through other eligible bonuses or TDRs, including specified open space and on-site amenities, human services, open space TDR, variable scale TDR, and landmark TDR, within the limits and conditions prescribed in the Code. The other option allows a wider range of bonus choices to be used to gain the first FAR above the base FAR, with any additional floor area gains subject to the 25%/75% split.

In the DMC zone, developers have two choices for increasing floor area above the base FAR. The first is through the use the newly adopted bonuses and TDR provisions establishing the 25%/75% split. The other choice is to use the bonus options available prior to this amendment.

Table 5
Alternative 4—No Action

ID	Location	Zone	Maximum Density (FAR)	Maximum Height (feet)	
				Existing mapped limit	Optional height increases
1	Commercial core	DOC 1 – 450'	14	450 ft.	+20% w/bulk limits <u>and</u> open space, or landmark, small bldg. preservation.
2a	Denny Triangle—office expansion, 5 th to 8 th	DOC 2 – 300'	10	300 ft.	+20% as above, or +30% with TDC
2b	Denny Triangle—office expansion, transitioning east and west	DOC 2 – 300'	10	300 ft.	+10% with bulk limits, or +30% with TDC
	Belltown, office expansion, between 3 rd & 5th	DOC 2 – 300'	10	300 ft.	+10% with bulk limits
3	Commercial core—southern edge	DOC 2 – 240'	10	240 ft.	+20% w/bulk limits <u>and</u> open space or landmark, small bldg. preservation.
4	Denny Triangle—mixed use area	DMC – 125'	7	125 ft.	+30% with TDC
		DMC – 160'	7	160 ft.	+30% with TDC
		DMC – 240'	7	240 ft.	+30% with TDC
5	Commercial core—western edge	DMC – 125'	7	125 ft.	None
		DMC – 160'	7	160 ft.	None
		DMC – 240'	7	240 ft.	None
	Belltown—southern edge	DMC – 240'	7	240 ft.	None

Notes: Optional height/density increases are opportunities in the Land Use Code for additional height if certain conditions are met. FAR = floor area ratio. TDC = Transfer of Development Credits.

DOC = Downtown Office Core. DMC = Downtown Mixed Commercial.

Table 6
Comparison of Alternatives

Alternative 1-High End Height and Density Increases	Alternative 2 – Concentrated Office Core
<ul style="list-style-type: none"> • 135-foot height increase in DOC 1 and 100-foot increases in all Denny Triangle zones • 30% height increase in zones at edge of office and retail cores • 4 FAR maximum density increase in Denny Triangle DOC 2 zone and 3 FAR maximum density increase in other zones • 1 FAR increase in base FAR in DOC 1 zone and DOC 2 zones outside Denny Triangle; 2 FAR increase in base FAR in DMC zones and DOC 2 zone in Denny Triangle. • No TDC in Denny Triangle zones 	<ul style="list-style-type: none"> • 100 and 135-foot height increases to the DOC 1 and DOC 2 zones • 30% height increase only at southern edge of office core • 3 FAR maximum density increases in DOC 1 and DOC 2 zones • No increase in base FAR • No height or density changes in western or northern DMC zones at periphery of the office/retail core • TDC limited to DMC zones in Denny Triangle
Alternative 3 – Residential Emphasis	Alternative 4 – No Action
<ul style="list-style-type: none"> • 135-foot height increase in DOC 1 and 100-foot increase in Denny Triangle DOC 2 between 5th/6th and 8th Avenues, west to Blanchard St. • No other height increases • 3 FAR maximum density increase in DOC 1 and same DOC 2 area described above • No increases in base FAR • Rezone Denny Triangle mixed use area between Westlake, Howell and Minor Ave. from DMC to DMR/C, lowering density from 7 FAR to 5 and 4. This re-oriens the zoning to mixed residential development. • Rezone Belltown southern edge from DMC to DMR/C, lowering density from 7 FAR to 5. • In other Denny Triangle and Commercial Core DMC zones, require the development of <u>non</u>-residential density (above the base) to be contingent upon including on-site housing. • TDC remains in all Denny Triangle zones except portion of DOC 2 with height and density increases. 	<ul style="list-style-type: none"> • No changes in allowable height or density • Existing optional height increases would be available, through use of bulk limitations, use of TDC program, preservation of landmarks or small structures on-site, or provision of on-site open-space usable to public. • Optional height increases range from 10% to 30% above mapped height limits.

Source: SPO, 2002

Recent Regulatory Changes

In 2001, the City Council approved several changes to Downtown land use regulations, including changes to the system of obtaining bonuses, using transfer of development rights (TDR), options for obtaining additional height, and adjustments to base densities in some zones. This section summarizes these changes, for the information of the reader.

Downtown regulations continue to govern density in most zones by establishing a base and maximum floor area ratio (FAR), varying among the Downtown zones. The 2001 amendments fundamentally changed the system for increasing floor area above the base FAR and related development standards, including height provisions. The following is a summary of the major amendments:

PROVISIONS FOR HEIGHT INCREASES

An increase in height of up to 10% above current mapped height limits is allowed for occupied floor area in the Downtown Office Core 1 (DOC 1) and Downtown Office Core 2 (DOC 2) zones as a replacement for the sculptured building top bonus. A reduction in floor size for the upper portion of the structure is required to achieve a less bulky appearance, and the height increase does not permit increases in density beyond established maximum FAR limits. The 10% additional height allowed for unoccupied rooftop features is permitted above the 10% height gain.

A height increase of up to 20% in the DOC 1 zone and a limited portion of the DOC 2 zone is also now allowed to further promote less bulky development and to achieve enhanced conditions at the street level of tall structures. In addition to the reduction in floor size for the upper portion of the tower, special conditions are required at the street level, including the provision of open space, low-scale structures and/or preservation of a landmark structure on the development site.

CHANGES TO DENSITY LIMITS

Maximum FAR Limits. There were no increases to maximum FAR limits. In the DRC zone, the maximum FAR was reduced from 6 FAR to 5 FAR.

Base FAR Limits. Permitted base FARs were increased in the DOC 1 and DOC 2 zones by 1 FAR, and by 0.5 FAR in the DRC zone. These changes re-establish a graduated range of base FARs reflecting a land use pattern that focuses greatest density on the Downtown office core in the DOC 1 zone, with the next greatest density permitted in the DOC 2 zone. Increases in the base FAR also offset the elimination of floor area bonuses previously allowed for required features, such as sidewalk widening. In the DOC 1 and DOC 2 zones, the first FAR above the base FAR can still be gained by providing a variety of on-site amenities, such as street-level retail shopping uses, short-term parking, and public open space features.

CHANGE TO BONUS/TDR PROVISIONS

The original incentive provisions allowed incremental increases in floor area above the base FAR through the use of certain types of bonuses or by acquiring development rights from eligible properties that could be transferred to the development site (TDR). Under this system, use of housing bonuses and TDR from affordable housing structures was reserved for the uppermost increments needed to reach the maximum FAR.

Under the new provisions, the maximum FAR can be achieved in several ways, including:

- Transfer of development rights (TDR);
- Floor area bonuses when certain impacts of development are mitigated by voluntary agreements to provide or contribute to housing and child care (“facilities bonus”); or
- Floor area bonuses when certain impact-mitigating features are provided (“amenity bonuses”).

The bonus and TDR options have been re-prioritized under the amended provisions to focus on mitigation of housing impacts. In DOC-1 and DOC-2, seventy-five percent (75%) of any floor area above 1 FAR above the base FAR must be earned by TDR transferred from qualified housing sites or by facilities bonuses that involve mitigation of housing and child care impacts. Twenty-five percent of the floor area above 1 FAR above the base FAR must be earned from other (non-housing) development rights transfers or amenity bonuses, or both. Five percent (one-fifth of the 25%) must be achieved through TDR from Landmark structures when available. In DRC, the 75%-25% split would be applied to all chargeable floor area above the base FAR.

Some bonus features, including major performing arts theaters, sculptured building tops, and major retail stores, have been eliminated.

The first FAR above the base in DOC 1 and DOC 2 zones can be gained through by using amenity bonuses, including short-term parking and retail uses, or non-housing TDR. In DMC zones, floor area increases above the base FAR can be gained by using one of two options: a) the rules governing floor area in general and for gaining bonus floor area that applied prior to the amended provisions, or b) the newer bonus and exemption rules described above.

CHANGES TO TRANSFER OF DEVELOPMENT RIGHTS (TDR) OPTIONS

The use of TDR continues to allow the unused base density permitted on a site to be transferred to other sites within the same block or transferred between blocks from eligible sites in some areas of Downtown to other areas. Transfers continue to be permitted from sites developed with landmark structures and from sites with housing for households with incomes up to 80% of median income, provided a minimum amount of housing for households with incomes up to 50% of median income is included. The area where landmarks are eligible as TDR sending sites was expanded to include zones north of Virginia Street to Denny Way. Transfers are no longer permitted from Pioneer Square infill sites, from sites occupied by new housing or from new or existing performing arts facilities (except landmarks).

A new provision allows for the transfer of development rights from sites provided as Downtown public open spaces, subject to special conditions. All transfers are subject to limitations, some of them new (for example, in many areas a lower FAR is used to calculate floor area available to transfer from sending sites).

CHANGES TO RETAIL CORE PROVISIONS

The use of specific bonus features and conditional use approval is no longer required for structures to exceed the 85-foot base height up to the maximum height of 150 feet. Certain types of mixed-use development that include residential use or a minimum amount of retail and/or entertainment uses are permitted up to the maximum height of 150 feet without additional conditions. In addition, up to 30% more height is permitted on two half-blocks along the western edge of the retail core on the east side of 2nd Avenue between Pine and Union Streets.

CHAPTER THREE

AFFECTED ENVIRONMENT, IMPACTS AND MITIGATION MEASURES

POPULATION AND EMPLOYMENT

AFFECTED ENVIRONMENT

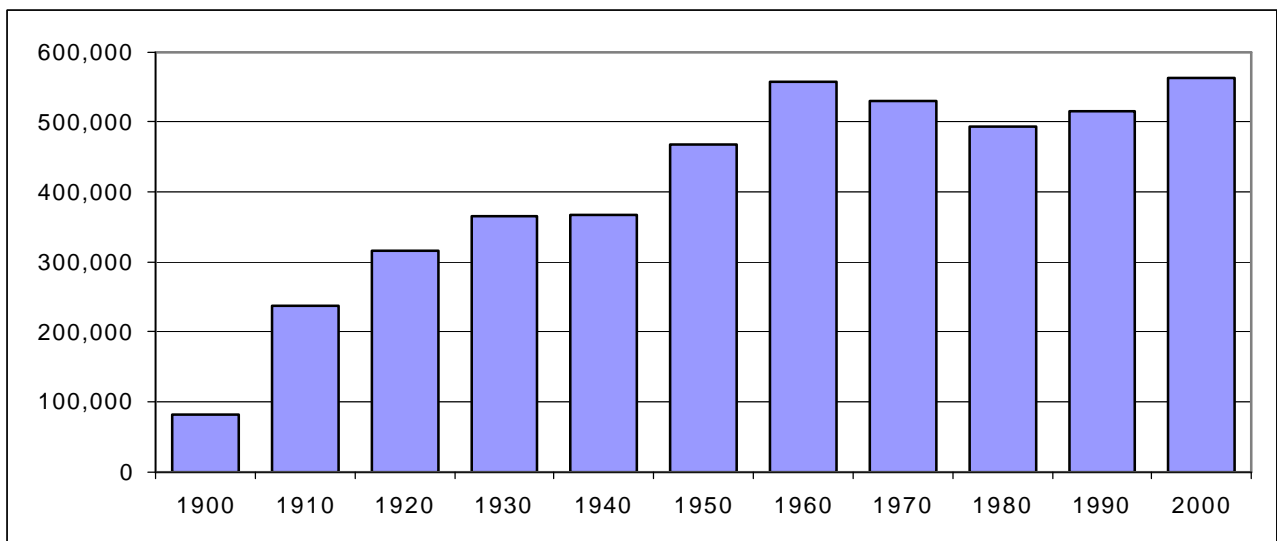
This section summarizes population and employment data gathered and analyzed for this EIS. See Appendix A for additional detailed information gathered from the U.S. Census and other sources.

Population

POPULATION GROWTH

In 2000, Seattle's population hit an all-time high. According to the U.S. Census Bureau, Seattle's population grew by approximately 9% during the 1990s to 563,374 residents (see Figure 12). This rate of growth was twice that of the 1980s. The growth between 1980 and 2000 reversed population declines in the 1960s and 1970s.

Figure 12
City of Seattle's Population 1900-2000



Sources: 1900-1990: U.S. Census Bureau online <http://www.census.gov/population/www/documentation/twps0027.html>, various tables 2000: U.S. Census Bureau, 2001, Census 2000 Table DP-1

However, Seattle grew at a slower rate than King County and the State of Washington during both the 1980s and 1990s. During the 1990s, the County's total population increased by 15% to 1.7 million residents, and Washington's total population increased 21% to 5.9 million residents. Seattle's share of King County's population consequently declined in the 1990s, from 34% to 32%. This generally indicates continued suburbanization of growth in King County, outside the regional center of Seattle. However, strong Downtown residential growth helped counter this trend.

Seattle's increase in population is primarily due to immigration into the region. According to the United States Census 2000, 61% of Seattle's residents were not born in Washington State. According to the Washington State Office of Financial Management, 53% of residential growth in King County throughout the 1990s was a result of migration into the County, as opposed to natural growth resulting from births. Consequently, growth rates in Seattle are likely to be more influenced by economic factors and job growth than birth rates.¹

During the 1990s, the Downtown Urban Center was one of the fastest-growing areas in the city with a 65% increase in population over ten years to 20,088 residents. This level of growth was considerably greater than the minimal Downtown population growth during the 1980s. Increased growth in Downtown Seattle reflects the several different trends:

- more small households better suited to small multifamily units;
- changes in perceptions about living and building in Downtown neighborhoods;
- a booming economy bringing more people to the region and creating a larger segment of the population with higher paying jobs;
- greater interest in shorter commutes to/from work, due to increased congestion in the region;
- an evolving concentration of cultural amenities and entertainment in Downtown Seattle; and
- more limited opportunities for new housing growth in other Seattle neighborhoods.

Households

At 1.34 persons per household, the Downtown Urban Center's average household size is significantly smaller than the average for Seattle. However, Downtown's household size is growing. In 1990 the average Downtown household contained 1.26 persons. Based on trends from previous decades, some population forecasts had assumed that Seattle's average household size would shrink significantly. In fact, at 2.08 persons per household, the city's average household size remained close to the 1990 average of 2.09 persons per household.

The Downtown Urban Center is composed of five Urban Villages: Belltown, Chinatown-International District, Commercial Core, Denny Triangle and Pioneer Square. During the 1990s, Belltown experienced the greatest residential growth of any Downtown neighborhood – approximately two-thirds (2,641 new households) of the Downtown Urban Center's growth occurred there during the 1990s (Table 7). Another 27 percent (1,063 households) of Downtown's household growth occurred in the Commercial Core neighborhood, and the Chinatown/International District neighborhood received 15 percent of Downtown household growth. The Denny Triangle and Pioneer Square neighborhoods experienced lesser but notable increases in households, and the Denny Triangle saw a significant increase in the number of residents not in Group Quarters. All Downtown neighborhoods had percentage growth rates at least twice that of the city as a whole.

¹ Birth rates do drive population growth in some of Washington's rural counties.

Table 7
Downtown Urban Center Village Household and Population Change, 1990-2000

Downtown Urban Center Villages	1990 HHs	2000 HHs	% Change	1990 Pop.	2000 Pop.	% Change
Belletown	3,230	5,871	82%	4,131	8,504	106%
Denny Triangle	573	844	47%	732	1,605	119%
Commercial Core	1,314	2,377	81%	3,886	5,521	42%
Pioneer Square	603	755	25%	1,507	1,756	17%
Chinatown/International District	941	1,514	61%	2,053	2,702	32%
Downtown Urban Center	6,661	11,361	71%	12,309	20,088	63%
Seattle Total	236,702	258,499	9%	516,259	563,374	9%

Source: U.S. Census Bureau, City of Seattle, 2001 Note: HH = Household; Pop. = Population

DEMOGRAPHICS

According to the 2000 U.S. Census, the composition of Downtown's residential population differs from the city and region in a number of ways, but as it grows it is starting to look more like the citywide population.

Unlike the city as a whole and King County, there are more male than female residents of Downtown Seattle. This holds true throughout all age ranges, except for children and residents more than 65 years old. However, the share of the Downtown population that is female has grown from 33% in 1990 to 39% in 2000.

Downtown Seattle has larger proportion of minority residents than the city or region as a whole. Downtown's residents are more likely to be Asian, Black or American Indian and Alaskan Native than the city as a whole, King County, or the region.

Only 4% of Downtown Seattle's residents are children under 18 years old. Citywide, sixteen percent of the population is under 18 years old. However, in 1990 only 2% of Downtown's residents were children, indicating a comparatively large increase in the number of children living Downtown. At the same time, the share of Downtown residents who are over 65 years old has fallen from 19% to 13%. Overall, Downtown has a much higher percentage of residents between the ages of 25 and 64 than the city or region, with especially large shares of residents between the ages of 25 and 34, a group that had a similar share of the Downtown population in 1990. However, the 44 to 54 year old age group's share of the Downtown population grew the most over the last ten years. In 1990, this group represented 12% of the Downtown population. In 2000, 17% of Downtown residents were between 44 and 54 years old.

Households

Downtown's household composition is very different from the city and region as a whole. Almost three-quarters of all Downtown households are single persons living alone (down from 79% in 1990). Only 4% of Downtown households contain three or more people. This contributes to the average household size of 1.34 persons in Downtown. The city as a whole has a much greater proportion of households with three or more persons (25%), but even this is lower than the region's proportion (39%). The Denny Triangle has

the smallest households in Downtown Seattle with an average of 1.24 persons per household, while the Chinatown/International District and Pioneer Square villages have larger than average household sizes.

Given the large proportion of one-person households in Downtown, it is not surprising to see that “non-family” households (which include single-person households) are the predominant type of household in Downtown Seattle. Only 17% of Downtown’s households are family households, with one-or-more household members related by blood or marriage to the householder. On the other hand, most of the households in the region are family households. Family households make up two-thirds of the households in King, Kitsap, Pierce and Snohomish counties. They have grown from 14% of Downtown households in 1994, but their share Downtown remains much lower than the rest of the region.

Population Not in Households

A sizable portion of Downtown Seattle’s households are in “group quarters.” According to the Census Bureau, all people not in a household are living in group quarters. They classify group quarters as either institutional (correctional facilities, nursing homes, and mental hospitals) or non-institutional (college dormitories, military barracks, group homes, missions and shelters). One-quarter of the Downtown Urban Center’s population is in group quarters. The largest group quarters facility is the King County Jail located in the Commercial Core, with beds for 1,697 inmates, most in use. Other group quarters serving sizable populations include homeless shelters throughout Downtown, and senior housing and student housing buildings in Belltown.

Homeless people are a significant part of Downtown’s non-household population. Downtown Seattle has historically provided many of the homeless beds available in the region. A recent study of homeless shelter use by the Seattle/King County Coalition for the Homeless found 3,674 people sleeping in shelters in Seattle. That same night, 1,001 people were sleeping in shelters in other parts of King County. Because they have no fixed address, homeless populations are difficult to count. The most recent count of homeless residents in Seattle, performed by the Seattle/King County Homeless Coalition, found 2,040 homeless people sleeping outdoors in Seattle, in addition to the population in shelters.

Employment

EMPLOYMENT GROWTH

According to data from the Washington State Employment Security Department (ESD), total covered employment in Downtown in 2000 was approximately 174,528 jobs, of which two-thirds are located in the Commercial Core. As a dense office center, Downtown is a center of financial, insurance, real estate and services (FIRES) employment. These industries employ more workers than all other Downtown employment categories taken together. Downtown accommodates considerable government employment, the second most common employment category, in Federal, King County and Seattle City facilities, primarily in the south end of the Commercial Core. Retail employment is the third most common employment category, particularly in the Chinatown/International District.

Total non-agricultural covered employment in King County was approximately 1.16 million in 2001 (ESD, Puget Sound Regional Council [PSRC]). Downtown Seattle contains roughly 15% of the County’s employment, and 34% of the City’s employment. Approximately 21% of all FIRES jobs and 20% of government and education jobs in King County are located Downtown.

Seattle’s four other Urban Centers combined (Capitol Hill/First Hill, the University District, Uptown and Northgate) account for nearly 20% of the City’s employment. Fifty-four percent of Seattle’s employment is located in designated Urban Centers. Employment in Manufacturing/Industrial (M/I) Centers

(Duwamish and Ballard/Interbay) and Hub Urban Villages represented 16% and 9% of the city's employment, respectively.

Employment growth information from PSRC for 1980-2000 provides a longer-term perspective. Between 1980 and 2000, the city's net job growth was approximately 242,700 jobs (63% growth), including 71,000 additional jobs in Downtown (63% growth).² Net job growth in Downtown during the 1980s was over twice as much as during the 1990s (49,600 versus 21,400 jobs). Downtown gained a greater portion of the city's total employment during the 1980s. Through the 1990s Downtown maintained its share of approximately one-third of the jobs in Seattle. The financial/insurance/real estate/services sector was the leading employment category in terms of job growth in both Downtown Seattle and the city as a whole between 1980 and 2000, followed by the government/education and wholesale/trade/communications/utilities (WTCU) sectors.

INCOMES

Residents of Downtown Seattle generally have much lower incomes than Seattle or King County residents as a whole. According to the 2000 U.S. Census, the median annual earnings of Seattle residents in 1999 was \$40,929 for male full-time workers and \$35,134 for female full-time workers. The median household income Citywide was \$45,736. The median income for a male resident of Downtown Seattle was \$20,491; for females, the median was \$18,057, approximately half the citywide average. The median household income for all households downtown was \$22,816. Overall, more than sixty percent of Downtown's households had incomes in 1999 that were less than half the King County median income.

Downtown Seattle's distribution of household incomes reflects the large number of low-income housing units that have been available Downtown, and to a lesser extent, recently built high-end condominiums. The Downtown Urban Center has a disproportionately high share of the county's households earning less than \$25,000. In 1999, 53.4% of Seattle's households earned less than \$25,000, compared to 19.9% of King County's households. Downtown Seattle also has a higher portion of individuals in poverty: 32.3% of all Downtown residents were in poverty in 1999. According to the U.S. Census, in 1999, 8.4% of King County residents were in poverty.

Downtown has a lower share of households at almost all income levels over \$25,000. However, at the very highest income level, Downtown Seattle has a larger share of households. In 1999, Downtown Seattle had 470 households (4.1% of all households) that had incomes of more than \$200,000 in 1999. In comparison, 3.8% of King County households and 3.5% of Seattle households are in this income category. Approximately 70% of the Downtown households with incomes this high live in Belltown, with over 20% living in the Commercial Core.

A higher proportion of Seattle's and Downtown Seattle's residents are employed in Management, Professional, Sales and Office Occupations than in King County or Washington State as a whole. On the other hand, both Downtown Seattle and the City as a whole have lower than average shares of residents employed in Construction, Extraction and Maintenance, and Production, Transportation and Material Moving occupations.

² These data from PSRC use a different definition for Downtown, referring only to the portions of the Downtown Urban Center west of Interstate 5, and excluding the eastern half of the Chinatown/International District.

POPULATION AND EMPLOYMENT PROJECTIONS

Four different sources provide some indication of the amount of residential and employment growth that may occur in Downtown Seattle over the coming twenty years:

- projections from the Puget Sound Regional Council (PSRC);
- market studies by Economics Research Associates (ERA);
- targets from the City of Seattle's Comprehensive Plan; and
- recent growth trends (see Table 8).

All four of these sources predict the Downtown residential population will more than double over the next twenty years. Downtown employment, already strong, will continue to grow by as much as 50% over the next twenty years. Given these four data sources, this EIS analyzes the impacts of the highest reasonable amount of growth projected for the next twenty years. The ERA projection of residential and employment growth in the Downtown Urban Center over the ten years between 2000 and 2010 was used here as a basis for the twenty-year growth projection. For the purposes of this EIS, between 2000 and 2020, growth in Downtown Seattle is projected to equal 17,500 new households and 70,000 new jobs. In order to accommodate that growth, an additional 18,375 new housing units, and 17.5 million square feet of office space would need to be added to the Downtown Urban Center.

Because the ERA forecast was for the entire Downtown Urban Center, a portion of that development was assumed to be included within the study area, and a portion of the development was assumed to occur outside of the study area. It was assumed that 90% of the growth in commercial space would occur within the study area over the twenty-year period, consistent with the amount of capacity available in the study area and recent development trends. On the other hand, only 40% of Downtown's residential growth was expected to take place within the study area, given the attractiveness of Belltown, Pioneer Square and the Chinatown/International District areas for residential development.³

Table 8
Downtown Urban Center
Households, Population and Employment, 2000 and 2020

	2000	2020 Comprehensive Plan Targets		2020 PSRC Projections		Extended 2020 ERA Projection	
Households	11,361	26,061	129%	22,893	102%	28,861	154%
Population	20,088	40,080	100%	37,617	87%	46,338	131%
Employment	174,527	237,227	36%	224,564	23%	244,527	40%

Sources: U. S. Census Bureau, 2001; City of Seattle Strategic Planning Office, 2001; Puget Sound Regional Council, 2003; ERA, 2000

Comprehensive Plan Growth Targets

Seattle's 1994 Comprehensive Plan and the King County Countywide Planning Policies included twenty-year "growth targets" or projections for residential and employment growth in the Downtown Urban Center. In addition, "planning estimates" identified how growth might be divided within the Urban Center. These targets and estimates present levels of growth that balance growth in Downtown with growth in the rest of King County in pursuit of City and County growth management goals. The "Urban Center" is a County designation indicating an area expected to accommodate a large share of employment

³ In the last five years, 68% of all new Downtown units have been built outside of the study area. In addition, 68% of units in Downtown projects with issued building permits as of January 1, 2002 were located outside of the study area.

and housing growth over twenty years. The Comprehensive Plan's targets and estimates for 1994 to 2014 indicate an expected doubling of Downtown households during this period. The Belltown and Denny Triangle neighborhoods are projected to receive 68% of Downtown's *residential* growth through 2014. Over 80% of Downtown's *employment* growth over the same period is expected to occur in the Commercial Core and Denny Triangle neighborhoods (see Table 9).

Table 9
Downtown Urban Center Villages
Comprehensive Plan "Planning Estimates" 1994-2014

Downtown Urban Center Villages	Additional Households (HH)	% of Urban Center's HH growth	Additional Jobs	% of Urban Center's Job growth
Belltown	6,500	44%	4,500	7%
Chinatown/International District	1,300	9%	2,800	4%
Commercial Core	1,300	9%	27,000	43%
Denny Triangle	3,500	24%	23,600	38%
Pioneer Square	2,100	14%	4,800	8%
TOTAL	14,700	100%	62,700	100%

Source: City of Seattle, Comprehensive Plan, 2001

Puget Sound Regional Council Forecasts

The Puget Sound Regional Council (PSRC) has developed updated working forecasts of population, households and employment for the central Puget Sound region for the years 2010, 2020 and 2030. These projections are based on forecasts of regional economic trends. The PSRC uses a model to project future conditions based upon regional economic growth trends. The most recent forecasts were published in January 2003.

PSRC's model forecasts employment and residential growth in numerous subareas throughout the region. The Downtown area south of Denny Way is approximately the same as two of these subareas. The PSRC projects growth of 11,532 households between 2000 and 2020, or approximately 576 new households in Downtown per year. They project a population growth of 17,529 new residents in Downtown Seattle. Assuming a stable group quarters population of approximately 5,000 residents, this projection would result in a household size for new households of only 1.42 residents per household, up from the 1.34 residents per household currently residing Downtown, and continuing the growth in downtown household sizes. This projection is slightly lower than the Comprehensive Plan's twenty-year growth target for population growth.

The PSRC's employment projection is significantly lower than the Comprehensive Plan's projection. The PSRC has projected that Downtown Seattle would see growth of only 41,300 jobs during the period between 2000 and 2020. This twenty-year projected growth is compared to a growth of 71,000 jobs between 1980 and 2000 and a job growth of 28,500 jobs in the high growth six-year period of 1995-2001. PSRC's employment projection is a third lower than the Comprehensive Plan target.

Economic Research Associates Analysis

In the winter of 2000, the City hired Economic Research Associates (ERA) to perform a market study of the office, hotel and residential markets in Downtown Seattle. This study, written during an aggressive

growth period in the real estate market, predicted a ten-year demand for 6,000 additional apartment units and 3,200 additional condominiums in Downtown Seattle. Extending this projection over the twenty-year period studied by this EIS would result in 18,400 new units. Assuming a vacancy rate of 5 percent, an addition of 17,500 households to the Downtown population might be expected. Household sizes are expected to continue to remain small, but will likely continue to grow, so 1.5 persons per household may be an appropriate household size to determine the potential population of these units. Using this household size would result in 26,250 additional Downtown residents over twenty years.

ERA projected demand between 2000 and 2010 for an additional 6.83 million square feet of office space Downtown. This amount of space could accommodate new 30,356 jobs. Further, there would be demand for an additional 5,300 hotel rooms in the greater Downtown Seattle area over the ten years between 2000 and 2010.

Much of the growth in office development is expected to result from continuing growth of traditional finance, real estate, legal services and government tenants Downtown. In addition, growth in high-tech industries, including growth in the software and Internet-related industries in Downtown Seattle, was expected to help increase demand for Downtown Seattle office space. Most of the tenants in the new residential units are expected to be younger professionals, and older singles and couples. Growth in the software industry was seen as driving much of the demand for higher-end rental units.

Recent Development Trends and Residential Absorption

During the seven-year period from January 1995 through December 2002, 4,641 new dwelling units were built in the Downtown Urban Center – approximately 32% of the Comprehensive Plan's twenty-year residential growth target. The City had issued additional building permits for approximately 700 additional dwelling units. Belltown has been the most popular neighborhood for this residential growth, accommodating 59% of Downtown's growth. Rents in Downtown Seattle have been higher than those in the rest of the city, indicating tenants are willing to pay a premium to live Downtown. These and other data indicate a strong long-term residential growth trend in the Downtown Urban Center and other central urban areas of the city, emphasizing multifamily housing growth. If this level of growth were to be projected over twenty years, 15,470 additional housing units would be built, enough to house 14,695 households with a five-percent vacancy rate.

In the five years between 1996 and 2001, approximately 940,000 square feet of office space was absorbed annually in Downtown Seattle. At a standard ratio of 250 square feet per employee, this amount of office space could accommodate 3,760 new employees a year or 75,200 employees in twenty years. Over the twelve years between 1988 and 2001, the average amount of office space absorbed was 820,000 square feet a year. If this more modest rate of absorption were to occur, Downtown Seattle could accommodate approximately 65,600 new office jobs in twenty years.

IMPACTS

Alternative 1 – High End Height and Density Increase

EMPLOYMENT

Under Alternative 1, the total capacity for development on vacant and underutilized properties in the study area is 38.32 million square feet of commercial space. If all currently redevelopable sites in the Downtown Urban Center were to be built-out, there could be as many as 338,000 employees in Downtown Seattle. Based on the ten-year ERA employment projections, this commercial capacity could accommodate as much as 48 years worth of employment growth if commercial demand continued at the same pace. Under this alternative, the maximum potential employment density Downtown could reach 350 employees per acre across Downtown Seattle.

According to the recent study by Craig Kinzer & Company with Cushman and Wakefield and the Seneca Real Estate Group, changes to zoning, in and of themselves, do not change the supply and demand cycles. In other words, increasing commercial densities does not necessarily lead to more development occurring in Downtown Seattle. The number of employees Downtown will instead be driven by economic forces larger than the Downtown real estate market. Factors such as the regional and international growth of industries most likely to seek Downtown office space, interest rates, the availability of funding for new development projects, and the regional transportation network are more likely to influence the amount of new Downtown office development than zoning changes.

Zoning changes increasing height and density limits alone will not change the amount of employment attracted to Downtown Seattle, or the type of industries likely to locate or expand in Downtown Seattle. Consequently, implementing zone changes in Alternative 1 is not likely to change the amount or type of Downtown employment over twenty years. Depending on the forecast used, the number of new jobs in the Downtown Urban Center could range between 41,000 and 71,000. Twenty years worth of employment growth could be concentrated primarily in the existing Office Core zones, particularly on underdeveloped parcels in the Denny Triangle Downtown Office Core 2 zone. Potentially difficult development sites in the Downtown Office Core 1 zone (those sites with older, actively used structures, smaller sites, or other development challenges) might not be redeveloped in the twenty-year time frame. This alternative might result in a higher concentration of hotel employment Downtown, because of potentially larger hotels on each individual site, and the potential co-location of residential and hotel uses within the same building, leading to increases in the demand for hotel employment.

POPULATION

Under Alternative 1, the total capacity for residential development on vacant and underutilized properties in Downtown Seattle is 22,850 units. Assuming some vacancies, these units could house an additional 21,710 Downtown households. Based on the ERA household projections, this capacity could accommodate up to 26 years worth of residential demand. If all available residential capacity is used, there could be a maximum of 33,070 households in Downtown Seattle. Downtown Seattle's residential density could reach 35 households per acre.

According to a 2001 study by Keyser Marston Associates, Inc., population growth in most U.S. regions usually occurs as a result of job growth. While natural increase (more births than deaths) accounts for some growth, most long-term population growth in the Puget Sound region is a result of job growth – if there are jobs, people will move to the region, if there aren't jobs, people will leave. Under Alternative 1, the Downtown employment projected for the coming twenty years would lead to approximately 43,225

additional households in need of new housing in the region. These households would be formed by people new to the region, people leaving other jobs in the region, or the children of existing residents.

Extending the ERA forecast suggests that approximately 17,500 of these new households will seek housing in Downtown Seattle between 2000 and 2020, adding 21,900 new Downtown residents. Households that earn above 80% of the King County median area income for households (MAI) are expected to be able to afford privately financed housing. However, according to the Keyser Marston study, households earning less than 80% MAI may need public subsidies to be able to afford housing in Downtown Seattle. The Downtown Housing Bonus program, which uses partnerships between commercial developers and the City to leverage funding for permanent subsidized housing, could be a key source of funding for Downtown housing affordable to households earning less than 80% MAI. Table 10 shows the predicted household growth by income category. It assumes aggressive use of the Housing Bonus program and the ability to leverage money from that program to build additional units. It also assumes that the remaining households attracted to Downtown Seattle would earn above 80% MAI in order to be able to afford a market-rate housing unit in Downtown Seattle (for more discussion of this analysis, please see the Housing section and Appendix B).

Table 10
New Downtown Households by Income Group by Alternative, 2000-2020

	0-30% MAI	30-50% MAI	50-80% MAI	>80% MAI	Total
Alternative 1	400	1,160	780	15,160	17,500
Alternative 2	520	1,520	1,020	14,440	17,500
Alternative 3	450	1,310	880	14,860	17,500
Alternative 4	330	950	640	15,580	17,500

Source: City of Seattle Strategic Planning Office, 2002.

The vast majority of new households are expected to occupy market-rate housing. As market-rate housing units tend to be larger than subsidized units, and can therefore accommodate larger households, an increase in the number of two-person households living Downtown would be likely. Households with more than two persons are less likely to find housing that meets their needs Downtown. Consequently, the average Downtown household size may grow slightly between 2000 and 2020 as it did between 1990 and 2000.

Alternative 2 – Concentrated Office Core

EMPLOYMENT

Under Alternative 2, the total capacity for development on vacant and underutilized properties in the study area is 33.70 million square feet of commercial space. If all currently redevelopable sites in the Downtown Urban Center were to be built-out, there could be as many as 319,000 employees in Downtown Seattle, or 19,000 fewer employees than under Alternative 1. Based on an extension of the ERA employment projections, this commercial capacity could accommodate as much as 42 years worth of employment growth, or six fewer years than under Alternative 1. The maximum commercial density across Downtown Seattle could reach 335 jobs per acre. However, over the next twenty years both Alternative 1 and Alternative 2 are expected to result in the same number of Downtown employees. Under this zoning scheme, there would be enough developable land to accommodate projected employment over the period between 2000 and 2020.

POPULATION

Under Alternative 2, the maximum potential capacity for residential development on vacant and underutilized properties in Downtown Seattle is 24,800 units. Assuming a standard vacancy rate, these units could house an additional 23,620 Downtown households. Based on the ERA 10-year projections of residential demand, this capacity could accommodate up to 27 years worth of residential demand. If all available residential capacity is used, there could be a maximum of 35,000 households in Downtown Seattle, or 37 households per acre.

Under any of the alternatives, the employment projected for the coming twenty years Downtown would lead to an additional 43,225 households in need of new housing in the region. ERA has forecast that 17,500 of these new households will seek housing in Downtown Seattle between 2000 and 2020, adding 21,900 new Downtown residents. Households that earn above 80% of MAI are expected to be able to afford privately financed housing. However, households earning less than 80% of MAI may need public subsidies to be able to afford housing in Downtown Seattle. Funding would be available to house approximately 3,060 households earning less than 80% of MAI or 30% more households than under Alternative 1 (Table 10, above).

Alternative 3 – Residential Emphasis

EMPLOYMENT

Under Alternative 3, the total capacity for development on vacant and underutilized properties in the study area is 30.5 million square feet of commercial space. If all currently redevelopable sites in the Urban Center were to be built-out, there could be as many as 305,000 employees in Downtown Seattle, or 33,000 fewer employees than under Alternative 1. Based on an extension of the ERA employment projections, this commercial capacity could accommodate 38 years worth of employment growth, or ten fewer years than under Alternative 1. The maximum commercial density in Downtown Seattle could reach 325 jobs per acre. However, over the next twenty years, Alternatives 1 and 3 are expected to result in the same number of Downtown employees. Under this zoning scheme, there is enough developable land to accommodate projected employment over the period between 2000 and 2020.

POPULATION

Under Alternative 3, the maximum potential capacity for residential development on vacant and underutilized properties in Downtown Seattle is 27,440 units. These units could house an additional 26,070 Downtown households. Based on the ERA 10-year projections of residential demand, this capacity could accommodate up to 30 years worth of residential demand. If all available residential capacity is used, there could be a maximum of 37,430 households in Downtown Seattle.

Under any of the alternatives, the employment projected for the coming twenty years Downtown would lead to an additional 43,225 households in need of new housing in the region. Of these new households, ERA has forecast that 17,500 will seek housing in Downtown Seattle between 2000 and 2020, adding 21,900 new Downtown residents. Households that earn above 80% of the King County median income (MAI) are expected to be able to afford privately financed housing. However, households earning less than 80% of MAI may need public subsidies to be able to afford housing in Downtown Seattle. Funding would be available to house 2,640 households earning less than 80% MAI, 12 percent more than under Alternative 1.

Alternative 4 – No Action

EMPLOYMENT

Under Alternative 4, the total capacity for development on vacant and underutilized properties is 28.65 million square feet of commercial space. If all currently redevelopable sites in the Urban Center were to be built-out, there could be 300,000 employees in Downtown Seattle, or 38,000 fewer employees than under Alternative 1. Based on an extension of the ERA employment projections, this commercial capacity could accommodate 37 years worth of employment growth, or eleven fewer years than under Alternative 1. The maximum employment density in Downtown Seattle could reach 314 jobs per acre. However, all alternatives are expected to result in the same number of Downtown employees over the next twenty years. Under this zoning scheme, there is enough developable land to accommodate projected employment over the period between 2000 and 2020.

POPULATION

Under Alternative 4, the maximum potential capacity for residential development on vacant and underutilized properties in the Downtown Urban Center is 26,140 units. These units could house an additional 24,830 Downtown households. Based on the ERA employment projections, this capacity could accommodate up to 29 years worth of residential demand. If all potential residential capacity is used, there could be a maximum of 36,190 households in Downtown Seattle at an average density of 39 households per acre.

Under any of the alternatives, the employment projected for the coming twenty years Downtown would lead to an additional 43,225 households in need of new housing in the region. Of these new households, ERA has forecast that 17,500 will seek housing in Downtown Seattle between 2000 and 2020, adding 21,900 new Downtown residents. Households that earn above 80% of MAI, are expected to be able to afford privately financed housing. However, households earning less than 80% of MAI may need public subsidies to be able to afford housing in Downtown Seattle. Funding would be available to house approximately 1,920 households earning less than 80% MAI or approximately 430 fewer households (18% less) than under Alternative 1.

MITIGATION STRATEGIES

No mitigation strategies are proposed for the Population and Employment impacts of the alternatives. See the Land Use and Housing sections for discussion of proposed and other possible mitigation strategies relevant to Downtown residential and employment populations.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

No significant unavoidable adverse impacts are identified for any of the alternatives. Over the long term, the alternatives could have differing impacts on the number and composition of Downtown households and Downtown employees, but none of these impacts are identified as significant unavoidable adverse impacts.

HOUSING

AFFECTED ENVIRONMENT

This section summarizes the findings of housing analyses developed for this EIS. See Appendix B for additional detailed information.

Current Housing Stock and Development Trends

Downtown Seattle's housing stock represents a small but rapidly growing segment of the City's overall housing inventory (see Table 11). Approximately 5% of Seattle's housing units are currently located in the Downtown Seattle Urban Center. The last decade saw a significant growth in housing in Downtown. The total housing unit count in the census sub-area that contains most of north Downtown grew by over 50%. The Downtown Urban Center experienced a net increase of 7,000 units between 1991 and 2001.

Table 11
Housing Unit Growth 1980-2000

	1980	1990	2000
<u>Downtown Seattle Sub-Area¹</u>			
Total Units	10,935	11,362	17,133
% Change		1980-1990: 3.9%	1990-2000: 56.7%
<u>Seattle</u>			
Total Units	230,039	249,032	270,524
% Change		1980-1990: 8.3%	1990-2000: 8.6%
<u>King County</u>			
Total Units	497,000	647,343	742,237
% Change		1980-1990: 30%	1990-2000: 14.6%

Source: US Census Bureau, City of Seattle

Growth within the Downtown Seattle Urban Center has not been evenly distributed. Belltown experienced the greatest amount of new residential development during the 1990s. Fifty-eight percent of Downtown Seattle's new units were built in the Belltown Urban Village (see Table 12). The Commercial Core saw the next largest amount of residential development over the 10-year period. Growth has been slowest in the City's historic districts (Pioneer Square and the Chinatown/International District) and in the Denny Triangle neighborhood. More residential units were completed in 2001 than any other three years in the previous decade.

¹ Includes the following 2000 Census tracts: 72, 73, 80.01, 80.02, 81, 82, 83, 91 and 92. This area includes most of South Lake Union and portions of First Hill. It is similar but not equivalent to the Downtown Urban Center boundary used elsewhere.

Table 12
Net Units Built and Permitted by Downtown Urban Center Village
1991-2002

Urban Center Village	Units Built 1991-2000	Units Built in 2001	Units Built in 2002	Permitted Units	Total
Belltown	2,914	1,168	920	574	5,576
Chinatown-International District	215	269	76	115	675
Commercial Core	1,512	124	-1	61	1,696
Denny Triangle	210	366	65	306	947
Pioneer Square	159	1	0	107	267
Total Downtown Urban Center	5,010	1,928	1,060	1,163	9,161

Source: City of Seattle Strategic Planning Office, 2002; Dept. of Design, Construction & Land Use, 2003

Table 13 summarizes the amount and type of housing in Downtown neighborhoods. Belltown contains slightly more than half of Downtown's housing inventory, followed by the Commercial Core and Chinatown/International District.

Table 13
Downtown Housing Units by Ownership and Tenure, 2000

Urban Village	Subsidized Rental*	Market Rate Rental	Condominium**	Total***
Belltown	2,062	3,019	1,626	6,707
Chinatown/International District	1,287	329	25	1,641
Commercial Core	1,220	820	740	2,780
Denny Triangle	697	230	0	927
Pioneer Square	502	113	182	797
Downtown Total	5,768	4,511	2,573	12,852

Sources: *City of Seattle Office of Housing, **City of Seattle Strategic Planning Office/King County Assessor, ***U.S. Census

There are three predominant housing types in Downtown Seattle: condominiums, privately owned market-rate rental apartments, and subsidized apartments.

- Subsidized units account for approximately 45% of all Downtown housing units and two-thirds or more of the housing units in the Chinatown/International District, Pioneer Square and Denny Triangle. According to Office of Housing reports, over 25% of all of Seattle's subsidized units are located in Downtown, an area with only 5% of all units. Buildings with subsidized housing may be owned by market-rate owners, non-profit housing agencies or public agencies.
- Condominiums account for approximately 20% of the housing stock. They are most prevalent in the Belltown and Commercial Core neighborhoods, representing 27 and 20% of the housing units respectively.
- Market rate rentals account for 45% of the units in the Belltown neighborhood, but represent a much smaller share of the housing stock in other Downtown neighborhoods.

A large proportion of Downtown's housing units receive subsidies. It is therefore not surprising that a large proportion of the Urban Center's housing units are currently affordable to households earning less than 50% of the Median Income for King County (Median Area Income or MAI). Tables 14 and 15 show these income levels and rents that would be affordable to households earning those incomes. According to a study

by the City of Seattle's Office of Housing in December 2001, 42% of Downtown units were affordable to households earning less than 50% MAI (see Figure 13, next page). Approximately 78% of these units receive some public subsidy, including 3,300 units of low-income housing that have been preserved or developed by non-profit organizations with the assistance of the City of Seattle since 1985.

Table 14
Income Limits for the Seattle-Everett-Bellevue MSA, 2003

Family Size	% of Median Income			
	30%	50%	80%	100%
1 Person	\$16,350	\$27,250	\$39,550	\$49,450
2 Persons	\$18,700	\$31,150	\$45,200	\$56,500
3 Persons	\$21,050	\$35,050	\$50,850	\$63,550
4 Persons	\$23,350	\$38,950	\$56,500	\$70,650

Source: HUD, 2003

Table 15
Affordable Monthly Rents by Unit Size, 2003

Unit Size	% of Median Income			
	30%	50%	80%	100%
0 Bedrooms	\$408	\$681	\$988	\$1,236
1 Bedroom	\$438	\$730	\$1,059	\$1,324
2 Bedrooms	\$526	\$876	\$1,271	\$1,588
3 Bedrooms	\$607	\$1,012	\$1,468	\$1,835

Source: HUD, 2003

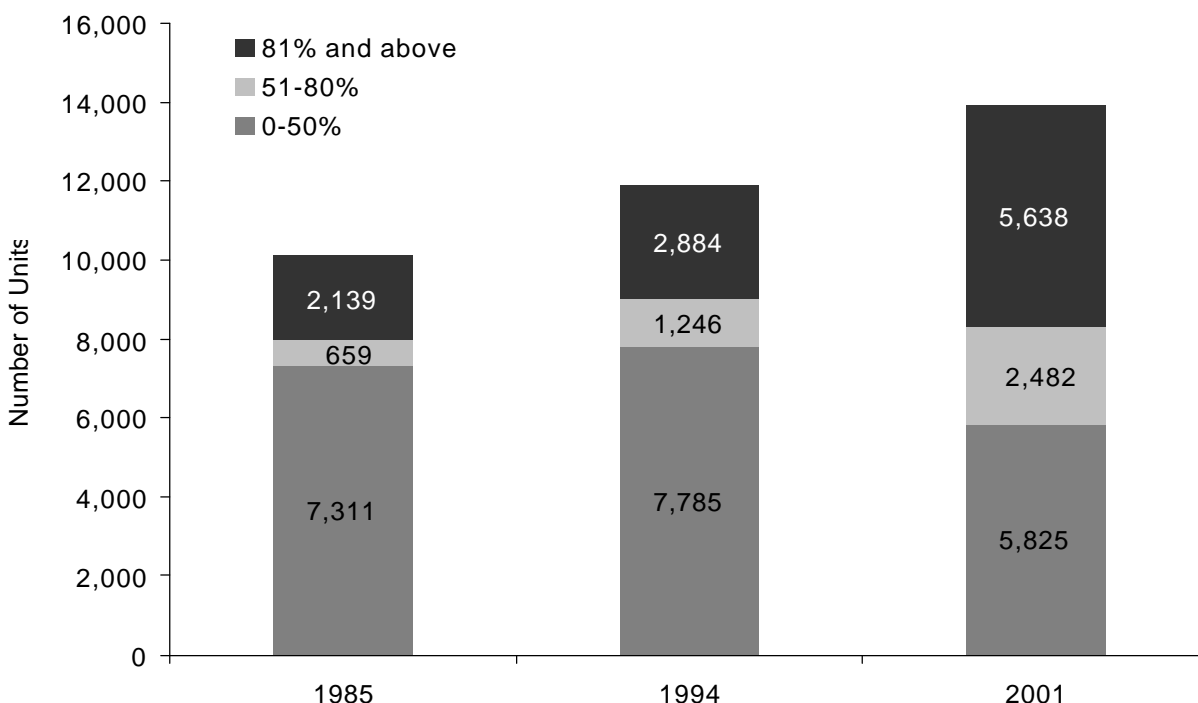
However, despite the presence of these units, fewer housing units are affordable to this income group than in 1994, for a number of reasons.

- Some of the low income housing stock available in the market was low cost because it was substandard or derelict in condition. Increased interest in Downtown Seattle as a place to live allowed owners of market-rate housing affordable to lower-income households to improve properties and increase rents above levels affordable to households earning less than 50% MAI.
- Several privately-owned subsidized apartment buildings had been receiving subsidies based on a 20-year commitment to maintain units affordable to lower-income households. Some of the buildings targeted by these subsidies did not renew their subsidy and became available on the private market.
- Redevelopment of sites containing small residential buildings for new residential towers may have resulted in the loss of units affordable to lower-income households, even as the total number of units Downtown grew.
- The expansion of the Convention Center resulted in the demolition of one private apartment building containing over 127 units, which were replaced on First Hill.
- Finally, the renovations of two existing Single Room Occupancy (SRO) hotels have resulted in a net loss of units. These renovations changed SRO units with shared baths and limited kitchen facilities into self-contained apartments and resulted in safer and more private permanent housing available to the same income group.

All of these reasons account for loss of units affordable to households earning less than 50% MAI. Further, a federal subsidy program introduced in 1986 in the form of low income tax credits permits low income units up to 60% of median income, resulting in some new units created just above the 50% affordability level. Finally, mixed-income buildings are a priority in the city and are consistent with

neighborhood plans, resulting in more buildings containing a mix of rent levels affordable to households earning between 50% and 80% MAI.

Figure 13
Historic and Current Downtown Urban Center Housing Units
By Affordability (Percentage of Median Area Income), 2001



Source: City of Seattle, Office of Housing

The increase in units affordable to households earning more than 80% MAI is the result of greater attractiveness of Downtown Seattle as a residential community. Vacancy rates in Downtown apartment buildings hovered between two and four percent between 1995 and early 2001, before jumping to a high of 11.4% in Spring 2002 as a number of new buildings opened and the economy crashed at the same time. Between 1995 and 2001, the average rent in market-rate buildings in Downtown Seattle rose 72%, from \$759 a month to \$1,308 a month. Rents then dropped 12% to \$1,156 by Fall 2002. By Spring 2003, vacancy rates had fallen to 8.2% and rents had started to increase again, with an average rent in Downtown apartments of \$1,206.

Many of Downtown Seattle's housing units are small. Approximately 47% of units in Downtown Seattle are studios or SRO units, generally one-room units. In comparison, only 7% of housing units citywide are one-room units per a survey by the U.S. Census. Two-thirds of the studio and SRO units are in subsidized buildings, providing a significant stock of affordable housing for low-income single persons. However, larger units are more likely to be offered at market rates. Only 35% of one-bedroom units are subsidized, and only 3% of two-bedroom units in Downtown Seattle are subsidized.

IMPACTS

Under all alternatives, if the development forecasts are achieved, the housing stock in the study area would be significantly transformed through increased residential densities. This transformation is consistent with the City's Comprehensive Plan and neighborhood plans for the study area and is not necessarily an adverse impact.

Under all of the alternatives, including today's existing conditions, some existing housing might be demolished. Some households with employees in new Downtown Seattle office buildings and hotels would have difficulty finding affordable housing to meet their needs in King County. They would need to live in overcrowded conditions, pay more than 30% of their income for rent, or commute from lower-priced housing outside of King County. Those few households not able or willing to make these choices could potentially become homeless. However, those demolitions and the difficulties that some households with employees Downtown would face finding appropriate housing would be as likely to occur under existing conditions as under any of the alternatives, and are not significant adverse impacts of the alternatives.

There would, however, be unavoidable impacts on the City's Transfer of Development Credits (TDC) program. The TDC program uses incentives for additional residential development in the Denny Triangle to leverage preservation of rural King County land in agricultural use and to contribute to an amenity fund dedicated to the Denny Triangle. For all Alternatives other than Alternative 4 – No Action, the ability of the TDC program to function would be limited to a lesser or greater extent.

In addition to the impacts on the TDC program, the different alternatives would have varying effects on: the capacity for housing; the concentration and mix of housing over twenty years; the potential demolition of residential buildings; and the ability of households with Downtown employees earning below-median incomes to find housing meeting their needs.

Alternative 1 – High End Height and Density Increase

CAPACITY FOR HOUSING

Under Alternative 1, there would be capacity for approximately 10,505 additional housing units within the study area, and another 12,350 housing units could be built in the rest of the Downtown Urban Center (see Table 16). This amount of housing development could meet market demand for approximately 26 years, after which theoretically there would not be any more residential development sites available to meet Downtown residential demands. Within the study area, the greatest amount of residential capacity is located in the Denny Triangle. There is not much projected residential development capacity within the Commercial Core, due to a limited number of available sites in the Commercial Core and the assumption that new residential structures will not be built within the DOC1 zone. For more discussion of the capacity model, please see the Land Use section.

Table 16
Capacity for New Housing Units on Available Sites
By Alternative and Urban Center Village

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Commercial Core	1,260	1,340	1,340	1,185
Denny Triangle (No TDC)	7,170	6,410	6,905	5,375
Belltown (Portion)	2,075	2,070	2,430	1,930
Total Study Area without the TDC Program	10,505	9,820	10,675	8,490
Potential Units under the TDC Program	N/A	2,630	4,415	5,300
Total Outside Study Area ²	12,350	12,350	12,350	12,350
Maximum Potential Downtown Capacity	22,855	24,800	27,440	26,140

Source: Cushman & Wakefield, Craig Kinzer & Co., The Seneca Real Estate Group, 2001; Strategic Planning Office, 2002

If all of the potential commercial development capacity was built out under Alternative 1, approximately 101,700 households new to the region would include Downtown workers.³ If the potential Downtown residential capacity was used, only about 22% of those households could find housing Downtown. The other 78% of new households with Downtown employees would need to obtain housing and commute to work from areas outside of Downtown (see Table 17).

Table 17
New Worker Households and New Residential Units at Maximum Build-Out

Urban Village	Alternative 1		Alternative 2		Alternative 3		Alternative 4	
	New Worker HH ⁴	Res. Capacity	New Worker HH	Res. Capacity	New Worker HH	Res. Capacity	New Worker HH	Res. Capacity
Commercial Core	32,300	1,260	30,100	1,340	28,600	1,340	25,100	1,185
Denny Triangle	49,600	7,170	42,400	7,070	36,500	8,010	36,200	6,645
Belltown	11,000	2,075	9,200	2,070	7,600	2,430	8,400	1,930
Outside Study Area	8,800	12,350	8,800	12,350	8,800	12,350	8,800	12,350
Total	101,700	22,855	90,500	22,830	81,500	24,130	78,500	22,110

Source: Cushman & Wakefield, Craig Kinzer & Co., The Seneca Real Estate Group, 2001; Strategic Planning Office, 2002

TRANSFER OF DEVELOPMENT CREDITS PROGRAM

The Denny Triangle Transfer of Development Credits (TDC) program allows additional residential height with the transfer of development opportunities from rural King County land. The TDC program reduces the number of units that can be built on a site in rural King County (the "sending area"). The right to build those units is transferred to a new residential (or mixed-use) project in the Denny Triangle (the "receiving area"). The sending area property owner is paid to keep the land undeveloped, while the receiving area property owner buys the credit, allowing additional development beyond what zoning allows in the

² Includes units in the development pipeline as of 1/1/2000 and potentially developable parcels in the rest of Belltown, the Chinatown/International District, and Pioneer Square.

³ This assumes that there will be one worker for every 250 square feet of commercial space built, and 1.65 workers for every household with workers employed Downtown.

⁴ Assumes use of the TDC program on one-quarter of eligible sites.

receiving area. In the Denny Triangle, the amount of residential development permitted on a site is regulated through the height limit. Under the TDC program, a developer in the Denny Triangle may increase the height limit of a project by purchasing development credits. The building floor area could extend up to 30% above the zoned height limit through the purchase of credits and amenities funding. In other words, the TDC program works by exchanging a 30% height increase for commitments to purchase rural credits and to pay into a neighborhood amenity fund.

With 30% height limit increases for all uses, however, the incentive to use the TDC program would disappear under Alternative 1. Under this alternative, all commercial projects could build up to that 30% above the zoned height limit without requiring the use of the TDC program. Although different measures could be taken to preserve the TDC program, all of those options would create increased hurdles for new residential development. Consequently, there would not be enough incentive to use the program to expect developers to choose to use it.

The TDC program, started in 1999, has not yet been used on any site in the Denny Triangle. During this time, six residential projects have been permitted in the Denny Triangle, three of which would reach the maximum height limit. Three of these have received their land use approval after the TDC program was in place. Interviews by Craig Kinzer & Co. indicated a lack of understanding or interest in the program on the part of some developers. However, other developers have proposed using the program. Those projects that would have used the program are currently stalled due to changes in the real estate market. It is thus too early to determine whether the TDC program would be viable under any of the alternatives.

DOWNTOWN HOUSING SUPPLY

Between 2000 and 2020, approximately 45,385 new housing units⁵ would need to be built in the region to accommodate the new households attracted by new Downtown jobs. An extended forecast based on the ERA study suggests a demand for approximately 17,500 (40%) of these new housing units in Downtown Seattle between 2000 and 2020. The balance of the households would seek housing in other parts of the City, County and region. Under all alternatives, there would be enough capacity to meet that projected twenty-year demand, and developers are likely to build enough units to satisfy that demand.

The development capacity model assumed that residential development could and would occur as part of mixed-use projects on sites that are developed with commercial uses at the same time. These projects would often consist of large sites developed with market-rate apartment or condominium towers paired with separate office towers. An example of this type of development is the proposed 2200 Westlake Project, which will combine residential towers, office space and substantial retail space, including a grocery store, on the same site.

Other mixed-use projects might include both commercial and residential space within the same tower. This type of development is most likely to combine hotel uses and residential uses within a tower, because of similarities in the development types and opportunities that would arise for providing hotel-like services to the permanent residential tenants. However, the first project in Downtown Seattle to combine residential uses on top of office uses in a tower has had difficulty selling its units, and their experience may discourage other projects of this type. Increases in the permitted height of residential buildings and no limits on residential density will also encourage the development of some large-scale residential projects. These projects might be large residential towers up to 100 feet taller and 30% denser than recent residential towers.

It was not possible to predict the portion of market-rate units that would be condominium units compared to apartment units. Approximately 20% of Downtown's current housing stock is owner-occupied, up from

⁵ Assumes that, on average, there would be a 5% residential vacancy rate, requiring 5% more units than households.

10% in 1990. This would indicate that Downtown condominiums could be a strong component in the future mix of housing units. However, several recent lawsuits have found condominium developers liable for multi-million dollar judgements based on claims of poor quality construction. Because of these lawsuits, condominium developers have had a difficult time finding insurance at prices that would make a project feasible. Unless liability regulations change, Downtown Seattle is unlikely to see many new condominiums developed. However, if there is such a change, the percentage of Downtown units that are owner-occupied will likely continue to increase.

The physical form of residential development will be influenced by the costs of construction and the markets served. While a number of market-rate apartment and condominium towers have used high-rise steel-frame construction and future buildings of this type can be expected, this type of construction has generally not been attractive to non-profit and other subsidized housing developers. This is so for a number of reasons. First, the initial cost of building taller steel-frame buildings is higher than lower-rise wood-frame construction. Consequently, the amount of funding that is required from development partners to build taller buildings is higher. The non-profit developer can't recoup those costs, but market-rate builders can recoup costs through the higher rents that market-rate tenants are willing to pay for higher units. Second, managing larger buildings can require additional staff, which increases costs.⁶ Third, the concentration of low-income and special needs housing in single-use high rise developments is no longer seen as a preferred development model. Smaller-scale, mixed-income buildings, and subsidized housing integrated into the non-subsidized housing stock are seen as superior models for the residents as well as the surrounding community. If non-profit developers build subsidized housing in the study area, such housing will most likely be lower-density, with up to a five-story wood-frame structure over a concrete base.

Given the current and probable future stock of Downtown housing (mostly smaller rental units) and current and historic household sizes, households attracted to living in Downtown Seattle would likely be smaller households of one or two people. Larger households, most family households, and many households interested in owning rather than renting their housing, would generally not be able to find appropriate housing within the Downtown Urban Center.

Supply of Affordable Units

Given current and projected Downtown office tenants, approximately 16% of these office worker households would earn less than 80% of the Median Area Income (MAI). These households would generally need some subsidy in order to afford a Downtown housing unit. By 2020, as many as 550 households with new Downtown workers would have household incomes of less than 30% of MAI. Approximately 2,160 households would have incomes between 30% and 50% of MAI. Finally, as many as 3,725 households with new Downtown employees would have incomes between 50% and 80% of MAI.

New office and hotel projects contributing to the Downtown Bonus program would create funds that could be leveraged with other public and private funds to create housing to serve projected new populations with housing assistance needs. Under Alternative 1, funds could be generated over twenty years to address the housing needs of approximately 450 (74%) of households earning up to 30% MAI (see Table 18). The bonus program could contribute funds to house approximately 1,325 (54%) of the households earning between 30% and 50% MAI. Approximately 900 households earning between 50% and 80% MAI (21%) could be housed through housing from the Bonus program. The current stock of subsidized housing Downtown generally consists of smaller units (Single Room Occupancy units and Studios), not appropriate to larger households. Approximately 4,075 households attracted by new jobs in Downtown Seattle would not be able to find housing in Downtown Seattle they could afford.

⁶ The economics of building senior housing projects may be different. The type of services offered to senior housing residents, such as providing meals, may be subject to increased efficiencies as tenant populations increase.

Table 18
Potential Subsidized Housing Units Leveraged⁷ through the Downtown Bonus Program⁸
2000-2020

	\$ Available to Meet Demand	Units Leveraged by Income Group			
		0-30% MAI	30-50% MAI	50-80% MAI	Total
Alternative 1	\$85,900,000	450	1,325	900	2,675
Alternative 2	\$96,700,000	550	1,600	1,075	3,225
Alternative 3	\$83,800,000	475	1,375	925	2,775
Alternative 4	\$60,700,000	350	1,000	675	2,025
Demand ⁹		575	2,265	3,910	6,750

Source: Strategic Planning Office, 2002

If all available sites within the study area were built out, as many as 14,050 new households with Downtown Seattle workers would have combined incomes of less than 80% of the Median Area Income. These households would potentially need some subsidy to be able to afford housing in Downtown Seattle. The Downtown Bonus program would provide enough funds to develop up to 7,850 units affordable to those households, which would meet approximately 55% of the demand (see Table 19).

Table 19
Subsidized Housing Units Leveraged through
Downtown Bonus Program if all Available Sites are Developed

	New Housing Units Leveraged by Income Group				Demand for Housing Units affordable at <80% MAI from new Downtown Workers
	0-30% MAI	30-50% MAI	50-80% MAI	Total	
Alternative 1	1,350	3,900	2,600	7,850	14,050
Alternative 2	1,400	4,050	2,700	8,150	12,350
Alternative 3	950	2,700	1,850	5,500	11,200
Alternative 4	600	1,800	1,200	3,600	10,550

Source: Strategic Planning Office, 2002

Households not able to find subsidized housing in Downtown Seattle would need to look for housing in other parts of the City and region. A study by the King County Office of Regional Policy and Planning found a deficit of housing affordable to households earning less than 30% of Median Income in the County. Opportunities for households earning less than 30% MAI to find any affordable housing in King County would be limited both inside and outside the City. As a result, approximately 150 households with employees in new Downtown Seattle office buildings and hotels would have difficulty finding affordable housing to meet their needs in King County. They would need to live in overcrowded conditions, pay more than 30% of their income for rent, or commute from lower-priced housing outside of King County.

⁷ Assumes leveraging of City, State, Federal and private funds on top of the contribution of the housing bonus program. If additional funds are not available, the funding required would equal \$120,000 for units affordable at less than 30% MAI; \$110,000 for units affordable to households earning between 30% MAI and 50% MAI; and \$50,000 for units affordable between 50% MAI and 80% MAI.

⁸ Based on projected commercial projects not in the permit pipeline as of 1/1/2001. Some projects permitted as of 1/1/2001, may also contribute to the Downtown Housing Bonus fund, but would not be required to contribute.

⁹ Assumes a 5% vacancy rate.

Those few households not able or willing to make these choices could potentially become homeless (see Table 20).

Table 20
Countywide Surplus or Deficit of Housing Affordable to Low-Income Households 2002

Percent of Median Income For Household of Three	Number of Renter Households in this Income Group	Total Number of Units Affordable to this Income Group Including Subsidized Units	Cumulative Deficit or Surplus of Units with Subsidized Units Included
0% to 30% (Under \$19,500)	59,454	38,638	-20,816
31% to 60% (\$19,500-\$39,000)	72,082	113,763	20,865
61% and above% (\$39,000 or more)	162,523	158,845	17,187

Source: King County Countywide Planning Policies Benchmark Report, 2002

POTENTIAL LOSS OF HOUSING TO REDEVELOPMENT

Six sites in the study area currently occupied by buildings in residential use were identified by Cushman and Wakefield as potentially redevelopable. These sites were identified by comparing the size of existing buildings to the maximum permitted size of buildings on the site. This does not indicate that the City or the consultant has any knowledge of proposed demolition of these buildings, or that the current owners are contemplating demolition of these buildings. Instead, it indicates that existing buildings are small compared to the potential size of buildings that might be built on those sites.

Two of these buildings are in the DMC zone of the Commercial Core, along 1st Avenue: Oxford Apartments, 1920 1st Ave.; and the Elliott Hotel (Hahn Building), 103 Pike St. One is in the DOC 1 zone of the Commercial Core: Downtown YWCA, 1118 5th Ave. One is in the DOC 2 zone of the Commercial Core: 411 Apartments, 411 Jefferson St. Another building is in the DMC zone in Belltown: Stratford on Fourth, 2021 4th Ave. The last is in the Denny Triangle's DOC 2 zone: Williamsburg Apartments, 1007 Stewart St. These buildings contain approximately 300 residential units.

Three of the buildings, housing approximately 141 units, currently receive subsidies to maintain their units affordable to households earning less than 50% of the median area income (Downtown YWCA, 411 Jefferson St. and the Elliott Hotel). Two of the buildings, (the Oxford Apartments and the Elliott Hotel) totaling approximately 80 units, were identified among the Downtown sites "more likely to redevelop." The other four buildings are categorized as "less likely" to be redeveloped than many other Downtown sites. The development scenario used in this analysis did not project that any of these sites would be redeveloped between 2000 and 2020.

Alternative 2 – Concentrated Office Core

CAPACITY FOR HOUSING

Under Alternative 2, there would be capacity for approximately 9,820 housing units within the study area, and another 12,350 housing units in the rest of the Downtown Urban Center (refer to Table 16). This amount of housing development could meet market demand for approximately 24 years, after which there would theoretically not be any more residential development sites Downtown. This alternative provides one less year's worth of residential development capacity compared to Alternative 1.

There is little difference in total residential capacity in the Commercial Core between Alternatives 1 and 2. Permitted heights and densities would not change between these two alternatives in the Commercial Core DOC 1 and the southern DOC 2 zones. The number of residential units that could be built in the DMC zone and the northern DOC 2 zone could increase slightly. These increases would be due to shifts in the ratio between the permitted commercial density and the permitted building envelope.

Because of reduced commercial densities in the DOC 2 zone in Belltown, additional residential units could be built in that zone. At the same time, the potential number of units in the Belltown DMC zone could drop as a result of decreases in the DMC height limit. The net result of these changes might be a slight shift in the number of potential residential units from the DMC zone to the DOC 2 zone.

If all of the potential commercial development capacity were built out under Alternative 2, an additional 90,500 households would include Downtown workers. If all potential Downtown development capacity was used, 25% of those households could find housing Downtown. This would represent a 13% increase over Alternative 1, reflecting a decrease in the number of potential Downtown workers and an increase in the number of potential housing units. The other 75% of households with Downtown employees would need to obtain housing and commute from areas outside of Downtown.

TRANSFER OF DEVELOPMENT CREDITS PROGRAM

Under Alternative 2, the TDC program could create opportunities for development of approximately 2,630 more units in the Denny Triangle DMC zone than described above. With the TDC program, the Denny Triangle would have capacity for 1,945 units more than under Alternative 1, a gain of 2 additional years worth of capacity. The TDC program, which has not yet been used in the Denny Triangle, would not function in the Denny Triangle DOC 2 zone for the same reason that it would not operate under Alternative 1. The increase in height that is an incentive to build residential space under the TDC program would be granted to commercial projects without their use of the program.

DOWNTOWN HOUSING SUPPLY

Over twenty years, the net supply and demand of Downtown housing under Alternative 2 is expected to be the same as for Alternative 1.

Supply of Affordable Units

Between 2000 and 2020, more resources could be available to meet demand for housing for the lowest-income households than under Alternative 1. New office and hotel projects contributing to the Downtown Bonus program would provide funds that could leverage other public and private funds to create housing to serve these populations.

Under Alternative 2, funds could be generated over twenty years to address the housing need of as many as 96% of households with Downtown workers with incomes that are less than 30% MAI (refer to Table 18). The bonus program could contribute funds to house approximately 70% of the households with Downtown workers earning between 30% and 50% MAI. Twenty-seven percent of the households with Downtown workers earning between 50% and 80% MAI could be housed through leveraging funds available from the Bonus program.

Overall, over twenty years, funds would be available to house approximately 48% of households earning less than 80% MAI, or 550 more households than under Alternative 1. However, even given this increase in housing for lower income households, twenty-five households with employees in new Downtown Seattle office buildings and hotels would have difficulty finding affordable housing to meet their needs in King County. They would need to live in overcrowded conditions, pay more than 30% of their income for

rent, or commute from lower-priced housing outside of King County. Those few households not able or willing to make these choices could potentially become homeless.

Beyond 20 years, if all available parcels are developed, there would be demand for 12,350 units affordable to households earning less than 80% MAI with Downtown workers. Developers participating in the Downtown housing bonus program would contribute funds that might be able to leverage other City, State, Federal and private funds to develop 8,150 units. The total number of units that could be built is 300 units more than under Alternative 1. As a result, approximately 66% of new households with Downtown workers earning less than 80% MAI could find housing financed in part by the Housing Bonus funds. This would represent a 10% increase over the proportion of households able to find affordable Downtown housing under Alternative 1.

The increase in funds contributed to the housing bonus program under Alternative 2 is a result of the base FAR increases contemplated throughout the study area under Alternative 1. By not increasing the base FAR in Alternative 2, more commercial floor area would be subject to the provisions of the Downtown Bonus and TDR programs. Under Alternative 2, a larger portion of all commercial floor area would be subject to the housing bonus program. Approximately 52% of the floor area in all new buildings would be subject to the Bonus/TDR program requirements, compared to 44% under Alternative 1. By not increasing the base FAR limit while still increasing the maximum FAR limit, more floor area in each building in each zone would be likely to provide voluntary contributions to the Bonus program. If the base FAR limit were to be increased in the DOC 1 and DOC 2 zones as is proposed under Alternative 1, the amount of funds available over 20 years would be less than the funds available under Alternative 1.

POTENTIAL LOSS OF HOUSING TO REDEVELOPMENT

The potential for demolition of residential buildings under Alternative 2 would be the same as for Alternative 1, in both the number and location of identified buildings.

Alternative 3 – Residential Emphasis

CAPACITY FOR HOUSING

Under Alternative 3, there would be capacity for approximately 10,675 housing units within the study area, and another 12,350 housing units in the rest of the Downtown Urban Center (refer to Table 16). This amount of housing development could meet market demand for over 25 years, after which theoretically there would not be any more residential development sites available Downtown. This alternative provides approximately the same amount of residential development capacity as under Alternative 1.

Permitted heights and densities would not change between these two alternatives in the Commercial Core DOC1 and southern DOC2 zones. The number of residential units that could be built in the DMC and northern DOC2 zones could increase slightly. These increases would be due to shifts in the ratio between the permitted commercial density and the permitted building envelope.

Because of a reduced height limit in the DOC2 zone in Belltown, fewer residential units could be built in that zone. At the same time, the potential number of units in the Belltown DMC zone would increase with a rezone from DMC to a Downtown Mixed Residential/Commercial (DMR/C) zone. This rezone would reduce the amount of commercial space permitted on a site. It would also require that larger office buildings include residential units. These changes would lead to an increase in capacity of approximately 350 units throughout the area over Alternative 1, a 17% increase in this area.

If all of the potential commercial development capacity were built out under Alternative 3, an additional 81,500 households would include Downtown workers. If the potential Downtown residential capacity was used, 30% of those households could find housing Downtown. This would be equal to an increase of one-

third over the proportion that could be housed Downtown under Alternative 1. This increase results from a decrease in the number of Downtown employees and a similar number of potential Downtown units. The other 70% of households with Downtown employees would need to obtain housing and commute from areas outside of Downtown.

TRANSFER OF DEVELOPMENT CREDITS PROGRAM

The TDC program would create opportunities for approximately 4,400 units in the Denny Triangle's DMC zone and portions of the DOC 2 zone. If all potential units available through the TDC program were built, the Denny Triangle would have capacity for 4,585 more units than under Alternative 1, enough potential capacity to meet an additional five years worth of residential demand. The TDC program, which has not yet been used in the Denny Triangle, would not function in those portions of the DOC 2 zone that would be subject to height and commercial density increases. The increase in height that is an incentive to build residential space under the TDC program would be granted to commercial projects in that portion of the DOC 2 zone without requiring their use of the program.

DOWNTOWN HOUSING SUPPLY

Over twenty years, the demand for Downtown Housing under Alternative 3 is expected to be the same as for Alternative 1. The type of housing that could be built under Alternative 3 would be similar to, although often shorter than, the housing projects that could be built under Alternative 1. However, under Alternative 3, some residential enclaves could be developed in areas rezoned to DMR. These areas would be developed with high-rise residential towers, separate from the office/residential mixed-use environment that could emerge in the rest of the study area.

Supply of Affordable Units

Between 2000 and 2020, more resources could be available to meet demand for housing for the lowest-income households than under Alternative 1. New office and hotel projects contributing to the Downtown Bonus program would provide funds that could leverage other public and private funds to create housing to serve these populations. Under Alternative 3, funds could be generated over twenty years to address the housing need of as many as 83% of households with Downtown workers with incomes that are less than 30% MAI (refer to Table 18). The bonus program could contribute funds to house approximately 61% of the households with Downtown workers earning between 30% and 50% MAI. Twenty-four percent of the households with Downtown workers earning between 50% and 80% MAI could be housed by leveraging funds available from the Bonus program.

Overall, over twenty years, funds would be available to house approximately 41% of households earning less than 80% MAI, or 325 more households than under Alternative 1. However, even given this increase in housing for lower income households, 100 households with employees in new Downtown Seattle office buildings and hotels would have difficulty finding affordable housing to meet their needs in King County. They would need to live in overcrowded conditions, pay more than 30% of their income for rent, or commute from lower-priced housing outside of King County. Those few households not able or willing to make these choices could potentially become homeless.

Beyond 20 years, if all available parcels are developed, there would be demand for 11,200 units affordable to households earning less than 80% MAI with Downtown workers. Developers participating in the Downtown housing bonus program would contribute funds that might be able to leverage other City, State, Federal and private funds to develop 5,500 units. This is 2,350 fewer units than under Alternative 1. As a result, approximately 49% of new households with Downtown workers earning less than 80% MAI could find housing financed in part by the Housing Bonus funds. This would represent a 6% decrease from the proportion of households able to find affordable Downtown housing under Alternative 1.

POTENTIAL LOSS OF HOUSING TO REDEVELOPMENT

The potential for demolition of residential buildings under Alternative 3 would be the same as for Alternative 1, in both the number and location of identified buildings.

Alternative 4 – No Action

CAPACITY FOR HOUSING

Under Alternative 4, there would be capacity for approximately 8,490 housing units within the study area, and another 12,350 housing units in the rest of the Downtown Urban Center (refer to Table 16). This amount of housing development could meet market demand for up to 23 years, after which there would theoretically not be any more residential development sites available Downtown. Residential capacity under this alternative provides two fewer years worth of residential development capacity than under Alternative 1. This decrease is due to the height increases proposed for Alternative 1. All zones and subareas would have less capacity for housing under existing conditions except for the Commercial Core DMC zone where the density increases proposed under Alternative 1 would meet or exceed the potential building envelope in lower height-limit areas.

TRANSFER OF DEVELOPMENT CREDITS PROGRAM

Under existing conditions, the TDC program would create opportunities for approximately 5,300 units throughout the Denny Triangle, potentially doubling the residential capacity in the study area. If all potential units were built under the TDC program, there would be capacity for 3,285 more units than there would be capacity for under Alternative 1. The potential residential capacity under the TDC program could provide housing to meet almost six years worth of residential demand. No projects have used the TDC program in the three years that it has been in existence. This is the only alternative under which the TDC program would remain active throughout the entire Denny Triangle.

DOWNTOWN HOUSING SUPPLY

Over twenty years, the supply and demand for Downtown Housing under Alternative 3 is expected to be the same as for Alternative 1.

Supply of Affordable Units

Under Alternative 4, fewer resources could be available between 2000 and 2020 to meet demand for housing for the lowest-income households than under any other Alternative. New office and hotel projects contributing to the Downtown Bonus program would create funds that could be leveraged with other public and private funds to create housing to serve these populations. Under Alternative 4, commercial projects might provide bonus funds to address the housing need of approximately 61% of households earning less than 30% MAI, 20% less than under Alternative 1. The bonus program under Alternative 4 could contribute funds to house approximately 49% of the households earning between 30% and 50% MAI. Seventeen percent of the households earning between 50% and 80% MAI could be housed through funds leveraged through the Bonus program. Overall, funds would be available to house 30% of households earning less than 80% MAI, or 650 fewer households than under Alternative 1. As many as 225 households with employees in new Downtown Seattle office buildings and hotels would have difficulty finding affordable housing to meet their needs in King County. They would need to live in overcrowded conditions, pay more than 30% of their income for rent, or commute from lower-priced housing outside of King County. Those few households not able or willing to make these choices could potentially become homeless.

The difference between Alternative 1 and Alternative 4 is a direct result of the potential commercial FAR increases under Alternative 1. Because less commercial space is permitted on each site under Alternative 4,

more commercial sites would need to be developed to accommodate the same level of demand for commercial space. Less would be contributed to the housing Bonus program for three reasons. First, a smaller portion of the FAR in all zones would be subject to the housing bonus provisions under the current zoning. Second, projects in the DMC zone would not contribute to the Housing Bonus program. Third, development would start to spread into the DMC zone, due to lower FAR limits in the DOC 1 and DOC 2 zones.

If all available parcels were to be developed under the existing conditions, there would be demand for 10,550 units affordable to households earning less than 80% MAI with Downtown workers. However, the Downtown housing bonus program could only be expected to contribute funds that could be leveraged to develop 3,600 units. Compared to Alternative 1, Alternative 4 would produce 4,250 fewer units. This would meet only 34% of the demand generated by new Downtown jobs. Under this alternative, the bonus program would be able to house sixty percent of the households earning less than 80% MAI that could be housed under Alternative 1.

POTENTIAL LOSS OF HOUSING TO REDEVELOPMENT

The potential for demolition of residential buildings under Alternative 4 would be the same as for Alternative 1, in both the number and location of identified buildings.

MITIGATION STRATEGIES

The City of Seattle currently has a number of programs in place that can mitigate the impacts of specific developments on housing in Downtown Seattle. Among these programs are:

- In September 2002, Seattle voters approved a property tax levy renewal that will total \$86 million from 2003 through 2009, earmarked for preservation and creation of affordable housing. The 2002 Levy is funding 5 programs: (1) Rental Preservation and Production; (2) Homebuyer Assistance; (3) Neighborhood Housing Opportunity Program; (4) Rental Assistance; and (5) Operating and Maintenance.
- The multifamily rehab loan program, implemented after the 2001 Nisqually earthquake, provides low-interest loans to private owners to rehabilitate properties in the Pioneer Square and International District. The program helps add rehabbed affordable housing to the Downtown housing stock.
- The City of Seattle's Multifamily Tax Exemption (MFTE) Program allows for a partial property tax exemption for up to 10 years for multifamily rental homeownership projects of four or more units in designated target areas (including parts of Downtown). The program, which is authorized and regulated by State law (RCW 84.14), is a growth management tool for local governments to help spur residential development in urban neighborhoods. Seattle's original MFTE Program ended on 1/1/03. The City's Office of Housing is exploring reinstating the program, with some modifications. There will continue to be a requirement that, in return for the tax exemption, a certain percentage of units must serve low- or moderate-income households.
- Seattle's Housing Bonus Program which allows commercial developers to achieve greater density in their buildings. They may either produce new affordable housing or make a contribution to a City housing bonus fund, the proceeds of which are used to fund new affordable housing in Downtown, which in turn mitigates housing-related impacts of office and hotel development. Affordable housing produced or funded through the Housing Bonus Program provides lower-wage office and hotel workers in Downtown Seattle with greater opportunities to live near where they work.
- Seattle's Transferable Development Rights (TDR) Program allows existing residential buildings to transfer unused potential commercial floor area to commercial projects seeking to build above the base FAR limits. Affordable housing on sites from which TDRs are sold is preserved for 50 years.

- The Transfer of Development Credits Program provides opportunities for developers to build larger residential buildings in the Denny Triangle neighborhood.
- Relocation requirements provide funding to qualifying households earning less than 50% MAI who are forced to move because their building is subject to demolition, change of use or substantial renovation.

Possible Mitigation Strategies

In addition to the programs listed above, the potential mitigation measures discussed below could be applied to any of the alternatives as tools to ensure that as the neighborhood changes, housing opportunities can be provided to all who seek them.

Funding for low-income housing

- As discussed above, Seattle's TDR Program and Housing Bonus Program are key tools for preserving and creating affordable housing in Downtown. In July 2001, City Council adopted changes to the Downtown Land Use Code that, among other things, changed the thrust of the revised Downtown FAR (floor area ratio) system to favor housing. Under the current system, generally 75% of incremental floor area above the base FAR allowed outright by the Downtown Land Use Code must be achieved through either housing TDR and/or housing-childcare bonus. One of the most effective strategies for mitigating the impacts of future changes to the Downtown Land Use Code on housing would be to continue to make preservation and production of affordable housing the primary focus of the TDR and Bonus Programs.
 - Specifically, the City could require that 75% of the entire amount of incremental floor area above the base FAR (including any increases to the maximum FAR) be achieved through either housing TDR and/or housing-childcare bonus.
- The City could also reduce the amount of floor area that is exempt from TDR, bonus, and amenity feature requirements. One option would be to eliminate rules that exempt projects in the DMC zone from the new bonus/TDR program requirements adopted in 2001.
- In addition, the City could remove the option developers have in the DOC1 and DOC2 zones to achieve the first FAR above the base through revenue-generating improvements.
- The City could reinstate the tax exemption program, which grants multifamily housing developers a tax break if they include a certain portion of below-market rate housing units in their project, in targeted neighborhoods.

Capacity for residential development beyond 25 years

Under all of the alternatives, capacity for residential development throughout Downtown Seattle could be consumed within 23 to 25 years. There is currently enough capacity for Downtown commercial development for 35 years, and various alternatives could add enough commercial capacity to meet demand for another ten years on top of that. In order to ensure a balance between residential development and commercial development beyond twenty-five years, a number of tools could be considered:

- The City could rezone various areas as "residential enclaves" reducing the maximum permitted commercial densities in targeted areas. This idea is studied under Alternative 3.
- The City could increase height limits while maintaining current FAR limits, thus increasing the potential space for residential uses.
- The City could look at options for retaining the TDC program, which currently provides additional residential development capacity for projects that participate in the program.

- The City could work with communities outside the study area to explore rezones to increase residential capacity. One such opportunity might be the portion of the Chinatown/International District east of Interstate 5.

Retention of existing residential buildings threatened with demolition

- The City can build partnerships with non-profit housing developers and current property owners to acquire those buildings that are most threatened with demolition. The TDR bank is currently an important funding source for the acquisition of existing low-income residential buildings. Continuing to prioritize housing in the menu of choices available to commercial developers for achieving additional FAR in new Downtown office and hotel developments is a key housing mitigation strategy.

Transfer of Development Credits (TDC) program

The TDC program, which is currently available to all projects in the Denny Triangle, would be eliminated under at least one alternative and would be significantly reduced under two of the other alternatives.

- The City could work with other neighborhoods or areas where the program would apply.
- The City could work to develop other land use strategies to encourage the use of the program.
- The City could undertake an outreach program to educate developers about the program and the benefits of using the program.

Housing for Families and Other Large Households

Downtown Seattle's current housing stock generally consists of smaller housing units attractive to smaller households. In order to make Downtown Seattle attractive and amenable to larger households a number of strategies would need to be undertaken.

- The City could work with low-income housing developers funded by the City to provide larger units.
- The City could amend its Downtown design review guidelines to include guidelines for specific residential design elements that could be attractive to larger households.
- The City could provide incentives for projects that include units with multiple bedrooms.
- The City could work to encourage the development of facilities that would support families living Downtown, including the construction of children's play areas and the development of a new elementary school accessible to Downtown households.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Under all alternatives, large public and private subsidies would be required to meet ambitious targets for housing preservation and production. If these subsidies are not available, some buildings currently providing affordable housing may be lost and other potential housing opportunities may not be created.

In spite of the number of programs currently available to assist households earning less than 30% MAI with housing, some households with employees in new Downtown Seattle office buildings and hotels would have difficulty finding affordable housing to meet their needs in King County. They would need to live in overcrowded conditions, pay more than 30% of their income for rent, or commute from lower-priced housing outside of King County. Those few households not able or willing to make these choices could potentially become homeless.

The TDC program would be eliminated under Alternative 1. The TDC program would no longer be available to projects in some portions of the Denny Triangle DOC2 zone under Alternatives 2 and 3.

LAND USE

AFFECTED ENVIRONMENT

Existing Conditions

SUBAREAS

The study area for this EIS encompasses three zoning categories in three Urban Villages. Each of these areas has a distinct land use character that emphasizes different mixes of uses, ranging from the densest concentration of office space in Washington State to areas at the periphery of Downtown most notable for their surface parking lots. Downtown Seattle accommodates a wide range of densities and uses from high-rise office buildings to warehouses, surface parking lots to department stores, the new football stadium, to historic single room occupancy (SRO) hotels. Table 21 and Figure 14 present summaries of the range of land uses on Downtown Seattle parcels in the different subareas based on King County Assessor's data, surveys of the study area undertaken in 2001 and knowledge of recent construction in the area.

Table 21
Percent of Parcel Area by General Land Uses

Subarea	Office	Hotel/ Motel	Indust./ Utility	Gov't Facility	Other Public/ Non-Profit Facility	Retail/ Service	Residential	Parking	Vacant
Commercial Core									
DOC1	56%	9%	0%	13%	12%	5%	1%	5%	0%
DOC2	14%	11%	0%	24%	7%	9%	2%	22%	11%
DMC	25%	5%	7%	15%	4%	7%	19%	19%	0%
Denny Triangle									
DOC2	18%	9%	7%	5%	22%	15%	5%	20%	0%
DMC	24%	7%	6%	5%	2%	19%	5%	31%	0%
Beltown									
DOC2	25%	0%	3%	0%	0%	15%	3%	54%	0%
DMC	26%	12%	0%	0%	4%	27%	12%	19%	1%
Rest of Downtown	20%	2%	14%	0%	6%	33%	10%	12%	4%
Total Downtown	25%	4%	9%	4%	7%	24%	8%	14%	3%

Source: King County Assessor; City of Seattle Strategic Planning Office, December 2001, parcel area excludes waterfront parcels.

Commercial Core

Downtown Office Core 1 (DOC1)

The DOC1 zone, located approximately between Second Avenue and I-5 south of Union Street, is the Downtown zoning area with the densest pattern of land uses, predominantly consisting of large full- and half-block office buildings and hotels. Retail spaces in this area primarily serve Downtown office tenants. However, near the retail core, several buildings include ground-floor retail and restaurant uses to attract pedestrians and shoppers. There are few residential structures in the office core – all residential buildings in this area were built before 1940, and almost all of these are designated landmark structures. Single-use parking structures are much less frequent in this area than in other parts of Downtown, and in contrast to other parts of Downtown, there are no surface parking lots.



The DOC1 zone contains a variety of public uses, institutional uses and private clubs. The southern portion of the core contains the City of Seattle and King County government centers with administrative office uses, as well as public safety, courthouse and support facilities. The federal government also occupies a variety of office facilities and the current Federal Courthouse in the core area. Cultural and convention facilities include the Washington State Convention Center, Benaroya Symphony Hall, the Seattle Public Library's central branch and the Seattle Art Museum. Churches and other organizations located in this area include the Plymouth Congregational Church, First United Methodist Church, the Downtown YMCA, the Women's University Club and the Rainier Club.

Downtown Office Core 2 (DOC2)

The DOC2 zone at the south end of the Commercial Core is a one-to-two block buffer and transition area between the denser DOC1 area and the historic districts (Pioneer Square and the Chinatown/International District) to the south and west. Although small, this area has three distinct use patterns. At its eastern edge near 5th Avenue and Yesler Way, properties are predominantly vacant or used for surface and garage parking and are mostly publicly owned. The central portion of this DOC2 zone accommodates some of King County and the City of Seattle's government office buildings, and a few subsidized housing structures. The character of the western portion of the DOC2 zone, along 1st, 2nd and 3rd Avenues, reflects the character of the adjacent Pioneer Square and Office Core areas consisting of newer office towers mingled with historic commercial and residential buildings.

Downtown Mixed Commercial (DMC)

This area extends along First and Western Avenues between Union and Columbia Streets. Historically a warehouse and commercial district serving the waterfront, it currently serves as a transition between the Pike Place Market, the waterfront and Pioneer Square and the Office Core.

The transition area between the Pike Place Market and the retail core contains several commercial, office and residential buildings from the first quarter of the 20th Century. The ground-level uses in this area include a variety of smaller-scale commercial uses oriented to Market shoppers and Downtown residents, restaurant and adult entertainment uses, and a scattering of parking lots and garages. This area, with the adjacent Pike Place Market, has the greatest concentration of housing in the Commercial Core. Residential buildings in the area range from the Harbor Steps Apartments and Newmark condominiums to the non-profit-managed Gatewood Hotel. With the construction of Harbor Steps and Newmark in the 1990s, this area is the only portion of the Commercial Core where significant new residential development has occurred.

Land uses along Western and First Avenues between Union and Columbia Streets transition from the higher-density office buildings in the DOC-1 to older office/warehouse-style buildings with historical character near the waterfront and Pioneer Square. However, newer residential complexes such as Harbor Steps and institutional uses such as the old Federal Building are also present. Some blocks contain highly improved uses such as the Alexis Hotel and Watermark Building, while the structures across the street contain vacant floors, adult-oriented businesses and pawnshops in older lower-scale structures. The area along Western Avenue contains a concentration of furniture and interior design-oriented businesses, many of which serve higher-end residential markets and the Downtown office market. Western and 1st Avenue are separated by a large elevation change at the north end of this area, but are linked by the Harbor Steps and a lower grade change south of Spring Street.

Denny Triangle

Downtown Office Core 2 (DOC2)

The DOC2 zone in the Denny Triangle is north of the DOC1 zone wrapping around the northern edge of the retail core. For the purposes of this study, the three DOC2 zoned blocks at the north end of the Commercial Core are analyzed as part of the Denny Triangle. This area is approximately bounded by Union Street and Boren Avenue, zigzagging to Blanchard Street and then south to Olive Way. Historically, with the adjacent DMC zone, this area supported light manufacturing, warehouse, and early automobile-oriented uses. Many of these structures have been converted to new uses. The land use pattern currently transitions from dense office, hotel and commercial retail uses in the south to relatively low-density older uses further north. The land use pattern in the southern portion reflects its adjacency to the retail core and Convention Center. The area features large retail and entertainment facilities such as the Pacific Place shopping mall, the Paramount and Meridian Theaters and large hotels such as the Sheraton, the Camlin and the newer Elliott Hotel. Overall, density of use decreases in blocks further from the retail core and convention center, providing a transition to the less-developed area to the north.

The Denny Triangle DOC2 zone contains a broad range of uses, often highly varied within the same block, from high-rise office buildings to parking lots or lowrise structures. Larger buildings include the new 24-story 1700 Seventh Avenue building, the Marsh and McLennan Building, the Bell Plaza building, and the Westin, Camlin and Vance Hotels. In addition to these hotels, several smaller hotels or motels are located in the area, such as the Sixth Avenue Motor Inn. Residential uses include two market-rate residential towers: the new Metropolitan Tower Apartments, and the Tower@801, built in 1970. In addition, there are a number of smaller-scale subsidized housing projects, such as the new 60-unit Stewart House, built in conjunction with the 1700 Seventh Avenue building. Other subsidized buildings include the Julie, Larned and Westlake Apartments, all built in the early 1900s and renovated in the 1990s. The new Federal Courthouse, West Precinct police station, Convention Place transit station, Urban Rest Stop and Washington State Library for the Blind are institutional uses in this subarea. Several sites, including whole blocks, are vacant or underdeveloped with surface parking lots, car dealerships and small-scale retail buildings. However, a number of new buildings have been built in this area: the 1700 Seventh Avenue office tower and Stewart House, the new Federal Courthouse, the Convention Center expansion, the Elliott Hotel, the new Metropolitan Tower apartment building and the West Police Precinct.

Downtown Mixed Commercial (DMC)

The Denny Triangle DMC zone, north of the DOC2 zone, is approximately bounded by I-5, Denny Way, 6th Avenue, and a zigzag edge between Blanchard Street and Boren Avenue. This area has a relatively low-density land use pattern mixed with occasional denser uses, similar to the northern portion of the DOC2 zone. The area has a wide range of uses and building sizes, with clusters of uses ranging from east to west; however, surface parking lots are prevalent throughout the area, making up 31% of the parcel area. Three large office buildings, the Metropolitan Park buildings, are located at the southeast corner of the area, adjacent to Interstate 5. At the eastern end of the area are nightclubs, a new hotel and housing projects, along with several surface parking lots. Near Fairview Avenue are clustered a small number of not-for-profit agencies such as Youth Care's Orion Center and the Dutch Shisler Sobering Support Center. Between Fairview and Westlake Avenues are found older warehouse buildings, many converted to office use, such as the Quinton Instruments Building, and small retail/service uses. Cornish College for the Arts will be moving into the Lenora Square and Sons of Norway Hall buildings in this area. Automotive uses such as automobile dealerships and Elephant Car Wash are located to the west of Westlake Avenue. This area also has a number of motels dating from the 1950s and 1960s, and is home to Antioch University. To the south of Antioch are a couple of office buildings, the 12-story Denny Building from 1968, and the 15-story Blanchard Plaza building from 1983. The vacant former U.A. Cinemas site is across the street from these buildings to the south.

Belltown

Downtown Office Core 2 (DOC2) and Downtown Mixed Commercial (DMC)

This area extends along the eastern and southern edges of Belltown, to the northeast corner of the Pike Place Market. It provides a transition between the residential core of Belltown and the Denny Triangle, the retail core, and the Pike Place Market. Transitions in type and/or density of land uses occur within these areas, reflecting shifts in the intended purpose or orientation of the adjacent areas. For example, Belltown's DMC zoned area adjacent to the Denny Triangle contains a variety of uses, such as surface parking lots, 1960s-era motels and automobile showrooms as well as new residential buildings, popular restaurants and the Cinerama Movie Theater.

The south end of Belltown contains a mix of older hotel, retail and business services uses and office buildings, reflecting the long-term commercial use of the vicinity and general proximity to the retail core. However, there are also numerous older and newer residential structures, indicative of the area's past and present attractiveness for residential uses. Among these residential buildings are a number of larger older hotel buildings such as the Moore, Josephinum and Calhoun, dating back to the first phase of development in the Denny Regrade, in the early 1900s. The area remains attractive for residential development, providing amenities attractive to new households, including proximity to service and entertainment uses in the Pike Place Market, retail core, Belltown, and views of Elliott Bay. The DOC2 portion of the area consists of two and a half blocks adjacent to the Retail Core. Entertainment uses, such as the Moore Theater, are distributed within this area, and several restaurants attract much evening activity. Parking lots and garages intermittently occur.

SURROUNDING AREAS

The study area includes the principal Downtown commercial zones and a majority of the Downtown Urban Center, but not Pioneer Square and the International District to the south. In addition, most of the Belltown neighborhood, the Pike Place Market, Retail Core and the Waterfront are omitted from the study area.

Other adjacent neighborhoods are located outside of the Downtown Urban Center. South Lake Union and the Cascade neighborhood border the area on the north. Pike/Pine, First Hill and the southwest portion of Capitol Hill are across Interstate 5 at the eastern border of the area. The Uptown Queen Anne Urban Center, which includes the Seattle Center, is northwest of the study area.

Pioneer Square is characterized by a mix of historic commercial and residential structures with a strong street-level presence. The edges of the study area provide transitions between the historic character and infrastructure of Pioneer Square and the Downtown Office Core 1 zone.

Grade changes and surface parking lots currently provide a buffer between the core of the **International District/Chinatown** and the study area. However, some of the densest residential areas of the International District are located on the hill just south of the office core. Beyond the International District hill, the neighborhood is characterized by numerous older mixed-use residential buildings, street level retail uses and older industrial buildings. Newer office and commercial buildings including the redeveloped Union Station have created an influx of new residents and employees to this neighborhood.

The **central waterfront** has a distinct identity related to historic pier structures and retail uses. The Washington State ferry terminal and several marine and tourist attractions including the Seattle Aquarium also contribute to the character of this area. The Alaskan Way Viaduct and railroad tracks form a perceptual barrier separating the waterfront from the adjacent Western Avenue vicinity. On a bluff above the Waterfront, and adjacent to the Commercial Core and Belltown DMC zones, the historic **Pike Place**

Market area contains a fine-grain mixture of retail and tourist-oriented uses, including hotels. The Market vicinity also includes several market-rate and subsidized residential buildings. The **Retail Core** is centrally located Downtown, surrounded by the study area. The area's retail shopping is anchored by two major department stores, two indoor shopping malls, and several street-level retail businesses. A few office towers also dot the area, some of which include street-level and mezzanine retail uses.

North of the Market and Retail Core, the **Belltown** neighborhood overlooks Elliott Bay, extending eastward to Fifth Avenue. Its mix of residential and commercial uses has changed considerably over the last 20 years with new residential development, but most prominently along the hillside at Elliott, Western and 1st Avenues. The eastern portion of Belltown is generally developed with one- and two-story commercial structures, and slightly taller brick residential buildings, punctuated by occasional office and residential towers, and surface parking lots. To the north of Belltown is the **Uptown/Seattle Center** neighborhood with its mix of office, residential, retail, and entertainment/recreational uses.

North of Downtown is **South Lake Union** with its mix of office and warehouse and light manufacturing uses close to Downtown, including the Seattle Times. A number of biotechnology and high-tech uses have developed in the north end of this neighborhood, close to the lake. Adjacent to I-5 and the Denny Triangle is the mixed-use **Cascade** community with residential, office, retail and light industrial uses.

Northeast of the Denny Triangle is the residential community of **Capitol Hill** with its midrise apartment and condominium structures, and small-scale neighborhood-serving retail uses. South of Capitol Hill is the **Pike/Pine** neighborhood with its growing collection of mixed-use residential/retail buildings and lower-scale retail and automobile-oriented buildings. South of Pike/Pine and adjacent to the study area is **First Hill** with its high-rise residential buildings, churches, major hospitals, employee-serving retail uses and surface parking lots used by Downtown commuters.

Land Use Pattern and Recent Development Activity

As described above, Downtown Seattle contains a wide mix of uses, often housed in high-rise towers, but also accommodated within a large range of building types and forms. This section of the Draft EIS describes these uses and recent development trends.

OFFICE

Amount and Location of Office Space

The entire Downtown Seattle/Central Business District office market currently has approximately 35,321,000 square feet (SF) of office space in 278 buildings. Between Denny Way and Yesler Way there are 178 office buildings containing approximately 26,225,000 square feet of office space, or 74% of the total Central Business District office market.

The highest concentration of Downtown office space is in the DOC1 area, with high-rise private offices in the central financial district and mid-rise government offices at the south end. Other concentrations are at the south end of the Denny Triangle DOC2 zone, including portions of the retail core. Large office buildings are also dispersed north of the retail core along 3rd through 6th Avenues and adjacent to Interstate 5 in the Denny Triangle's DMC zone. For more information about the location of Downtown Office uses, please see Appendix C.

Recent Development History and Absorption

“Absorption” compares the amount of office space newly built and/or demolished to the amount of space newly occupied and/or vacated. Typically, positive market absorption represents space that is now leased, that was not previously leased. Negative absorption indicates that space formerly leased has become vacant. Between 1988 and 2001, the rate of Downtown office space absorption averaged approximately 820,000 SF annually. In the five years between 1996 and 2001, absorption averaged 940,000 SF annually. Over this same five-year period, 4,875,000 SF was added to the Downtown office market. Projects built during this time include One Convention Center; 505 Union Station; Opus Center East, West and South; 1700 7th Avenue; Millennium Tower; World Trade Center East, West and North; King Street Center; Fisher Plaza; and Metropolitan Park III.

By the end of 2001, however, a large amount of office space was added to the available supply both through subleases and through tenants not renewing leases, resulting in a negative absorption rate. According to CB Richard Ellis, at the end of 2001, the vacancy rate for office space in the Downtown CBD and the Denny Regrade was 10 percent. Just under 2.5 million square feet of office space were available in these two subareas. Net absorption for the entire Downtown Seattle area was a negative 500,000 square feet in the fourth quarter of 2001 because a number of companies went out of business and construction of new office buildings was completed. Since 2001, three additional office buildings, the IDX Tower, the Fifth & Bell Building and the Gray Cary Building in the Chinatown/International District, have been completed. One private office project is under construction as of Fall 2003, the 9th & Stewart Life Sciences Building is being built by the Touchstone Corporation for Corixa, a biotechnology firm. Generally, new office space that is not specifically built for a particular tenant will likely not be built until the vacancy rate drops, and absorption rates become positive.

Seattle’s largest office buildings, spread throughout the DOC1 and adjacent DRC zone, were built during a construction boom that lasted throughout the 1980s. The 1.5-million square foot Bank of America (Columbia) Center is joined by six other buildings at or above 1 million square feet: U.S. Bank Center (in the DRC zone), Two Union Square, Washington Mutual Tower, Seafirst Fifth Avenue Plaza, the Wells Fargo Building and Key Tower. All of these buildings were built between 1980 and 1990 on full blocks, and were permitted under previous Downtown regulations. In 1985, with adoption of a Downtown plan, and again in 1989 because of a citizens’ initiative, height and density limits were reduced.

More recently, Downtown office projects have been built around the edges of the DOC1 zone, incorporating a broader mix of uses than were found in earlier generations of development. The largest buildings built in the study area under current land use code provisions include:

- **One Convention Place**, permitted as part of the expansion of the Washington State Convention & Trade Center. The first five stories of the 300-foot tall building are expanded Convention Center meeting rooms and entry areas. Above the Convention Center are 16 floors of private office space. With 308,580 SF on 22 floors, its floorplates range from 14,400 SF to 20,300 SF.
- **Millennium Tower**, a mixed-use office, condominium and retail building in the DOC2 zone. Above ground-floor retail are 13 office floors and 6 floors containing luxury condominiums. The office floors average 14,500 leasable square feet, totaling 188,000 SF of office space.
- **1700 7th Avenue (or Nordstrom Office Tower)**, built in the DOC2 zone, a 24-story office tower. It contains 538,000 SF of office use and 22,000 SF of retail on two levels. The building also includes seven levels of underground parking. In conjunction with this building, the Housing Resources Group is constructing Stewart Court, a 60-unit subsidized housing project next door. The developers of 1700 7th Avenue were able to use the commercial development rights available on the Stewart Court lot and in exchange helped to subsidize the cost of the land under Stewart Court.

- **IDX Tower**, the last major office tower completed Downtown. It is the largest office building built in Seattle since 1990. This office tower wraps around the historic Downtown Seattle YMCA building, and uses some of the development rights available from the YMCA site. On a 40,000 square foot site, the building contains a 7-story podium along 3rd Avenue and a 33-story tower north of the YMCA building. With 846,600 total SF, typical floor plates average 24,000 SF.

Except for the IDX Tower, these buildings were built at the edges of the traditional office core, indicating an expansion of the character of the DOC1 zone into surrounding areas to the north, south and west.

Proposed Projects

As of Fall 2003, at least twenty office projects had been proposed for Downtown Seattle. These projects would include 6,735,700 SF of office space. In these projects, there is enough proposed office space to accommodate between 7.5 and 8.5 years of demand, based on average annual historical absorption rates. Not all of these projects will likely be built. A number of these projects are still in the conceptual stage, and some are “on hold” indefinitely and will be re-examined when demand for new office space starts to increase. Only a handful will come on-line when currently projected. The amount of pre-leased space is the greatest factor affecting decisions to develop. For most developers, construction financing hinges on whether a certain percentage of space can be leased before construction. The exact percentage is unique to every developer and each project, but it ranges somewhere between 10% and 50% of the project. The proposed office projects are listed in Appendix C.

HOTELS AND MOTELS

Amount and Location of Hotel Rooms

Downtown Seattle currently has over 8,000 hotel rooms in 40 buildings. The Downtown hotel market consists of twelve major hotels with 4,764 rooms, and a number of smaller hotels ranging from 20 rooms to 300 rooms. In November 2001, Downtown hotels had an overall occupancy rate of approximately 58%, down from 70% in 2000 (Stephen Dunphy quote of Wolfgang Rood Hospitality, *Seattle Times*, “*The Newsletter: No Need to Leave the Light On*”, 1/16/02). However, hotel occupancy has improved somewhat since that time.

Seattle’s largest hotels are found within five blocks of the Convention Center and retail core. These hotels include the Westin Seattle and the Seattle Sheraton with over 800 rooms apiece. Other major hotels include the Renaissance Madison with over 500 rooms, and the Four Seasons Olympic, the Seattle Hilton, the Seattle W Hotel and the newer Elliott Hotel, each with more than 400 rooms. Two office towers that were converted to hotels in the last decade, the Red Lion Hotel and the Monaco Hotel, are also near these larger hotels.

Smaller hotels are scattered throughout Downtown, although a number are found near 1st Avenue to serve tourists visiting Pioneer Square and the Pike Place Market. More automobile-oriented motels are found along 5th and 6th Avenues, most built to serve the 1962 World’s Fair.

Recent Development History

Four types of new hotels have been built Downtown in the last ten years: new full-service hotels, conversions of office buildings to full-service hotels, new limited-service hotels and renovations of existing buildings into boutique hotels. The following new Downtown hotels are in or adjacent to the study area:

- **Seattle W Hotel**, in the DOC1 zone, across the street from the Four Seasons Olympic Hotel, was the first new major hotel building to be built in Downtown Seattle since 1983. The W is a 26-story tower

with a ground-floor restaurant and bar, meeting rooms. The W has 426 hotel rooms and suites in 272,000 SF with approximately 10,000 SF floorplates.

- **Elliott Grand Hyatt Hotel**, like the One Convention Place office building, was incorporated into the recent expansion of the Washington State Convention Center. Built in conjunction with the Convention Center's 950 space parking garage, the Elliott contains 425 rooms in a 29-story building, including 40,000 SF of restaurant space. The fourth floor of the building contains 98,000 SF of Convention Center space. The hotel itself is 410,000 square feet with approximately 14,000 SF floorplates.
- The 11-story **Paramount Hotel** was finished in 1996. Located on Pine Street across the street to the northeast from the Elliott, it was the first hotel to be built downtown since 1983. Its 146 rooms average 325 square feet.
- The **Monaco** and **Red Lion Hotels** were originally office buildings built in 1969 and 1973 respectively. The 134,000 SF Monaco contains 189 guestrooms in eleven stories with a ground floor restaurant and lounge. The Red Lion is a 297-room hotel with 272,800 SF in 19 stories.
- Marriott's **SpringHill Suites** is a new limited-service hotel at the edge of Downtown in the Denny Triangle. It contains 234 suites, a restaurant and lounge on ten floors. The building is 96,000 SF in size.

Except for the SpringHill Suites, all of these new hotels are within a block of an existing hotel and close to the retail core and the Convention Center.

Proposed Projects

A number of hotels have been discussed over the last three years. The Seattle Sheraton, currently over 800 rooms, has considered a 400-room expansion. Two other hotels have been proposed near the retail core. One would be built on the block between 6th Avenue, Stewart Street and Olive Way. This project would contain a 300-room luxury hotel and condominiums. Another mixed-use structure including a hotel has been proposed for the half-block adjacent to the Bon Parking Garage at 2nd Avenue and Pine Street. This project would contain a large amount of retail space, a 189-room luxury hotel and 31 condominiums. The 358-room Marriott Hotel was recently completed along Alaskan Way adjacent to the Port of Seattle's Bell Harbor Conference Center. Also, a mixed-use hotel building has been proposed for the Warshal's Sporting Goods site at 1st Avenue and Madison Street. This project would contain a 100- to 200-room hotel and condominiums. Most of these projects are in the conceptual design stage and may not be built.

HOUSING

Amount and Location of Residential Buildings

According to the 2000 U.S. Census, there were 12,852 housing units in the Downtown Urban Center. The largest concentration of units is in the Belltown neighborhood. Most of the blocks between 5th and Elliott Avenues contain at least one residential structure. Other housing concentrations Downtown are in and around the Pike Place Market, in Pioneer Square and along 6th and Maynard Avenues in the Chinatown/International District.

Within the study area, the largest concentration of housing can be found along the edge of the abutting Belltown and the Pike Place Market along 1st Avenue. Another, small concentration of housing is located in the northeast corner of the Denny Triangle, close to the Pike/Pine, Capitol Hill and Cascade neighborhoods. Table 22 shows the number of units in each urban village according to the most recent U.S. Census. For more description of housing in Downtown Seattle, please see the Housing chapter.

Table 22
Downtown Urban Center Village Housing Units

Urban Village	Census Units
Belltown	6,707
Chinatown/International District	1,641
Commercial Core	2,780
Denny Triangle	927
Pioneer Square	797
Total Downtown Urban Center	12,852

Source: U.S. Census, 2000

Recent Development Activity

Over the past decade, several new residential buildings have been built in Downtown Seattle, many in the Belltown Urban Village. Some residential buildings built in the study area may be indicative of future residential building types in Downtown Seattle. These include:

- **Metropolitan Tower** is a high-rise apartment building in the Denny Triangle's DOC 2 zone and is the first market rate apartment building to be built in the Denny Triangle since 1970. Its 366 units average 900 SF, ranging from 500 to 1,500 SF. Units provided range from studios to 3 bedroom units. The building includes ground floor retail space, a spa with swimming pool and concierge services.
- **Millennium Tower** contains six floors of high-end condominiums on top of 15 floors of office space. It is the first new building with residential units to be built in the Commercial Core DOC2-240 zone in ninety years. Its condominiums range in size from 2,300 to 10,000 square feet. The project includes the maximum permitted office floor area, and because residential uses are exempt from floor area limits and there was additional permitted building height and bulk, the developer maximized the building area by adding condominiums. This closely-watched project has had difficulties selling its luxury condominiums, which may discourage similar buildings of this type in the near term.
- **Stewart Court** – a subsidized residential project in the Denny Triangle's DOC2 zone. This project was made feasible by construction of the 1700 7th Avenue Project. A subsurface alley vacation made it possible for the developer of 1700 7th Avenue to use development rights from the adjacent Stewart Court site, in addition to gaining bonused commercial floor area. The office developer, through a housing bonus agreement, subsidized development of Stewart Place as a 65-unit housing project affordable to low-income households. Twenty studio and 45 one-bedroom units occupy a 6-story building with ground floor retail and below-grade parking.

During the summer of 2003, five residential buildings were under construction in Downtown Seattle. These projects range from the Cristilla condominium tower at Second and Lenora, which will contain almost 200 new units in a primarily single-purpose residential structure, to the International District Village Square project at 8th Avenue S. & S. Dearborn Street which will combine fifty-seven units with a new library, community center and human service uses. Overall, these new buildings will add 244 market-rate units and 252 subsidized units Downtown.

Proposed Projects

As of the summer of 2003, at least 18 new residential projects with more than 2,000 dwelling units are proposed in Downtown. Almost all of these projects combine a mix of uses. Ground floor retail space is common in Downtown residential projects. However, some projects propose to combine office or hotel uses

and residential uses. Proposed or under-construction projects with residential uses are shown in Appendix C. Many of these were first proposed before the decline of the residential real estate market in 2001, and may change significantly before they are constructed.

RETAIL

Amount and Location of Retail Space

Retail space is located throughout the Downtown Urban Center. Street level, office-serving retail space is common in much of the office core. Tourist-oriented retail uses are frequently found near tourist destinations, such as Pioneer Square, the waterfront and the Pike Place Market. Residential-oriented retail services are growing in the Belltown area. However, the city's major concentration of retail space is in and around the Retail Core centered on Pike and Pine Streets between 3rd and 6th Avenues. Here the size of retail uses range from small shops to department stores with over 1,000,000 square feet of retail space.

Recent Development Activity

The most recent major retail project in Downtown Seattle is the Pacific Place shopping mall in the DOC2 zone at the north end of the Commercial Core. This facility includes a City-subsidized 1,200-space short-term parking garage with a 325,000 SF complex with a mix of retail, restaurants and cinemas. Additional retail space has been added as part of the Convention Center expansion, primarily at the base of the Elliott Hotel.

Proposed Projects

Two proposed new major retail spaces are not purely retail but combine sizable retail spaces with residential and commercial space. The Avalon Hotel is a mixed-use project including a 6-story, 148,000 square foot department store. This project, a block away from both the Bon Marché and the Pike Place Market, would help extend the retail core to the west. The Milliken/Vulcan project at 2200 Westlake Avenue would include the second grocery store in Downtown Seattle and the first full-size grocery north of the International District as part of a large mixed-use complex, with a total of 93,000 square feet of retail space.

HUMAN SERVICES

Amount and Location of Human Services Facilities

Downtown Seattle Human Service agencies provide a broad range of services to the residential and employee populations in Downtown Seattle and the region as a whole. Services provided by human service agencies in the study area include:

- Child care
- Emergency shelters;
- Short-term transitional housing facilities;
- Permanent subsidized housing with on-site human service facilities;
- Alcohol and drug abuse treatment programs;
- Mental health counseling and medical care programs; and
- Education, legal and job referral and training facilities.

A 1999 survey of Downtown Seattle Human Services providers identified 58 different agencies operating 99 separate programs providing human services in the Downtown Urban Center. Thirty-three of those programs are located in the study area. Several human service agencies own their own buildings, especially long-established agencies, those that provide housing or shelter, and government-run facilities. Providers without their own buildings often co-locate with a church or other provider. Others lease space

in older, smaller office or retail spaces less attractive to market-rate tenants. Of the 58 identified agencies, nine non-governmental agencies could be identified as locating in privately owned buildings. Seven of those nine buildings are located within the study area. Washington State and Federal Government agencies also lease space in private buildings.

Some human service agencies provide services without office space in Downtown Seattle. Operation Sack Lunch brings lunches to the homeless in Downtown Seattle from locations outside of Seattle.

Recent Development Activity

Some of the largest recent Downtown human service projects have combined human services and residential uses. For example, the International District Village Square project built by the Seattle Chinatown/International District PDA includes residential units, mental health transitional housing, a social service agency, retail space and restaurant space. The Dutch Sisler Sobering Center/Harbor House project developed by the Seattle-King County Department of Public Health and the Community Psychiatric Clinic combines a short-term sobering center for chronic public inebriates with a longer-term transitional housing facility for the mentally ill. The Urban Rest Stop in the Denny Triangle was recently created on the ground floor of LIHI's Julie Apartments. The Boomtown Café has been located in the Morrison Hotel building. Senior Services of Seattle/King County built a combined human service office and senior housing project in Belltown outside of the study area. The Lillian Rice Center contains three floors of program and administrative space for Senior Services, and five additional floors of low-income housing for seniors. Finally, within the Belltown DMC-240 zone, YWCA is building the Opportunity Place project, combining counseling, food and health services for homeless women, job counseling, training and placement services and 145 apartments for very-low-income women.

Proposed Projects

A few agencies have proposed new combinations of human services and housing. LIHI has received permit approval for a new 7-story building containing LIHI's offices and five stories of housing at the north end of Belltown. Another project, to be built by the Downtown Emergency Services Center, will provide housing and supportive services for street alcoholics in the DMC-125 zone in the Denny Triangle.

On the other hand, some human services agencies have faced displacement because of redevelopment of existing buildings or concern about their impacts. Street Outreach Services, which provides a number of services for the homeless and drug users, was forced to move in 2001. The agency's rent had been eighty cents per square foot per month, significantly less than the thirty dollars per square foot per month that was being asked for some retail spaces in the retail core four blocks away. The agency was able to find new office space, but has not been able to find a location for a Downtown drop-in center.

LANDMARK STRUCTURES AND DISTRICTS

There are 27 designated City of Seattle Landmark buildings in the different subareas. The biggest concentrations of landmark buildings are in the Belltown and Commercial Core DMC zones along 1st Avenue generally between Madison and Seneca Streets. Other groupings of City landmarks occur near Pioneer Square and along Cherry Street. In addition, six buildings within the study area have been designated Washington Historic Register and National Register landmarks, but not City landmarks. Most of these structures are owned by the Federal Government or a Washington State agency. The study area is adjacent to three City, State and Federally designated historic districts, the International District Special Review District, the Pike Place Market Historic District and the Pioneer Square Preservation District. In addition to the landmarks within the study area, 21 City landmarks are within one or two blocks of the study area. These landmarks are listed and mapped in Appendix D.

Recent Renovations

A few landmarks within the study area have been substantially renovated over the last 5 years, including the Downtown Seattle YMCA, completed in 2000. Its 100,000 SF contain the Gates Youth Development Center, an expanded pool, gymnasium, exercise areas, locker rooms with steam, sauna, and whirlpool, racquetball and handball courts, administrative offices, and young-adult transitional housing units. Renovation was funded through a variety of mechanisms, including use of the City of Seattle's Transfer of Development Rights program and through a partnership with the developers of the adjacent IDX Tower.

The Julie Apartments is a landmark apartment building in the Denny Triangle. It was renovated in 1999 by LIHI, with funding coming from several sources, including the City's Transfer of Development Rights program. The 1929 building now includes 47 low-income units, a ground-floor grocery and the Urban Rest Stop, which provides laundry and hygiene facilities to the homeless.

The historic Dexter Horton office building was recently extensively renovated. It was sold by the City of Seattle, which had used it for City offices for 12 years. The current renovation includes earthquake stabilization and an updating of the office space. The Exchange Building northwest of the Dexter Horton Building was renovated in 1999 and 2000.

VACANT AND UNDERUSED SITES

Downtown Seattle is the densest commercial area in the Pacific Northwest. However, numerous blocks contain vacant parcels, surface parking lots, or relatively small buildings compared to the maximum size of a building that could be developed. Figure 15 illustrates vacant and underutilized sites that are considered by this study to be redevelopable in the future. This study divides potentially redevelopable sites into Primary and Secondary development sites, depending on existing use, ownership, location and general ease of development. The study classified 166 parcels (55.6 acres) as primary development sites and 78 sites (16.4 acres) as secondary sites. Table 23 shows current land uses on these sites.

Table 23
Existing Uses on Vacant and Underutilized Sites

Use	Primary Sites			Secondary Sites		
	Parcel Area (SF)	Building Size (SF)	Average FAR	Parcel Area (SF)	Building Size (SF)	Average FAR
Parking	1,102,455	658,422	0.6	221,059	110,050	0.5
Retail/Service	493,474	532,903	1.1	158,895	152,716	1.0
Office	273,655	669,134	2.4	87,470	198,085	2.3
Industrial/Utility	146,282	187,589	1.3	154,457	359,801	2.3
Government Facility	112,658	455,825	4.0	0	0	0.0
Vacant	108,595	0	0.0	7,200	0	0.0
Other Public/Non-Profit Facility	103,320	268,145	2.6	27,960	59,986	2.1
Hotel/Motel	91,395	111,680	1.2	6,660	35,820	5.4
Residential	20,492	93,498	4.6	36,840	190,900	5.2
TOTAL	2,452,326	2,977,196	1.2	700,541	1,107,358	1.6

Source: King County Assessor, Cushman & Wakefield

Office uses represent the next largest category of underdeveloped sites. The average FAR on underutilized sites is less than 2.5 FAR. Office buildings within the study area are currently permitted to be built to FAR limits between 7 and 14, three to six times the average size on underutilized sites. Office buildings surrounded by surface parking lots were particularly identified as potential redevelopment sites.

Industrial and utility sites Downtown were also identified as underutilized. Industrial structures Downtown are most often warehouse buildings, both mini-warehouse and larger warehouse buildings. However, there remain some heavier industrial uses in the Denny Triangle, such as printing companies. Downtown utilities that can be considered underutilized include Seattle City Light and Seattle Steam sites.

Utility uses were generally categorized as secondary sites given their owners' long-term interest in serving Downtown Seattle. Transportation facilities such as the Greyhound Terminal in the Denny Triangle were also classified in the industrial/utility category. While these facilities provide important services, owners are likely to redevelop these properties if they want to maximize their investments.

Government facilities include all sites currently owned by government agencies, including properties in the City of Seattle's Municipal Campus identified for redevelopment, such as the Public Safety Building site. Other such sites include King County's Goat Hill properties, currently used as a surface parking lot, and the Central Post Office, which is in a relatively small building compared to the maximum permitted space on the site.

Vacant sites are those not currently used for any use, not even a surface parking lot. If a vacant structure was on the site, it was classified according to its last use. Vacant sites with no structures are prime sites for redevelopment, unless they are very small.

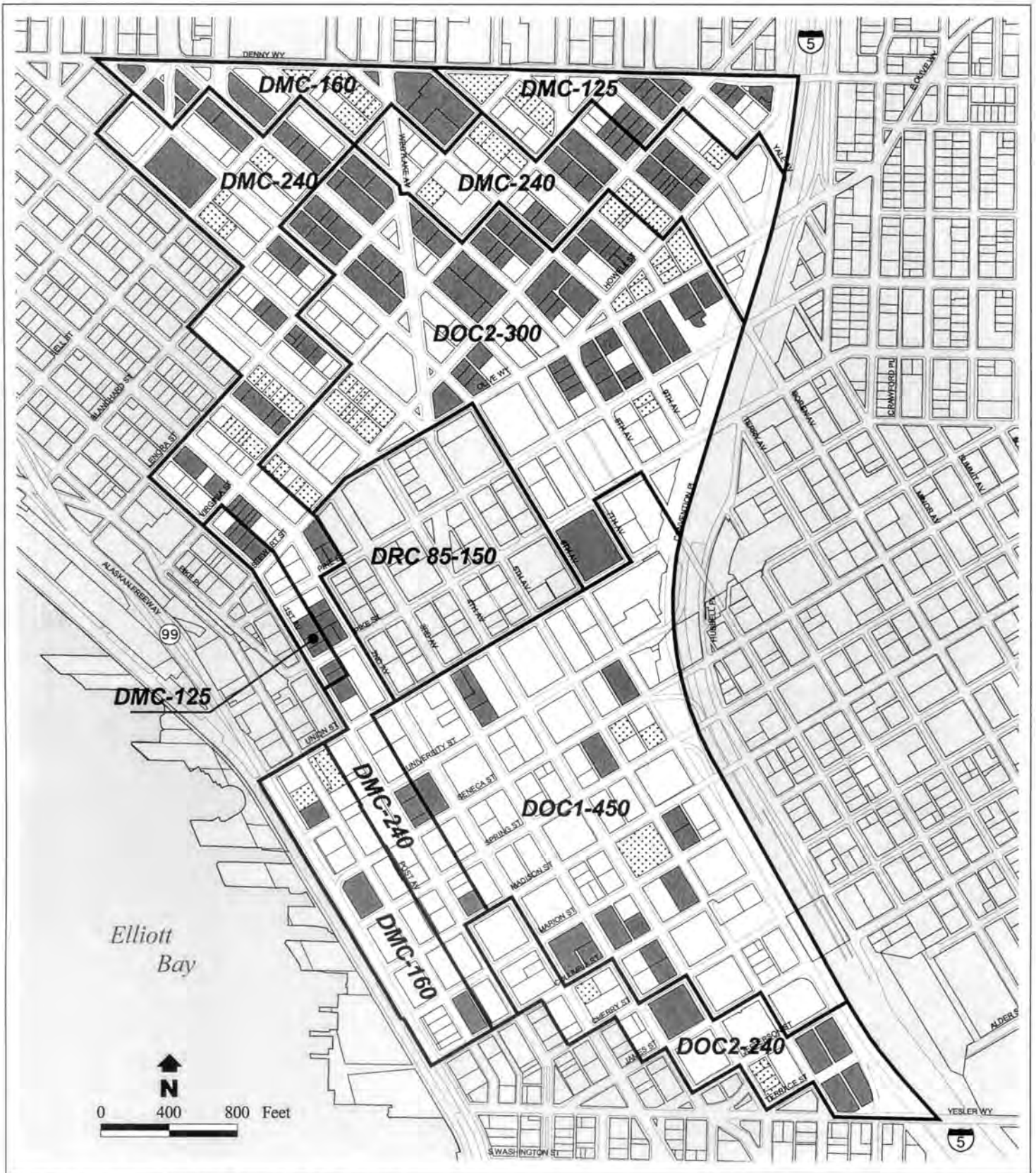
Other public or non-profit facilities include small buildings owned or occupied by non-profit organizations, churches, private clubs, schools and childcare facilities, and other private organizations that do not fit into the other categories. A number of Downtown churches were identified as redevelopable, in part based on their recent interest in redevelopment opportunities. Non-profit agencies in small buildings may consider redevelopment if there are opportunities to expand in equally accessible locations.

A few of Downtown Seattle's motels were identified as redevelopable, because of their comparatively low-density use. These motels are generally along Fifth and Sixth Avenues in the Denny Triangle.

Six residential buildings with 296 units were identified as redevelopable, given their size and surrounding low-density development. These sites are discussed in more detail in the Housing section.

Current Zoning Classifications

The study area is subject to three different zoning designations: Downtown Office Core 1 (DOC 1), Downtown Office Core 2 (DOC 2) and the Downtown Mixed Commercial (DMC) zone, as shown on Figure 16. These zones are all intended to accommodate a wide range of uses, and are differentiated primarily by the density of the buildings permitted. However, DOC 1 and DOC 2 are generally intended to provide locations for concentrated office development to accommodate employment growth. The DMC zone allows for a greater mix of commercial uses and housing to accommodate both employment and residential growth. Height limits and floor area ratios (FAR) are the defining factor in how these areas are regulated, rather than the mix of uses permitted or prohibited. See the Urban Design section of this chapter for additional information and discussion of zones, height limits and density limits.



POTENTIAL DEVELOPMENT SITES

FIGURE 15

Strategic Planning Office
City of Seattle
May 20, 2002



Primary Development Sites



Zoning Boundary



Secondary Development Sites

Outside Study Area

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DOC 1. The Downtown Office Core 1 zone is intended to function as a high-density office and commercial area with related support services and retail shopping. This area is intended to be the densest of all areas Downtown, with the tallest height limits, in order to capitalize on existing transportation and utilities infrastructure. The DOC 1 zone has an existing height limit of 450 feet, and a maximum commercial FAR limit of 14 FAR.

DOC 2. The Downtown Office Core 2 zone is intended to accommodate significant office densities and provide a transition between the Office Core 1 zone and less dense areas north and south of the Downtown core. Office uses are a primary emphasis, along with other commercial uses, retail shopping and services to support the DOC 1 area. The DOC 2 zones in the study area have existing height limits of 300 and 240 feet, and a maximum commercial FAR limit of 10 FAR.

DMC. The Downtown Mixed Commercial zone is intended for “lower-scale” office, retail and commercial uses supportive of the Office Core, along with housing and services for that housing. Buildings are expected to be lower in order to provide a transition between the office core and the surrounding lower-density neighborhoods. The DMC zones in the study area have existing height limits of 125, 160 and 240 feet, and a maximum commercial FAR limit of 7 FAR.

See Appendix E for additional description of Downtown zoning and land use regulations.

IMPACTS

Real Estate and Land Use Impacts

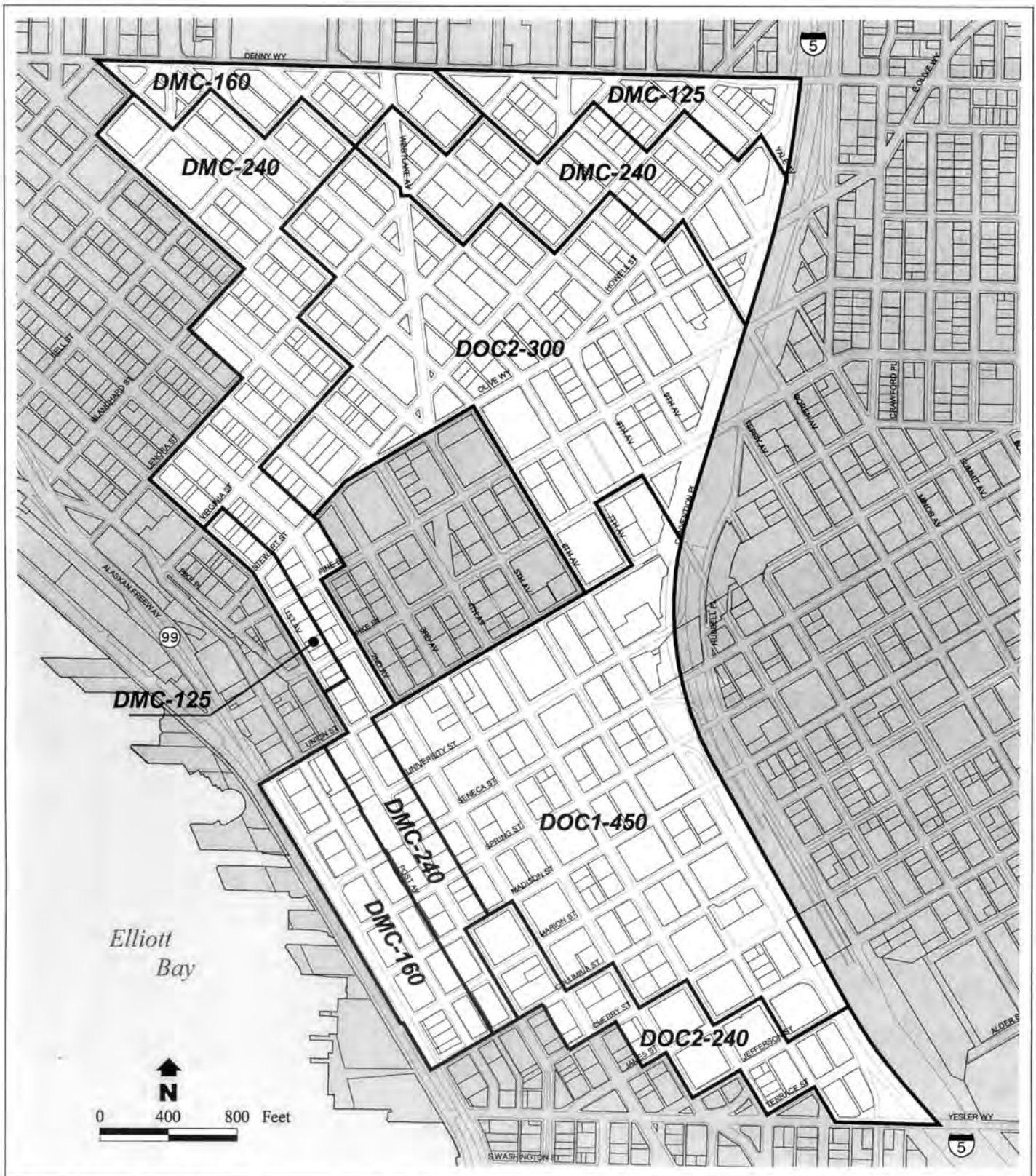
Under all alternatives, if the development forecasts are achieved, land use in the study area would be significantly transformed by the increased density of residential and commercial development. This transformation is expected to occur consistent with the City’s Comprehensive Plan and neighborhood plans for the study area and is not necessarily an adverse impact.

Under all of the alternatives, including existing conditions, some City of Seattle landmarks, some existing housing and some buildings containing human service uses might be demolished. However, those demolitions would be as likely to occur under existing conditions as under any of the alternatives and are not significant adverse impacts of the alternatives.

In spite of a lack of significant unavoidable adverse impacts directly resulting from these alternatives, the different alternatives would have varying effects on: the capacity for new development; the concentration and mix of development over twenty years; the potential demolition of residential buildings and human service facilities; and the preservation of landmark and other key community structures.

ALTERNATIVE 1 – HIGH END HEIGHT AND DENSITY INCREASE

Alternative 1 would create the greatest capacity for residential and commercial development of any alternative. In the long term, dense office development might be likely in all zones within the study area, interspersed with some mixed-use residential/commercial towers and some residential buildings adjacent to office towers. More commercial floor area would be permitted on any individual site and increased height limits would permit more floors of housing on a site, leading to denser market-rate residential structures. Consequently, if projects are consistently built to the maximum permitted FAR and height limit, fewer buildings would need to be built to meet the same demand for commercial and residential space. As a result, over the next twenty years, Alternative 1 would result in the fewest number of sites being redeveloped (potentially 54 projects on 57 acres under one development scenario). It is likely that this alternative would encourage the retention of small-scale buildings that enhance the character of Downtown as well as surface parking lots in their current uses.



CURRENT ZONING WITHIN THE STUDY AREA

FIGURE 16

- Zoning Boundary
- Outside Study Area

Strategic Planning Office
City of Seattle
May 20, 2002

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dwntimes/zoning.apr

Development Capacity

Craig Kinzer & Company, Cushman and Wakefield and the Seneca Real Estate Group were retained to create a model of Downtown's potential commercial development capacity, commercial development distribution, and possible housing growth under the four EIS alternatives. Their analysis identified likely development sites within the study area, and the maximum potential development that could occur on each site. In addition, their study assessed the potential timing and geographic distribution of future development. Table 24 summarizes their findings about development capacity that can be accommodated on potential redevelopment sites in Downtown Seattle. Appendix F contains their report.

Table 24
Development Capacity on Underdeveloped and Vacant Parcels

Urban Village/ Current Zoning	Alternative 1		Alternative 2		Alternative 3		Alternative 4	
	Comm. SF	Res. Units	Comm. SF	Res. Units ¹	Comm. SF	Res. Units	Comm. SF	Res. Units
Commercial Core								
DOC1	6.70M	0	6.70M	0	6.70M	0	5.52M	0
DOC2	3.93M	525	3.84M	590	3.84M	590	2.96M	430
DMC	2.68M	735	1.87M	750	1.87M	750	1.87M	755
Denny Triangle								
DOC2	12.49M	2,895	11.64M	3,545	10.07M	2,970 (4,520)	9.10M	2,485 (5,155)
DMC	7.98M	4,275	5.85M	2,865 (5,490)	4.98M	3,935 (6,810)	5.85M	2,890 (5,485)
Belldowntown								
DOC2	1.54M	375	1.43M	460	1.10M	325	1.10M	325
DMC	2.99M	1,700	2.35M	1,610	2.03M	2,105	2.35M	1,605
Total	38.32M	10,505	33.70M	9,820 (11,880)	30.00M	10,185 (14,595)	28.75M	8,490 (13,755)

Source: Craig Kinzer & Co., The Seneca Real Estate Group, Cushman & Wakefield of Washington, 2001; SPO, 2002

Under Alternative 1, the total capacity for office development on vacant and underutilized properties in the study area is 38.32 million square feet of commercial space. Based on ERA employment projections, this capacity could accommodate as much as 44 years worth of employment growth. Office development could occur throughout the study area, although there is much less capacity for additional office development in the Commercial Core Urban Village than in the Denny Triangle. If all available sites were redeveloped, approximately 867,200 square feet of existing office space would be demolished. This office space is generally in older buildings in fringe locations, currently providing space for non-profit organizations, smaller office-based businesses, and businesses that provide services to Downtown office tenants.

Under Alternative 1, there is capacity for 10,505 market-rate residential units in the study area, primarily on sites that would also accommodate commercial development. This capacity could meet approximately 11 years worth of Downtown's residential demand. Combined with areas Downtown outside of the study area, there would be capacity for 25 years worth of residential development.

If all identified sites are developed, six existing residential buildings could be demolished. These buildings currently contain 296 units. See the Housing section for more discussion of potential demolition of residential structures. Under this alternative the Denny Triangle TDC program would be essentially

¹ Where two numbers are presented, the first equals the maximum residential capacity without use of the TDC program. The second – in parentheses – equals the maximum capacity if all eligible sites were to use the TDC program. If only one number is presented, projects in that area would not be eligible to use the TDC program.

eliminated because the extra height that provides an incentive for additional residential development would be permitted outright for commercial structures. For more discussion, please see the Housing section.

This combination of office and residential development would result in a mix of high-rise office buildings, high-rise hotels (potentially topped with residential units) and high-rise residential buildings, all with ground-floor retail uses. Residential uses would be incorporated into high-density commercial projects. There would likely be few concentrations of residential uses; rather, housing projects would be interspersed among commercial structures.

20-Year Development Model

According to the Kinzer & Co. analysis, changes to the zoning, as studied under this EIS, in and of themselves do not change the supply and demand cycles. In other words, changing permitted commercial densities does not necessarily lead to more development occurring in Downtown. The amount of space provided Downtown reflects the amount of demand for Downtown space. Demand will generally change based on regional, national and global economic trends, not because of changes to the Land Use Code. See the Population and Employment section for more discussion of likely demand for additional space.

Without a change in the demand for new space, there is not likely to be a change in the total amount of space that developers are likely to produce over a given period. The four alternatives generally focus on changes to the amount of office and residential space that could be built on particular sites. The main difference in how the different alternatives will affect land uses in Downtown Seattle over twenty years is in the number and size of buildings that would be developed to meet the demand for office and residential space. Over a given time period, alternatives that increase development capacity are likely to lead to fewer, larger buildings in the study area. Alternatives that do not increase the density limits will generally lead to more sites being developed over a specific period, dispersed more broadly within the study area.

In order to gain a better understanding of how the four alternatives might influence the mix of land uses in the study area, the City of Seattle developed a potential 20-year development projection for each alternative, between 2000 and 2020. Included are sixteen projects either completed since 2000 or under construction as of January 2002: nine office buildings, two new hotels, four residential buildings and one mixed office/residential building. Also included are seventeen projects that have undergone substantial permit review. These projects were generally assumed to continue to completion, unless a project is likely to take advantage of increased density limits. See Appendix G for more information.

Twenty years worth of demand would require more than the sites identified above. The development capacity model selected potential 20-year development sites based on the following assumptions:

- For most parts of Downtown, developers are likely to maximize office floor area allowed under the Land Use Code.
- If significant additional floor area were available within a permitted building envelope after a commercial area of a building has been built to its maximum permitted FAR, the additional space would be used for residential uses. This combination of commercial and residential uses was assumed to be most likely on sites that would accommodate the commercial and residential uses in separate structures on a single site.
- Based on recent development trends, residential uses were assumed to be preferred over commercial uses in the Belltown urban village, especially in those areas along 1st and 2nd Avenues.
- No residential uses were assumed to be developed in the Downtown Office Core 1 zone.

- Larger sites with low-density development were assumed more likely to be redeveloped than smaller sites and those sites with significant structures.
- Sites close to the Downtown core and transit facilities are more likely to be redeveloped before sites farther from the Downtown core.

Table 25 summarizes the results of this development scenario exercise.

Table 25
Downtown Development Scenario 2000-2020²

Urban Village/ Current Zoning	Potential Commercial Square Feet				Potential Residential Units			
	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Commercial Core								
DOC1	4.12M	4.84M	4.84M	4.63M	0	0	0	0
DOC2	1.17M	1.17M	1.09M	1.09M	20	20	20	20
DMC	0.99M	0.70M	0.70M	0.70M	405	395	425	395
Denny Triangle								
DOC2	8.28M	7.88M	8.08M	7.65M	4,495	4,725	4,660	4,540
DMC	2.5M	2.08M	1.91M	2.35M	990	1,165	1,340	1,170
Belltown								
DOC2	0	0	0	0	565	565	420	420
DMC	0.87M	0.87M	0.87M	1.05M	895	770	685	770
Total	17.93M	17.54M	17.49M	17.47M	7,370	7,640	7,550	7,315

Source: Strategic Planning Office, 2001

Office Development

Twenty years worth of employment growth could be concentrated primarily in the Denny Triangle, with more office space built in the DOC 2 and DMC zones than under many of the other alternatives. Potentially difficult development sites in the DOC 1 zone (those sites with older, potentially historic structures in active use; smaller sites less than a half-block in size; and sites owned by multiple parties) would be less likely to be redeveloped in the twenty-year time frame, even with proposed increases in height and density limits. This results in less office development in the Commercial Core. With increased density limits, DMC and DOC 2 sites that do not face those development challenges would be able to accommodate most of the projected demand for office space.

Hotels and Motels

Hotels are likely to continue to be built near existing hotels, as these hotels are located to serve tourists, convention goers and business people. Potentially, 3,000 hotel rooms would be built over 20 years, generally within one block of the Retail Core (one hotel has been proposed along 1st Avenue further south in the Commercial Core, across the street from existing hotels). If there is a market for additional high-end residential units in Downtown Seattle, many of these hotels could include condominium or apartment units, providing the residents of those units with many hotel services. One older automobile-oriented motel in the Downtown Office Core 2 zone may be redeveloped within 20 years.

² This analysis is hypothetical and models buildings that are at least 200,000 square feet. Differences in the total amount of development occurring under each alternative should not be seen as indicating an impact of the alternative. Instead, the model indicates general shifts of development from area to area because of higher or lower density limits.

Housing

In the 20 years between 2000 and 2020, residential growth within the study area may be concentrated on approximately 34 sites, including five structures currently under construction. The Denny Triangle would see the most residential development. Projects would include residential uses in a range of configurations, including individual residential towers, mixed-use buildings with commercial uses and residential uses in the same building, and mixed-use complexes with separate residential and commercial structures on a site. Additional residential development in the Commercial Core would be most likely as part of hotel projects. The south Belltown area is most likely to be developed with residential-only structures.

In 20 years, funding for approximately 2,475 subsidized units could be leveraged through funds from the Downtown bonus and TDR programs. If the height and density changes proposed under Alternative 1 are implemented, land prices within the study area will increase in order to reflect the increase in revenue that each particular site would see from a larger potential building. These increased land prices within the study area would increase the land acquisition costs low-income housing developers face and thus increase the costs to develop each additional unit. Consequently, subsidized housing units would most likely be built on sites in Downtown Seattle where land is less expensive than it is likely to be in the study area. Such sites would generally be located at the fringes of Downtown. See the Housing section for more discussion.

Human Services

With development to meet future demand for office and residential space, there is likely to be a loss of space for human services Downtown. Existing buildings that contain human services, especially those buildings with below-market rents owned by private property owners, are likely to be torn down for redevelopment. One site currently accommodating human services was identified as a potential redevelopment site within twenty years under Alternative 1. However, ten programs currently provided in Downtown Seattle are located on sites identified as potential redevelopment sites and any of these sites could be redeveloped over or beyond twenty years.

Examples of these potential redevelopment sites include all Downtown Seattle churches. Each Downtown church provides space for some human service agencies and each, because their current structures are much smaller than potential development on their sites, is likely to consider redevelopment over the next twenty years. At least one Downtown church has submitted a development proposal. If these churches decide to sell their Downtown property and move to another site outside of Downtown Seattle, some Downtown Seattle human services will be likely to relocate.

Even if no buildings containing human services are demolished, some human service agencies may still be displaced under Alternative 1. The height and density increases in Alternative 1 are likely to lead to higher land values reflecting increased future profits due to the increased development potential. As land values grow, property taxes will also increase. In order to offset these increased future costs, property owners will need to increase rents they charge their tenants. Both existing and new human service agencies seeking Downtown locations may find it difficult to pay rents that offset property owners' costs.

Relocating human services that need public subsidies for their services is not as simple as relocating other types of uses. Each City-funded human service agency must go through a neighborhood notification effort as it seeks to locate, move or expand within a neighborhood, providing barriers and increasing costs for locating human service agencies that are not present for other types of uses.

Vacant and Underutilized Sites

Over the next twenty years, 126 parcels identified as vacant or underutilized would likely be redeveloped under Alternative 1, if all sites were to be built to their maximum development capacity. These 126 parcels would be combined for approximately 54 projects. Sites within the Denny Triangle DOC2 zone are most likely to be redeveloped. Underdeveloped sites in the DOC1 zone and DMC zones are most likely to remain in their current uses: surface parking lots in the Denny Triangle, or smaller-scale buildings in the Commercial Core.

Historic Landmarks

There are currently several incentives to encourage the preservation of City of Seattle Landmarks. In addition to local, state and federal tax incentives for rehabilitation of landmarks, owners of landmarks in the Seattle Downtown Urban Center are permitted to transfer unused development rights to other sites Downtown. Also, if a landmark is retained on a development site in many parts of the study area, developers are allowed to build taller commercial buildings. Given the breadth of incentives available Downtown, it is unlikely a developer would choose to tear down a designated City of Seattle landmark for redevelopment. Instead, developers have chosen, when possible, to incorporate landmarks into their site plans. Only one City of Seattle landmark located within a larger underdeveloped site was identified as a potential redevelopment site, the Old Norway Hall in the Denny Triangle. The owners of this property may propose to redevelop the half-block that the landmark sits on under Alternative 1 or any other zoning alternative. In addition, one landmark on the National Register not designated a City of Seattle Landmark, the William Volker Building (Lenora Square), was identified as a potential site for redevelopment.

Under any scenario, at least one City of Seattle landmark and at least one site on the National Register of Historic Places might be subject to demolition given the building's size compared to permitted development. However, neither of these sites is likely to be a primary development site, and this potential for demolition is not a significant adverse impact resulting from any alternative. Under Alternative 1, the Downtown TDR program might result in the transfer of 287,400 square feet of development rights from Landmark TDRs to new commercial structures.

Potentially more threatened are those sites identified by community groups and planning processes as important neighborhood "icons" or undesignated buildings that help to contribute to the unique character of their neighborhood. The owners of some of these buildings, because they do not receive the benefits of landmark status, may choose to demolish these buildings for development. The list of buildings in the following paragraph should not necessarily be considered eligible for landmark designation, nor should the list be considered an exhaustive list of historic resources or "icon" buildings in the study area. As years pass and different architectural styles and historical events are documented, other buildings may be eligible for landmark designation. The City is currently revising its 1979 Inventory of Historic Resources and more buildings may be added to the inventory as a result of that action.

Three different sources provide some indication of undesignated buildings important to community groups. The Seattle Commons/South Lake Union Plan Final Environmental Impact Statement developed a list of potential Landmarks and National Register sites for a large portion of the Denny Triangle. The Belltown neighborhood plan identified a number of "icon" buildings that the neighborhood seeks to preserve. Also, MAKERS Architecture and Urban Design did a visual survey of the Commercial Core neighborhood to identify "character buildings." The following undesignated buildings are located on sites identified as redevelopable by this EIS.

BUILDINGS ON POTENTIALLY REDEVELOPABLE SITES IDENTIFIED AS “CHARACTER BUILDINGS”

Belltown Neighborhood Plan “Icon Buildings”

Façade of the Bethel Temple³
Griffin
Labuznik Building

Oxford Building
Terminal Sales Annex

Commercial Core “Character Buildings”

Central Building
Dover Apartments
Galland Building
Marion Court

Seneca Building
The Vault (aka Pure Fitness)
Women’s University Club

Denny Triangle

“Buildings or Sites Likely to Meet Landmarks or National Register”

Craftsman Press/Kendar Corporation
Johnson Hudson Dealer/Westlake Chevrolet

Lloyd Building
Pande Cameron

“Buildings or Sites of Community Importance That May Meet Landmarks or National Register Criteria”

Empire Company
Greyhound Bus Terminal
Quinton Instruments Building⁴

Seattle Trust Building/Times Square Garage
Williamsburg Court

It is possible that any of these buildings is less susceptible to redevelopment under Alternative 1 because fewer sites are required to accommodate the demand for housing and commercial space expected over the next twenty years. However, an active property owner inclined to consider demolition of the landmark would likely see the increased development capacity on their site as an incentive to redevelop if they are able to meet market demand for space.

ALTERNATIVE 2 – CONCENTRATED OFFICE CORE

Alternative 2 would result in a mix of land uses similar to Alternative 1. Some additional sites might be developed, resulting in either a loss of surface parking lot uses or the demolition of structures in the Downtown Office Core 1 zone. Over 20 years, Alternative 2 might result in the development of 55 sites on 58 acres, one additional site and one more acre than under Alternative 1.

Development Capacity

Under Alternative 2, the total capacity for office development on vacant and underutilized properties within the study area is 33.7 million square feet of commercial space, approximately 12% fewer square feet of commercial space than under Alternative 1. This capacity could accommodate as much as 38 years worth of Downtown’s employment growth, 6 fewer years than under Alternative 1. The primary reduction in office capacity would occur in the DMC zone, where commercial development capacity would be reduced by 25%. In addition, the permitted commercial capacity would drop by 7% in the Denny Triangle’s DOC 2 zone.

³ Construction has begun on the Cristilla project on the Bethel Temple site. This project is preserving the street-level façade of the building as part of a much larger residential project.

⁴ A development proposal is currently under review for the Quinton Instruments Building. It would demolish the building and build a full-block mixed use project including a grocery store, two apartment towers and an office tower.

Under this alternative, there is capacity for 9,820 market-rate residential units in the study area, primarily on sites that would also accommodate commercial development. This capacity could meet approximately 11 years worth of Downtown's residential demand. Combined with areas outside of the study area, there would be capacity for 24 additional years of residential growth Downtown. The decrease in development capacity from Alternative 1 includes a number of shifts in development capacity. Under this alternative, capacity would increase by over 600 units in the DOC2 zone in the Denny Triangle. A decrease in the height limit in the DMC zones would reduce capacity for residential development in all DMC zones, including a capacity reduction of more than 1,400 units in the Denny Triangle DMC zones.

However, under this alternative, the Denny Triangle TDC program would be available to residential developers in the Denny Triangle DMC zone. The TDC program provides an incentive for additional residential development if that development transfers development rights from rural areas and mitigates impacts of increased development in the Denny Triangle. If all eligible sites were to use the TDC program, an additional 2,060 units could be accommodated in the DMC zone in the Denny Triangle, meeting three additional years worth of housing demand. It is assumed that the height and density increases proposed for the Denny Triangle DOC2 zone would terminate the program there.

This combination of office and residential development would result in a mix of high-rise office buildings, high-rise hotels (potentially topped with residential units) and high-rise residential buildings, all with ground-floor retail uses, with smaller scale structures at the edge of the study area. More residential units might be incorporated into high-density commercial projects, than under Alternative 1. If the TDC program was used in the DMC zone, there could be a mix of projects that combine commercial towers with taller residential towers on the same block, and other mixed-use projects that have commercial space topped by residential units, similar to the Millennium Tower.

20-Year Development Model

Office Development

Office development is likely to occur in the same locations as in Alternative 1. Due to the reduced FAR limits in the Denny Triangle, one additional office building might be built to meet the demand for office space. This is likely to be built either on a more difficult development site in the DOC1 zone, or on a site further from DOC 1 in the Denny Triangle.

Hotels and Motels

There are few differences between Alternative 1 and Alternative 2 related to hotel development. Hotels built in the Denny Triangle would be slightly smaller under Alternative 2, due to reduced FAR limits. The reduction in density is likely to result in slightly fewer hotel rooms over the 20-year period, but likely not enough to encourage the development of an additional hotel.

Housing

In the 20 years between 2000 and 2020, residential growth may be concentrated on approximately 34 sites (same as Alternative 1), including 5 structures currently under construction. Because there would be more capacity for residential uses on each individual mixed-use site, the Denny Triangle neighborhood could see more of the projected residential development than under Alternative 1.

In 20 years, funding for approximately 3,200 subsidized units could be leveraged through funds from the Downtown bonus and TDR programs, up to 725 units more than under Alternative 1. These units would most likely be built on less-expensive available land in Downtown Seattle, generally at the fringes of Downtown.

Human Services

There are few differences between Alternative 1 and Alternative 2 regarding impacts on human service uses. Under Alternative 2, land prices and consequently rents are expected to increase to a lesser degree than under Alternative 1, but would likely increase in the DOC 1 and DOC 2 zones. Under Alternative 2, one structure currently containing human services would likely be demolished within the next 20 years.

Vacant and Underutilized Sites

Over the next 20 years, 129 parcels identified as vacant or underutilized would likely be redeveloped under Alternative 2 if all sites were built to maximum capacity. Under Alternative 2, three additional parcels would be developed than under Alternative 1. These 129 parcels would be combined for approximately 55 projects, one more than under Alternative 1. Sites within the Denny Triangle DOC 2 zone are most likely to be redeveloped. Underdeveloped sites in the DOC 1 zone and DMC zones are most likely to remain in their current uses: surface parking lots in the Denny Triangle, or smaller-scale buildings in the Commercial Core.

Historic Landmarks

Under Alternative 2, one more site than under Alternative 1 would likely be developed to meet demand for commercial uses. Depending on the market for new office space and development opportunities, this additional project would either locate on a site in the Commercial Core currently occupied by a “character building” or on a site with a surface parking lot in the Denny Triangle. Under this alternative as much as 343,750 square feet of potential commercial square feet could be transferred from City of Seattle Landmarks to new commercial buildings. This would be a 20% increase in the amount of Landmark TDR potentially acquired over 20 years over Alternative 1.

ALTERNATIVE 3 – RESIDENTIAL EMPHASIS

Alternative 3 would result in a mix of land uses similar to Alternative 1, although residential enclaves would be encouraged to develop in areas rezoned to the Downtown Mixed-Use Residential (DMR) zone in the Denny Triangle and Belltown. Some additional sites might be developed, resulting in either a loss of surface parking lot uses or the demolition of structures in the DOC 1 zone. Between 2000 and 2020, Alternative 3 might result in the development of 58 sites on 60 acres, three additional projects on three more acres than Alternative 1.

Development Capacity

Under Alternative 3, the total capacity for office development on vacant and underutilized properties in the study area is 30 million square feet of commercial space, approximately 20% fewer square feet of commercial space than under Alternative 1. This capacity could accommodate as much as 34 years worth of Downtown employment growth, 10 fewer years than under Alternative 1. The primary reduction in office capacity would occur in the DMC zone, where commercial development capacity would be reduced by 35%. The largest decrease would be in the Denny Triangle DMC zone, where commercial capacity would be 38% less than under Alternative 1. In addition, the permitted commercial capacity would drop by 16% in the DOC 2 zone, including a 20% drop in the capacity of the Belltown DOC 2 zone. In the DMC zones, office development is likely to include residential uses, in order to achieve maximum density limits under the zoning regulations.

Under Alternative 3, there is capacity for 10,675 market-rate residential units in the study area, a slight increase over Alternative 1. This capacity could meet approximately 12 years worth of Downtown residential demand. Combined with areas outside of the study area, there would be capacity for 25

additional years of residential growth Downtown. As with the other alternatives, residential development would occur primarily on sites that would also accommodate commercial development. Under Alternative 3, there is a greater likelihood of residential development in the DMC zones. Under this Alternative, maximum commercial density limits in the DMC zone could only be achieved by projects that include residential uses.

Under Alternative 3, the Denny Triangle TDC program would be available to residential developers in the Denny Triangle DMC zone and in those portions of the Denny Triangle DOC 2 zone that are not subject to height and density increases. If all eligible sites used the TDC program, an additional 4,400 units could be accommodated in the Denny Triangle. This could meet five years worth of demand for Downtown housing.

This combination of office and residential development would result in a mix of high-rise office buildings, high-rise hotels (potentially topped with residential units) and high-rise residential buildings, often with ground-floor retail uses. More residential units might be developed in those areas currently zoned DMC zones, particularly those areas rezoned to DMR/C, than under Alternative 1. This more concentrated residential development could begin to create small residential enclaves, within a larger mixed-use area. If the TDC program was used, there could be a mix of projects that combine commercial towers with taller residential towers on the same block, and other mixed-use projects that have commercial space topped by residential units, similar to the Millennium Tower.

20-Year Development Model

Office Development

Office development is likely to occur in the same locations as under Alternative 2. Due to the reduced FAR limits in the Denny Triangle, up to four additional office buildings might be built to meet demand for office space. These are likely to be built either on challenging development sites in the DOC 1 zone, or in the Denny Triangle on more peripheral sites.

Hotels and Motels

There are few differences between Alternative 1 and Alternative 3 related to hotel development. Hotels built in the Denny Triangle would be slightly smaller under Alternative 3, due to reduced density limits. The reduction in density is likely to result in slightly fewer hotel rooms over the 20-year period, but likely not enough to encourage the development of an additional hotel.

Housing

In the 20 years between 2000 and 2020, residential units may be built on two additional sites than projected under Alternative 1. As a result of additional capacity for residential uses on individual mixed-use sites, the Denny Triangle neighborhood would see more of the projected residential development than under Alternative 1.

Sites developed in those portions of the DMC zone that would be rezoned to DMR/C would be most likely to see additional residential development, where residential development had not been previously planned. In addition, some sites in the Commercial Core and Denny Triangle DMC zones previously projected to be developed with commercial-only buildings under Alternative 1 would be developed with mixed-use buildings. This would result from new regulations requiring a project in this zone to include residential units to achieve maximum commercial densities.

In 20 years, funding for approximately 2,800 subsidized units could be leveraged through funds from the Downtown bonus and TDR programs, approximately 50 fewer units than under Alternative 1. These units would most likely be built on less-expensive available land in Downtown Seattle, generally at the fringes of Downtown.

Human Services

There are few differences between Alternative 1 and Alternative 3 related to impacts on human service uses. Under Alternative 3, land prices and consequently rents are expected to increase to a lesser degree than under Alternative 1. Rents in areas rezoned to DMR might actually drop due to decreased commercial floor area limits, but would likely increase in the DOC 1 and those portions of the DOC 2 zones which would receive height and density increases. Under Alternative 3, one structure currently containing human services would likely be demolished within the next 20 years.

Vacant and Underutilized Sites

Over the next 20 years, 140 parcels identified as vacant or underutilized would likely be redeveloped under Alternative 3, if all sites were built to maximum capacity. Under this alternative, fourteen additional parcels would be developed than under Alternative 1. These 140 parcels would be combined for approximately 58 projects, four more than projected under Alternative 1. Sites within the Denny Triangle DOC 2 zone are most likely to be redeveloped. Underdeveloped sites in the DOC 1 zone and DMC zones are most likely to remain in their current uses: surface parking lots in the Denny Triangle, or smaller-scale buildings in the Commercial Core.

Historic Landmarks

Under Alternative 3, six more sites than under Alternative 1 would likely be developed in order to meet demand for commercial and residential uses. These additional projects would generally be located on sites predominantly used by surface parking lots in the Denny Triangle. However, one or two sites occupied by “character buildings” in the Commercial Core might be redeveloped, depending on the real estate market and the success of other projects in the Denny Triangle. As much as 300,000 square feet of Landmark TDR might be transferred over 20 years.

ALTERNATIVE 4 – NO ACTION

Alternative 4 would result in a mix of land uses similar to Alternative 1, although more sites might be developed in the DMC zoned area over the next 20 years. Additional sites would be developed, resulting in either a loss of surface parking lot uses or the demolition of structures in the DOC1 zone. Between 2000 and 2020, this alternative may result in the development of approximately 61 sites on 63 acres, 7 additional projects on 6 more acres than under Alternative 1.

Development Capacity

Under the existing zoning, the total capacity for additional office development in the study area is 28.75 million square feet of commercial space, approximately 25% square feet less than could be available under Alternative 1. This capacity could accommodate as much as 33 years worth of Downtown employment growth, 11 fewer years than under Alternative 1. Reductions in the office capacity would occur equally in the DMC and DOC 2 zones, where commercial development capacity would be 27% and 26% less than under Alternative 1. The largest decrease would be in the Belltown DOC 2 zone, where Alternative 4 would have 30% less commercial capacity than Alternative 1.

Under the current zoning, there is capacity for 8,490 market-rate residential units in the study area. This is equivalent to 81% of the residential capacity available under Alternative 1. The existing conditions could

meet approximately nine years worth of demand for Downtown residential space, and could be filled two years before Alternative 1. Areas outside of the study area Downtown could accommodate another thirteen years worth of residential demand. As with the other alternatives, residential development would occur primarily on sites that would also accommodate commercial development.

Under this alternative, the Denny Triangle TDC program would be available to residential developers in all Denny Triangle zones. If all eligible sites were to use the TDC program, an additional 5,280 units could be accommodated in the Denny Triangle, resulting in a 34% increase in development capacity over Alternative 1. The TDC program could add residential capacity to meet six years worth of Downtown residential demand.

This combination of office and residential development would result in a mix of high-rise office buildings, high-rise hotels (potentially topped with residential units) and high-rise residential buildings, all with ground-floor retail uses. If the TDC program was used, there could be a mix of projects that combine commercial towers with taller residential towers on the same block, and other mixed-use projects that have commercial space topped by residential units, similar to the current Millennium Tower. There would not likely be a defining mix of uses within the study area outside of the DOC 1 zone. Residential and commercial uses would be mixed, depending on the relative strengths of the office and residential markets and the orientation of Downtown developers and property owners.

20-Year Development Model

Office Development

Office development is likely to occur in the same locations as under Alternative 2. Due to the lower density limits in all areas, as many as seven additional half-blocks might be redeveloped with office towers to meet the demand for office space. These are likely to be built either on challenging development sites in the DOC 1 zone or on DMC sites predominantly used for surface parking in the Denny Triangle.

Hotels and Motels

There are few differences between Alternative 1 and existing conditions related to hotel development. Hotels built in the Denny Triangle would be smaller under Alternative 4, due to lesser density limits. The lesser density is likely to reduce the supply of hotel rooms over the 20-year period, potentially encouraging the development of one additional hotel on a site near the existing concentrations of hotels.

Housing

In the 20 years between 2000 and 2020, residential units may be built on two more sites than projected under Alternative 1, one mixed-use project and one residential-only tower. As a result of these additional projects, the Denny Triangle would see more residential development than under Alternative 1.

In 20 years, funding for approximately 2,000 subsidized units could be leveraged through funds from the Downtown bonus and TDR programs, almost 500 fewer units than under Alternative 1. These units would most likely be built on less-expensive available land in Downtown Seattle, generally at the fringes of Downtown.

Human Services

There are few differences between Alternative 1 and Alternative 4 related to impacts on human service uses. Under Alternative 4, land prices and consequently rents are not expected to increase beyond increases due to inflation. Under Alternative 4, one structure currently containing human services would likely be demolished within the next twenty years.

Vacant and Underutilized Sites

Over the next twenty years, 152 parcels identified as vacant or underutilized would likely be redeveloped under Alternative 3, if all sites were built to their maximum development capacity. Under this alternative, fourteen additional parcels would be developed than under Alternative 1. These 152 parcels would be combined for approximately 61 projects, seven more than projects than under Alternative 1. Sites within the Denny Triangle DOC 2 zone are most likely to be redeveloped. Underdeveloped sites in the DOC 1 zone and DMC zones are most likely to remain in their current uses: surface parking lots in the Denny Triangle, or smaller scale buildings in the Commercial Core.

Historic Landmarks

Under Alternative 4, eight more sites than under Alternative 1 would likely be developed in order to meet demand for commercial and residential uses. These additional projects would predominantly locate on sites used as surface parking lots in the Denny Triangle. However, two or more sites occupied by “character buildings” in the Commercial Core, Belltown or Denny Triangle might be redeveloped, depending upon the real estate market and the success of projects in the Denny Triangle. If Landmark TDR is available for purchase, up to 217,500 square feet of Landmark TDR might be transferred from Landmarks to new commercial projects between 2000 and 2020.

MITIGATION STRATEGIES

The City of Seattle currently has several programs in place that can mitigate the impacts of specific developments on land use in Downtown Seattle. Among these programs are:

- project-level SEPA review, which identifies and requires mitigation for the impacts of specific buildings;
- the City of Seattle’s Transfer of Development Credits and Multifamily Tax Exemption programs, which encourage residential development in targeted areas;
- the Downtown Seattle housing bonus (public benefit features) program, which mitigates the impacts of increased development densities through voluntary payments or provision of public benefit features;
- the City’s Transfer of Development Rights (TDR) program that allows property owners of Downtown City of Seattle landmarks, new public open space and low-income buildings to transfer the right to develop unused floor area to another site in Downtown;
- the City’s TDR bank program by which the City acquires TDRs from eligible sites and holds them in trust until a market exists to acquire the development rights;
- exemptions given for facilities providing public benefits from Floor Area Ratio limits; and
- restrictions on the use of the voluntary TDR and bonus programs to those projects that do not demolish a City of Seattle landmark.

In addition, buildings designated as City of Seattle Landmarks are eligible for a number of additional incentives including:

- zoning code relief, which allows the Director of the Department of Design, Construction and Land Use to provide flexibility of use, parking ratios and a number of other land use code provisions to encourage the preservation and use of historic buildings;

- building code relief, which allows the Director of the Department of Design, Construction and Land Use to modify specific requirements of the building code for landmark buildings;
- special tax valuation, which revises the assessed value of a historic property, subtracting significant rehabilitation costs for up to 10 years if they are approved by the Seattle Landmarks Preservation Board.

Possible Mitigation Strategies

In addition to the programs listed above, the possible mitigation measures discussed below could be applied to any of the alternatives as tools to ensure that as the neighborhood changes it retains a combination of land uses that meets the City's goals for Downtown Seattle.

Residential Character

In order to ensure achievement of residential enclaves as proposed in the Denny Triangle Neighborhood plan, specific areas could be rezoned to better promote residential development character. Rezones, such as those proposed under Alternative 3, would maintain or increase residential development limits while reducing commercial development limits, thus encouraging residential development. Also see the Housing section discussion of mitigation strategies to encourage the development and retention of low-income housing, and strategies to encourage housing for families with children and other large households.

Human Services

New programs may be required to preserve opportunities for human services facilities in Downtown Seattle.

- The City could give priority for City funds to those low-income housing projects that would create space for human services agencies as part of street-level uses.
- A Human Services TDR program could be created to allow property owners to sell development rights off of existing buildings that reserve space for human service agencies. This could create a source of funding for human service agencies seeking to acquire permanent space. It would also support other property owners with long-term commitments to provide space for human service agencies. This would be one way to offset acquisition and/or renovation costs, or to subsidize rents for human service agencies.
- A human services nexus analysis could be funded, similar to those performed for low-income housing and childcare. This would allow the City to implement a human services bonus program that could leverage the development of office and hotel buildings above a specific size to fund the development of new spaces for those Downtown human service agencies that serve Downtown employees.

Historic Landmarks

In order to preserve historic landmarks and neighborhood-identified "character buildings" within the study area, several strategies could be implemented.

- The resources of the City's TDR bank, which acquires development rights from eligible sending sites, could be targeted toward acquiring development rights from those City of Seattle Landmarks that are most at risk for redevelopment due to their size and location. The City could work with other agencies to identify and acquire additional funds for the acquisition of development rights from City of Seattle Landmarks. If funding could be identified, the City could actively work to designate additional structures within the study area as City of Seattle Landmarks.

- The City could restructure the bonus and TDR programs by removing the one FAR above the base FAR that can be achieved through programs that are lower priorities to the City and neighborhoods. If this one FAR rule is removed, additional resources would be available to landmark structures, housing, child care and open space. The City could remove the option to use lower-priority programs to mitigate the impacts of development above the base FAR limit in the DMC zone.
- The City could consider the impacts of projects requesting street or alley vacations on the retention and character of City of Seattle Landmarks. As the City grants alley vacations, thus selling City property, the City should consider the impacts of those vacations on historic landmarks and neighborhood character buildings.
- The City could work with non-profit housing providers and property owners to leverage the use of Downtown housing TDRs and housing bonus funds for the preservation of buildings identified by neighborhoods as important “character buildings.”

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Under all alternatives, if forecasted development occurs, land uses in the study area would be significantly transformed by the increased density of residential and commercial development. This transformation is interpreted to be consistent with the City’s Comprehensive Plan and neighborhood plans for the study area, and is not interpreted to be a significant unavoidable adverse impact.

Similar to existing conditions, some City of Seattle landmarks, some existing housing and some buildings containing human service uses might be demolished. This could occur under any of the alternatives, including the No Action Alternative, and is not interpreted to be a significant unavoidable adverse impact.

RELATIONSHIP TO PLANS AND POLICIES

This section summarizes the plans and policies that provide guidance for regulations within the study area. See Appendix H for additional detailed information about specific goals and policies.

GMA and Washington State's Regulatory Framework

GROWTH MANAGEMENT ACT (RCW 36.70A)

Summary

The Growth Management Act, first enacted as ESHB 2929 by the 1990 State legislature, contains a comprehensive framework for managing growth and coordinating land use planning with infrastructure. Many provisions of the Act apply to the state's largest and fastest growing jurisdictions, including King County and all its cities. The Act is long and quite complex; the following is a brief, selective summary of relevant provisions:

Among other requirements, jurisdictions subject to the Act must prepare and adopt:

- County-wide planning policies for implementation of the Act;
- Comprehensive land use plans containing specified elements and embodying state-wide goals;
- Regulations consistent with those plans;
- Capital facilities plans (including financing elements) for utilities and transportation systems; and
- Programs designating and regulating critical/sensitive areas (including agricultural and forest lands, wetlands, steep slopes and critical habitat).

The general planning goals of the Act include: directing growth to urban areas; reducing sprawl; providing efficient transportation systems; promoting a range of residential densities and housing types, and encouraging affordable housing; promoting economic development throughout the state; protecting private property rights; ensuring timely and fair processing of applications; maintaining and enhancing resource-based industries; encouraging retention of open space and habitat areas; protecting the environment; involving citizens in the planning process; ensuring that public facilities necessary to support development are adequate prior to occupancy; and preserving lands with historical and archaeological significance.

Comprehensive plans must contain elements dealing with land use, housing, capital facilities, public utilities, rural lands where appropriate, and transportation. Optional elements include conservation, solar energy and recreation as well as other areas dealing with the physical environment. Sub-area plans (i.e., neighborhood and community plans) are also authorized.

The Act authorizes the imposition of impact fees for specified public services and facilities—roads, schools and parks. Such fees must be based on adopted capital facilities plans and facility standards. Among other things, the plan must identify the projected facility needs and sources of funding. The Act also contains general standards for calculating, imposing and expending fees. The Act provides for creation of three Growth Planning Hearings Boards for the State of Washington that hear and determine petitions alleging noncompliance of local plans and regulations with the Act.

Counties must also designate "urban growth areas" within which urban growth is encouraged and services and facilities are, or are planned to be, available. All cities must be within an urban growth area. Cooperative intergovernmental negotiation is contemplated as the means to determine urban growth boundaries; a dispute resolution process is also set forth.

Within designated urban growth areas, residential densities are to be sufficient to accommodate 20-year population forecasts. The growth areas should also include greenbelts and open space. Other lands that must be identified in comprehensive plans include: land for public purposes, such as utility and transportation corridors, sewage treatment facilities, landfills, schools and recreation, and open space corridors within and between urban growth areas.

The framework established by the Act relies on adoption of regional and/or local plans and regulations that can be measured against the Act's goals and objectives. The Act itself does not establish a permitting system or regulations for individual development proposals.

Relationship of the Alternatives

All of the alternatives are consistent with the primary directive of GMA, which is to discourage sprawl by directing growth to urban areas.

PUGET SOUND REGIONAL COUNCIL ADOPTED MULTICOUNTY FRAMEWORK GOALS AND POLICIES

Summary

The Multicounty Framework Goals and Policies provide guidance for regional growth consistent with the mandates of the State's Growth Management Act. Generally, these policies seek to locate development in urban growth areas to conserve natural resources, foster sustainability, promote economic opportunity, and enable efficient provision of services and facilities. The policies encourage concentrated growth in compact, well-defined mixed-use urban centers to use land resources efficiently, enable residents to live close to work and services, promote bicycling, walking and transit use, and strengthen community. Coordination among jurisdictions in providing necessary public facilities and services is encouraged to promote efficiency and cost effectiveness. Interjurisdictional planning is emphasized to coordinate plans and implementation activities to achieve consistency.

Relationship of the Alternatives

All of the alternatives are consistent with the directive of the Multicounty Framework Goals and Policies to promote concentrated growth in compact, well-defined mixed-use urban centers. By allowing for the greatest density of development, Alternative 1 could accommodate the greatest concentration of development. However, under all of the alternatives, as residential capacity becomes increasingly limited over the longer term, accommodating the mix of uses will become more difficult.

KING COUNTY COUNTYWIDE PLANNING POLICIES

Summary

The Metropolitan King County Council adopted the Countywide Planning Policies (CPP), drafted by the King County Growth Management Planning Council, in August 1994. The policies are intended to provide a regional policy framework for local jurisdictions to follow in their planning to implement the Growth Management Act. The CPP also contain development guidelines, standards and recommended processes to be implemented by individual cities and King County. Subject areas addressed in the CPP include critical areas, land use pattern, transportation, community character and open space, affordable housing, contiguous and orderly development, siting regional/statewide capital facilities and economic development.

Policies generally encourage concentrating urban development in a defined Urban Growth Area and phasing the provision of adequate services. The CPP also recognize 12 designated Urban Centers (including Downtown Seattle) as the focus for a significant portion of regional growth over the 20-year planning period. The CPP call for 25% of all new housing units and 50% of all new jobs targeted for the County to be accommodated in Urban Centers. Additional employment growth is also directed to areas designated as Manufacturing/Industrial Centers, with policies promoting the continued concentration of manufacturing and other types of industrial uses in these areas. The policies envision Urban Centers as areas of concentrated employment and housing, with direct access to high capacity transit, and supporting a wide range of other land uses, such as retail, recreation, public facilities and parks and open space. Criteria are also established regarding employment and household densities and size requirements that areas must meet for designation as an Urban Center.

The CPP also provide that local plans should designate Activity Areas within the Urban Growth Area, outside designated Urban Centers. Uses and densities should provide local employment, commercial activities and public facilities, and should encourage bicycle and pedestrian travel. Business and office parks are directed primarily to Urban Centers; office development outside Urban Centers should occur in pedestrian-oriented Activity Areas.

Relationship of the Alternatives

All of the alternatives are consistent with Downtown's designation as one of the 12 Urban Centers established by the CPP, and all would accommodate the concentration of employment, housing and other uses envisioned for Urban Centers under these policies. Altogether, 25% of the County's total residential growth and 50% of the job growth is targeted to Urban Centers. To date, Urban Centers have accommodated about 18% of the total residential growth in the County, and 29% of the job growth. While falling short of the goals, the proportion of growth occurring in centers has been growing almost every year. From 1995 to 1999, the Downtown Seattle Urban Center added 24,090 jobs, or 47% of the total jobs accommodated in all Urban Centers over the same time period. The 5,400 housing units added Downtown between 1995 and 2000 represent 42% of all housing units added in Urban Centers. While Downtown has been successful in accommodating a significant share of total Urban Center growth, the success of the regional strategy also requires that more growth be attracted to under-performing Centers, including locations like Northgate, SeaTac and Kent.

CITY OF SEATTLE COMPREHENSIVE PLAN: LAND USE ELEMENT

Summary

Adopted in July 1994, Seattle's Comprehensive Plan includes policies in the Land Use Element that call for concentrating future employment and population growth in Urban Centers, as defined by countywide planning policies, and in existing activity centers. The policies promote the Urban Village concept, targeting employment and housing growth to various centers and villages in a balanced manner, to respond to transportation accessibility, neighborhood character and identity, pedestrian friendliness and human scale, and capacities of public facilities and amenities. The policies also emphasize the need to promote a comprehensive citywide open space system by protecting existing open space resources and incorporating new public open space as an important element for supporting growth in Urban Villages.

Several of the land use policies provide further guidance regarding appropriate locations within the city for different types and amounts of growth. These policies promote stronger links between the location of job growth and transportation capacity, discourage population growth in areas not easily served by existing transportation facilities, and encourage population growth within walking distance of Downtown employment and high capacity transit centers.

Specific to Downtown, policies in the Land Use Element establish Downtown Seattle as one of the region's Urban Centers, meeting the criteria of the Countywide Planning Policies for size, achievable employment and housing densities and connection to high-capacity transit. The Plan targets the area for substantial growth over the 20-year planning timeframe, including the addition of 62,700 more jobs and 14,700 new households by the year 2014.

Relationship of the Alternatives

Alternative 1. In addition to accommodating the Comprehensive Plan targets for Downtown housing and employment growth between the years 1994 and 2014, the height and density increases proposed in this alternative provide additional development capacity to accommodate further growth for perhaps another 20 years or more beyond the Comprehensive Plan's initial 20-year timeframe (1994-2014).

Continued growth Downtown is consistent with Downtown's designation as a regional Urban Center. However, the Comprehensive Plan does not specify the amount of growth or balance between residential and employment growth sought for Downtown beyond 2014. In all the alternatives, the employment and residential growth projected over 20 years from 2000 to 2020 represents an addition of one new housing unit Downtown for about every four additional jobs; essentially the same ratio as that established by the Comprehensive Plan's employment and housing growth targets. Growth over the longer term presents issues in terms of the balance maintained between accommodating new jobs and housing Downtown. Beyond 2020, Alternative 1 has the most capacity remaining for continued employment growth.

Alternative 2. Alternative 2 will provide sufficient capacity to accommodate projected employment and residential growth. Similar to Alternative 1, it is estimated that job growth can be accommodated for another 18 years beyond the 20-year planning period (2000 to 2020), with residential capacity tapering off after about 25 years.

Alternative 3. Alternative 3 provides sufficient capacity to accommodate projected employment and residential growth, with additional capacity estimated for another 14 years or more of job growth and 5 years of residential growth beyond the 20-year planning period.

Alternative 4. Alternative 4 will provide sufficient capacity to accommodate projected employment and residential growth. Additional commercial capacity could accommodate another 13 or more years of job growth and 2 or more years of residential growth beyond the 20-year planning period.

DOWNTOWN URBAN CENTER GOALS AND POLICIES

Summary

The City's goals and policies for the Downtown Urban Center are included in the Neighborhood Planning Element of the Comprehensive Plan. These goals and policies define the direction for Downtown growth, investment, and development. The policies focus on the following major areas: 1) land use, urban design, and open space, 2) economic development, 3) housing, and 4) transportation.

Overall, the policies identify the desired character and function of the different areas within Downtown, and establish the various zones intended to achieve these desired conditions. The policies support strong coordination of land use and transportation, promoting high levels of transit use to accommodate the densities of development allowed, and placing special emphasis on the quality of the pedestrian environment. The policies establish an urban design framework that seeks to strike a balance between accommodating growth and change while protecting positive characteristics of the existing Downtown environment. Goals and policies also emphasize increasing the supply of housing Downtown to achieve

an adequate balance between employment and housing and to ensure a supply of housing that is affordable to households from a wide range of income groups

Downtown zones permit the most intensive combination of office, retail, hotel and residential uses within the city, and the allowed heights and densities of some Downtown zones are the highest in the region. The policies recognize that service employment in Downtown offices is the economic sector expected to absorb the greatest share of the city's future employment. With Downtown already established as the regional center for such jobs, the policies allow for further expansion of that role.

The policies promote a development pattern that includes a densely concentrated office core already dominated by high-density office development and served by high-capacity transit, including the transit tunnel. Adjacent to the office core to the north is the retail core, where maintaining existing conditions is emphasized to support the retail function and special character of the area. Wrapping around the retail core to the east and north is an area allowing for expansion of the office core to accommodate future employment growth while providing a transition in development intensity between the Downtown core and adjacent neighborhoods. Around the northern and western perimeter of these core zones are areas intended to accommodate a mix of employment and housing at a scale and intensity of development that is compatible with existing conditions in these areas and adjacent neighborhoods. The northwestern corner of Downtown, Belltown, is primarily intended to accommodate high-density residential development. For the Pioneer Square and Chinatown/International District neighborhoods at the southern end of Downtown, the policies promote the preservation of the special character of these areas while accommodating compatible levels of employment and housing growth.

Relationship of the Alternatives

Alternative 1. This alternative's height and density increases in DOC 1 and DOC 2 zones are consistent with Downtown Urban Center policies promoting concentrated employment growth in designated office core areas with superior access to transit. Height and density increases in DMC zones would allow greater intensities of commercial development—equivalent to what currently is allowed in DOC 2—which permits higher employment densities in some areas with more limited transit service and alters the existing balance between densities permitted for housing and commercial development in areas where policies seek to accommodate both uses. Increasing the permitted height and density of development also alters the transitional function of the zone by allowing a greater scale and intensity of development adjacent to less intensive areas.

The expected increase in the use of bonus and TDR programs as a result of increased commercial densities is consistent with policies for promoting increased housing production in general and, in particular, providing more affordable housing. However, discontinuing the TDC program in the Denny Triangle would remove one incentive for increasing residential densities and funding public amenities in this area.

Alternative 2. Alternative 2 allows increased height and density for commercial development in DOC 1 and DOC 2 zones consistent with Downtown Urban Center policies promoting concentrated employment growth in designated office core areas with superior access to transit. Retaining current height and density limits in the DMC zone would also retain the transitional relationship that exists between this zone and adjacent areas, as well as the current balance between densities permitted for commercial and residential uses.

Through the use of commercial development incentives, Alternative 2 would generate resources for affordable housing in amounts similar to Alternative 1. While the TDC program would be retained, it could only be used in a substantially diminished portion of the Denny Triangle.

Alternative 3. Alternative 3 allows increased height and density for commercial development in DOC 1 and portions of DOC 2 zones consistent with Downtown Urban Center policies that promote concentrated employment growth in designated office core areas with superior access to transit. Current height and density limits would be retained in other portions of the DOC 2 300' zone in the north office core, which would maintain the transition in scale and development intensity that this zone currently provides with adjacent areas.

Rezoning some DMC areas to DMR/C to increase opportunities for residential development would promote housing more strongly in areas intended for mixed use and somewhat higher commercial densities under current policies. Portions of these residential areas would also directly abut DOC 2 zones without the benefit of transition that the DMC zone typically provides between the office core and residential areas. By retaining existing height limits, the same scale relationship would be maintained between the newly created DMR/C zones and adjacent areas. However, additional bulk controls that apply in the DMR/C zone would result in less bulky and consequently less dense developments than possible under existing conditions. For those DMC areas not rezoned to DMR/C, existing height and density limits would be retained, which would maintain the current transitional relationship with adjacent areas. However, special provisions would require new commercial development built to the maximum density limit to provide housing on-site, which would promote residential development more strongly than under existing conditions.

Alternative 3 would provide increased resources for affordable housing through the use of commercial development incentives, but not to as great a degree as Alternatives 1 and 2. However, Alternative 3 would retain a greater area within the Denny Triangle where the TDC program would continue to apply.

Alternative 4. Alternative 4 reflects current policies.

OTHER DOWNTOWN NEIGHBORHOOD GOALS AND POLICIES

In addition to the Downtown Urban Center itself, the Neighborhood Planning Element of the Comprehensive Plan includes goals and policies adopted for the five neighborhoods that collectively comprise the Downtown Urban Center, including: 1) Commercial Core Neighborhood, 2) Denny Triangle Neighborhood, 3) Belltown, 4) Pioneer Square, and 5) Chinatown/International District. Policies for neighborhoods within the study area are described below:

Commercial Core Goals and Policies

Commercial Core goals and policies call for maintaining the area as a major employment center, tourist and convention attraction, shopping magnet, residential neighborhood and regional hub of cultural and entertainment activities. Policies also emphasize: improved mobility and convenient transit access; an enhanced pedestrian environment; housing affordable to a wide range of income levels; a unified urban design strategy that enhances connections and integrates public open spaces and green streets into a comprehensive network; and increased use of bonuses and incentive programs to stimulate development and support neighborhood goals.

Relationship of the Alternatives

Alternative 1. Alternative 1 includes height and density increases in DOC 1, DOC 2 and DMC 240' zones that were originally proposed in the Commercial Core Neighborhood Plan as a "super bonus" for use on an interim basis to stimulate development and generate resources for affordable housing and other neighborhood improvements. The permanent height increases proposed in the Plan have already been

implemented. Increasing height and density limits to further stimulate development and increase the use of bonuses and TDR incentives would be consistent with the goals and policies of the Commercial Core Neighborhood Plan. Alternative 1 also includes an option to consider height and density increases in other DMC zones within the Commercial Core, including the DMC 160' zone adjacent to the harborfront and the DMC 125' zone adjacent to the Pike Place Market. These increases were not part of the original Commercial Core Plan.

Alternative 2. Alternative 2 includes the same proposals as Alternative 1 for height and density increases in the DOC 1 and DOC 2 zones of the Commercial Core. Since there would be no changes to height and density limits in DMC zones under this alternative, it would be consistent with the Plan's treatment of the DMC 125' and DMC 160' zones. However, it does not include the Commercial Core's "super bonus" proposal for increasing height and density in the DMC 240' zone. Unlike Alternative 1, under Alternative 2, developers would need to use housing bonuses and/or TDR for increases in commercial density above the base FAR.

Alternative 3. Like Alternative 2, this alternative would not include changes to height and density limits in Commercial Core DMC zones. However, to increase opportunities for housing, projects built to maximum commercial densities would be required to include residential units, which is not an approach advocated in the Commercial Core Plan. Housing bonuses and/or TDR would also have to be used in DMC zones for increases in commercial density above the base FAR.

Alternative 4. Alternative 4 reflects existing conditions, which already include provisions for height increases in DOC 1 and DOC 2 zones as proposed in the Commercial Core Neighborhood Plan.

Denny Triangle Goals and Policies

The goals and policies for the Denny Triangle focus on housing, land use, urban form and transportation. Housing policies promote a diverse residential neighborhood with housing evenly distributed among income levels. The use of zoning, development incentives and City investment is encouraged to promote housing development throughout the neighborhood. Land use policies encourage a mixed-use neighborhood and call for stimulating residential and commercial development through a variety of measures, including increases to height and density limits, development incentives, design review and floor area exemptions. Urban form policies emphasize creating a diverse mixed-use character for the neighborhood and promote a variety of neighborhood improvements, including the creation of new open spaces to meet neighborhood open space goals and implementation of Green Street improvements. Transportation policies call for improving local circulation and transit service, reducing external transportation impacts, and providing safer conditions for pedestrians and bicyclists.

Relationship of the Alternatives

Alternative 1. Alternative 1 includes Denny Triangle Neighborhood Plan proposals for height and density increases in all zones to achieve objectives for stimulating development and increasing resources for affordable housing and neighborhood improvements.

Alternative 2. Alternative 2 includes height and density increases in the Denny Triangle DOC 2 zone, similar to those in the Denny Triangle Neighborhood Plan. However, no changes are proposed to the limits in the DMC zones. The existing transfer of development credits (TDC) program would continue to allow more modest height increases in DMC zones as an incentive for residential and mixed-use development, which is consistent with policies advocating use of zoning and incentives to promote housing, encouraging a mixed-use neighborhood, and increasing resources for neighborhood improvements.

Alternative 3. In Alternative 3, height and density increases would be limited to a portion of the DOC 2 zone in the Denny Triangle. Changes to DMC zones would include reclassifying some DMC areas to DMR, a residential zone, to increase opportunities for housing in areas where the Denny Triangle Plan seeks to promote residential enclaves. In remaining DMC areas, commercial development would be required to provide housing to build to the current maximum density limit allowed.

Proposals that reduce or maintain current development capacity, or directly favor residential over non-residential use, are contrary to the specific actions sought to implement the Denny Triangle Neighborhood Plan. However, policies in the Plan do promote more residential development and a stronger residential character in parts of the Denny Triangle. The rezone actions would likely reduce the use of incentives by commercial development to generate funds for affordable housing and would limit capacity for commercial development. Retaining the TDC program in DMC and part of the DOC 2 zones would continue to provide an incentive for residential and mixed-use development that also generates resources for the type of neighborhood improvements the Plan's policies support.

Alternative 4. Alternative 4 reflects existing conditions. Some existing provisions were recently implemented and are consistent with Denny Triangle Neighborhood Plan goals and policies, including actions to rezone some DMC areas to DOC 2, changes to the bonus/TDR program to increase funds for affordable housing, provisions for height increases in DOC 2 zones, and height incentives through the TDC program to provide incentives for residential and mixed-use development and increase resources for neighborhood improvements.

Belltown Goals and Policies

The Belltown goals and policies focus on the following areas: 1) housing, 2) land use, 3) transportation, 4) community enrichment and social services, and 5) public safety and neighborly regulations.

Housing goals and policies seek to: promote a varied housing stock affordable to households from a wide range of income levels; prevent displacement of low and low-moderate income residents; preserve existing neighborhood scale and character by retaining existing buildings and encouraging small-scale development; increase use and effectiveness of incentives like TDR and bonuses for preserving and producing affordable housing; and preserve the existing housing stock.

This plan's land use policies emphasize the residential and mixed-use character desired for Belltown, and promote active streetscapes and opportunities for small businesses. Transportation policies promote improved circulation compatible with the area's residential character, efficient transit, adequate parking, and an enhanced pedestrian environment and Green Street improvements.

Relationship of the Alternatives

Alternative 1. Included as an option under Alternative 1 is an Advisory Committee recommendation to consider height and density increases in all DMC areas, including the southern and eastern edges of Belltown. Increases to height and density limits would also apply to the small portion of the DOC 2 300' zone that extends into Belltown. The Belltown Plan did not provide direction for any such increases. However, actions for increasing the use of development incentives to encourage the preservation of existing housing and promote the production of new affordable housing are consistent with the Plan's goals and policies.

Alternative 2. Alternative 2 does not propose changes to height and density limits in DMC zones, but does include the same height and density increase as in Alternative 1 for the portion of the DOC 2 300' zone that extends into Belltown. In the DMC zone, use of housing bonuses or TDR would be required to

reach the maximum commercial density limit. This is a change from existing conditions, where developers can use housing bonuses, but also have the option to use other non-housing TDR or on-site amenity bonuses to reach maximum limits. Increasing the use of development incentives to encourage the preservation of existing housing and promote the production of new affordable housing is consistent with the Plan's goals and policies.

Alternative 3. Alternative 3 proposes changes to the DMC zones in Belltown that would reclassify some DMC areas to DMR, a residential zone that applies to the rest of Belltown, to increase opportunities for residential development and to provide additional limits on permitted development bulk. In the remaining DMC areas, commercial development would be required to provide housing to build to the maximum density limit allowed. Although there is no specific direction for rezones in the Plan, these changes are consistent with policies to encourage more residential development and promote a stronger residential character for the area. However, opportunities for using incentives by commercial development to generate funds for affordable housing may be more limited. Under Alternative 3, no changes are proposed to the portion of the DOC 2 300' zone that lies within the Belltown neighborhood.

Alternative 4. Alternative 4 reflects existing conditions.

URBAN DESIGN—HEIGHT, BULK AND SCALE

AFFECTED ENVIRONMENT

Introduction

This section summarizes the height, bulk and scale impacts of the EIS alternatives. The affected environment discussion describes current Downtown zones and development patterns, as well as City policies and zoning regulations pertinent to height, bulk and scale issues.

Background on Downtown Zones and Development Patterns

The existing height, bulk and scale characteristics of development in the Downtown zones have emerged over the course of Downtown's development history as each new generation of buildings responded to changing functional and economic demands, development regulations, building technologies, and architectural design. To address height, bulk and scale issues associated with new development, Downtown policies promote a development pattern that balances retention of existing character with the need to accommodate additional growth and a higher density of development. This balance varies within Downtown in response to the special conditions and development objectives of different areas.

Height limits and density limits are the principal regulations that affect height, bulk and scale. The general concept guiding the application of these limits calls for containing the most intensive (tallest and bulkiest) development in an office core area that roughly extends from Yesler Way to Lenora Street between I-5 and Second Avenue, omitting the retail core. Permitted height and density generally tapers down along the edges of this core area, and the downward tapering continues outward to the perimeter of Downtown to provide a transition with the lower scale of development in the waterfront and neighborhoods adjacent to Downtown.

The following summarizes height, bulk and scale characteristics of these areas. See Appendix I for additional information about current characteristics and past development patterns.

Downtown Office Core 1 (DOC 1) Zone

The DOC 1 zone accommodates the greatest concentration of office use and highest employment density within Downtown and the region, while encouraging other uses to add diversity and extend activity beyond the workday. The DOC 1 zone currently has a maximum height limit of 450 feet and a maximum density limit of 14 FAR—allowing the tallest and most dense development within Downtown. Additional height, up to 20% above the 450-foot limit (to 540 feet), may be allowed for projects that meet special development standards. The height and density limits in DOC 1 reinforce a development pattern that concentrates the greatest mass of buildings in a corridor served by I-5 and the transit tunnel. The characteristic scale of development in the area has already been established by numerous large projects; many of these are built on full-block sites created by past alley vacations. While the first generation of skyscrapers Downtown, such as the Smith Tower, Hoge Building and Alaska Building, occurred just beyond the southern edge of DOC 1, the zone has since accommodated the greatest share of Downtown high-rise commercial development.

Downtown Office Core 2 (DOC 2) Zone

The DOC 2 zone is intended to accommodate the expansion of concentrated office development from DOC 1 into adjacent areas, while providing a transition in density between DOC 1 and less-intensive mixed-use areas. The DOC 2 zone is primarily for commercial office uses with a mix of other activities

encouraged to add diversity, particularly beyond the hours of the workday. By accommodating a relatively high density of office use, this zone helps to reduce pressure for major office development in the retail core and adjacent mixed-use and residential areas, while also providing a transition in scale and density between adjacent areas and the denser development of the DOC 1 zone.

The DOC 2 zone currently has two height districts: a maximum height limit of 300 feet north of the commercial core, primarily in the Denny Triangle and a small portion of Belltown, and a 240-foot height limit at the southern edge of the commercial core near Pioneer Square. Under special provisions, development is allowed to exceed these height limits by an additional 10%, and in a more limited area, 20%. The zone has a maximum density limit of 10 FAR for commercial uses. In the Denny Triangle, mixed-use and residential development can exceed the 300-foot height limit up to 30% (390 feet) through participation in the transfer of development credits (TDC) program.

DOC 2 300' zone (Denny Triangle). Much of the DOC 2 300' zone in the Denny Triangle is underdeveloped relative to what the zoning allows. A substantial area is occupied by surface parking lots, automobile dealership lots, and transportation facilities such as the Greyhound Bus Terminal and Convention Place Transit Station. These uses are at a scale of development essentially equivalent to vacant parcels. Other small-scale structures, including walk-up apartment buildings, lowrise motels, movie theaters and other small commercial buildings further contribute to the current low-intensity development pattern. The DOC 2 300' zone also extends one block deep along the Belltown neighborhood's southern edge abutting the retail core.

The emerging scale of development in the DOC 2 300' zone appears to be a combination of lower bulky structures like the convention center exhibition halls and Pacific Place retail galleria occupying sites of a block or more on the edge of the retail core, and towers built on smaller sites of a half-block or less. The new Federal Courthouse is a large full block development with a tower exceeding the 300' height limit, as well as a lower base structure and large plaza. Given the substantial number of underdeveloped parcels in the area and the potential for assembling large half- and full-block sites, it is reasonable to expect significant changes in the overall scale of development in the future.

In addition to the longer, rectangular blocks, the platting characteristics of the DOC 2 300' zone differ from those of the DOC 1 zone in that most of the north/south avenues are narrower. The longer, rectangular blocks, with the narrower avenue widths and greater distance between intersections, are likely to be perceived as a more enclosed street environment as the area becomes more intensely developed. A sense of this condition can be observed along 7th Avenue between Olive Way and Westlake Avenue, where recent high-rise projects line the street.

DOC 2 240' zone (southern edge of commercial core). The western portion of the DOC 2 240' zone includes several of Downtown's earliest large office towers, including the Hoge, Exchange and Dexter Horton Buildings, all of which exceed the current 10 FAR density limit that now applies in the zone. At 37 stories (487 feet), the Federal Office Building also exceeds the current 240-foot height limit. While much of the development in this western portion was built in the early decades of the Twentieth Century, this area also includes the zone's most recent project, the mixed-use Millennium Tower that was built to the maximum height and density limits allowed.

Relatively modest-scale City and County government buildings occupy most of the blocks in the area east of Third Avenue, although the two blocks along the hillside near I-5 are currently vacant. In general, existing development in the zone provides a transition between the high-rise, high-density commercial development in the DOC 1 zone to the north and older, lower-scale development in the Pioneer Square and International District Special Review Districts to the south.

Downtown Mixed Commercial (DMC) Zone

The DMC zone provides for a transition in the scale and intensity of development between the DOC 2 office core zone and adjacent neighborhoods north of Downtown, as well as the Denny Regrade/Belltown area to the west. The DMC zone also wraps around the western edge of the retail core (DRC) and DOC 1 zones to provide transition between the retail and office cores, the Pike Place Market and harborfront. The DMC zone is intended to: 1) permit office and commercial use, but at lower densities than in office areas; 2) support a mix of uses and accommodate a varied scale of development; 3) encourage housing and other uses generating activity without substantially contributing to peak hour traffic; and 4) promote development diversity and compatibility with adjacent areas, primarily through a range of height limits. The portions of the DMC zone included in this analysis have height limits of 125 feet, 160 feet and 240 feet. Generally, the mapping of these height districts establishes the transition in scale desired between the taller structures in the Downtown office core and the lower scale of development in adjacent neighborhoods.

The DMC zone extending north of Virginia Street and along the northern edge of the Denny Triangle separates the DOC 2 300' office core zone from Belltown and the South Lake Union/Cascade neighborhoods. This portion of the zone is platted with long rectangular blocks. This area today could be characterized as “underdeveloped,” with many blocks occupied by surface parking lots, car dealerships, motels and other more automobile-oriented activities. However, several commercial and mixed-use projects are proposed in the area, many on full-block sites, which will introduce a much greater intensity and scale of development. Recent development in the area includes the City of Seattle's West Police Precinct, a congregate care facility, and the Metropolitan North Office Building; all built substantially below the maximum height and density allowed. Projects with permits received or pending include the Touchstone project at 1000 Stewart Street and a redevelopment of the Frederick Cadillac site at 2300 Fifth Avenue. Both of these projects are large floor-plate commercial structures occupying full-block sites and about 14 to 17 stories in height. A mixed-use, residential and commercial project comprised of three towers is also proposed for the Quinton Instruments site at 2200 Westlake and Denny Way.

The portion of the DMC zone west of the DOC 1 office core zone and the retail core is platted with long, rectangular blocks north of University Street, and smaller square blocks (240-foot lengths) to the south. Blocks between Western Avenue and Alaskan Way are essentially the size of half-blocks platted without alleys. The old Federal Office Building occupies a full block interrupting the continuity of Post Alley. This area has a much more established development character, with bulky, relatively low height brick warehouse structures from the late 19th/early 20th Century occupying blocks along Western Avenue, and a mix of commercial structures occupying smaller sites stretching the length of First Avenue between Pioneer Square and the Pike Place Market. This area also includes the greatest concentration of designated landmark structures Downtown outside the special review districts and retail core. More recent developments in the area include the high-rise residential towers of the Newmark and Harbor Steps projects, the Seattle Art Museum, and Cornerstone's Waterfront Center, a combination of new and renovated mixed-use projects. While the height of much of the existing development is well below the permitted 160-foot and 240-foot limits, the high-rise residential towers reach the maximum height current zoning allows.

Existing Policies on Height, Bulk & Scale of Downtown Development

Policies in the Comprehensive Plan address several conditions related to the desired scale of development Downtown, as affected by allowances for height and bulk. In general, the policies specify that permitted height and bulk should achieve the following:

- Accommodate desired densities of uses and communicate the intensity and character of development in different parts of Downtown.
- Protect the light, air and human-scale qualities of the street environment, particularly in areas of distinctive physical and/or historic character; and

- Provide transition to the edges of Downtown to complement the physical form, features and landmarks of the areas surrounding Downtown.

Policy objectives include the following:

- A general tapering of height limits is desired from an apex in the office core downward to the perimeter of Downtown to provide transitions to the waterfront and neighborhoods adjacent to Downtown.
- Development standards are meant to guide the form and arrangement of large buildings to reduce shadow and wind impacts at the street level, promote a human scale and maintain a strong physical relationship with the pedestrian environment. In areas where consistency of building form is important to maintaining an identifiable character and function, building bulk is to be regulated to integrate new and existing development.
- The bulk of tall buildings is to be limited in residential areas to provide for light, air and views at street level and reduce the perceived scale of buildings.
- Development standards are to vary by district to reduce the impacts of large-scale buildings consistent with the desired scale and development pattern in the area.

Additional policies specifically related to height and scale in affected zones are as follows:

- **DOC 1.** Allow the highest density of commercial development Downtown, with development standards regulating building design to reduce adverse impacts, including impacts on sidewalks and other public areas.
- **DOC 2.** Provide for scale and density transitions to adjacent areas.
- **DMC.** Promote development diversity and compatibility with adjacent areas through a range of height limits.

Existing Downtown Zoning Measures Addressing Height, Bulk and Scale

The DOC 1, DOC 2 and DMC zones employ a variety of measures to address issues of development scale. While the FAR density limits on commercial use and the height limits help define the overall building envelope for development in these zones, additional measures that control building bulk include:

- 1) **property line setback limits** and **minimum façade heights** address street level conditions;
- 2) **building coverage limits** and **maximum façade widths** that apply to the upper level of development; and
- 3) **view corridor setbacks** in some DOC 1 and DMC locations.

Since residential use is exempt from the FAR density limit, the height limit and these development standards provide the only restrictions on the permitted scale and bulk of residential structures. Consequently, mixed-use and residential projects can be bulkier and potentially taller than commercial-only projects subject to the FAR limit.

TDR Program. Development incentives that influence the overall development scale in Downtown areas include the transfer of development rights (TDR) program, floor area bonuses, and height incentives. The TDR program allows the sale of unused development rights from a site to maintain desired conditions on that site, such as the preservation of an existing landmark or low-income housing structure. Once purchased, these development rights can be transferred to allow denser redevelopment on another site. The use of TDR is available to preserve existing landmark structures and low-income housing structures, as well as within-block TDRs to maintain a varied building scale within the same Downtown block, and to create new public open space.

Floor area bonuses. Floor area bonuses are another type of incentive allowing a project to gain additional floor area for providing certain desired public features on a project site, such as a plaza or parcel park. Development is also allowed to exceed the mapped height limit in DOC 1 and DOC 2 by as much as 20% as an incentive to design more slender structures and to provide either open space or lower-scale development at the base of a project. In addition to the intrinsic public benefit of preserving landmark buildings or low-income housing structures, or providing new parks and plazas, use of these incentives also contributes to a diversity of scale and architectural variety in densely developed Downtown areas.

Development standards and alley vacations. To some extent, existing development standards addressing building bulk in dense highrise structures also encourage large site assembly and alley vacations. Measures that encourage setbacks of upper floors to enhance the street environment constrain achievable floor sizes on half-block sites. This is also true of required setbacks along view corridors. To some extent, the alley vacation may be regarded as a tradeoff for measures employed to ensure adequate access to light and air along the more important public street environment. Generally speaking, office core developments with tower portions pulled back from the street have resulted in more comfortable conditions at street level than projects where tower facades rise uninterrupted from the street level.

Height, Bulk and Scale Characteristics of Recent Downtown Development

Within the study area, 17 projects with a total of 21 structures have either been completed, are currently under construction, or permitted since 2000. These projects were developed under the height, bulk and scale provisions of the current zoning code, and provide a good overview of the type of development currently occurring in the study area, as well as an indication of how the zoning has influenced that development. A more detailed description of the height, bulk and scale characteristics of projects developed under current zoning is provided in Appendix I.

IMPACTS

This section examines the potential impacts associated with zoning changes that would affect the permitted size and height of buildings, as proposed under the various alternatives. Under current zoning conditions, redevelopment of sites to accommodate taller, larger buildings is already allowed. The purpose of this analysis is primarily to assess the extent to which there may be additional impacts under the proposed changes, beyond those impacts associated with existing baseline conditions (e.g. Alternative 4 – No Action).

The height and size of structures affect the Downtown environment, and the public's perception of that environment, in several ways. Some of these impacts are relatively objective—taller bulkier buildings are more visible, they cast shadows over a larger area, and can contribute to a new scale of development that is considerably different than the established pattern in the area. Other impacts are more subjective and qualitative. Some of these impacts are addressed in City policies, which often seek to strike a balance between allowing bigger buildings to accommodate growth and maintaining the positive characteristics that contribute to the existing "feel" of the Downtown environment. To help achieve this balance, these policies have led to regulations intended to maintain compatibility between new projects and established development in an area, and to ensure a compatible relationship between development conditions in adjacent areas. Much of the discussion below evaluates the consistency between these policies and conditions expected to result from proposed changes under the various alternatives.

Alternative 1 – High End Height and Density Increase

By allowing taller, larger structures, changes to height and density limits would affect the height, bulk and scale of future Downtown development within the study area. These impacts interrelate with land use and urban design topics addressed in other sections of this EIS. For the height, bulk and scale topics, the impact discussion below is organized per the following outline:

Height

- ◆ Number of projected new buildings by height range
- ◆ How heights of new buildings relate to the zoning in the alternatives

Bulk

- ◆ Development density
- ◆ Site size
- ◆ Height and density relationships in zoning—how allowable bulk relates to allowable height in determining how buildings are designed in different parts of Downtown
- ◆ The patterns of “massing” of bulk in areas of Downtown due to future development

Scale

- ◆ Transition in allowable height and density between Downtown and adjacent areas
- ◆ Compatibility between new and existing development
- ◆ Effect on development diversity
- ◆ Effect on residential character of Downtown areas

Table 29 at the end of this section summarizes the height, bulk and scale impacts of the alternatives.

HEIGHT

Most of the study area was not subject to height limits prior to adoption of the Downtown Plan in 1985. In 1989, the height limits established by the Downtown Plan were reduced in the DOC 1 and DOC 2 300' zones under the CAP Initiative. Consequently, several existing structures exceed even the greatest increases proposed. Today, 12 buildings in the DOC 1 zone reach or exceed the current height limit of 450 feet, and seven of these also exceed the increase to 540 feet now allowed for projects meeting certain conditions. Five structures—Columbia Center/Bank of America Tower, Two Union Square, Washington Mutual Tower, Key Tower, and 1001 4th Avenue—exceed 585 feet, which is the greatest height increase proposed for DOC 1 in the EIS alternatives. In the DOC 2 300' zone, four structures exceed the current 300-foot height limits, and two of these—the Westin Hotel North Tower and Qwest Plaza—exceed 400 feet, which is the greatest height increase proposed for this zone in the EIS alternatives.

The EIS alternatives vary in terms of the number of additional tall buildings anticipated under proposed changes. Alternative 1 would establish higher height limits over more areas than the other three alternatives. Existing height limits also reflect current provisions that allow height increases above the mapped height limits under certain conditions, such as the 10% and 20% increases above mapped height limits allowed in DOC 1 and DOC 2 zones, and the additional height permitted for residential and mixed-use development through the Transfer of Development Credit (TDC) program in the Denny Triangle.

Alternative 1 would require fewer buildings to accommodate projected growth than the other alternatives, but would likely result in the greatest number of taller buildings. Table 26 below summarizes the possible

breakdown of future project heights, per an analysis of potential redevelopment for this EIS. The height of projected development under each alternative was estimated by analyzing the size of available redevelopment sites, the amount of floor area permitted on these sites under proposed density limits, and the number of floors, using standard floor sizes, that would be needed to accommodate this floor area under proposed height limits. Out of an estimated total of 55 future new structures in Alternative 1, approximately 36 structures (65%) would be more than 250 feet in height. This compares to 31 structures (55%) in Alternative 2, 28 structures (47%) in Alternative 3, and 26 structures (41%) in Alternative 4.

Table 26
Numbers of Projected New Buildings by Height Range

Height Range	Alternative 1	Alternative 2	Alternative 3	Alternative 4
0 - 150 feet	5	6	9	11
151 - 200 feet	5	9	9	10
201 - 250 feet	9	10	14	16
251 - 300 feet	7	5	9	12
301 - 400 feet	28	24	17	13
401 - 500 feet	0	1	1	0
Greater than 500 feet	1	1	1	1
TOTAL	55	56	60	63

Source: SPO, 2002

In the DOC 1 and DOC 2 office core zones, the FAR limit and size of development sites constrain the amount of commercial floor area in a project. Unless larger sites are created through alley vacations, most commercial-only buildings could accommodate permitted floor area in structures below the maximum height limits. Only seven sites are large enough (over 40,000 square feet) to allow an amount of floor area that would likely require a commercial-only structure to exceed current height limits. Because the height limits in DMC zones are lower than in office core zones, commercial-only structures would more likely extend to the height limits.

Denny Triangle would accommodate most new tall buildings. The greatest concentration of new tall buildings would likely occur in the DOC 2 zone in the Denny Triangle. In an area of about 20 blocks, 19 buildings with heights between 300 and 400 feet are projected, in addition to five buildings in this height range that have recently been completed, are under construction or permitted, and four existing structures built prior to 1990. The character of the area would substantially change over time and be largely shaped by this concentration of large, tall buildings of uniform height.

New tall buildings dispersed in Commercial Core. In the DOC 1 and DOC 2 zones of the central office core, only seven future structures would be expected to exceed 250 feet in height. More broadly dispersed in the area and adjacent to existing structures of equal or greater height, these projected structures would be relatively inconspicuous additions to the skyline.

New tall buildings concentrated on Edges of Belltown; dispersed on edges of Denny Triangle and Commercial Core. Another concentration of tall, primarily residential buildings in the 250- to 400-foot height range is expected along the southern edge of Belltown and northern edge of the Commercial Core between 2nd and 4th Avenues. Taller buildings would also likely be dispersed at locations on the northern fringe of the Denny Triangle and on the western edge of the Commercial Core between Seneca and Columbia Streets.

BULK

A structure's bulk is related to the size of the site it occupies and its volume—which is a function of the structure's height and coverage of the site from ground level to the top. Height and density limits affect bulk by determining how much floor area a building can contain and how that floor area can be distributed vertically. The spacing between structures, the degree of vertical and horizontal modulation in structures, and the balance of solids and voids in an area are all factors that influence the perception of bulk and contribute to the sense of whether an environment is comfortable or not. Furthermore, the bulk of new structures in relation to existing buildings influences perceptions of how well new development fits in with its surroundings. While these perceptions may be subjective, they are influenced by specific impacts attributable to bulk, including shadows and view reduction.

Development Density

The physical bulk of Downtown development is partly a function of permitted density. In the Downtown zones within the study area, development density is regulated for most commercial uses by a floor area ratio (FAR), while the density of other uses such as housing is only restricted by the height limit, setback standards and requirements for common recreation area. The commercial FAR is calculated as the ratio of a building's gross commercial floor area divided by the total lot area. For example, a building with 200,000 square feet on a 20,000 square foot lot would have an FAR of 10 (10 square feet of building floor area to every one square foot of lot area). For the purposes of this analysis, a floor area ratio is also calculated for residential and mixed use structures to allow comparison of the bulk of these structures to commercial structures subject to an FAR limit. The floor area calculations for these projects include the total floor area of all above-grade uses that contribute to the visible bulk of a structure, including those uses that are not regulated by FAR in the Code. For projects that include multiple structures on a site, the FAR reflects the combined floor area of uses in all structures on the site.

Among the alternatives, Alternative 1 would likely result in the fewest and generally the bulkiest projects. With proposed height and density increases, Alternative 1 is predicted to result in 39 developments with a total of 55 structures, including several projects sites with multiple structures (see Table 27).

The Land Use Code allows residential uses and some other uses (such as street-level retail) to be omitted from density limit calculations. These “exempted” uses can add to building bulk in mixed-use and residential-only developments, and would be a factor in the bulkiness of future development in the study area. Approximately 75% of the mixed-use and 60% of the residential projects are predicted to legally exceed the Land Use Code's maximum commercial density limits. This would be equivalent to approximately 15 projects with actual densities above 17 FAR or more. In the DMC zones where commercial-only projects would be subject to a maximum density limit of 10 FAR, residential and mixed-use projects could achieve actual densities in the 16 to 25 FAR range, depending on the height limit of the zone. In the DOC 2 zone where the commercial density limit would be 14 FAR, residential and mixed-use projects could approach actual densities in the 17 to 25 FAR range.

The analysis of Alternative 1 suggests that most residential development would occur in large residential and mixed-use developments. If market conditions dictate that fewer large-scale developments actually get built, then either a greater number of smaller developments would need to occur, or less housing would be accommodated in the study area.

Table 27
Potential Project FARs Achieved By Alternatives

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Commercial (office/hotel)*				
0 - 5 FAR			1	
5.1 - 7 FAR	3	4	4	8
7.1 - 10 FAR	5	4	6	9
10.1 - 14 FAR	3	5	4	8
14.1 - 17 FAR	4	5	5	
Mixed Use(commercial/residential)				
0 - 5 FAR	1	1	1	1
5.1 - 7 FAR				
7.1 - 10 FAR	1	1	1	1
10.1 - 14 FAR	1	1	3	2
14.1 - 17 FAR		4	4	4
17.1 - 20 FAR	6	2	1	1
20.1 - 25 FAR	3	3	2	2
Residential				
0 - 5 FAR	1	1	1	1
5.1 - 7 FAR	1	1	1	1
7.1 - 10 FAR				1
10.1 - 14 FAR	2		3	
14.1 - 17 FAR	2	3	4	6
17.1 - 20 FAR				1
20.1 - 25 FAR	6	5	3	2
TOTAL PROJECTS	39	40	44	48

* For commercial-only projects, parking is assumed to be located below grade and not counted in FAR, except in the DMC zone adjacent to the harborfront. Exempted retail space is not included in calculations.

Site Size

Table 28 below shows the range of site sizes accommodating projected development. Larger sites are expected to continue to be attractive for future development. All of the alternatives show development on the same number of the largest available sites—typically a full block in size and mostly located in the Denny Triangle. These sites accommodate a significant share of the projected growth and are generally occupied by the largest structures. Projects built on large sites will have the biggest impact on development scale in an area, especially in the Denny Triangle, where the scale of such projects will be dramatically different from what currently exists. Most projects, however, are on sites of about a half block in size located throughout the study area. The smallest sites are generally assumed to be occupied by residential projects. While residential sites may be small, they can accommodate relatively large

structures, primarily because residential use is not subject to a density limit, which allows structures to extend to the height limit at maximum site coverage.

Table 28
Size of Potential Project Sites

Lot Area (square feet)	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Less than 15,000	4	4	5	5
15,000 to 30,000	17	17	18	20
30,000 to 45,000	9	10	12	14
45,000 to 60,000	1	1	1	1
Greater than 60,000	8	8	8	8
TOTAL	39	40	44	48

Height and Density Relationship

The relationship between height limits and maximum allowable density in the Land Use Code influences the shape of buildings. The size of the project site affects the amount of floor area allowed, and so also influences building volume and design.

Height limit in DOC 2 zone may result in bulkier buildings. Some Downtown stakeholders have interpreted that the existing height limit in the DOC 2 300' zone is too constraining for accommodating permitted density. In other words, to develop a building with the maximum amount of floor area allowed, the arrangement of building bulk is often “forced” into a lower, bulkier building envelope rather than allowed to spread vertically into taller forms that would allow more flexible design and a better distribution of building bulk.

Proposed height and density increases may not remedy the bulk/design issue. In the DOC 2 300' zone, Alternative 1's proposed height and density changes would represent a 33% increase in the height limit (300 feet to 400 feet), and a 40% increase in permitted density, from 10 FAR to 14 FAR. If the current relationship between height and density (bulk) is interpreted to result in bulky structures on large sites, the proposed changes may not remedy the situation. As a comparison, the existing 450-foot height limit of DOC 1 has also been criticized as too constraining for development built to the zone's existing maximum density limit of 14 FAR.

Effect of rectangular blocks. The larger rectangular blocks present in the Denny Triangle DOC 2 zone create potential for a greater amount of allowable floor area per block than could be achieved on smaller square blocks. If the height limits create the need for large floor sizes to accommodate the permitted density, this could also increase the perceived bulkiness of development in the area.

Additional bulk from residential and other “exempt” uses. Perceptions of excessive bulk could become more pronounced as more mixed-use and larger residential development occurs. Since residential use is exempt from floor area calculations, the actual FAR achieved in a project could be considerably greater than the maximum FAR limit proposed for commercial uses. If all floor area above grade is counted, including exempted parking and retail uses, recent residential projects in DOC 2 and DMC 240 zones already approach densities of 20 FAR, even though the existing density limit for commercial use is 10 and 7 FAR respectively. Under proposed changes, mixed-use and residential projects could achieve total above-grade density in the 18 to 25 FAR range in DOC 2, while commercial density would be limited to 14 FAR.

Increased bulk in DMC zones. In the DMC zones, the increased commercial density (7 to 10 FAR) may be difficult to accommodate in areas with lower height limits in the range of 165 to 225 feet. These areas are located on the northern edge of the Denny Triangle and western edge of the Commercial Core along First and Western Avenues. Even with the increased height, development in these areas would likely appear bulky, which could be an issue for "edge" locations abutting less intensive zones.

Massing

In the discussion above, the term “bulk” is generally used to refer to the shape and volume of individual buildings. For the purposes of this discussion, “massing” refers to the overall urban form resulting from the accumulation of new projects in an area—or the combined bulk of several projects. Massing not only refers to the volume of a particular building, but also considers neighboring buildings and the space between them. Figure 17 shows future massing scenarios based on the projected distribution of new development. A more detailed view of potential conditions under Alternative 1 is provided on Figure 18.

Emphasis on redevelopment in the Denny Triangle. The greatest concentration of new development is expected in the DOC 2 zone of the Denny Triangle, where increased height and density limits will accommodate larger buildings than currently allowed. Given the number of available sites in the area, redevelopment of a large portion of the zone is anticipated, with structures built consistently to the height limits and with many projects accommodating a mix of uses in multiple structures on the same site.

Shape of blocks in Denny Triangle may influence perception of bulk. Given the platting characteristics and the amount of new development projected for the proposed DOC 2 400' and DMC 340' areas of the Denny Triangle, future development in portions of these zones may be perceived as excessively bulky, as new buildings would line the street on both sides, limiting views out and reducing access to light. This condition would be most pronounced in the eastern portion of the Denny Triangle, where the width of rights-of-way bordering the longer dimension of the rectangular blocks is only 66 feet, compared to widths of 84 feet or more for Avenues in the DOC 1 zone. The narrower street width would increase the sense of enclosure created by new development lining the street. Also, the spacing of cross streets only occurs every 360 feet, compared to every 240 feet throughout most of the DOC 1 zone. Because of the longer blocks, the massing of development would be less frequently interrupted by the open area of street rights-of-way. These conditions would affect access to daylight, shadowing and the perceived sense of enclosure within the public street environment. Also, existing bulk regulations such as upper-level development standards would tend to push the bulk of structures toward the middle of the block. This may limit opportunities for mid-block spacing between structures that might otherwise interrupt masses of building bulk and allow more daylight into the street environment.

New development in commercial core dispersed among existing structures. Development within the DOC 1 and DOC 2 zones of the Commercial Core would likely be dispersed among existing high-rise structures, filling in the limited number of remaining sites with structures likely to be similar in scale to adjacent structures built when the zoning allowed greater height and density.

New development in DMC zone relatively dispersed except along edge of Belltown. In the DMC zones of the edges of the office core, future development would likely be dispersed, limiting the overall potential impacts associated with the greater bulk of individual new buildings. An exception may be the DMC zone on the edge of Belltown where a number of sites could be developed with residential structures. Since residential use is not subject to a density limit, these structures could be considerably bulky, a condition that would be much more strongly perceived if several such structures were concentrated in one area. In the DMC zone along the western edge of the Commercial Core, the relatively deep upper-level view corridor setbacks required along most east/west streets in the area help integrate the larger scale of development allowed with existing development.

Seattle Urban Design Impact Study

Figure 17

Potential Massing of Future Development Under Four EIS Alternatives

Alternative 3. - Residential Emphasis



Alternative 4. - No Action (Existing Zoning and Development Regulations)



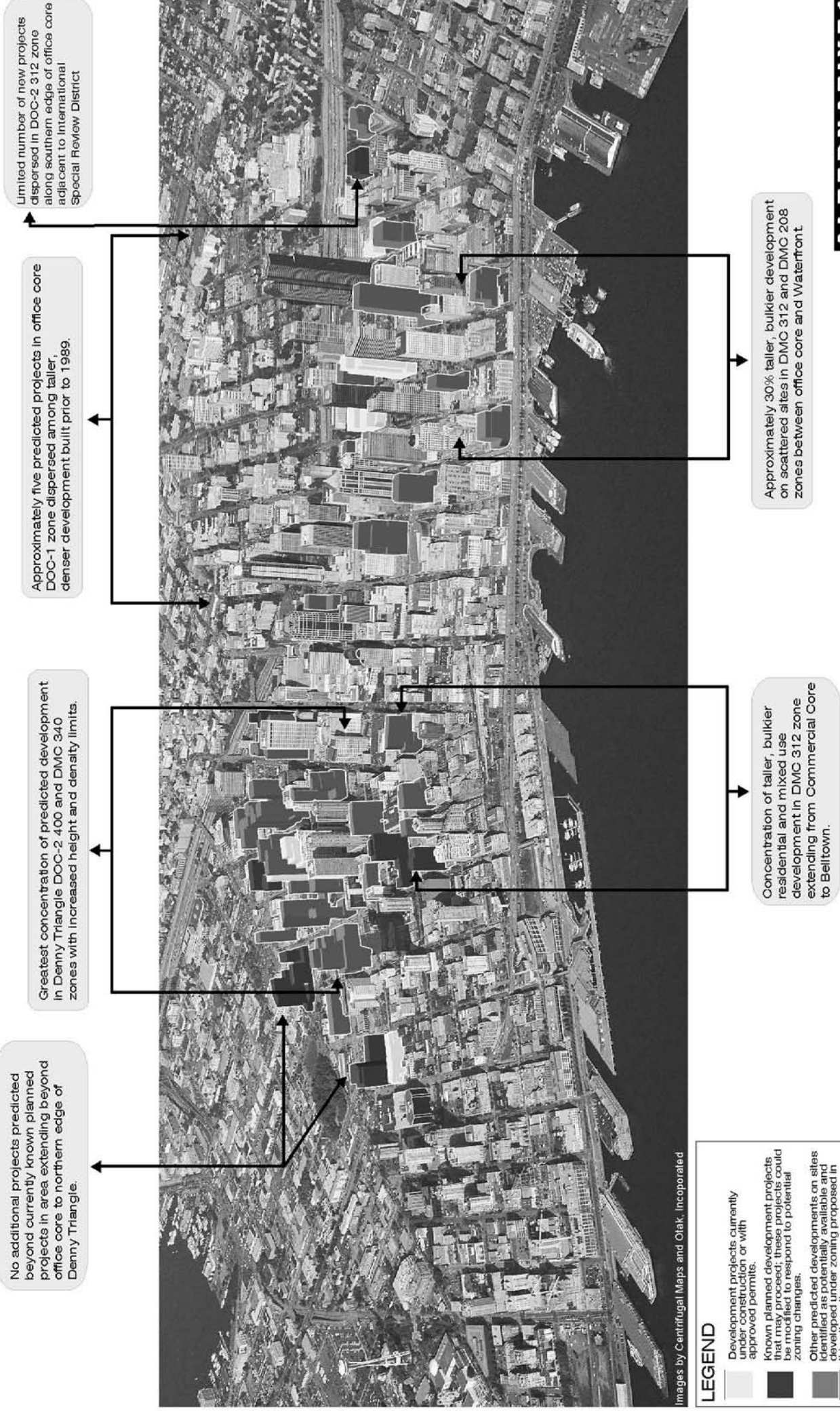
Alternative 1. - High End Height and Density Increases



Alternative 2. - Concentrated Office Core



Figure 18



ALTERNATIVE 1

SCALE

The term “scale” is used to describe the characteristics of new development in relation to the surrounding development context. The discussion covers both the existing built context—what actually exists on the ground today—and the potential built context that could be created by future development.

Transition

Alternative 1 would introduce several changes to the scale relationship established in the 1985 Downtown Plan. To implement policies calling for transitions in the scale and intensity of development between the high-density office core and adjacent, less-intensive neighborhoods, a variety of zones with a range of height and density limits were established. The DMC zones and DOC 2 240' zones in particular were created to promote desired transition areas. Sensitive transition areas considered in this analysis are identified in Figure 19.

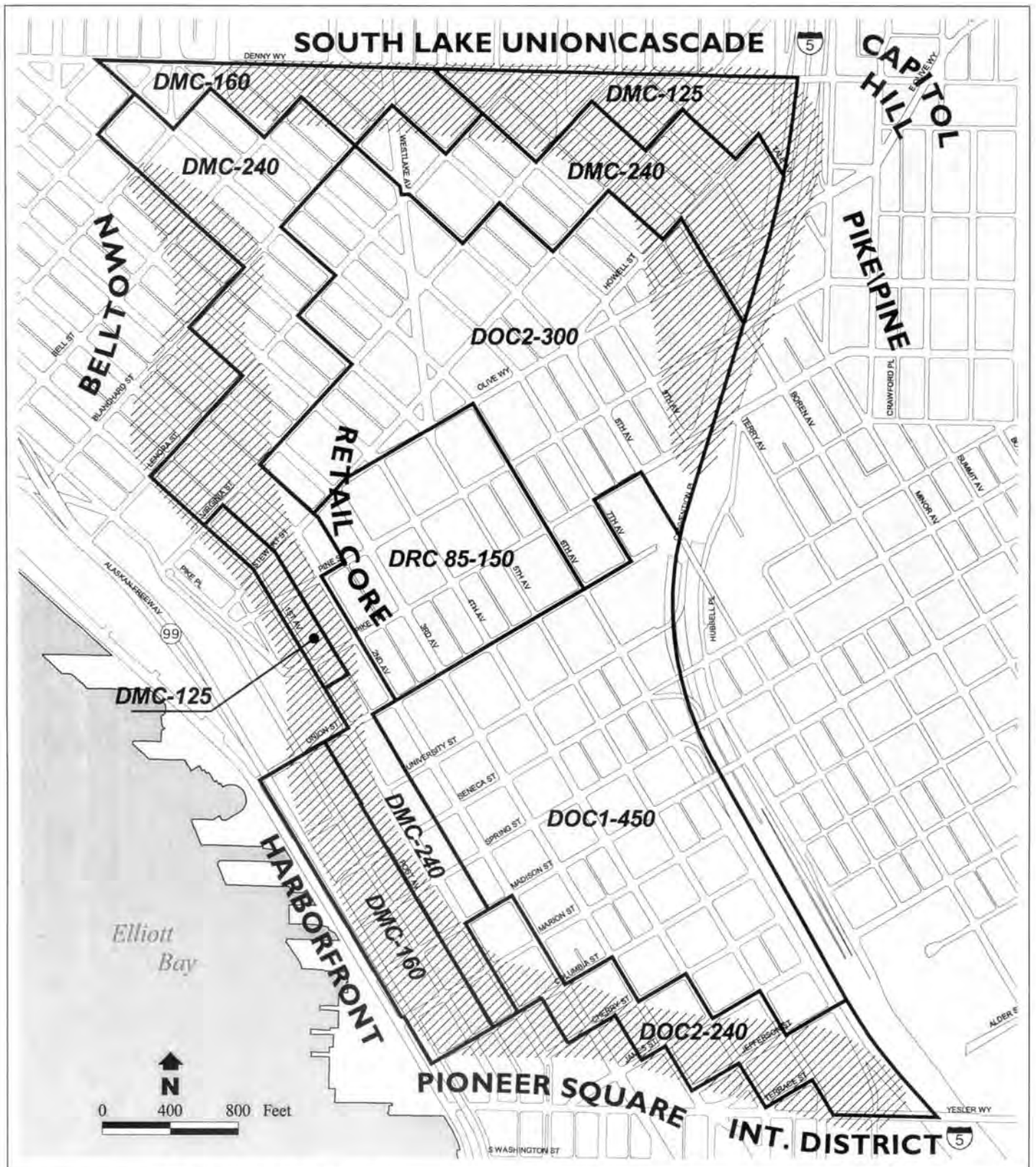
Alternative 1 would result in the most abrupt changes in height, bulk and scale along edges of identified sensitive transition areas. Table 29 at the end of this section summarizes the transition impacts of the alternatives. A more detailed description of the nature of these impacts is provided for each location in Appendix I.

Development Compatibility

Development compatibility considers the relationship between new projects and existing development in an area. While current Downtown zoning allows new projects to be larger than much of what currently exists, consideration is also given to maintaining compatibility with existing development characteristics of an area. The zoning assigned to an area does not necessarily assume that the ideal condition is one where every site is developed to the maximum limits allowed. Specific measures, such as landmark preservation, variable-scale TDR, incentives for small lot development, and guidelines for street and alley vacations—to name a few—recognize the importance of integrating new projects into the existing development context.


General. In general, current zoning allows a larger scale of development than what currently exists in many areas, and the difference in this relationship under any of the alternatives is marginal.

- **Denny Triangle.** Under Alternative 1, as in the other alternatives, most new development would be concentrated in the DOC 2 300' and DMC 240' zones of the Denny Triangle. This area today is generally characterized by low-intensity development including surface parking lots and small-scale structures, with some larger, more recent projects clustered on the southern and western edges of the DOC 2 zone and in the DMC zone along the I-5 edge. Most existing structures that now appear to be relatively large, such as the Camlin Hotel and Paramount Theater, will appear more modest in scale as newer, larger projects occupy adjacent sites. Under projected growth, the area would experience considerable redevelopment over the next 20 years, introducing a whole new scale and intensity.
- **DOC 1.** Future projects in the DOC 1 zone will be dispersed on sites throughout the office core, and will be compatible in scale—and in many cases smaller—than existing high-rises.
- **DMC.** In the DMC zones along the western edge of the Commercial Core and southern edge of Belltown, many recent projects built under current zoning exceed the scale of the older buildings establishing the area's existing scale and character. Under Alternative 1, even larger buildings would be possible in the future with the proposed increases in height and density limits.



SENSITIVE TRANSITION AREAS

FIGURE 19

 Areas separating more intensive downtown zones from less intensive neighborhoods

Strategic Planning Office
City of Seattle
May 20, 2002

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Landmark structures. In this analysis, impacts on historic resources include consideration of the physical relationship between future development and adjacent landmark structures, and whether those conditions negatively affect the qualities of the landmark structure. To provide a relative comparison of potential impacts between alternatives in terms of the compatibility between new development and existing designated Seattle landmark structures, three locations including both landmark structures and sites considered likely to be redeveloped were selected for analysis. The following locations were selected because they are geographically dispersed within the study area, provide examples for each of the different zones affected by the changes, are adjacent to identified potential redevelopment sites, and more than one landmark structure is visible, including one meeting SEPA criteria for view-protected landmarks:

- DOC 1 location: Rainier Club (810 4th Avenue) and Leamington/Pacific Hotel and Apartments (317 Marion Street).
- DOC 2 location: Paramount Theater (901 Pine Street) and Camlin Hotel (1619 9th Avenue).
- DMC location: Terminal Sales Building (1932 1st Avenue) and Moore Theater and Hotel Building (1932 2nd Avenue).

Figures 20 through 22 illustrate potential development on sites adjacent to these structures. For all three cases under all alternatives, including development that can occur under current zoning, new projects on adjacent sites are substantially greater in scale than the existing landmark structures.

Pacific Hotel and Rainier Club (DOC 1 Zone). In this DOC 1 location, the neighboring Bank of California Center, 5th Avenue Plaza, Columbia Center and new IDX Tower already establish a pronounced contrast in scale with the two landmarks. Looking south down 4th Avenue at Marion Street, the existing urban environment is already comprised of interesting contrasts of scale, building age, and architectural style. While the Rainier Club and the Pacific Hotel, and to some extent the YMCA Building, are similar in terms of scale, materials (all brick structures), age, and architectural style, they contrast dramatically with the modern skyscrapers around them. Additional development filling in available sites nearby will intensify this condition. However, in this setting, it is the dramatic contrast in scale and architectural character contributes to the visual prominence of these landmarks.

Under all the alternatives, additional development would further contribute to the architectural variety and diversity of scale in the area. Combined, the landmark structures will continue to provide an enclave of pedestrian-oriented building scale among the skyscrapers. The historic low-density structures, with the generous setback of the Rainier Club, provide a feeling of openness and welcome sunlight. Conditions under Alternatives 1, 2 and 3 would be the same. The potential development depicted in Figure 20 under these alternatives is an office building of approximately 22 stories on a half-block site one block south of the Pacific Hotel. In Alternative 4, the new structure is slightly lower in height, at approximately 18 stories. With heights in the range of 230 to 290 feet, these structures are considerably below the maximum height limit allowed by zoning, which is up to 540 feet under existing conditions and 585 feet under the other alternatives. With the nearest projected development located a block away from landmark structures, the additional impact on the landmarks is minimal given the number of other taller buildings in the vicinity. However, it should be noted that both landmarks are located on blocks with other sites that, over the longer term, could be redeveloped. For either landmark, having a significantly larger structure located on the same block could create a more incongruous scale relationship, where the new development could appear to overwhelm the abutting smaller landmark structure.

Under all alternatives, street level standards that apply to 4th Avenue under its Class I Pedestrian Street designation should promote a compatible street level relationship between new and existing buildings. It should be noted, however, that as a private club and a residential building, the private nature of street level uses in the landmark structures already limits street level activity along this stretch of 4th Avenue.

Paramount Theater and Camlin Hotel (DOC 2 Zone). Located in the Denny Triangle, the Camlin Hotel and Paramount Theater today are moderate-scale structures, visually prominent in their existing setting amidst the open expanses of surface parking lots and the two-block Convention Place Transit Station site. The two landmark structures are of the same vintage and materials (brick) and compatible architectural style. The multi-block Convention Center complex is to the southwest. Though massive in scale, the portion of this project that extends closest to the landmark structures is of compatible height. Other development nearby ranges widely in scale, from one-story retail buildings to the 33-story 1600 Qwest Plaza Tower one block east of the Camlin. The view of existing conditions shown on Figure 21 looks across an existing car dealership lot, which, in the Denny Triangle Neighborhood Plan, is identified as a desired location for public open space.

A substantial amount of new development is expected in this DOC 2 area over the next 20 years. Given the location of potential development sites, including the air rights above the transit station blocks, these two buildings, now considered on the fringe of Downtown, will likely be surrounded by highrise buildings expanding northeastward from the core. An alley vacation on the Camlin Hotel block and the superbloc site of the Convention Place Transit Station could place substantially larger structures adjacent to the landmarks if these sites are developed to the maximum limits the zoning would allow. Given the similarities among the alternatives in the treatment of DOC 2 zoning at this location, and the close proximity of new structures to the Camlin, all alternatives will potentially have similar urban design impacts. The most extreme condition would occur under a scenario where the remainder of the Camlin block is assembled through an alley vacation and developed with a multi-structure mixed-use project. By combining both the maximum allowed commercial floor area and a substantial amount of exempted residential floor area, such a project could achieve densities in the 16 to 22 FAR range, depending on the alternative, creating the potential for large, bulky towers flanking the sides and rear of the structure, which could visually overwhelm it. This condition would be most extreme under Alternatives 1 and 2 because of the higher densities allowed.

At a more detailed level, the mid-block location and design of the Camlin results in exposed blank facades along the side property lines. Under the development practices of the day, structures of similar height and scale would have been anticipated to eventually abut these facades, forming a more or less continuous street wall. With the added flexibility the alley vacation allows, future towers could pull back from this front façade line, creating a less cohesive street wall where the new and old structures adjoin.

The site of the Paramount Theater occupies most of what remains of a block sliced on one corner by Interstate 5 right-of-way. With development above I-5 unlikely, and only a relatively small portion of the remaining block available for redevelopment, major scale conflicts between the Paramount Theater and other potential development on the same block are not anticipated.

In terms of potential scale conflicts between these landmarks and new development, differences among the alternatives are likely to be marginal. However, the high floor area densities achievable in mixed-use or residential developments increase the potential for incompatible scale relationships, especially on larger sites created by alley vacations. Measures that might mitigate these impacts, such as spacing between towers and upper level setbacks, could not likely be achieved without a reduction in development density. On the other hand, larger sites, like the Convention Place Transit Station site, provide added flexibility for siting new development that could help promote a more compatible relationship with the landmarks on neighboring blocks, provided these sites are not built to the maximum achievable density.

Figure 20

Seattle Urban Design Impact Study

DOC-1 Zone

View South from 4th Ave. and Marion St.
(Pacific Hotel in center)



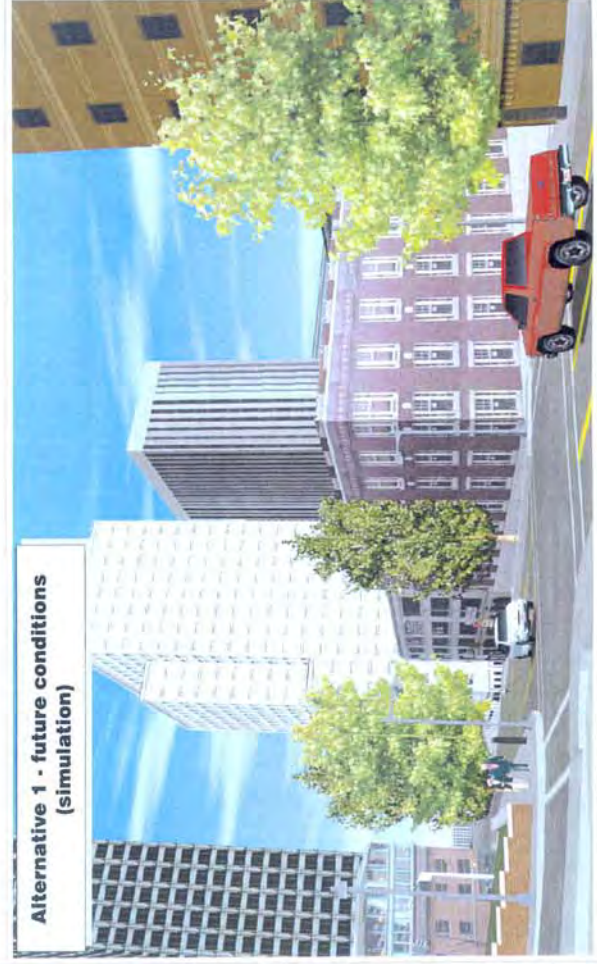
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Existing Conditions - photograph



Area Map and Viewpoint



Alternative 1 - future conditions
(simulation)



Alternative 4 - future conditions
(simulation)

Figure 21

Seattle Urban Design Impact Study

DOC-2 Zone

View South from Terry Ave.
and Howell St.
(Camlin Hotel in center)

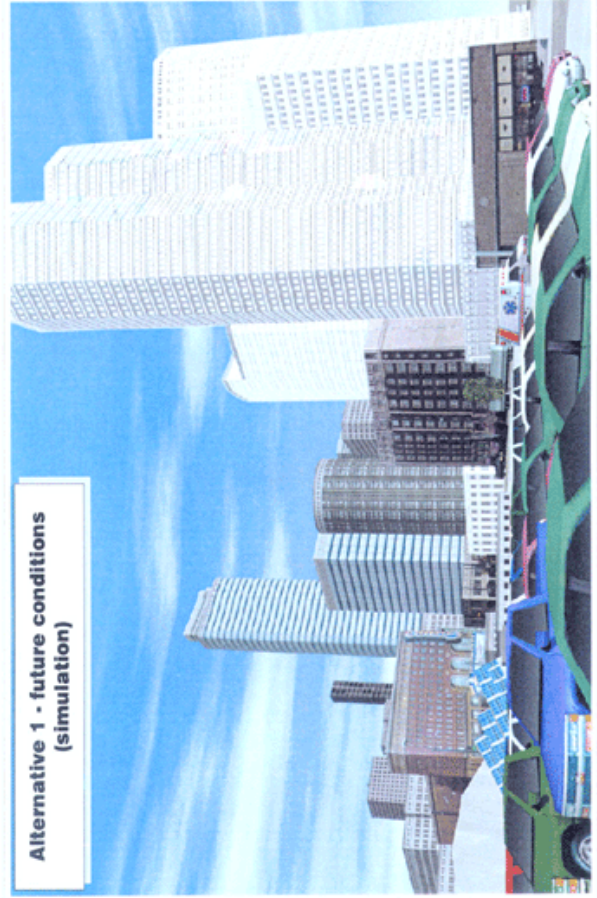
Existing Conditions - photograph



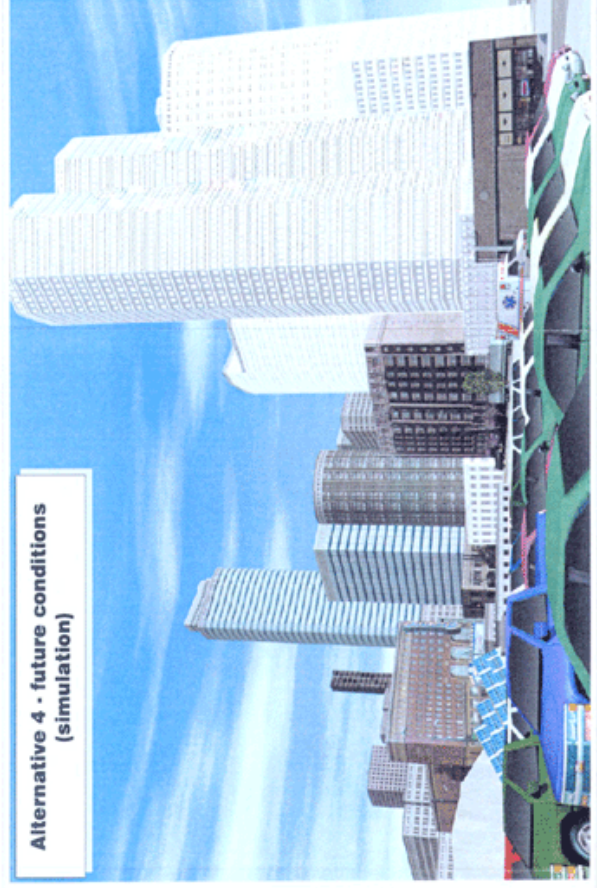
Area Map and Viewpoint



Alternative 1 - future conditions
(simulation)



Alternative 4 - future conditions
(simulation)



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Figure 22

Seattle Urban Design Impact Study

DMC Zone

View Northeast from 1st Ave.
and Virginia St.
(Terminal Sales building
in foreground)

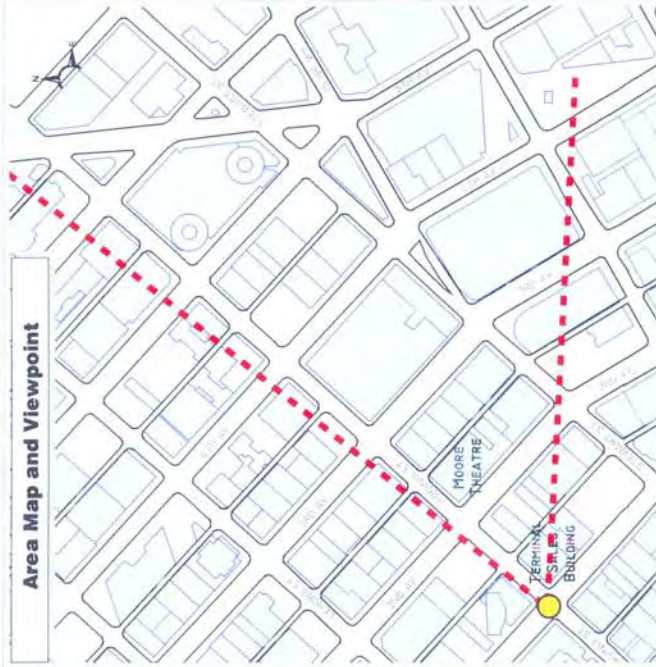


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Existing Conditions - photograph



Area Map and Viewpoint



Alternative 4 - future conditions
(simulation)



Alternative 1 - future conditions
(simulation)



Seattle Urban Design Impact Study

DMC Zone

View Northeast from 1st Ave.
and Virginia St.
(Terminal Sales building
in foreground)



10936/gis/rapid/site/import1.apr/CAM 3

Existing Conditions - photograph



Area Map and Viewpoint



Alternative 4 - future conditions
(simulation)



Alternative 1 - future conditions
(simulation)



Terminal Sales Building (DMC 240) and Moore Theater and Hotel. Under existing conditions depicted in Figure 22, both of these landmark structures are visible in the view looking east down Virginia Street. Also, because of the location of the Terminal Sales Building in relation to the shift in the street grid at Stewart Street, it is visible from 1st Avenue for several blocks to the south. In the context of existing development, these landmarks are relatively large structures. The Pike Place Market area, with its lower scale of development, occupies blocks to the south and west. Development on the Market Place North block to the northwest is of a larger scale, and further north and to the east, taller buildings, like One Pacific Tower, Bell Center and the Josephinum, are scattered among development that is more typically in the two to five-story range. Scattered surface parking lots also contribute to the area's lower scale and open character.

Under all the alternatives, several sites in the vicinity of the two landmark structures are shown as likely to be redeveloped. Alternative 1 would allow taller structures than the other alternatives, and if developed as residential or mixed-use projects as shown, these structures could be quite bulky, given the limited bulk restrictions on residential use. The Terminal Sales Building would become visually less prominent as these larger structures join One Pacific Tower on adjacent sites. Additional large-scale structures would also advance closer to the landmarks as development occurs on sites in the DOC 2 zone further east. Currently, visible structures in this zone include the Westin Hotel and Westin Building located along 5th and 6th Avenues, with all the alternatives depicting new development advancing eastward as far as 4th Avenue.

Development diversity

Development diversity addresses the degree to which there is variation in the scale and character of development within an area. The combination of new and old structures, varied uses, and a mix of development scale and building types generally contribute to a more interesting urban environment; these conditions are supported by numerous Downtown development policies.

Under Alternative 1, as in all alternatives, the Denny Triangle DOC 2 zone would undergo substantial redevelopment to accommodate projected growth. This could result in a more homogeneous character with new projects of generally uniform height and density. However, because a range of building types would be needed to accommodate different uses, the mix of residential, commercial, and mixed-use structures could add interest and variety.

In other Downtown areas, new development would likely be more dispersed within the existing built environment, contributing to overall development diversity. Furthermore, because fewer sites would be required to accommodate projected growth under this alternative, more existing structures and uses would be expected to remain on sites shown as likely to be redeveloped under the other alternatives.

Residential Character

Development scale is often a component helping to define the residential character of an area. The scale of residential buildings reflects their function; they generally have smaller floor sizes and are less bulky to allow natural light into internal living spaces. The presence and contact with living spaces at street level increases the sense of an area as a residential environment, and this ground-level orientation is often encouraged through regulations and guidelines. Design requirements for projects accommodating housing also often result in more open areas and generally less building coverage, increased spacing between structures and landscaping, all of which enhance the residential quality of an area. Details like windows and balconies also contribute to the residential scale of development.

As under existing conditions, Alternative 1 does not designate residential zones within the study area. The Denny Triangle Neighborhood Plan does specify locations where development of "residential enclaves" is desired. A substantial amount of housing would have to be built in the Belltown and Denny

Triangle portions of the study area—almost 6,500 dwelling units—if projected residential growth is to be accommodated. There are no provisions in Alternative 1 that specifically promote a desired residential character in the Denny Triangle. Because residential floor area, including above-grade accessory parking, is exempt from density limits, residential buildings could potentially become among the bulkiest structures in these areas. Also, achieving a beneficial residential character could be hampered by the probable mixing of residential and non-residential projects, and separation of housing from the street by multi-level base structures occupied by parking or other non-residential uses.

Alternative 2 – Concentrated Office Core

HEIGHT

Generally, the height characteristics of projected future development in Alternative 2 would be similar to Alternative 1. Most future tall buildings would be concentrated in the Denny Triangle DOC 2 zone, while other tall structures would be dispersed among existing skyscrapers in the DOC 1 zone. The height of development in DMC zones on the periphery of the office core zones in the Denny Triangle, Belltown and western edge of the Commercial Core neighborhoods would be the same as under existing conditions.

Approximately 31 new structures are predicted to be over 250 feet in height, 5 fewer than Alternative 1 (refer to Table 26). Approximately 11 of these would be residential structures and 8 would be mixed-use structures. Four of the residential structures and three mixed-use structures would likely extend above 250 feet by using the Transfer of Development Credit (TDC) height incentive. Of the 12 commercial-only structures over 250 feet tall, only six are developed to the maximum height allowed.

In the zones with height limits of 240 feet or less, all types of development—commercial, residential, and mixed use—would typically reach the height limit. Altogether, eight new structures are projected to exceed current height limits by using the TDC program.

BULK

Development Density

Under Alternative 2, the analysis indicates approximately 56 new structures would be built on 40 new project sites. The increased density limits for commercial use and height limits for all uses in DOC 1 and DOC 2 zones would result in development with bulk characteristics similar to Alternative 1 in these zones. Overall, there would be slightly fewer of the bulkiest residential and mixed-use projects under Alternative 2, partially because density and height limits would remain unchanged in DMC zones. Approximately 10 residential and mixed-use projects would exceed 17 FAR.

In part because Alternative 2 does not include height increases in the DMC zone in the Denny Triangle beyond what the TDC program now allows, the densities of residential and mixed-use projects range more widely than in Alternative 1. Only 46% of the projected mixed-use projects and 44% of the residential projects are predicted to have densities above 17 FAR. In the DMC zones where commercial-only projects would be subject to a maximum density limit of 7 FAR, residential and mixed-use projects are shown achieving actual densities in the 11 to 23 FAR range, depending on the height limit of the zone and the use of TDC. In the DOC 2 zone where the commercial density limit would be 13 FAR, the range of densities for residential and mixed-use projects would be similar to Alternative 1 (refer to Table 27).

Site Size

The size of sites accommodating projected development is essentially the same as under Alternative 1.

Height and Density Relationship

The height/density relationship in Alternative 2 would be similar to Alternative 1, except the proposed density increase in the Denny Triangle DOC 2 zone would be limited to 3 FAR rather than 4 FAR, resulting perhaps in slightly less bulky structures, given the height limits are the same under the two alternatives. Also, Alternative 2 maintains existing height and density limits in DMC zones, so any impacts of additional height and density identified in Alternative 1 would not apply in these areas.

Massing

Given the number, scale, and distribution of projected projects, massing conditions in this alternative would likely be similar to Alternative 1. Figure 23 below illustrates the potential massing of future development under Alternative 2.

Because it is assumed that growth will initially be attracted to available sites in the core zones, both Alternatives 1 and 2 show most of the 20 years of projected growth occurring in bigger projects in the DOC 1 and DOC 2 zones. During this 20-year timeframe, only limited development would occur in the DMC zones, where these alternatives differ in terms of permitted height and commercial density limits. Over the longer term, as more development pushes beyond the core, these differences would become more apparent, with the resulting scale of development in Alternative 2 generally lower than Alternative 1 around the perimeter of the core.

SCALE

Transition

Alternative 2 would for the most part retain the current height, bulk and scale relationship established by existing zoning along the edges of “sensitive transition areas” identified in the study area (refer to Figure 19). Table 29 at the end of this section summarizes the transition impacts of the alternatives. A more detailed description of the nature of these impacts is provided for each location in Appendix I.

Compatibility

General. Compatibility conditions in the office core zones of the Commercial Core and Denny Triangle would be similar to what is described under Alternative 1. No height and density changes would occur in areas zoned DMC, meaning less impact from future development than Alternative 1. However, future development would likely exceed the scale of existing development in those zones.

Landmark structures.

- **Rainier Club and Pacific Hotel landmarks (DOC 1).** Same impacts as Alternative 1
- **Camlin Hotel and Paramount Theater (DOC 2).** Similar to Alternative 1.
- **Terminal Sales Building (DMC 240).** No height and density increases in the DMC zones, meaning slightly less impact from future development than Alternative 1.

Development Diversity

Conditions would be similar to those described under Alternative 1.

Residential Character

Conditions would be similar to those described under Alternative 1.

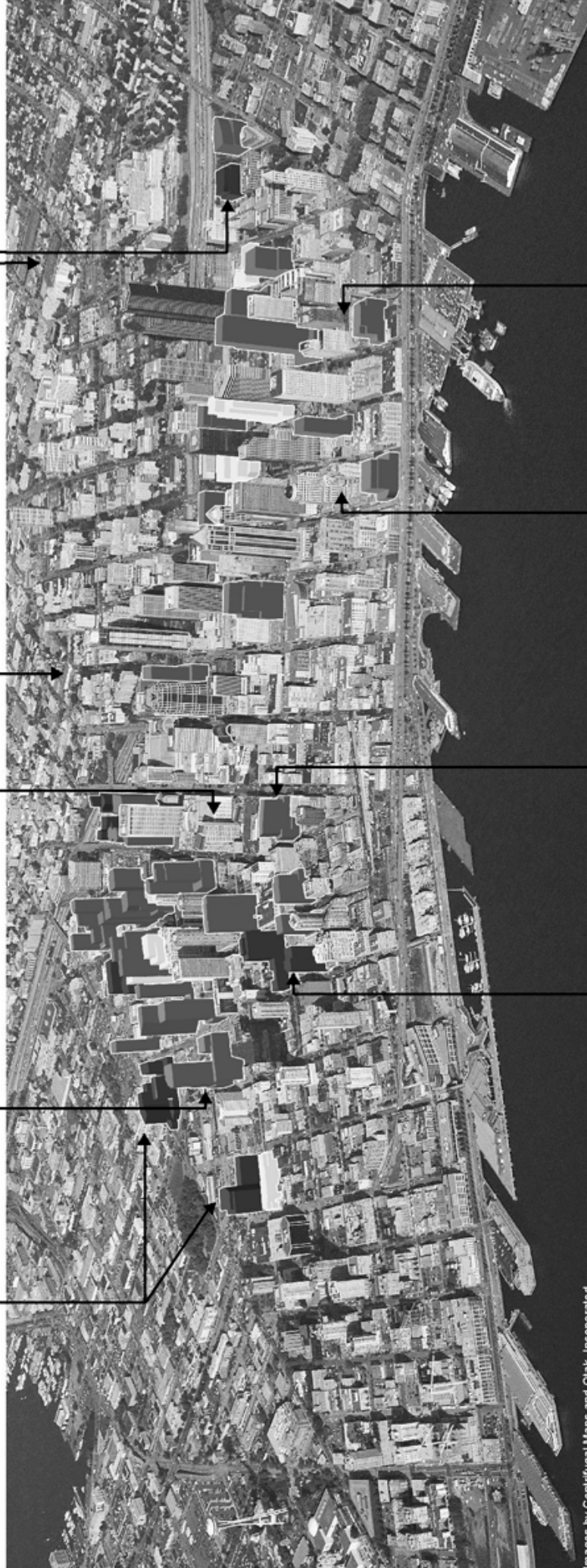
Figure 23

No additional projects predicted beyond currently known planned projects in area extending beyond office core to northern edge of Denny Triangle.

Greatest concentration of predicted development in Denny Triangle DDC-2 400 zone with increased height and density limits and adjacent DMC 240 zone retaining existing height and density limits.

Approximately six predicted projects in office core DDC-1 585 zone dispersed among development built prior to 1989.

Unlimited number of new projects dispersed in DDC-2 312 zone along southern edge of office core adjacent to International Special Review District



Images by Centrifugal Maps and Olak, Incorporated

LEGEND

- Development projects currently under construction or with approved permits.
- Known planned development projects that may proceed; these projects could be modified to respond to potential zoning changes.
- Other predicted developments on sites identified as potentially available and developed under zoning proposed in this alternative.

Bulky residential and mixed use development expected under existing height and density limits in the portion of DMC 240 zone extending from Commercial Core to Belltown.

No change to the scale of development under existing DMC 160 and DMC 240 zones between office core and Waterfront

ALTERNATIVE 2 Concentrated Office Core

Alternative 3 – Residential Emphasis

HEIGHT

Development projected under Alternative 3 includes 28 structures exceeding heights of 250 feet, 8 fewer than under Alternative 1. Approximately 9 of these would be residential structures and 7 would be mixed-use structures. Eight of the structures would gain added height through use of the TDC height incentive. Approximately 12 of the structures over 250 feet in height would be commercial-only structures and 8 of these would reach the maximum height limit allowed in their zone.

Alternative 3 would likely result in variation in the height of tall buildings in the Denny Triangle DOC 2 zone because the height limits would step down from 400 feet to 300 feet along the eastern and western flanks of the zone. The characteristics of tall buildings in other parts of Downtown would be similar to Alternatives 2 and 4, except that residential towers would be more slender in those areas proposed for rezone to DMR/C, where additional bulk controls would apply.

BULK

Development Density

Projected development under Alternative 3 would be distributed among 60 structures in approximately 44 projects. The lower density limits for commercial use in several areas, lower height limits in DMC and some DOC 2 areas, and additional bulk controls in areas reclassified DMR for residential use would require more projects than Alternative 1 and 2 to accommodate projected growth. The distribution of growth to more projects and the additional bulk limits on development in DMR areas would contribute to less bulky development overall. However, approximately 7 projects are predicted to have densities exceeding 17 FAR. Approximately 4 of these would be mixed-use projects (31% of the projected mixed-use projects) and three would be residential projects (30% of the residential projects). The overall distribution of project densities is displayed on Table 27.

Site Size

Under Alternative 3, slightly more sites in the half-block size range are required to accommodate projected growth at the lower densities proposed in some areas.

Height and Density Relationship

The height/density relationship impacts of Alternative 3 would be similar to those of Alternative 1, except the additional bulk effects identified in the DMC zones would be avoided.

Massing

In the treatment of the office core zones, Alternative 3 is primarily distinguished from Alternatives 1 and 2 by the retention of current height and density limits in the eastern and western edges of the DOC 2 300 zone in the Denny Triangle and Belltown. Figure 24 illustrates potential massing conditions under Alternative 3. Height and density increases would be limited to the "spine" of the zone extending along 6th, 7th and 8th Avenues from Union Street to Blanchard Street. Retaining current height and density limits for the portions of the DOC 2 zone along the edges of this "spine" would accommodate some transition in development intensity and a physical "stepping down" in development scale with adjacent residential and mixed-use zones in Belltown, the Denny Triangle and Pike/Pine. Furthermore, the wider street rights-of-way and angled crossings of Westlake Avenue, Olive Way and Stewart Street in the portion of the DOC 2 zone proposed for increased height and density would provide more spacing between large-scale developments and greater access to light and air than would occur in other portions of the zone.

Figure 24

Limited number of new projects dispersed in DOC-2 312 zone along southern edge of office core adjacent to International Special Review District

Approximately six predicted projects in office core DOO-1 585 zone dispersed among taller, denser development built prior to 1989.

Greatest concentration of predicted development in portion of DOC-2 zone with increased height and density limits and in adjacent DOC-2 300 and DMC 240 zones retaining existing height and density limits.

Limited number of predicted projects extending beyond office core to DMO zones along northern edge of Denny Triangle.

Less bulky residential and mixed use development in DMO areas reclassified to more residential-oriented zone.

No change to the scale of development under DMC 160 and DMC 240 zones between office core and Waterfront.

Less bulky residential and mixed use development in DMC areas reclassified to more residential-oriented zones.

Images by Centrifugal Maps and Otak, Incorporated

LEGEND

Development projects currently under construction or with approved permits.

Known planned development projects that may proceed; these projects could be modified to respond to potential zoning changes.

Other predicted developments on sites identified as potentially available and developed under zoning proposed in this alternative.

Retaining current height and density limits in DMC zones along the western edge of the Commercial Core and northeast and northwest corners of the Denny Triangle would result in the same development as under existing conditions. However, given the assumption that the lower density limits overall in this alternative will push more projects into these areas, changes over the next 20 years would be more apparent than under Alternatives 1 and 2. In DMC areas proposed for reclassification to a more residential-oriented zone, the additional controls on bulk would likely result in residential towers that are more slender than the commercial or residential development permitted in these areas under the other three alternatives.

SCALE

Transition

Alternative 3 would for the most part retain the current height, bulk and scale relationship established by existing zoning along the edges of “sensitive transition areas” identified in the study area (refer to Figure 19). Table 29 at the end of this section summarizes the transition impacts of the alternatives. A more detailed description of the nature of these impacts is provided for each location in Appendix I.

Compatibility

General. Compatibility conditions in the office core zones (DOC 1 and DOC 2) of the Commercial Core and Denny Triangle would be similar to the effects of Alternative 1. In the DMC zones, there would be no change from existing conditions. In areas proposed for reclassification to a more residential-oriented zone, additional bulk standards and lower commercial density limits could promote a more compatible relationship with existing development relative to the other alternatives.

Landmark structures:

- **Rainier Club and Pacific Hotel landmarks (DOC 1).** Impacts would be the same as Alternative 1.
- **Camlin Hotel and Paramount Theater (DOC 2).** Impacts would be slightly less than Alternative 1 because of the lower height and density limits that would apply in this portion of the zone. However, because of its size and because accommodating a major transit facility below grade would likely limit the amount of parking that could be provided, the Convention Place Transit Station site is not likely to be developed to the maximum density allowed under any alternative. Consequently, development on this site would likely be similar under all alternatives.
- **Terminal Sales Building (DMC 240).** Slightly reduced impacts relative to the other alternatives due to additional bulk limits that would apply in the DMC zone north of Virginia Street. However, future development would likely be larger in scale than existing development, and conditions in the remainder of the DMC zone south of Virginia Street would be the same as under Alternative 2. Maintaining current height and density limits in the Belltown portion of the DOC 2 zone to the east would mean slightly less impact from future development than under Alternatives 1 and 2.

Development Diversity

Conditions would be similar to those described under Alternative 1. However, with the increased number of projects and more development in peripheral zones, this alternative has a broader range in the scale of new development than Alternatives 1 and 2. On the other hand, redevelopment on more sites could mean the loss of more existing development and uses that contribute to development diversity and character.

Residential Character

Alternative 3 would establish a more residential-oriented zone in the north central portion of the Denny Triangle and would extend this type of zoning south from Belltown by one to two blocks. Over time, with the reduction in permitted commercial density in these areas, a greater concentration of residential

development would be expected, creating a stronger residential character relative to what currently exists or would likely occur under the other alternatives. The additional bulk standards that apply in these zones would help promote a more residential scale of development. In the Denny Triangle, Green Street improvements would further complement the residential character.

Alternative 4 – No Action

HEIGHT

Future projected development assumed under existing zoning in Alternative 4 includes as many as 26 structures exceeding heights of 250 feet—10 fewer than Alternative 1. Approximately 9 commercial-only structures would be over 250 feet, compared to 15 structures in Alternative 1; another 9 structures would be residential and 8 would be mixed-use. Eleven structures are assumed to gain height through TDC. Alternative 4 would likely result in the most structures less than 200 feet in height; slightly more than double the number in Alternative 1. This partly reflects the greater number of structures that would be needed to accommodate projected employment growth, resulting in several commercial structures locating in zones with lower height and density limits on the periphery of the office core, such as at the northern and northeastern edges of the Denny Triangle.

BULK

Development Density

Under Alternative 4, the projected growth would be distributed among 63 structures in approximately 48 projects—the greatest number of any alternative. Similar to Alternative 3, the greater number of projects needed to accommodate the same amount of growth would result in more projects with less bulky individual structures. The greater amount of commercial-only projects accommodated in the DMC zones would result in a lower-scale development than would be expected with higher commercial density limits or with more mixed-use development with greater amounts of exempt floor area. However, some of these projects are on relatively small sites, and could appear bulky because they would have several stories covering most of the site area. Approximately 7 mixed-use and residential projects are predicted to have densities exceeding 17 FAR, which amounts to 27% of the total projected mixed-use projects and 33% of the residential projects (refer to Table 27).

Site Size

Alternative 4 requires more sites, generally in the half-block size range, than the other alternatives to accommodate projected growth at densities permitted under current zoning.

Height and Density Relationship

The existing height/density relationship conditions caused by current zoning would remain unchanged by Alternative 4. Amendments in the recent past that allow additional height in DOC 1 and DOC 2 zones to promote more slender office towers should allow for better outcomes than some recent bulky development. However, the lack of density limits and only minimal bulk constraints on residential use could result in bulky residential and mixed-use projects, with those projects participating in the TDC program also gaining additional height.

Massing

As with the other alternatives, the DOC 2 zone of the Denny Triangle would be expected to accommodate the greatest concentration of new development, with structures built consistently to the height limit and with many projects including multiple structures on a site. The accumulation of these projects over time

on the long, rectangular blocks of the Denny Triangle would likely create the appearance of an uninterrupted mass of development extending northward from the current cluster of large buildings in the office core. In a more scattered pattern, lower-scale development would extend to the northern reaches of this part of Downtown.

Development within the DOC 1 and DOC 2 zones of the Commercial Core would likely be more dispersed among existing high-rise structures. The limited number of remaining sites would be filled in with structures similar to or smaller than the scale of adjacent structures built under earlier zoning that allowed greater height and density. Bulkier towers are expected to extend northward from the retail core to form a cluster on the edges of Belltown, and scattered development is also expected on the few remaining sites along the western edge of the Commercial Core between the office core and the Harborfront. Figure 25 below illustrates potential massing conditions under Alternative 4.

SCALE

Transition

Alternative 4 reflects the existing transition relationship established under current zoning. The overall pattern of building heights stepping down from the core and the desired gradation in the intensity of development reflected in the zoning implementing current Downtown policies would be maintained. Alternatives 2, 3 and 4 would result in lower development height and density than Alternative 1 along most edges separating Downtown from abutting neighborhoods. A more detailed description of the nature of these impacts is provided for each location in Appendix I.

Compatibility

Alternative 4 reflects development under existing zoning. Overall compatibility of uses would be similar to Alternative 1, except in the DMC zone, where no height and density changes would occur.

Development Diversity

Overall development diversity conditions would be similar to Alternative 1. However, with the increased number of projects and more development in peripheral zones, Alternative 4 has the broadest range among the alternatives in the scale of development.

Residential Character

Overall residential character conditions would be similar to those described under Alternative 1.

Impact Summary Table

Table 29 summarizes the findings of the Height, Bulk and Scale impacts section, for the convenience of the reader.

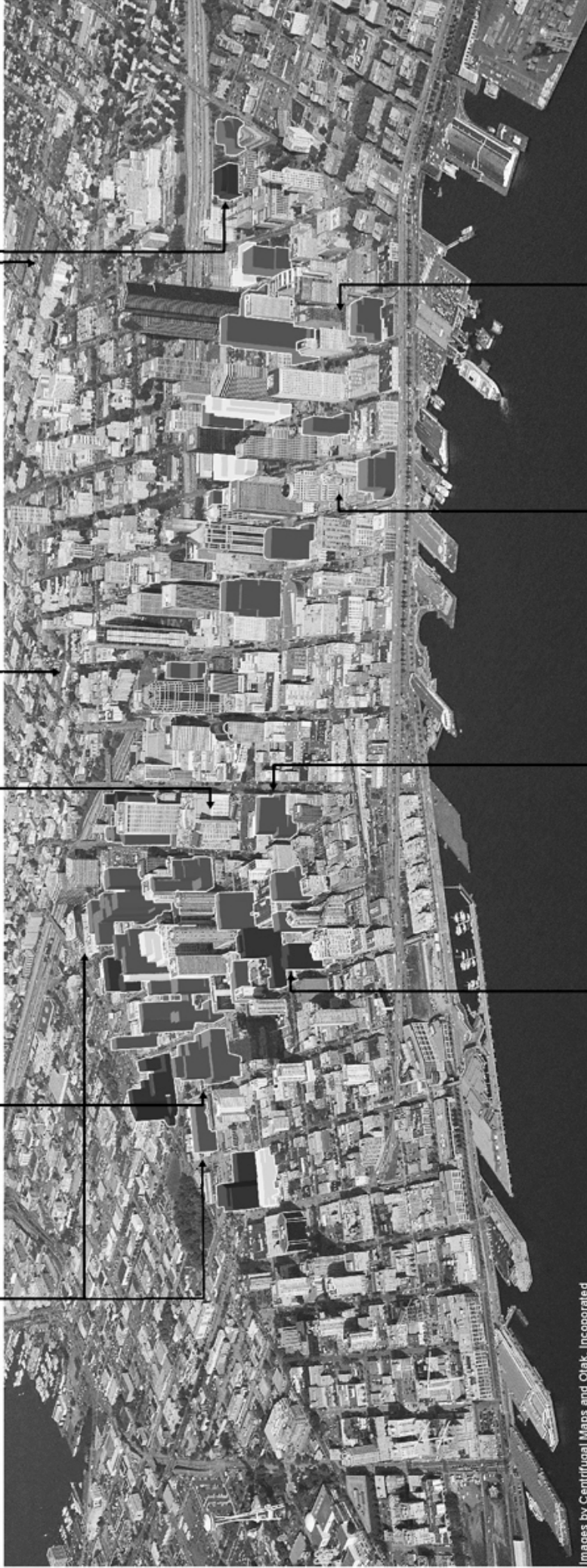
Figure 25

More development predicted to extend beyond office core to DMC 125 and DMC 160 zones along northern and eastern edges of Denny Triangle.

Greatest concentration of predicted development in Denny Triangle DMC-2 300 and DMC 240 zones. Several residential and mixed use projects in these zones shown with 30% height increase currently allowed through transfer of development credits (TDC), making some of those projects similar in height to those shown in other alternatives with greater height limits.

Approximately seven predicted projects in office core DMC-1 zone would be lower than in other Alternatives and dispersed among taller, denser development built prior to 1989.

Unlimited number of new projects dispersed in DMC-2 312 zone along southern edge of office core adjacent to International Special Review District



Images by Centrifugal Maps and Olak, Incorporated

LEGEND

- Development projects currently under construction or with approved permits.
- Known planned development projects that may proceed; these projects could be modified to respond to potential zoning changes.
- Other predicted developments on sites identified as potentially available and developed under zoning proposed in this alternative.

Bulky residential and mixed use development expected under existing height and density limits in DMC 240 zone extending from Commercial Core to Belltown.

Scattered development on available sites in DMC 160 and DMC 240 zones between office core and Waterfront.

ALTERNATIVE 4
No Action
(Existing zoning & development regulations)

Table 29
Summary of Height, Bulk and Scale Impacts

	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Height New buildings by height range	Approx. 36 structures greater than 250 feet in height (65% of new structures).	Approx. 31 structures greater than 250 feet (55% of new structures).	Approx. 28 structures greater than 250 feet (47% of new structures).	Approx. 26 structures greater than 250 feet (41% of new structures).
Differences in zones	<p>Greatest concentration of new development would occur in the DOC 2 zone of the Denny Triangle.</p> <p>New development in peripheral DMC zones would be taller than possible today.</p>	<p>Similar to Alt. 1.</p> <p>New development in DMC zones not as tall as Alt. 1, same as allowed by existing zoning.</p>	<p>Similar to Alt. 1. However, height/density changes in more limited area of DOC 2.</p> <p>Residential towers would be more slender in areas rezoned DMR/C.</p>	<p>Similar to Alt. 1. However, no height/density changes would occur.</p> <p>More development at existing height limits expected to occur in peripheral areas.</p>
Bulk Development density	<p>Would likely result in the fewest and bulkiest projects: 39 developments with 55 structures.</p> <p>Additional bulk from exempted residential uses and a few “other” uses would contribute to actual building bulk legally exceeding maximum density limits.</p>	<p>Nearly the same as Alt. 1: 40 devs with 56 structures, but slightly fewer of the bulkiest types.</p> <p>Similar to Alt. 1, but fewer developments would achieve the higher end of densities.</p>	<p>Bulk would be spread across more projects: 44 devs and 60 structures.</p> <p>Fewer developments than Alt. 1 or 2 would reach higher densities, due to lower height limits and more bulk controls.</p>	<p>Bulk would be spread across more projects: 48 devs and 63 structures.</p> <p>Similar to Alt. 3.</p>
Massing patterns	<p>Greatest massing of bulk would occur in the Denny Triangle.</p> <p>Rectangular shape of blocks would contribute to perceived bulkiness of development in the Denny Triangle. Bulk would tend to locate toward the middle of blocks.</p> <p>New development in peripheral areas more dispersed, except for potential concentration</p>	<p>Similar to Alt. 1, but lower scale at periphery.</p> <p>Similar to Alt. 1.</p> <p>Similar to Alt. 1 but lower scale of development at periphery.</p>	<p>Retention of existing height/density at east and west edges of Denny Triangle DOC 2 zone would provide some “stepping down” in massing of bulk.</p> <p>Similar to Alt. 1.</p> <p>Similar to existing zoning, but more bulk controls in some areas may result in</p>	<p>Similar to Alt. 1, but less-bulky development spread over more sites in Denny Triangle.</p> <p>Similar to Alt. 1, but with less-bulky development spread over more sites.</p> <p>Similar to Alt. 3, but no additional bulk controls would allow some</p>

	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Massing patterns (continued)	in edge of Belltown.		residential towers that are more slender.	bulkier new development.
Height and density relationships	<p>Alt. 1 changes may not resolve an existing issue that results in bulkier building designs.</p> <p>It may be difficult to fit all of the maximum commercial density within proposed DMC height limits between 165 and 225 feet (near Denny Way, and 1st Ave/Western Ave vicinity).</p>	<p>Similar to Alt. 1.</p> <p>Without these changes, this impact would not occur.</p>	<p>Similar to Alt. 1.</p> <p>Without these changes, this impact would not occur.</p>	<p>Existing issue of height/density relationship would remain.</p> <p>Not applicable.</p>
Scale Transitions	Greatest differences among the alternatives in zoning height/density with adjacent areas (Pike/Pine, Denny Way, Belltown, Pioneer Sq./ Int. Dist., harborfront, retail core).	Fewer changes in transitions than Alt. 1, due to no changes in zoning near Belltown, Denny Way, or 1 st Ave/ Western Ave vicinity.	Lower commercial density limit and additional bulk limits for towers would make transitions more gradual in the Denny Way, Belltown and 1 st Ave/ Western Ave vicinities.	Transitions provided by the existing zoning pattern would be maintained.
Compatibility with existing development	Intensity of new development in Denny Triangle would generate greatest differences in compatibility with existing development.	Less impact than Alt. 1 in the peripheral DMC zones. Similar impacts to Alt. 1 in Commercial Core.	Alt. 3 changes would promote greater compatibility in residential-oriented zones. Similar to Alt. 1 for the DOC office core zones.	Similar to Alt. 1, except for DMC zones where no zoning changes would occur.
Effect on development diversity	Amount of redevelopment in Denny Triangle could potentially result in a more homogeneous character.	Similar to Alt. 1.	Similar to Alt. 1, but broader potential range of scale in new structures.	Similar to Alt. 1, but the broadest potential range of scale in new structures.
Effect on residential character	Overall additional bulk of development and mixing of residential and non-residential projects could discourage achievement of a beneficial residential character.	Similar to Alt. 1.	Residential-oriented zoning in some areas creates some greater potential for achieving beneficial residential character.	Similar to Alt. 1.

MITIGATION STRATEGIES

REQUIRED/PROPOSED MITIGATION STRATEGIES

Given the type and magnitude of impacts discussed in this section, no mitigation measures or strategies are required or proposed to be mandatory actions accompanying approval of any of the alternatives.

OTHER POSSIBLE MITIGATION STRATEGIES

Based upon conditions observed in graphic skyline representations and the analysis of project prototypes depicting development conditions under the various alternatives, the following potential mitigation measures have been identified for consideration.

Height

The mapping of height limits could be more “fine-grained” to better achieve the variety of development conditions desired in different Downtown locations. For example, in areas where it is desirable to maintain the present scale and character of development, height limits more closely reflecting existing conditions could be applied to ensure a more compatible relationship between new projects and existing structures. Added height could increase the prominence of one area by making the buildings located there more visible from other areas, and lower height limits could help define special environments, such as residential enclaves or neighborhood shopping streets, where a more pedestrian-scale of development is desired. Variation in the heights of buildings, however it is achieved, would add interest to the skyline.

Bulk

Bulk Characteristics of Development

- Encourage more slender, tapering towers by allowing additional height contingent upon a reduction in bulk/floor size as structures increase in height. This measure would be similar to provisions in current zoning that allow additional height in DOC 1 and DOC 2 zones if there is a reduction in the size of floors in the portion of the structure extending above the mapped height limit.
- Reduce the floor size limit exempt from upper-level development standards for residential use. Currently, structures with floor sizes of 15,000 square feet or less are exempt from upper-level development standards. This standard reflects a relatively small floor size for commercial buildings and was intended to provide an incentive for more slender, smaller-scale commercial towers. When applied to residential use, the 15,000 square foot threshold represents a very large residential floor size. Without any limits on building dimensions or floor area density, this exemption could result in bulky, slab residential towers.
- Establish development standards for the residential portion of structures, similar to those that apply in the Downtown Mixed Residential zone, as an alternative to addressing the potential bulkiness of residential and mixed-use projects. Such standards could include minimum site size requirements, separation of facades, coverage limits at various height elevations, maximum façade dimensions and maximum floor size limits. These measures could be limited to designated areas, perhaps through overlays, to achieve specific objectives such as a stronger residential character or better transition in scale, or could apply only as conditions for structures exceeding current height limits.
- Consider how the use of color and materials in building design could mitigate perceptions of bulk; structures with dark, uninterrupted facades are often perceived as bulkier than lighter-clad, more articulated structures of similar volume.

Massing

- Require upper-level setbacks under certain conditions, such as along specifically designated streets where a more "open" character is desired, or along all or portions of frontages on narrower streets, to reduce the perception of bulk and enhance the pedestrian environment. Upper-level setbacks can also help relate new development to the scale of adjacent smaller buildings and historic landmark structures.
- Require or offer incentives for mid-block "corridors of space" on long blocks to prevent the uninterrupted massing of development along the entire blockfront. Massing solutions that help open up mid-block areas could also be a condition of alley vacations.

Height and Bulk Relationship

Under certain conditions, proposed height and density increases could result in situations where height limits may be too constraining to accommodate the maximum permitted density without resulting in development that appears excessively bulky. In addition to ensuring that the total floor area permitted on a site can be accommodated in desirable types of development within the established height limits, the following actions can also address this condition:

- For zones with high density limits (FAR) relative to the permitted height limit, reduce incentives for large site assembly that result in an amount of permitted floor area that is difficult to accommodate without large-floor-plate structures extending to the prescribed height limit. Options could range from:
 - denying alley vacations that enable full-block site assembly;
 - establishing a maximum lot size for development;
 - prohibiting vacated right-of-way from inclusion in lot area calculations for determining permitted floor area; or
 - establishing a variable FAR limit that allows a higher maximum FAR for development on sites of a half-block in area or less and a lower FAR for larger sites.
- Establish a density limit for residential use to treat bulk conditions more evenly among commercial-only, residential, and mixed-use developments. However, to continue to provide incentives for residential and mixed-use development, the density (FAR) limit for these projects could be slightly higher than that allowed for commercial-only development, similar to conditions in commercial zones outside of Downtown with height limits exceeding 85 feet.
- As a variation of the option above, establish density limits only for development exceeding a base height limit. The base height limit could be established as the existing mapped height limit, and for development opting to extend above this limit up to the proposed height increase, uses currently exempt from FAR calculations would be subject to a density limit.
- As an alternative to assigning a density limit to residential use, establish bulk standards for portions of a structure occupied by residential use.

Scale

Transition

- Maintain current height and density limits in sensitive transition areas.
- Establish overlays for sensitive transition areas, such as areas abutting special review districts or residential zones, to apply additional measures that address height and bulk conditions and promote a better scale relationship between areas. Increases in height could be restricted in these areas, or allowed contingent on applying special measures to address bulk conditions. These overlay areas

could also be used to target locations where special measures to limit the bulk or density of residential and mixed-use development would apply.

- Prohibit alley vacations in sensitive transition areas to prevent the larger scale of development that results from development on full-block sites through alley vacations.

Compatibility between new and existing development

The possible measures below apply to situations where greater compatibility between varying scales of development is desired, both under general development conditions and, more specifically, with landmark structures. Because of the project-specific nature of these measures, their effectiveness would be most likely achieved through the design review process. Their application may also be limited to specific areas where it is desirable to retain an existing well-established development pattern.

- Require upper-level setbacks on new structures, especially on long sides of half-blocks, even if cornice lines do not align, to create a range of building and street wall heights that is more characteristic of an established development pattern. Where no setbacks are required for new development, require the continuity of the cornice lines on facades of new towers.
- Relate the facades of new structures to the typical lot widths more characteristic of the established development pattern.
- Maintain streetwall continuity next to landmark structures to avoid exposing lot line elevations or "back sides" of historic structures.
- Avoid irregular geometry of new development below the cornice line of adjacent structures that tends to conflict with the traditional geometry and street grid relationship of historic structures.
- Locate open spaces opposite historic structures in mid-block locations, to enhance views of these structures.
- Prohibit alley vacations on blocks including landmark structures that would result in the massing of new development not conforming to the established development pattern. Current policy discourages but does not prohibit alley vacations.

Development diversity

- Prohibit alley vacations unless proposed development includes a varied mix of uses. This action may be especially appropriate in the DMC zones where there is a stronger emphasis on mixing uses than in office core zones.
- Expand the potential use of variable-scale TDR to allow sites not within the same block to qualify as eligible sending sites. To limit the use of this form of TDR, transfers between blocks could be restricted to certain areas where maintaining a varied scale is a priority.

Residential Character

- Discourage structured parking above-grade through such measures as including all—or a specified portion of—a project's accessory residential parking above-grade as chargeable FAR. For residential-only development, this would require that a density limit be established for residential use. As an alternative for residential projects, establish a standard requiring above-grade parking to be screened by another use along all or portions of the project's street frontage.
- Require ground-level open space and landscaped areas to enhance the residential character of high-density residential development sites.

- Require base structures with residential use at street level in certain locations, such as along designated Green Streets, to promote a more residential character.
- Establish overlays for areas intended to accommodate concentrations of residential development that would include provisions to strengthen residential character, which might include some of the measures described above.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Additional height and bulk enabled by proposed zoning changes would add incrementally to the scale of development, resulting in greater differences from the development authorized by existing zoning. The most significant impact of these changes would occur under Alternative 1 where the greatest height and commercial density increases are proposed in areas currently zoned to provide transitions in scale and intensity of development between the Downtown commercial core and adjacent residential and mixed-use neighborhoods. Additional height and density in these areas would permit more intensive commercial development and a more abrupt change in the physical scale of development along these more sensitive zone edges.

URBAN DESIGN—PEDESTRIAN AMENITIES AND OPEN SPACE

AFFECTED ENVIRONMENT

Pedestrian Amenities and Streetscape

Within Downtown, the public realm is primarily the street environment. Individual buildings and their relationship to neighboring buildings, the street and other open spaces influence the pedestrian's perception of this environment. Factors influencing the character of the streetscape and contributing to the quality of the pedestrian experience include:

- the width of streets and sidewalks;
- the effects of sun, shadow and wind;
- topography;
- the degree of visual interest;
- the level of interaction with activity, both on the street and in abutting development;
- the bulk of buildings and how they appear to pedestrians; and
- the sense of scale, enclosure, comfort and safety.

Seattle's Downtown is organized around a street grid forming rectangular blocks. Avenues, generally the widest and most heavily traveled routes, run roughly north/south and have the most level grade, while the east/west streets are typically narrower and often have steep grades, particularly in the Commercial Core. Alleys for service access parallel the avenues, bisecting many blocks. Shifts in the orientation of the street grid at Yesler Way and Stewart Street/Olive Way, and thoroughfares cutting diagonally across the street network, such as Westlake Avenue, interrupt the uniformity of the street pattern. Along these "seams," streets converge at odd angles and create complex intersections, building forms become irregular, pedestrian flows are interrupted and use patterns and activities often change. Buildings located where streets change direction often form the backdrop of long views down the street, creating a strong sense of enclosure by visually "walling off" one area from another.

Most of the central portion of Downtown between Yesler Way and Olive Way/Stewart Street is strongly knitted together by streets that, from block to block, have strongly defined edges created by buildings built at or close to the street property line. Pedestrian access to most uses is oriented onto the wide, level avenues running north/south, while blank walls, parking garages, and vehicular and services entrances more typically occur along the steeper east/west streets. Consequently, the avenues generally provide greater pedestrian activity and visual interest. Furthermore, development directly abutting the street and orienting pedestrian access onto the street frequently provides overhead weather protection, street trees, and other features intended to enhance the pedestrian environment and increase pedestrian comfort. This more traditional pattern of development—where buildings abut the street property line and provide continuous street level uses oriented to pedestrians—is most evident west of 3rd Avenue between Pioneer Square and the Pike Place Market and in the areas surrounding the retail core.

Streetscape conditions are less cohesive in the area north of Olive Way/Stewart Street. Here, the pattern of structures with continuous streetfronts is interrupted by expanses of surface parking lots and occasional automobile-oriented development. These interruptions contribute to a less-defined pedestrian streetscape, especially in areas where blocks are occupied by parking lots.

The size of Downtown blocks and their subdivision into development sites has a strong influence on the streetscape character. In the early stages of development, buildings occupied single lots. As demand for space has increased and building technologies advanced, lots were combined to form larger project sites.

Increasingly, half-block and full-block sites (formed through alley vacations) have been created to accommodate a greater scale of development. Some blocks originally occupied by multiple, modest-scaled structures on individual lots have over time been redeveloped with a single large structure. Most of the development in the DOC 1 zone over the last 20 years has occurred on full-block sites, and several of the recently proposed projects in the DOC 2 300' zone involve full-block sites.

While the consolidation of parcels on a block into a single site allows for a greater scale of development and provides more space for a particular use, it also often reduces the variety of buildings and mix of uses in an area. The streetscape becomes less varied and often less interesting. On the other hand, because of zoning incentives and development practice, projects on larger sites often provide public open space in the form of plazas or landscaped areas which, when properly designed and sited, contribute positively to the pedestrian environment and help offset the impacts of the larger scale of development. Such spaces can have a negative effect on the pedestrian environment, however, when they are poorly integrated with street level activity and interrupt established patterns of street level use.

On sites throughout Downtown, private and public projects include features that enhance conditions for pedestrians, including public open spaces and landscaped areas; sheltered passages and street frontages that protect pedestrians from inclement weather; elevators and other mechanical assists that help pedestrians ascend steep slopes; and street-level uses that add interest and accommodate pedestrian services. In many locations, especially near the retail core, the public sidewalk area is improved with street trees, special paving, street furniture, special lighting fixtures, or public art that further contribute to the quality of the pedestrian environment.

Existing Measures Addressing Streetscape Conditions and Pedestrian Amenities

The current Downtown Land Use Code addresses the relationship between the pedestrian street environment and abutting development through the following provisions:

Street edge conditions. Required street façade heights and limits on street façade setbacks ensure that the street level portions of new projects are well-integrated with pedestrian activity and contribute to a comfortably-scaled streetscape. The specific standards vary according to anticipated pedestrian volumes on different streets and existing development conditions.

Street level uses. To promote an active street level environment, street level uses are required along certain mapped streets and encouraged in other areas. Projects including these uses are eligible for a floor area bonus and can exempt this space from the FAR density limits if certain development standards are met, such as providing overhead weather protection for pedestrians along sidewalk frontages.

Transparency requirements and blank facade limits. Development standards limit the extent of blank walls and require transparent openings at street level along street frontages to promote greater visual interest for pedestrians. The specific standards vary based on anticipated pedestrian volumes on different streets and the importance of a particular street in the overall pedestrian network.

Variable development scale. In addition to measures that specifically promote the preservation of designated landmark structures, several incentives encourage greater variety in the mix and scale of development within Downtown. These include:

- Within-block transfer of development rights (TDR) allowing the transfer of unused development rights between sites located on the same block in DOC 1 and DOC 2 zones as an incentive to retain some of the existing development on a block as redevelopment occurs.
- Exemption from upper-level development standards for small sites to facilitate development of smaller "infill" sites.

- Projects in DOC 1 and portions of DOC 2 zones can increase height up to 20% above the mapped height limits if a specified percentage of the development site is occupied by either open space or existing or new structures of limited height (no greater than 35 feet or 65 feet, depending on the percentage of the site occupied by the lower structures).

Pedestrian amenities. Several provisions promote features in new development that enhance the pedestrian environment, including requirements for street trees and minimum sidewalk widths, and floor area bonus incentives for public open space, through-block connections, hillclimb assists and Green Street improvements.

Upper level development standards. To make buildings appear less bulky to pedestrians and to address the sun, shadow and wind impacts of new development, the Code limits the extent to which the upper floors of buildings can be built close to the street. This is achieved through development standards limiting the amount of building coverage allowed within a specified area along street frontages at specified elevations. In addition, there are limits on the width of façades allowed for portions of the structure built within a specified distance from the street.

Parks and Open Space

Downtown Seattle is generally considered to have a shortage of major public parks or open spaces. However, the area does have a variety of smaller public parks and open spaces as well as privately-provided open spaces related to individual buildings, such as plazas and landscaped building setbacks. Certain streets, such as 5th Avenue and Pine Street, provide wide sidewalks, landscaping and street furniture.

Within the study area, publicly-owned open space resources are limited, and located mostly on the edges. Freeway Park, on the northeastern edge of the Commercial Core, is the largest public space (5 acres). Waterfront Park, on the western edge of the Commercial Core, is another large open space providing a heavily used amenity for tourists and locals. Other sizable public spaces include City Hall Park, the lawn of the old Federal Courthouse, and landscaped areas on the Art Museum and Benaroya Symphony Hall sites. Public open space in the DOC 2 300' and DMC zones north of Union Street is limited to the plaza located at the Convention Place Transit Tunnel Station. Additional public open space will be added in the office core upon completion of the City's Civic Center.

Small parks, plazas, and landscaped setback areas are scattered throughout the study area on private development sites, with the greatest concentration in the Commercial Core. Generally connected with major office developments, these features typically are the result of floor area bonus incentives established under earlier Downtown zoning provisions. As with publicly-owned resources, only limited amounts of this type of open space are present in the DOC 2 300' and DMC areas north of Union Street; the most prominent being the spaces provided in the Metropolitan Park complex and the sunken plaza of 1600 Pine Street (Qwest Plaza). However, several planned projects in this area include proposed open space features on site, including the new Federal Courthouse now under construction, the Touchstone project at 1000 Stewart Street and planned development at the Frederick Cadillac site.

Within the Denny Triangle and the Commercial Core neighborhoods, the combined area of public and privately owned open spaces of at least 10,000 square feet in size is approximately 19.8 acres. Most of this open space, 17.5 acres, is in the Commercial Core (see Table J-1 in Appendix J). While many of the available open spaces provide only limited recreation opportunities—primarily passive use by office workers—these spaces do introduce landscaping, light and air into the Downtown environment, and provide visual relief from the concentrations of large-scale development.

Some streets within the affected area have acquired a more open, landscaped character because of the plazas and landscaped areas sited along them. This character is especially evident on Second Avenue and University Street in the Commercial Core. Sixth Avenue in the Denny Triangle also has a more open landscaped character due to street width and numerous landscaped building setbacks on abutting sites. These setbacks accentuate Sixth Avenue's width and contribute to a sense of openness, but generally are neither large enough nor designed to function as usable open space. New open spaces in proposed projects at Sixth/Blanchard and Sixth/Bell will contribute further to this character.

Other parks nearby or adjacent to the study area include Denny Park, Regrade Park, Prefontaine Park, and harborfront recreational amenities. Denny Park is a 4.6-acre park located north of Denny Way between Dexter Avenue and 9th Avenue N, containing grassy open space, trees, landscaping, benches and play equipment. East of Denny Park is an additional open space with an outdoor basketball court and grassy field. Regrade Park is a 0.3-acre urban park with benches and limited recreational amenities. City Hall Park is a 0.7-acre open space adjacent to the King County Courthouse with benches, grass and trees. Harborfront recreational amenities include Waterfront Park, the Seattle Aquarium, the Washington Street Boat Dock, and several other tourist-oriented attractions extending as far north as Myrtle Edwards Park and the site of the future Olympic Sculpture Park. Figure 26 shows existing Downtown open spaces.

Green Streets. Due to the scarcity of open space resources Downtown and limited prospects for acquiring future open space sites, the Downtown Plan calls for a greater emphasis on landscaping and pedestrian use of certain public street rights-of-way designated as Green Streets. Several Green Streets and portions of Green Streets are located in the affected area, including Lenora Street, 9th Avenue, Terry Avenue, Blanchard and Bell Streets in the Denny Triangle, and portions of Marion, Spring and University Streets in the Commercial Core. The Harbor Steps represent one extreme design solution for Green Streets; originally an undeveloped street right-of-way, the area now is accessible only to pedestrians and used primarily as open space. However, most Green Street treatments are expected to be limited to some amount of sidewalk widening to increase pedestrian and landscaping areas while maintaining vehicular use of the street. While this type of treatment has occurred on portions of University and Spring Streets, most Green Streets remain unimproved. Design plans for the Lenora, 9th and Terry Avenue Green Streets, however, have been prepared and await implementation. In addition to improvements within the public rights-of-way, development on abutting properties is required to provide landscaped setbacks along these Green Streets. Existing designated Green Streets are shown on Figure 26 below.

Existing Measures Addressing Open Space in Affected Zones

Requirements. Office projects with floor area exceeding 85,000 square feet are required to provide open space for the use of project occupants. The amount of open space required is 20 square feet for every 1,000 square feet of office space. The open space may be for the private use of building occupants, but open space provided for general public use may be eligible for a floor area bonus.

Residential projects with more than 20 units are required to provide common recreation area in an amount equivalent to 5% of a project's total floor area in residential use. While all required area must be available for the common use of building occupants, up to 50% of the required area may be interior space. Improvements made to abutting Green Streets, or any nearby Green Street for Denny Triangle projects, may satisfy up to 50% of the requirement.

Incentives. Commercial projects in the DOC 1, DOC 2, and DMC zones in the affected area can increase permitted floor area up to specified amounts through bonuses for providing certain open space features, including plazas, parcel parks, and hillside terraces. Projects making improvements to Green Streets can

also gain additional floor area. Gains in commercial floor area above base density limits can also be achieved through the purchase and transfer of development rights from eligible open space TDR sending sites. A preliminary inventory of potential open space sending sites estimates the supply under current conditions to be just under 1 million square feet.

Within the Denny Triangle, residential or mixed-use projects that gain additional height by participating in the transfer of development credits (TDC) program are required to provide public amenities like open space or Green Street improvements, or contribute to a fund to be used to provide such amenities in the neighborhood.

Comprehensive Plan Open Space Goals for Downtown

The Comprehensive Plan includes open space goals for Downtown neighborhoods that include goals for the overall amount of space desired for the residential and employment populations, as well as the desired proximity of the open space to the populations served.

- **Open Space Goals for the Employment Population.** The Comprehensive Plan establishes an open space goal for the Downtown core of one acre of “Village Open Space” per 10,000 jobs (4.35 sq. ft. per job). For the purposes of this analysis, the Downtown core is defined as the study area zoned DOC 1, DOC 2, and DMC, as well as the retail core (DRC).
- **Residential open space goal.** The goal for residents calls for 1 acre of village open space for each 1,000 households.
- **Open space distribution goal.** The open space goals for both the residential and employment populations include distribution goals. Regardless of the overall amount of open space, all locations need to be within 1/8 mile of Village Open Space.

“Village Open Space” is generally described as public open space in the ¼ acre to ½ acre range (approximately 10,000 to 21,000 square feet). The Plan is not specific about the characteristics of village open space. It is possible that some non-City public space and some privately developed, bonused public spaces would qualify. However, the goals do call for at least one usable open space of at least one acre in size, a “Village Commons,” for each urban center village with a growth target exceeding 2,500 households.

The Comprehensive Plan does not specify whether the same open space can be counted towards meeting both the residential and employment open space goals. While the open space/recreational needs are likely to be different, it is reasonable to assume that there will be some overlap in the use of space by both populations. However, the extent to which this overlap can successfully meet the needs of both residents and workers will largely be a factor of design, location and programmed use.

Table 30 shows the study area's current status in terms of meeting open space goals. The existing conditions are well within the open space goals for employment and residential populations, but the goal for distribution of open space is not addressed in Table 30. Additional open space would need to be provided in some areas in order to meet the distribution goal.

Table 30
Open Space Goal Status—Existing Conditions

	Commercial Core Area: 276 acres	Edge of Belltown Area: 38 acres	Denny Triangle Area: 143 acres	Total Area: 457 acres
Amount of open space*	17.5 acres	0 acres	2.3 acres**	19.8 acres
Employment population	107,705 jobs	7,221 jobs	19,340 jobs	134,226 jobs
Jobs/acre of open space	6,155 jobs/acre of open space	0 open space	8,409 jobs/acre of open space	6,779 jobs/acre of open space
Housing Units	2,280 units	997 units	927 units	4,204 units
Housing units/acre of open space	126 units/acre of open space	0 open space	403 units/acre of open space	212 units/acre of open space

*Includes committed projects like City Hall Plaza and Federal Courthouse Plaza

**Does not include Denny Park, a 4.6-acre open space abutting the northwest corner of the neighborhood.

IMPACTS

Alternative 1 – High End Height and Density Increase

STREETSCAPE AND PEDESTRIAN AMENITY

Impacts on the streetscape and pedestrian environment are expected to be similar for all of the alternatives. General impacts for specific areas are described below:

Denny Triangle

Under all alternatives, the greatest impacts on the streetscape and pedestrian environment are anticipated in the Denny Triangle due to the concentration of future development predicted to occur there, particularly in the DOC 2 zone and portions of abutting DMC zones. To the extent that Alternative 1 allows the greatest height and density of development, these impacts would be slightly more pronounced under this alternative.

Positive Impacts

- **Narrow sidewalks widened.** As new development occurs, sidewalks currently too narrow to meet minimum standards will be widened to accommodate increased pedestrian volumes.
- **Additional street trees provided.** New development will also be required to provide street trees along many of the streets in the Denny Triangle currently lacking this amenity.
- **Green Street improvements provided.** With the large number of redevelopment sites abutting Green Streets in the area, developers are likely to implement Green Street improvements.
- **Continuous street-level uses promoted along several streets.** Requirements and incentives for street-level uses will promote continuous street-level uses along Westlake Avenue, Stewart Street, Olive Way, Pine Street and many of the avenues in the area east of Westlake.

Adverse Impacts

- **Above-grade parking could separate occupied floors from the street, deadening the atmosphere of the street environment.** While this is likely to occur in all alternatives, the

increase in height in Alternative 1 throughout the area may further encourage providing structured parking above-grade.

- **Low level of streetscape amenity in Denny Triangle west of Westlake Avenue.** Development in the Denny Triangle area west of Westlake Avenue is not required to provide street level uses on any of the streets, which could result in very limited street level activity in what is likely to emerge as a high-density office district. Westlake Avenue on the eastern edge of this area is the only designated Class I Pedestrian Street, so development on most streets would be subject to minimal standards for façade transparency and blank wall limits. The lack of an existing development context in this area means that its future character will primarily be established by new development over the next 20 years—mostly large-scale high-rise projects. This could result in streetscapes with less variety and interest than would be expected to occur in an area that developed incrementally over an extended period of time, or where more substantial older development remained as part of the development mix.
- **Greater sense of “enclosure” within several streets.** The larger scale of development will create a stronger sense of enclosure within several streets. However, this will be relieved somewhat in the area along Westlake Avenue and to the west, where the street environment should retain a somewhat more open character because of the wider streets and the additional right-of-way area introduced by Westlake Avenue cutting across the street grid. This openness could be reinforced by the lower scale of development likely to remain on the irregular small parcels created by Westlake Avenue's swath across the grid.

Belltown Edge

Potential redevelopment sites are generally less than a half-block in size, so future projects will likely occur as "infill" mixed with existing development. Based on development trends and the presence of amenities attractive to housing, a cluster of residential and mixed-use development is predicted to occur in this area, particularly along 2nd Avenue. Because residential use is not subject to a density limit, and residential bulk limits are minimal, these structures have the potential to be quite bulky and larger in scale than existing development in this transition area. For example, the Cristilla residential high-rise now under construction has above-grade floor area equivalent to 19.2 FAR in a zone that limits commercial use to 7 FAR.

Positive Impacts

- **Improved pedestrian facilities.** Since the north/south Avenues in this portion of Belltown are all designated Class I Pedestrian Streets, and street level uses are required along several street frontages, future projects will likely contribute to an active pedestrian environment at street level, strengthening pedestrian connections between Belltown and the Commercial Core.

Adverse Impacts

- **Above-grade parking levels could detract from streetscape character.** Projects that include parking on the lower floors of structures may be less compatible with existing development and detract from the streetscape character.
- **Loss of open character on some east/west streets.** Some east/west streets west of 2nd Avenue provide views out to Elliott Bay. As larger structures built to the street edge replace existing, lower development, the scope of view down these streets will narrow, diminishing the current "open" character.

Commercial Core

In the DOC 1 and DOC 2 zones of the office core, future development would be dispersed and include commercial as well as public projects.

Positive Impacts

- **Improved pedestrian facilities.** Given Pedestrian Street designations and requirements for street level uses, new development is expected to contribute to an integrated, active streetscape. Development on vacant land abutting 5th Avenue near Yesler Way will also likely strengthen pedestrian connections between this part of the office core and the International District to the south.
- **Existing setback requirements will aid in scale and bulk control.** Along the western edge of the office core, upper level setback requirements along view corridors will help maintain a pedestrian scale and offset the bulky presence of towers by requiring lower heights for portions of the structure abutting these view streets.
- **New public open space in developments should benefit pedestrians.** Several projects are likely to include some amount of public open space, especially public projects, which should provide pedestrians with some relief from the overall intensity of development in the area. Projects that opt to incorporate hillside terraces or hillclimb assists on-site should enhance pedestrian circulation in steeply sloping areas.

Adverse Impacts

- **Possible loss of older structures may diminish variety and pedestrian orientation at street level.** Larger projects are expected to replace many remaining, smaller-scale structures over time. These older, smaller-scale structures often add architectural interest and diversity, and tend to have a stronger pedestrian orientation at street level. Their loss would likely result in less variety and interest in the streetscape.

First Avenue/Western Avenue Vicinity

A limited number of development projects would be scattered in the western edge of the Commercial Core between the DOC 1 zone and the Harborfront.

Positive Impacts

- **Existing setback requirements will aid in scale and bulk control.** While taller structures would be permitted, the required upper level setbacks along view corridors should promote a relationship with the pedestrian environment that is similar existing development in the area.
- **Infill development would fill in gaps in the streetscape.** As development on "infill" sites currently occupied by surface parking lots, these projects should fill in the gaps in the existing streetscape.

Adverse Impacts

- **Non-requirement of street level uses.** Due to no requirements for street level uses along Western Avenue, there could be interruptions in the continuity of street level activity.
- **Above-grade parking levels could detract from streetscape character.** Parking on the lower above-grade floors of a structure could detract from the character of the streetscape.

OPEN SPACE IMPACTS

Future development under any alternative will result in increases to Downtown employment and residential populations, creating more demand for the use of existing open space resources. Through zoning requirements and incentives, as well as common development practices, some of this demand will be met by development providing required open space to meet the needs of building occupants, as well as public open space to help augment existing public open space resources.

Several public projects, including the new City Hall, Federal Courthouse and Convention Place TOD site, will contribute to the supply of available open space within the study area. These and a few other private development projects underway or in planning stages may provide approximately 3 acres of open space.

Potential Public Open Space Added Through Development Incentives (Floor Area Bonuses and TDR)

Developers can increase project floor area through bonuses for providing open space amenities on the development site, or under recently-adopted transfer of development rights (TDR) provisions. The Downtown Land Use Code limits the amount of floor area that can be gained through these options. Future projects will likely use some combination of open space bonuses and other bonus options to obtain additional floor area.

Table 31 describes the maximum amount of on-site open space that could be gained through development projected to 2020, along with an adjusted estimate based on review of the development sites. Alternative 1 would likely generate approximately 1.7 acres of on-site open space, the least of any alternative, due to the combination of fewer but larger developments than the other alternatives. On-site open spaces would tend to be placed in fewer developments and/or be smaller in size, and would not be *required* features. Under Alternative 4, the amount of on-site open space would be greater, partly because the lower density limits require more development sites to accommodate projected growth, increasing the opportunities for on-site open space. Also, Alternative 4 includes recently adopted provisions that require open space in order to reach the highest height allowed. Tables J-3 and J-4 in Appendix J provide more details about these open space calculations.

Table 31
Potential Supply of Public Open Space Added Through Use of Floor Area Bonuses

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Best-case maximum using floor area bonus for on-site open space	5.3 acres	6.3 acres	9.7 acres	11.2 acres
Predicted amount of on-site open space developed in future projects	1.7 acres	1.9 acres	1.9 acres	2.9 acres

Source: SPO, 2002

Use of Open Space Transfer of Development Rights (TDR). Another incentive for increasing the supply of public open space Downtown is Open Space TDR. Under this approach, developers need not provide the open space on their project site, but instead acquire development rights from public open space sites at another location and "transfer" them to their site to increase floor area. The potential supply of open space TDR under the various alternatives is estimated to range from approximately 1 to 1.3 million square feet. This is available or possibly available from sites including the Olympic Sculpture Park site, the Civic Center sites, Westlake Circle and Olive/Howell Triangle sites. (Table J-5 in Appendix J estimates the available supply of open space TDR from potential sending sites.)

The idealized maximum amount of open space TDR that could be used by future development under Alternative 1 is approximately 1.2 million square feet. However, given the range of bonus and TDR options available to gain floor area, this maximum amount is not likely to occur, and the potential supply of Open Space TDR is likely to exceed demand in all alternatives. Proposed increases in base FAR in Alternative 1 will increase the supply of available TDR from eligible open space sending sites.

Open Space Requirements

As described in Affected Environment, Downtown development is subject to requirements for open space or common recreation area according to use. Hotel and retail uses are not subject to any type of open space requirement.

Office Open Space Requirement. Under the office development requirement, 20 square feet of open space is required for every 1,000 square feet of office space in a project. Table 32 below indicates the total amount of open space that projected office development over the next 20 years would be required to provide under the four alternatives.

Table 32
Required Open Space for Office Development Added Between 2000 and 2020

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Total square feet of office space	17,175,036	16,864,155	16,923,900	17,002,603
Total amount of open space required	343,501 sf (7.9 acres)	337,283 (7.7 acres)	338,478 sf (7.8 acres)	340,052 sf (7.8 acres)

Source: SPO, 2002

Since the projected amount of office development is essentially the same for all alternatives, there is no significant difference between the alternatives in terms of the amount of open space required.

Common recreation area requirement for residential use. In projects with over 20 dwelling units, residential use is subject to a common recreation area requirement. The amount of area required is calculated as 5 percent of the project's total gross floor area in residential use. Up to 50% of the required common recreation area may be provided as enclosed space, and on sites abutting a Green Street, up to 50% of the common recreation requirement may be met through participation in Green Street improvements.

Within the Denny Triangle, residential floor area gained through the TDC program is exempt from the common recreation area requirement. Developers can contribute instead to an amenity credit fund used to provide public open space and Green Street improvements in that neighborhood.

Table 33 below indicates the total amount of common recreation area that projected residential development over the next 20 years would be required to provide under the four alternatives. Alternatives 1 and 2 would result in the greatest amount of common recreation area provided in future residential projects because of the amount of residential floor area exempted from the requirement in Alternatives 3 and 4, where use of TDC is greatest.

Table 33
Required Common Recreation Area for Residential Use

	Alternative 1	Alternative 2*	Alternative 3*	Alternative 4*
Total square feet of residential floor area	6.3 million sf (7,378 units)	6.5 million sf (7,636 units)	6.3 million sf (7,454 units)	6.5 million sf (7,625 units)
Total amount of common recreation area required	313,565 sf (7.2 acres)	312,885 sf (7.2 acres)	281,732 sf (6.5 acres)	281,520 sf (6.5 acres)

*Floor area gained through TDC exempt from common recreation area requirement

Contributions to Amenity Credit Fund under the Denny Triangle TDC Program

Under Alternative 1, the proposed height increases are assumed to terminate the use of TDC as an incentive program because development would be permitted greater height limits outright.

Comprehensive Plan Open Space Goals for Downtown

Because of the distribution of projected growth under the four alternatives, it is most instructive to discuss potential impacts by Downtown neighborhood.

Denny Triangle

The Denny Triangle Urban Center Village is expected to receive over 60% of the total employment growth and over 70% of the total residential growth projected for the study area. With current projects and anticipated development over 20 years, available open space in the Denny Triangle area would total approximately 5 acres. This amount is approximately the same across the alternatives, except for slightly less open space projected for Alternative 3 and slightly more for Alternative 4. This amount does not account for any potential future public investments in open space. (Table J-11 in Appendix J provides more details about these calculations.)

Employment Goal. With existing and projected open space totaling 5 acres, the Denny Triangle area would fall short of the 1 acre of open space per 10,000 jobs goal, with 1 acre per about 12,000 jobs. If no additional open space is provided, the Denny Triangle area would fall far short of the open space goal, with about 1 acre per 25,000 jobs.

Residential Goal. With projected residential growth and a total of 5 acres of open space, the Denny Triangle area would fall short of the 1 acre of open space per 1,000 households goal, with 1 acre per about 1,200 households. If no additional open space is provided, the Denny Triangle would fall far short of the open space goal, providing less than half of the open space needed to meet the goal.

In all the alternatives, the mixing of high-density housing with employment activity in the same area may make it difficult to obtain large open spaces usable to residents. The greatest concentration of future housing is likely to occur in the portion of the Denny Triangle neighborhood east of Westlake Avenue, where Green Street improvements, improved access to Denny Park, and potential open space improvements on the Convention Place Transit Station site may help serve the future residential population.

Distribution Goal. A large portion of the Denny Triangle is currently not served by an open space within a 1/8-mile radius. The distribution of projected open space in future development is likely to accomplish the desired distribution goal. However, most of this additional open space would be more oriented to serving employee open space needs than residential needs.

Village Commons. At approximately one acre, the plaza of the new Federal Courthouse is the largest open space currently planned in the area, but its use is likely to be restricted. An open space as large as one acre is unlikely to occur as part of a private development, so unless there is significant public investment, the area is not likely to acquire an open space serving this function.

Commercial Core

With current projects and anticipated development over 20 years, available open space in the Commercial Core would total approximately 18.6 acres. This amount is the same across the alternatives. This amount does not account for any potential future public investments in open space. (Table J-12 in Appendix J provides more details about these calculations.)

Employment Goal. With existing and projected open space, the Commercial Core would exceed the 1 acre of open space per 10,000 jobs goal, with approximately 1 acre per 7,000 jobs. The peripherally-located Waterfront Park and Freeway Park account for a large portion of this open space.

Residential Goal. With projected residential growth and open space, the Commercial Core would far exceed the 1 acre of open space per 1,000 households goal, with 1 acre per about 150 households.

Distribution Goal. Most of the Commercial Core between Union and James Streets and 1st and 5th Avenues currently lacks open space and would likely need about three sites totaling about 3/4-acre of space to meet the distribution goal. Planned open space on the City Hall and Public Safety Building sites and additional spaces on private development sites will likely accomplish the desired distribution.

Housing in the Commercial Core is concentrated along the southern edge adjacent to Pioneer Square and along the western edge, primarily in and around the Pike Place Market, along 1st Avenue, and along 2nd Avenue adjacent to the retail core. Future residential development is likely to continue to locate in these areas, which have reasonably good access to the open space resources along the harborfront. Since tourists and the Downtown working population also heavily use these open spaces, additional spaces that more directly serve the needs of the residential population may also be desirable.

Village Commons. Although not quite one acre in size, Westlake Park and Plaza in the retail core already serve as the Commercial Core's "Village Commons."

Green Street Improvements Associated with Future Development

The substantial amount of development expected in the Commercial Core and Denny Triangle provides opportunities for carrying out Green Street improvements on development sites abutting designated Green Streets.

Proposed/Probable Green Street Improvements. The following is a list of proposed Green Street projects already being undertaken by the City or expected to occur as a result of planned private development on an abutting site:

- Terry Avenue TDC Green Street demonstration project: Terry Avenue between Lenora and Virginia Streets (Denny Triangle);
- 2119 6th Avenue (UA Cinema site): portions of Blanchard Street between 5th and 6th Avenues (Denny Triangle);
- 2300 5th Avenue: Bell Street between 5th and 6th Avenues (Denny Triangle).

Potential Green Street Improvements. Table 34 below identifies how many projected future development sites would abut designated Green Streets under the four alternatives. Many or most of these future development projects would take advantage of available development incentives for Green Street improvements. The difference among the alternatives would occur only in the vicinity of 7th and 8th Avenues between Blanchard and Lenora Streets.

Table 34
Number of Assumed Future Development Sites Abutting Green Streets

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of Assumed Development Sites	10	10	11	14

Source: SPO, 2002

Alternative 2 - Concentrated Office Core

STREETSCAPE AND PEDESTRIAN AMENITY

Conditions under Alternative 2 would be very similar to Alternative 1. The biggest distinctions would likely be within DMC zones of the Denny Triangle, Belltown and the western edge of the Commercial Core, where development would not be as tall and dense as allowed under Alternative 1. However, even in these areas, streetscape conditions as perceived by pedestrians would not be significantly different than would occur under Alternative 1.

PARKS AND OPEN SPACE

Alternative 2 is relatively similar to Alternative 1 in terms of open space impacts.

Potential Public Open Space Added Through Development Incentives

Use of Open Space Floor Area Bonuses. Under the scenarios used to depict potential future development in this analysis, Alternative 2 shows only slightly more open space provided on development sites than Alternative 1 (1.9 acres versus 1.7 acres).

Use of Open Space Transfer of Development Rights (TDR). Because there are no increases in the base FAR under this alternative, the potential supply of open space TDR is the same as under existing conditions. However, increased maximum density limits in DOC 1 and DOC 2 zones create the potential for more demand for open space TDR, similar to that in Alternative 1.

Open Space Requirements

Office Open Space Requirement. The projected amount of office development is essentially the same for all alternatives. Consequently, there is no significant difference between alternatives in terms of the amount of open space required.

Common Recreation Area Requirement for Residential Use. The amount of common recreation area required for residential use in Alternative 2 is similar to Alternative 1.

Contributions to Amenity Credit Fund under Denny Triangle TDC Program

Alternative 2 results in a substantial reduction of the area where the TDC program applies. In Alternative 2, additional heights in the DMC zones of the Denny Triangle still could only be gained through participation in the TDC program. The proposed height increase in the DOC 2 zone of the Denny Triangle under this alternative is assumed to terminate the use of TDC as an incentive in this zone since development would be permitted the greater height outright. Compared to Alternatives 3 and 4, Alternative 2 would generate the least contribution to the amenity credit fund, due to the reduced area where the TDC program would apply (see Table 35).

Table 35
Contributions to Amenity Credit Fund through Participation in TDC Program

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Total square feet of residential floor area gained through TDC	NA	232,900 sf (274 units)	701,250 sf (825 units)	850,850 sf (1,001 units)
Contribution to amenity credit fund at current rate of \$5/sq.ft.	NA	\$1,164,500	\$3,506,250	\$4,254,250

Source: SPO, 2002

Comprehensive Plan Open Space Goals for Downtown

Alternative 2's relationship to these goals is similar to that of Alternative 1.

Green Street Improvements Associated with Future Development

Potential Green Street Improvements. Alternative 2's relationship to Green Streets improvements is essentially the same as that of Alternative 1, with 10 future development sites located adjacent to Green Streets.

Alternative 3 – Residential Emphasis

STREETSCAPE AND PEDESTRIAN AMENITY

Streetscape conditions in Alternative 3 would be similar to the other alternatives. The biggest distinction would be in areas reclassified to a more residential-oriented designation, including the southern edge of Belltown and north central edge of the Denny Triangle. Standards dictating less bulky towers and greater spacing between towers would likely promote more positive conditions within the street environment, including greater solar access relative to the bulkier development allowed under the other alternatives, and a perception of greater openness. Alternative 3 would also maintain existing height and density limits in the portions of the DOC 2 zone in the Denny Triangle with narrower street widths. To the extent that Alternative 3 includes more projects on the periphery of the office core than Alternatives 1 and 2, some additional areas will benefit from streetscape improvements required of new development.

PARKS AND OPEN SPACE

Potential Public Open Space Added Through Development Incentives

Use of Open Space Floor Area Bonuses. Alternatives 1, 2 and 3 would result in similar amounts of open space provided on-site. In Alternative 3, residential development in residentially zoned areas is one factor that would limit the amount of open space provided. Since housing is not subject to density limits and there is no requirement for public open space, there is no direct incentive to provide publicly accessible open space on a residential development site.

Use of Open Space Transfer of Development Rights (TDR). Because there are no increases in the base FAR under Alternative 3, the potential supply of open space TDR would be the same as under existing conditions. However, increases to maximum density limits in DOC 1 and most DOC 2 zones, and the ability for development in areas redesignated DMR/C to use open space TDR for all floor area gained above the base FAR, would increase the amount of open space TDR future projects could use relative to Alternatives 1 and 2.

Open Space Requirements

Office Open Space Requirement. Because the amount of projected office development is essentially the same for all alternatives, there is no significant difference in the amount of open space required.

Common Recreation Area Requirement for Residential Use. Alternatives 3 and 4 would result in lower amounts of required common recreation area because use of the TDC program in these alternatives would allow projects to exempt this requirement in exchange for contributions to the Denny Triangle Amenity Credit Fund. Consequently, open space that would otherwise be provided as common recreation area in individual projects would be provided as public open space funded through TDC amenity credits.

Contributions to Amenity Credit Fund under Denny Triangle TDC Program

Alternative 3 will result in some reduction in the area where the TDC program applies. In Alternative 3, additional heights in the DMC zones and portions of the DOC 2 zone of the Denny Triangle still could only be gained through participation in the TDC program. The proposed height increase in the central portion of the DOC 2 zone under this Alternative is assumed to terminate the use of TDC as an incentive in this area, since development would be permitted the greater height outright. However, due to projects in DMC zones, Alternative 3 would generate contributions of approximately \$3.5 million to the Amenity Credit Fund, which is approximately \$2.3 million more than would be generated under Alternative 2 (no such funds would be generated under Alternative 1).

Comprehensive Plan Open Space Goals for Downtown

Alternative 3's relationship to these goals is nearly the same as Alternative 1. However, Alternative 3 proposes zoning changes to concentrate residential development in a northern portion of the Denny Triangle. This could provide a better opportunity to achieve a residentially-oriented open space amenity.

Green Street Improvements Associated with Future Development

Potential Green Street Improvements. Under Alternative 3, approximately 11 future development sites would be adjacent to Green Streets and could implement such improvements, one more site than identified for Alternative 1. Alternative 3's zoning changes along 9th and Terry Avenues could encourage the "residential enclave" called for by the Denny Triangle Neighborhood Plan, more so than the other EIS alternatives.

Alternative 4 – No Action

STREETSCAPE AND PEDESTRIAN AMENITY

Alternative 4's streetscape/pedestrian impacts would be similar to those described for Alternative 1. To accommodate the same amount of growth, more properties would need to be redeveloped under Alternative 4 than Alternative 1. This would provide the opportunity to achieve street-level improvements along several more properties than under Alternative 1, as well as the potential for adverse impacts as identified in the Alternative 1 discussion. The larger number of redeveloped properties could also result in more on-site open space and Green Street improvements, which could help enhance the overall quality of the street level environment.

PARKS AND OPEN SPACE

Potential Public Open Space Added Through Development Incentives

Use of Open Space Floor Area Bonuses. Alternative 4 may result in the greatest amount of on-site public open space provided by future development—approximately 4.4 acres, or 1 more acre than predicted for Alternative 1. This is due to the larger number of properties predicted to redevelop under Alternative 4, providing more opportunities for on-site open space. Lower development densities could mean that open space would be more easily incorporated into site plans, especially in DMC zones. This is consistent with observations of current projects being planned under existing conditions, which include substantial areas of open space (2300 5th Avenue, Stewart Place).

Use of Open Space Transfer of Development Rights (TDR). Alternative 4 would allow for the greatest use of open space TDR, due to the range of opportunities in the current Land Use Code to use open space TDR, particularly in DMC areas. The potential supply of open space TDR is less for Alternative 4 than estimated for Alternative 1.

Open Space Requirements

Office Open Space Requirement. No significant difference between alternatives in the amount of open space required.

Common Recreation Area Requirement for Residential Use. Alternative 4 would result in approximately 6.5 acres of required common recreation area, about 10 percent less than would occur under Alternative 1. However, if the TDC program is used, other public on-site open space may be provided instead of this common recreation area.

Contributions to Amenity Credit Fund under Denny Triangle TDC Program

With the continued functioning of the TDC program, Alternative 4 would result in the greatest overall level of contribution to the Denny Triangle Amenity Credit Fund—an estimated \$4.2 million. This would be approximately \$3.1 million more than would be generated under Alternative 2 and \$750,000 more than would be generated under Alternative 3 (no such funds would be generated under Alternative 1).

Comprehensive Plan Open Space Goals for Downtown

Given that the amount of additional open space predicted under Alternative 4 is similar to Alternative 1, Alternative 4's relationship to Comprehensive Plan open space goals would be similar to Alternative 1. However, due to the predicted redevelopment of more properties under Alternative 4, the distribution of open space on development sites could be slightly more widespread in the Denny Triangle than under Alternative 1, and therefore more consistent with the Comprehensive Plan.

Green Street Improvements Associated with Future Development

Potential Green Street Improvements. Due to an additional four sites predicted for redevelopment in the Blanchard/Lenora/7th/8th Avenue vicinity, Alternative 4 may result in a few more improved Green Street frontages than the other alternatives. Also, assuming the TDC program is functioning, additional resources generated through the TDC amenity fund could be available for Green Street improvements within the Denny Triangle.

Impact Summary Table

Table 36 summarizes the findings of the Pedestrian Amenities and Open Space impacts section, for the convenience of the reader.

Table 36
Summary of Open Space Impacts

	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Ped. Amenities & Streetscape Positive Impacts	<ul style="list-style-type: none"> • Narrow sidewalks would be widened. • Additional street trees would be provided. • Green Street improvements would be provided. • Continuous street level uses would be promoted along several streets, aided by infill development over time. • New public open spaces in developments should benefit pedestrians. 	<p>Similar to Alt. 1. Even in areas with retained zoning (in DMC zones), the streetscape conditions as perceived by pedestrians would not be much different than would occur under Alt. 1.</p>	<p>Similar to Alt. 1, except greater chance for positive street environment in the residential-zoned areas, due to lower bulk limits. Lack of zone changes in some DOC 2 areas would avoid some street-scape effects related to greater building bulk.</p>	<p>Same amount of growth would be accommodated on more properties than under Alt. 1, providing more opportunities for streetscape improvements, including Green Streets.</p>
Adverse Impacts	<ul style="list-style-type: none"> • Above-grade parking could detract from street-level character. • In some areas, non-requirement of street level uses could limit street level activity in buildings. • There would be a greater sense of “enclosure” within several streets. • In some areas, possible loss of older structures may diminish variety and pedestrian orientation at street level. 	<p>Similar types of impacts as under Alt. 1. However, lack of zone changes in DMC areas would mean buildings less dense and lower in height in these areas than under Alt. 1.</p>	<p>Similar types of impacts as under Alternative 1, but somewhat less potential for impacts, due to residential-oriented zoning changes in some areas, and lack of change in some DOC 2 areas.</p>	<p>Same amount of growth on more properties than under Alt. 1 would have additional risk of adverse impacts occurring along some streets, as listed under Alt. 1.</p>
Parks & Open Space Predicted on-site open space developed in future projects	1.7 acres	1.9 acres	1.9 acres	2.9 acres
Use of open space TDR	<p>The potential supply of open space TDR is approx. 1.0-1.3 million sq.ft. Demand is not expected to exceed supply.</p>	<p>Supply would remain the same. Changes in DOC zones would increase demand similar to Alt. 1.</p>	<p>Similar to Alt. 1 and 2, but areas rezoned to DMR/C would allow slight increase in use of open space TDRs.</p>	<p>Supply would be less than under Alt. 1, but Alt. 4 would allow for the greatest use of open space TDR among the alts.</p>

	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Open space required for office uses	7.9 acres	7.7 acres	7.8 acres	7.8 acres
Common rec. area open space required for residential uses	7.2 acres	7.2 acres	6.5 acres	6.5 acres
Predicted Contributions to TDC Amenity Credit Fund	None, since Alt. 1 would likely terminate the use of the TDC program.	Est. \$1.2 million	Est. \$3.5 million	Est. \$4.3 million
Relationship to Open Space Goals <i>Denny Triangle</i>	Even with predicted open space in future developments, this area would fall a bit short of meeting the residential and employee-oriented open space goals. However, Alt. 1 would likely meet the distribution goal.	Similar to Alt. 1	Nearly the same as Alt. 1, except residential-zoned area could promote more residentially-oriented open space.	Slightly more open space in Denny Triangle, possibly spread over more area than Alt. 1.
Commercial Core	Would meet or exceed the residential and employee-oriented open space goals, and would likely meet the distribution goals.	Similar to Alt. 1	Similar to Alt. 1.	Similar to Alt. 1.
Number of future development sites adjacent to Green Sts.	10 sites	10 sites	11 sites	14 sites

MITIGATION STRATEGIES

REQUIRED/PROPOSED MITIGATION STRATEGIES

Given the type and magnitude of impacts discussed in this section, no mitigation measures or strategies are required or proposed to be mandatory actions accompanying approval of any of the alternatives.

OTHER POSSIBLE MITIGATION STRATEGIES

The following potential mitigation measures have been identified for consideration.

Streetscape and Pedestrian Amenity

- Where the long blocks of the Denny Triangle are assembled for redevelopment through alley vacations, encourage mid-block connections between north/south avenues to enhance pedestrian circulation and promote better streetscape conditions along the long dimensions of the block.
- Review the network of pedestrian street classifications and mapped streets requiring street-level uses to determine if they are consistent with anticipated development activity and emerging development patterns. Propose necessary adjustments to reinforce desired conditions.
- Examine how streetscape conditions can best accommodate the increase in high density mixed-use development anticipated in areas initially intended primarily for high-density office use.

- Designate streets of special significance or character for enhancement through coordinated public and private actions, including public improvements to the pedestrian environment, integrated public open space improvements and development standards for abutting properties, such as setbacks and street façade treatments, that ensure new projects reinforce the special character desired.

Parks and Open Space

General

- Explore mechanisms for pooling resources for open space improvements (payment in-lieu, voluntary payment option similar to the program recently established for floor area bonuses through payment to an affordable housing and childcare fund) to fund public spaces sited and designed to more directly meet specific open space needs of Downtown residents.
- Investigate measures for addressing the additional demand generated by employment growth and increased tourism on Downtown public open space resources.
- Consider measures that may apply to market-rate residential development to address demand generated by increased residential population on public open space resources.

Denny Triangle

- Prioritize public investment in open space to enhance the livability of this emerging high-density urban neighborhood where existing open space resources are very limited.
- Investigate alternative strategies for maintaining a viable Transfer of Development Credit program in the Denny Triangle in situations where substantial height increases are proposed.
- Modify standards and guidelines for bonused open space to promote features better suited to the needs of a residential population.

Commercial Core

With limited future opportunities for siting open space, efforts in the Commercial Core neighborhood could be focused on improvements that would both introduce limited amounts of open space in the area while improving pedestrian connections to the neighborhood's major open space resources along the Harborfront. Improvements along University Street provide one potential model. Here, University Street is lined with hillside terraces for two blocks along the frontages of Benaroya Hall and the Art Museum, and the steps of the Harbor Steps project further extend this linear stretch of open space for a total of three and a half blocks. Setbacks accommodate landscaping and pedestrian amenities while enhancing vistas to the water and linking the harborfront with the edge of the financial district. Improvements on other east/west streets could be coordinated to create similar linear open space connections between areas of concentrated employment and the open space resources along the Harborfront.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Streetscape and Pedestrian Amenity

Under all the alternatives, future development will reduce solar access to the pedestrian environment and increase the physical enclosure of the street level environment.

Parks and Open Space

Under all the alternatives, the per capita amount of public open space available for use by Downtown residents and employees will diminish.

VIEWS AND AESTHETICS

AFFECTED ENVIRONMENT

This section discusses view impacts of the alternatives with regard to the City's SEPA Public View Protection policies, including the topics of public viewpoints, views of landmarks, skyline views, and views from scenic routes. The discussion also attempts to recognize other City objectives pertaining to urban design, aesthetics and the future development of Downtown. It is important to acknowledge that the discussion of views, aesthetic values, and related impacts is highly subjective. It also should be noted that the City's existing zoning regulations already accommodate a level of future development that will affect views from some locations, over time. Where possible, the impact analysis in this EIS attempts to identify the additional increment of view impact attributable to the alternatives and the relative differences in impacts among the alternatives.

Public Viewpoints

The City's SEPA rules identify 87 locations where project impacts on views of natural and built features are to be addressed (SMC Section 25.05.675 P.2.a.i., Attachment 1). Among the 87 designated viewpoints, approximately 26 locations have views of the Downtown skyline and/or views across Downtown toward natural features like Mt. Rainier, the Olympic Mountains or Elliott Bay. From some viewpoints, Downtown is just one of several observable features, and may or may not be the most significant. Some of the views of Downtown are quite distant, and changes of the magnitude studied in this analysis would be imperceptible. Table L-1 in Appendix L provides an inventory of identified SEPA viewpoints, listing observable features specified by SEPA for view protection and a brief description of the nature of available views from each location.

Certain viewpoints are considered to have greater significance to this study because of the prominence of views toward Downtown and because their location in relation to the study area creates the greatest potential for impacts. These include Kerry Park, Bhy Kracke Park, Belvedere Viewpoint, Jose Rizal Park, Four Columns Park, Hamilton Viewpoint, Harbor Vista Park, Alki Beach Park, Pac-Med Bldg. (U.S. Public Health Service Hospital) Viewpoint, Harborview Hospital Viewpoint, Victor Steinbrueck Park, Waterfront Park, Myrtle Edwards Park, and Gasworks Park.

These viewpoints provide several of the "postcard" views of Seattle's Downtown and in many cases also offer views toward Puget Sound, Lake Union, Mt. Rainier or the Olympics. Harborview Hospital Viewpoint and Four Columns Park are the viewpoints nearest Downtown's central office core, featuring both nearby cityscape and territorial views. Victor Steinbrueck Park offers attractive views east and south toward the Pike Place Market vicinity and the office/retail core, south toward Mt. Rainier, and west toward Puget Sound and the Olympics. Because of their greater significance and potential for negative outcomes, this analysis focuses on these viewpoints to assess impacts of the various alternatives.

View Protected Landmarks

SEPA specifies *"it is the City's policy to protect public views of historic landmarks designated by the Landmarks Preservation Board which, because of their prominence of location or contrasts of siting, age, or scale, are easily identifiable visual features of their neighborhood or the City and contribute to the distinctive quality or identity of their neighborhood or the City."* Twenty-three designated landmarks within (or visible from) the study area are identified for public view protection, based on this designation criterion used by the Landmarks Board. Eight of these are located within the study area, seven are within the retail core or Belltown, and eight are outside the study area but visible from portions of Downtown (see Table 37).

Table 37
Inventory of View-Protected Landmarks Related to Study Area

Within the Downtown Study Area	Outside Study Area But Within Downtown
<ul style="list-style-type: none"> • Rainier Club • 1st Avenue Group/Waterfront Center • Times Square Building • Hoge Building • McGraw Square • Terminal Sales Building • Lyon Building • Camlin Hotel 	<ul style="list-style-type: none"> • Coliseum Theater • Olympic Tower/United Shopping Tower • Northern Bank & Trust/Seaboard Building • Bon Marché • Mann Building • Frederick & Nelson Building (Nordstrom) • Guiry Hotel (Belltown)
Outside Downtown But Visible from Downtown Study Area	
<ul style="list-style-type: none"> • Space Needle • Trinity Parish Church (First Hill) • Immanuel Lutheran Church (Cascade) • Seattle First Baptist Church (First Hill) 	<ul style="list-style-type: none"> • Queen Anne High School • Summit School/Northwest School (Pike-Pine) • Pacific Medical Center (Beacon Hill) • Wintonia Hotel (Pike-Pine)

Some of the landmarks identified above are very visible due to their height and/or prominent physical setting. Pacific Medical Center and Queen Anne High School are noticeable skyline features outside the study area, visible from several locations due to their location on Beacon Hill and the ridge of Queen Anne Hill. A few church steeples, such as those of the Trinity Parish Church and Immanuel Lutheran Church, are also locally visible from portions of the study area. Several structures located outside of Downtown are visible from limited locations within Downtown, including the Wintonia Hotel in Pike/Pine or the church steeples mentioned above. However, the visual enjoyment of these structures is primarily of interest to the neighborhood in which they are located, making visibility from adjacent areas like Downtown less of a priority.

Several of the other view-protected landmarks are distinctive older buildings that contribute to the overall visual and architectural quality of Downtown. These buildings are most visible within one or two blocks where the viewer can appreciate the quality of the building within its urban context. Examples include the Coliseum Theater, Rainier Club, Times Square Building, Hoge Building, Bon Marché, Frederick & Nelson (Nordstrom) Building, Terminal Sales Building, and a grouping of buildings along First Avenue. Some of these buildings gain added visual prominence due to their location at shifts in the street grid, where they terminate views down the street and may be visible for several blocks. The Josephinum's location at the "bend" in Second Avenue at Stewart Street is an example.

Most Downtown structures identified as view protected-landmarks are integrated with surrounding development and observable primarily from streets in the immediate vicinity. However, some buildings, like the Camlin Hotel, are more visually prominent because of their location in less built-up portions of Downtown. The increased visibility of the Camlin Hotel is due primarily to its location amid surface parking lots and the open pit of the Metro Transit Station. Typically, such a building would be absorbed over time into a fully-developed blockfront, remaining visible only from adjacent streets.

SEPA is not specific about the nature of protection provided for views of landmarks. There is little guidance about where the view of a particular landmark should be protected from, or the amount or

particular aspects of the view that warrant protection. Table L-3 in Appendix L describes the visibility and context of the studied landmarks to better understand their visual prominence.

The City Council addressed this issue as it related to protecting views of the Space Needle, one of the identified view-protected landmarks. In November 2001, the City's SEPA view protection policies were clarified with respect to Space Needle views, recognizing that *"restricting development throughout the city to protect all public views of the Space Needle is inconsistent with the City's land use, housing and other policies and goals, as more fully described in the report, 'Seattle View Protection Policies: Space Needle Executive Report and Recommendations,' April 2001"* (Ordinance 120605). To clarify and focus efforts to protect the most critical views, ten specific protected public views of the Space Needle were identified, including those from:

- Alki Beach Park
- Bhy Kracke Park
- Gasworks Park
- Hamilton Viewpoint
- Kerry Park
- Myrtle Edwards Park
- Olympic Sculpture Park
- Seacrest Park
- Seattle Center
- Volunteer Park

In addition, the April 2001 report recommended that other culturally and historically significant structures or features be evaluated based on a citywide viewpoints analysis to further clarify SEPA policy.

Scenic Routes

The City's SEPA policies address the protection of public views from City streets designated as scenic routes. *"It is the City's policy to protect public views of significant natural and human-made features: Mount Rainier, the Olympic and Cascade Mountains, the downtown skyline, and major bodies of water including Puget Sound, Lake Washington, Lake Union and the Ship Canal, from public places consisting of the specified viewpoints, parks, scenic routes, and view corridors identified in Attachment 1."* (SMC Section 25.05.675 P.2.a.i. and Attachment 1).

The City's designated SEPA scenic routes are identified on a map as Exhibit 1 to the City's SEPA policies (SMC 25.05.675, Exhibit 1). Since SEPA does not identify where view locations occur along these routes, or specify the object of view, it is difficult to assess which characteristics of these scenic routes are to be protected under SEPA policies. Some scenic routes are oriented toward the aesthetic qualities of the immediate surroundings (such as green boulevards, neighborhood commercial streets or adjoining parks), while others have more distant views of natural features (mountains and major water bodies) and the city skyline. There is great variety in visual character along the routes—some portions do not have any appreciable scenic qualities.

Assessing view conditions on scenic routes also needs to consider the intended observer and direction of travel in relation to the view. Many of these routes, like Aurora Avenue, the Alaskan Way Viaduct, and I-5, accommodate high volumes of traffic traveling at high speeds. While certain view features may be visible from these routes, the fact that the observer is traveling at high speed may limit the duration of specific views to brief glimpses. Some routes, like 5th Avenue, are one-way streets, limiting the direction of views for motorists and transit riders. Other scenic routes may be traveled by slower traffic, including pedestrians and bicyclists, potentially expanding the scope and direction of views, as well as the length of time that features remain visible to the observer.

Scenic routes were reviewed and traveled to determine the route segments that provide views of the Downtown study area potentially affected by proposed changes to height and density limits. Scenic views along several routes are intermittently blocked by topography, existing development and vegetation, but locations with higher elevations, wide rights-of-way and/or unobstructed view corridors offer the best opportunities for views toward Downtown (see Figure 27). Examples of scenic route segments with good views toward Downtown include:

- Harbor Avenue SW
- West Seattle Bridge
- Magnolia Bridge
- Northbound SR 99 from the Alaskan Way Viaduct
- Southbound SR 99 north of Battery Street Tunnel
- 12th Avenue S. (including bridge over I-90)
- Small segments of California Ave, Admiral Way
- I-5 southbound at north end of Ship Canal Bridge
- I-5 southbound near Eastlake on-ramp
- I-5 southbound, Lakeview Blvd to Olive Way
- I-5 northbound, S. Spokane St. to Yesler Way
- I-5 northbound, Yesler Way to Seneca St.
- I-5 northbound, near S. Andover St.

Other scenic routes closer to Downtown Seattle with Downtown views (due to topography or street orientation) include: Dexter Avenue N., Aurora Avenue N., Westlake Avenue N., Fairview Avenue, Olive Way and Yesler Way. Dexter Avenue N., Westlake Avenue N. and Fairview Avenue offer views of the Downtown skyline as they approach the study area. Olive Way (near its intersection with Denny Way and at I-5) offers limited views of Elliott Bay, but scenic views are limited primarily to portions of the skyline, due to intervening buildings and trees. Yesler Way westbound between approximately 8th Avenue and 5th Avenue offers good views of Elliott Bay and the Olympic Mountains, with skyline and territorial views as it passes over I-5.

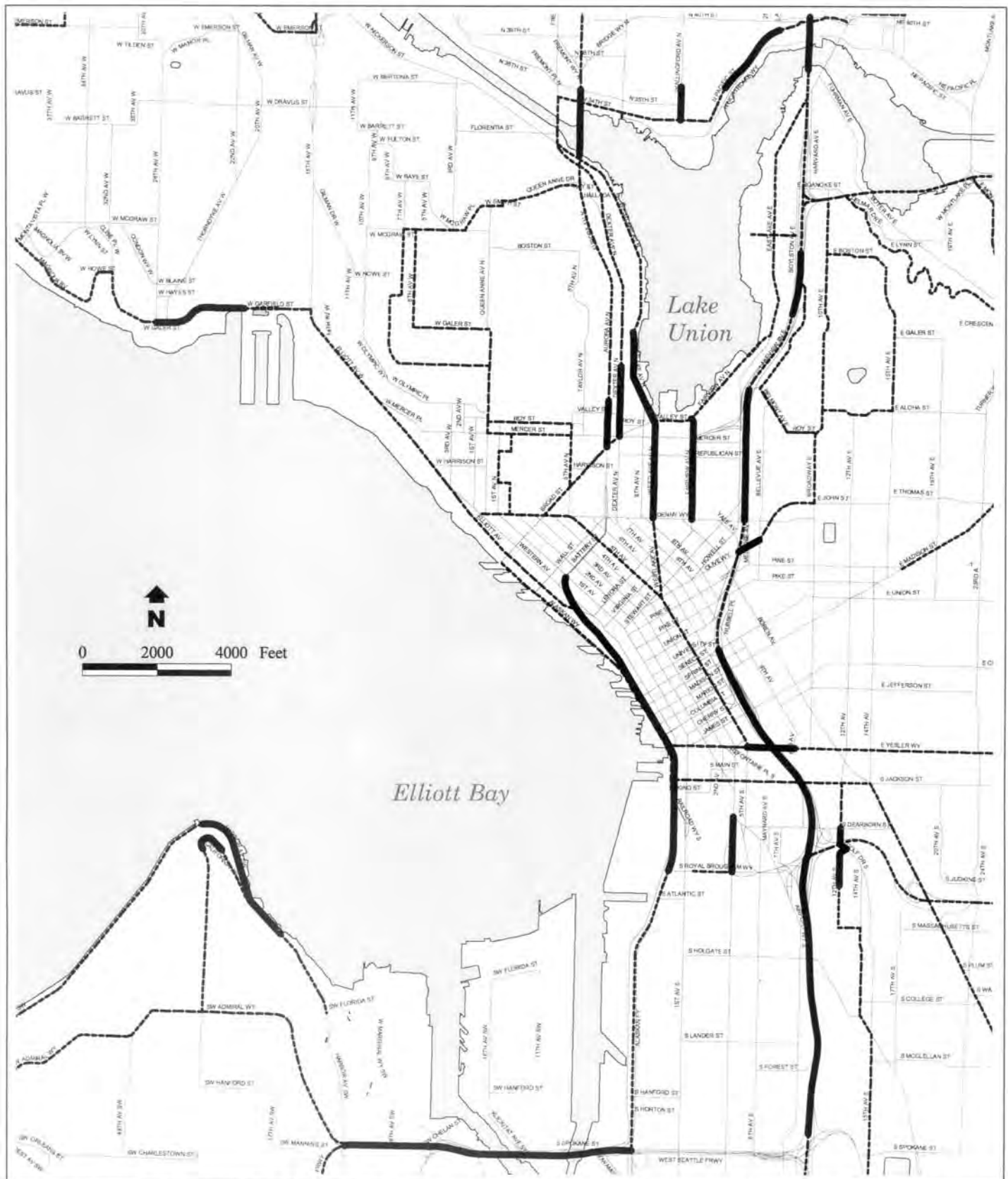
Scenic routes that pass through Downtown Seattle include 5th Avenue, Westlake Avenue, Elliott Avenue, the Alaskan Way Viaduct and Alaskan Way. Along these routes, the immediate surroundings of Downtown development dominate views. At this close range, there are few skyline views of Downtown, except for the Alaskan Way Viaduct (primarily northbound) which has good views of Downtown due to the roadway elevation. Fifth Avenue through the Commercial Core offers occasional views of Elliott Bay at street intersections. The Alaskan Way Viaduct generally impairs views toward Downtown from Alaskan Way and Elliott Avenue; the primary views from these streets are instead oriented toward the waterfront.

Skyline

Due to hilly topography and the presence of large water bodies, several locations offer views of the Downtown Seattle skyline within the context of the surrounding natural setting. Familiar images of the Downtown skyline include views from the west across Elliott Bay, from the north across Lake Union and from the south across the flat, low industrial areas of the Duwamish Valley. Skyline views are also possible from the east from the western slopes of Capitol Hill and a few more distant areas.

The Downtown skyline image is composed of simple elements: building clusters, landforms, water, and singular landmark structures and features. The characteristics of these elements—their color, scale, complexity and variation—also contribute to the image. The composition of these elements defines the image for the viewer and varies depending on the direction and distance of the viewpoint.

Views From the West. The skyline from the west is generally viewed across Elliott Bay and framed to the north by the Space Needle and to the south by the stadiums. The hillsides of Capitol Hill and Beacon Hill provide a green backdrop for the Downtown skyline on either side of the office core cluster. A band of older buildings along 1st and Western Avenues and the linear structure of the Alaskan Way Viaduct



SCENIC ROUTE SEGMENTS WITH VIEWS TOWARD DOWNTOWN

FIGURE 27

Strategic Planning Office
City of Seattle
May 20, 2002

- Segments with Views toward Downtown
- Other Scenic Route Segments

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dentwms/scenicw/dwntwms.apr

create a more horizontal "base" that provides a transition in development scale stepping up from Elliott Bay to the office core. While the older, lower development of the retail core continues to create a break in the skyline profile, taller office and hotel towers are filling in to the north. Taller residential towers in Belltown extend the highrise profile even further north. Downtown areas once distinguished by their height are now less distinguishable within the context of the skyline.

Views From the North. In views from the north looking south, the skyline contrasts dramatically with the low, horizontal plane of Lake Union and the relatively low structures of South Lake Union and the Denny Triangle. From some locations north of Downtown, such as the higher elevations of Queen Anne, Mt. Rainier also becomes part of the view, appearing either to the east or west of the skyline depending on the observation point. The landforms and development of Capitol Hill and First Hill define the eastern edge. While the lower buildings of the retail core provide some transition in height north to south, more recent highrise development north of the core make this transition less apparent. Given the shift in the block pattern that occurs along Denny Way and again along Olive Way, streets provide fewer "gaps" in the visual pattern of development.

Views From the South. Generally, the tallest and bulkiest structures are concentrated on the hillside of the office core. From the south, the towers rise up with the hillside from Elliott Bay, with the low structures of Pioneer Square and the International District in the foreground. The more horizontal aspect and finer grain and scale of these older structures add interest and contrast to the vertical thrust of the larger office towers that generally dominate the view. Depending on the observation point, the green bluff of Magnolia and the Space Needle are visible to the west, and development on First Hill extends the skyline view further east.

Views From the East. Because of topography, panoramic views of the skyline from the east are more limited. Much of First Hill faces the band of the tallest office core skyscrapers stretching along I-5. However, the low scale of development in South Lake Union and the Denny Triangle provide adjacent Pike-Pine and Capitol Hill areas with good views toward the existing skyline and, in some locations, features beyond Downtown to the west.

Built Features. The Space Needle, sports stadiums and structures sited at the crest of ridges like Harborview Hospital and Pac-Med Hospital, are recognized visual landmark features because of their size and location in the skyline profile. Generally, the Space Needle retains its dominance as a skyline landmark because of the lower height of development separating Seattle Center from Downtown highrise areas. Landmarks like the Smith Tower and King Street Station also remain visually prominent because of their location on the outer edge of the core skyline. Their contrast in scale and architectural style makes them stand out against the backdrop of more recent larger highrise development.

While Seattle continues to experience vertical growth, much of its natural setting has not been obscured. Even with an evolving skyline, the topography is still apparent, there continue to be views of green hillsides and the Downtown's place in relation to its natural setting remains clear. New development continues to break the silhouette of the background hills as seen from the water and West Seattle, but glimpses of greenery remain. The street grid has helped maintain these conditions. Because Downtown's tallest structures have historically been concentrated in an area platted with smaller square blocks aligned in a regular street grid pattern, the streets themselves have maintained a regular and frequent spacing between towers. When aligned with streets, views often are unobstructed through Downtown, providing visual links with adjacent areas. Because of the relatively low intensity of development in areas adjacent to the core, views from streets in the core can often continue through adjacent areas, even when the direction of the street is altered by shifts in the street grid pattern.

Other Non-Protected Views

Views from areas adjacent to Downtown. The rising slopes of Queen Anne Hill, Capitol Hill, First Hill and Beacon Hill provide numerous views of the Downtown skyline, and, in many cases, through the skyline to other features beyond. Though somewhat more distant, the east and northeast facing slopes of West Seattle and portions of Magnolia bluff further expand the viewshed that includes the Downtown skyline, as well as other natural features. With the growth of Downtown, the skyline has become increasingly more prominent in the public and private views from these surrounding areas.

The Downtown skyline, a combination of Downtown's "natural" topography and the artificial topography of its buildings, reaches heights in excess of 1,000 feet above sea level at the apex. The current building "envelope"—defined by the maximum height limit—for much of the study area ranges between 240 and 540 feet, with several existing structures exceeding these limits. By comparison, the elevations of the slopes facing Downtown range from approximately 400 feet on Queen Anne, to between 300 and 350 feet on Capitol Hill/First Hill, and 320 feet on Beacon Hill. As development has occurred over time under allowable height limits, some of the "gaps" that previously existed in the skyline have been "filled in", reducing opportunities for views over or through the Downtown skyline to features beyond, like Elliott Bay and the Olympic and Cascade Mountains. In some cases, the skyline itself has emerged as the principal object of view.

Some hillside locations continue to have views of significant natural features in the same viewshed as the Downtown skyline. Portions of the west slope of Capitol Hill provide glimpses of Elliott Bay and the Olympic Mountains beyond. These features are even visible from some locations on First Hill through the highrises of the Downtown core. From some locations on Queen Anne, Mount Rainier and the foothills of the Cascade Mountains are visible to one side of the skyline. Views eastward from the higher elevations of some West Seattle locations include the Cascade Mountains as a backdrop visible above the existing Downtown skyline or through gaps between buildings.

City policy, as reflected in the zoning that applies to areas adjacent to Downtown, recognizes that the loss of some views is an unavoidable consequence of development in dense urban environments. However, the zoned height limits help provide a balance between objectives for accommodating desired levels of development while maintaining reasonable view opportunities.

Views from within Downtown. The presence of views outward to surrounding areas and distant natural features is an important aspect of Downtown Seattle's unique identity. In many instances, surrounding natural features remain visible from locations within Downtown because of the low height of development in peripheral areas. This visual connection with open expanses of water, surrounding green hillsides and distant mountains not only visually introduces elements of nature into the densely built center city environment, but also lends a sense of openness and relief. These views are also important to "wayfinding," helping to guide movement within and through Downtown by providing reference points that identify locations in relation to their surroundings.

Most of these views are not covered under current SEPA view protection measures. However, several streets within Downtown that provide views toward Elliott Bay have been designated in the Land Use Code as View Corridors. Prohibitions on skybridges and restrictions on street use and street vacations apply to these designated view corridors, and on specified street segments, private development is required to provide setbacks to enhance views.

IMPACTS

The existing land use and zoning regulations in the study area currently allow new buildings ranging in height from 125 to 540 feet. As such, future development already can add quite a bit of building bulk that may alter some existing views. Identifying the visual effects of development already allowed by existing regulations is not the main purpose of this section. Rather, the discussion attempts to identify the *additional increment* of view impact attributable to the zoning changes in Alternatives 1, 2 and 3, and the relative differences in impacts among the alternatives.

Alternative 1 – High End Height and Density Increase

PUBLIC VIEWPOINTS

Of the approximately 30 identified locations with viewpoints or view protection status, approximately 11 would experience minimal or no impacts, due to their distance from Downtown and absence of any potential impairment of view features. Of the remaining 19 viewpoints, most would experience change only in the sense that the number and arrangement of buildings composing the Downtown skyline would be different from what is observable today due to changes over time. This type of change does not vary substantially among the alternatives and is not considered a significant adverse impact.

Table L-2 in Appendix L summarizes observations about visual changes at all of the studied viewpoints. Two viewpoints—Four Columns Park (Pike-Pine) and Harborview (First Hill)—warrant further discussion with regard to potential visual impairment of views. Three other viewpoints—Kerry Park (Queen Anne), Belvedere and Hamilton Viewpoints (West Seattle) are discussed later in this section with regard to changes in the Downtown skyline.

Four Columns Park

Four Columns Park, located just east of I-5 at Pike and Boren, is one of the closest viewpoints to the Downtown office/retail core. Its viewshed includes the portion of the study area likely to experience the greatest change. Today, views include the nearest buildings across I-5, such as the Convention Center with its canopy over Pike Street, Metropolitan Park Towers, Paramount Theater and Camlin Hotel, the larger office core buildings in the western middle ground, and Queen Anne Hill and a segment of Olympic Mountains in the background to the northwest. Vacant or underdeveloped lots and the Convention Place transit tunnel station currently provide relatively large open expanses allowing views toward the west and northwest. Some building projects already approved or under construction would reduce views toward the northwest over time.

With probable concentrations of future development in the Denny Triangle under any alternative, as well as continued development outside the study area in Belltown, views from Four Columns Park toward the Olympic Mountains and Queen Anne (including the Queen Anne High School landmark) would gradually be obscured. The City Council in 2001 addressed the issue of protecting views of the Space Needle from public locations, including Four Columns Park. Because of the particular characteristics of this viewpoint, and the potential conflicts with City policies targeting concentrated housing and employment growth in the adjacent Denny Triangle area, the Council determined that Four Columns Park would not be included among the locations where Space Needle views would be protected under SEPA. However, Four Columns Park remains a SEPA viewpoint, with the most prominent view feature being the evolving Downtown skyline to the west and northwest.

Over time, this viewpoint would increasingly be oriented to foreground and middle ground views of Downtown's buildings and skyline across I-5. Views of other features beyond Downtown from Four

Columns Park will likely be gradually obscured by future development, even under existing regulations. The amount of impact attributable to Alternative 1 would be the additional 100 feet of height and increased bulk allowed for commercial development in the nearby DOC 2 and DMC zones. However, it is not expected to cause different types of visual impairment than are already possible under existing regulations. Under all alternatives, views to the north/northwest across the Denny Triangle are likely to be altered by future development. Lesser alteration of views is expected toward the Downtown skyline to the west/southwest, due to lesser amounts of expected future development.

Harborview Viewpoint

Harborview Viewpoint is perched above and east of I-5, with views toward the office core, the southern portion of Elliott Bay, the Olympic Mountains, Duwamish lowlands and even Mount Rainier to the south. This park/plaza is approximately one block in length between Jefferson and Terrace streets, plus a smaller elevated plaza on a newer structure to the south. Views toward the office core encompass buildings nearest I-5 from the King County Jail north to approximately Two Union Square, as well as other buildings further west within the office core. There are only a couple of narrow gaps between buildings allowing views through to Puget Sound. Future development with or without zoning changes would not generate significant adverse impacts on views toward the central office core because future development would contribute to the skyline without adversely impairing existing views.

Views to the south and southwest encompass the south end of Elliott Bay, West Seattle and the Olympics beyond, the Duwamish lowlands, Pioneer Square and the athletic stadiums. In the foreground to the southwest and considerably lower than the viewpoint is a vacant sloping open space tract and parking lot property between Yesler Way and Jefferson Streets, 5th and 6th Avenues. Future highrise development in this area would probably obscure views to the southwest of a portion of Elliott Bay and West Seattle. This would occur even with the current zoned height limit of 240 feet, which allows increases in height up to 20 percent (288 feet) under special conditions. The proposed change in height limit to 312 feet and increase in permitted commercial density could result in taller, bulkier buildings within the identified block, with a greater total amount of visual impairment. However, under either height limit, the views of the south end of Elliott Bay and West Seattle would be similarly impaired. Views further to the south would not be affected.

VIEW PROTECTED LANDMARKS

The potential adverse impacts of Alternative 1 on view-protected landmarks would be generally similar in magnitude to the impacts of Alternatives 2, 3 and 4, because similar physical factors are relevant to all alternatives. Most of the landmark sites and structures specified for view protection under SEPA are relatively small compared to potential future development allowed by land use regulations. The visual prominence of these structures will diminish as bigger buildings occupy adjacent sites under any alternative. Even modestly sized new buildings could impair views of landmark sites or structures visible from distant streets or viewpoints. This would be most noticeable in the lesser-developed Denny Triangle area where surface parking lots and low-scale buildings currently contribute to greater visibility across larger areas. Future development may also contribute to visual contrasts of age and scale by placing newer, larger buildings adjacent to or near landmark structures.

Alternative 1 would represent the greatest amount of increase in density limits (FARs) and height limits, resulting in greater building bulk and scale in some locations that could potentially impact view-protected landmarks. This could potentially result in the greatest contrast in scale between existing and new development of any alternative. Alternative 1 would also change the zoning across the most area of any alternative. The areas subject to zoning changes and potential impacts on view-protected landmarks would include the Denny Triangle's DOC 2 office core and essentially all of the DMC-zoned area north

to Denny Way, and the DOC 1 office core and peripheral DMC and DOC 2-zoned areas along the edges of the Commercial Core.

Interpretation of Site-Specific Landmark View Impacts

Of the 23 view-protected landmarks identified above in Table 37, 11 would be subject to some level of potential impact from future development in the study area. Those without impact potential are located in areas where zoning would not change. Public locations where impacts on these views are considered include SEPA-identified viewpoints or public parks, designated scenic routes, public street rights-of-way, and public parks not identified by SEPA. An assessment of existing view conditions from these locations is provided for each landmark in Table L-3 of Appendix L. Table L-4 of Appendix L provides an overall, general interpretation of the potential impacts of future development on each view-protected landmark.

Changes in views from various locations toward Queen Anne High School and the Camlin Hotel are the most notable impacts identified in Table L-4 of Appendix L. Views toward Queen Anne High School are intermittently possible from many locations in the northern portion of Downtown and even further south along certain streets. These landmarks contribute to visual interest and character when viewed by people moving around Downtown, and also contribute to the overall quality of skyline views. Reduction of this sort of view from public streets is inevitable as future development adds more building bulk to Downtown properties. But it is difficult to quantify how much loss of this type of view would be “too much.” Many opportunities will remain to glimpse Queen Anne High School from many locations.

The potential landmark view impacts to the Camlin Hotel relate to its existing condition as a structure surrounded by vacant parking lots, and the future possible development of adjacent highrise buildings. By filling all or most of the vacant lots with new buildings, views toward the Camlin from some streets would be obscured by the new buildings, and the bulk and scale of the new buildings would probably change the perception of the Camlin Hotel (refer to Figure 21 in Height, Bulk and Scale). The relative impact would depend upon how the adjacent buildings physically relate to the Camlin. Given historic development patterns, Downtown buildings like the Camlin Hotel that occupy mid-block sites typically would be surrounded by other development and ultimately absorbed as part of a fully-developed blockfront. This inevitably would result in a reduction of the structure's overall visibility.

The diminished prominence of the Rainier Club (on 4th Avenue) and the Terminal Sales Building (on 1st Avenue), and potentially lost views from the Denny Triangle toward the Wintonia Hotel (Pike-Pine vicinity) are also noted as impacts under all alternatives.

Figure 20 (refer to the Height, Bulk and Scale section) illustrates how future development might look in the vicinity of two landmark buildings, the Rainier Club (not depicted) and the nearby Leamington/Pacific Hotel and Apartments on 4th Avenue. Looking south down 4th Avenue at Marion Street, the existing urban environment already is comprised of interesting contrasts in building age and scale. The low scale of the Pacific Hotel and Rainier Club provide an enclave of pedestrian-oriented building scale among the surrounding skyscrapers. The historic low-density structures with the generous setback of the Rainier Club provide a feeling of airiness and welcome sunlight into the commercial core.

Under Alternative 1, future development includes a 22-story office building on a half-block site in the next block to the south. The additional height and bulk of this structure relative to the 18-story building illustrating development under existing conditions would have little added impact on the character of this view and the relationship already established between these landmark structures and surrounding highrise development. In many respects, the presence of these buildings is even more dramatic because of the contrasts they provide in scale and architectural style.

Figure 22 (refer to the Height, Bulk and Scale section) illustrates how future development might look in the vicinity of the Terminal Sales Building. Today, the Terminal Sales Building and One Pacific Tower, its neighbor to the north, stand out as the largest structures in the area. Another landmark, the Moore Theater, is visible on the south side of Virginia Street one block to the east. Future development behind the Terminal Sales Building will likely be significantly taller and bulkier than the landmark structures; roughly ranging between 31 stories in Alternative 1 and 24 stories in Alternatives 2, 3, and 4. Under any of the alternatives, future development would reduce the "open" character of Virginia Street that exists today because of the relatively low scale of development abutting the street. The prominence of the Terminal Sales Building will also diminish as larger structures occupy adjacent sites.

SCENIC ROUTES

Changes to height and density limits in Downtown would affect specific scenic routes differently, depending upon how close the routes are to the study area. In many cases, the changes would affect only the general composition of the skyline as viewed from a distant location. This type of impact is addressed in the public viewpoint and skyline view impact discussions, and is not considered a significant adverse impact. Scenic routes that would experience this limited impact include:

- Harbor Avenue SW
- West Seattle Bridge
- Magnolia Bridge
- 12th Avenue S. (including bridge over I-90)
- Small segments of California Ave, Admiral Way
- I-5 southbound at north end of Ship Canal Bridge
- I-5 southbound near Eastlake on-ramp
- I-5 northbound, S. Spokane St. to S. Jackson St.
- I-5 northbound, near S. Andover St.
- N. Pacific Street (Wallingford)

Several scenic routes approach and enter Downtown. View changes along these routes would primarily involve changes in the skyline and greater presence of denser buildings in the middle ground or background of views. Once in Downtown, the views become more confined to adjacent development and whatever outward views may be possible down intersecting streets. These routes include:

- Dexter Avenue
- Westlake Avenue north of Denny Way
- Fairview Avenue
- I-5 southbound, Lakeview Blvd to Olive Way
- Southbound SR 99 north of Battery Street Tunnel
- Olive Way
- Yesler Way
- I-5 northbound, Yesler Way to Seneca St.

Of these routes, the scenic qualities of Dexter, Westlake and Fairview Avenues, Olive Way, southbound SR 99 and northbound Interstate 5 would not be adversely impacted by future development in the study area. The following scenic route segments were studied in greater detail because of the potential for impact and because they provide perspectives from different approaches to the study area.

Yesler Way

Yesler Way is a scenic route providing views of the Downtown study area from the east and south. As westbound travelers on Yesler Way approach and cross I-5, wide-ranging views are possible on the overpass bridge and descent toward Downtown. Beyond the Smith Tower is an expansive view of the Duwamish lowlands to the south, the southern end of Elliott Bay, West Seattle, the Olympic Mountains and Pioneer Square. To the north of the Smith Tower is an extensive view of office and government buildings in the office core of Downtown, extending to the Two Union Square building. In the foreground of this view are the King County jail and the vacant parcels of "Goat Hill." Future development on this property could obscure some of the foreground views toward the King County Administration Building and King County Jail, but would not block views toward natural features or generate significant adverse

impacts on this scenic route. Similarly, the alternatives would not result in further blocking of views toward Elliott Bay, the Smith Tower or view elements to the south.

I-5 Southbound, Lakeview Blvd to Olive Way

This scenic route segment approaches and passes along the eastern edge of the Denny Triangle, the portion of the study area where the greatest amount of redevelopment is expected to occur. Observers along this route segment are vehicle occupants traveling at high speed, which limits the duration of views. The greatest extent of highest-quality views occurs north of the study area where the existing height of development to the west is relatively low and I-5 is an elevated structure. Vehicle occupants traveling southbound can glimpse a territorial view of Queen Anne Hill, Lake Union and Seattle Center to the west, only briefly interrupted by a few buildings along the I-5 edge of South Lake Union. There is also a prominent view ahead to the south of the large Downtown office core buildings.

Views of Denny Triangle vicinity buildings are possible along the route, but only for brief durations given travel speeds. Approaching Olive Way, the higher elevation of the embankment along the Downtown edge of I-5 limits views west through the Denny Triangle. Also, buildings near I-5 such as the Metropolitan Park towers and the new Marriott SpringHill Suites Hotel block some Denny Triangle vistas from this route. It is likely that the best territorial and skyline views from this route segment north of Denny Way will remain, even if future development occurs in the Denny Triangle.

Scenic Routes Through Downtown

The character of adjacent development would change to some degree along three scenic routes, 5th Avenue, Westlake Avenue and the Alaskan Way Viaduct, all of which run directly through the Downtown. Observers of these views are likely to include pedestrians and bicyclists, as well as motorists and transit riders. The route along Fifth Avenue would experience modest changes due to potential redevelopment on adjacent sites. Views along portions of this route are already impaired by the existing monorail structure. Views along Westlake Avenue would experience somewhat greater change if larger-scale development occurs on several abutting properties north of Stewart Street, creating a stronger sense of enclosure and narrowing the scope of views along this route. The view from the northbound Alaskan Way Viaduct would be modestly altered as available properties in the Western Avenue vicinity or other properties east of First Avenue are redeveloped. However, these additional buildings are not likely to adversely alter the overall quality of the upland views from the Alaskan Way Viaduct. Alaskan Way and Elliott Avenue, the other routes through Downtown, would not likely experience adverse impacts due to their location either along the edge or outside of the study area. Along these routes, the primary view is of Elliott Bay to the west, with adjacent development and the Alaskan Way Viaduct already limiting views toward the study area to the east.

SKYLINE

Future development in the Downtown study area, with or without changes in zoned height and density, will alter the shape, character and extent of the Downtown skyline over time. New towers will be added to the existing clusters of buildings forming the skyline, and taller buildings will appear in areas currently dominated by lower-height development. The interpretation of impacts to skyline views from the north and west uses the examples of Kerry Park on Queen Anne Hill, the Belvedere and Hamilton Viewpoints in West Seattle, and views from a location near I-5 (approximately Melrose Avenue) on Capitol Hill.

Views from the north—Kerry Park. Kerry Park provides views of the Downtown skyline from a relatively high elevation to the north. These views would change over time with future development in Denny Triangle, which would contribute to the eastern foreground of the skyline view (see Figure 28). Future additional Denny Triangle development would contribute to further obscuring of the Cascade

foothills that are in the background of southeastern views from Kerry Park. Numerous existing buildings in the office core and on First Hill have already obscured most of the foothill view. The large mass of Mt. Rainier would not be blocked by future development in the study area, with or without zoning changes. Mt. Rainier is far enough west in the Kerry Park view that future development in the intervening areas is not likely to obscure or infringe upon the mountain. It is interesting to note that some of the newer highrise residential buildings in the Belltown vicinity extend a bit above the local horizon, infringing upon small portions of the foothills visually below (north of) Mt. Rainier. However, this portion of Belltown is not included in areas of possible zoning changes. None of the view impacts to Kerry Park's viewpoint are interpreted to be significant adverse impacts.

The specific impact of Alternative 1 would be to allow 100 additional feet of height and greater density in the Denny Triangle area that is the foreground or middle ground of these views. This is not interpreted to be a significant adverse impact.

Views from the west—Belvedere and Hamilton Viewpoints. These viewpoints in West Seattle provide views of the skyline from the southwest at a relatively greater distance than Kerry Park, but also from higher elevations. Views from these viewpoints would change in a manner similar to those at Kerry Park. As future development in Denny Triangle extends the skyline further north, views toward the Cascade Mountains in the background would be obscured (see Figure 29). Between the northern edge of the office core and a grouping of taller condominiums in Belltown is a gap in the skyline broken only by the Westin Hotel towers and another office building (the mountain views continue both north and south of the Downtown skyline). Future development in Denny Triangle would tend to fill in this gap with additional buildings, even though the intervening buildings in the retail core vicinity would partially hide the new buildings. Because of the lower elevation of Hamilton Viewpoint, views of the Cascade Mountains are less pronounced than from Belvedere Viewpoint.

The specific impact of Alternative 1 would be to allow buildings 100 feet higher in this portion of the view, contributing to somewhat greater blockage of views toward the Cascade Mountains. None of the view impacts to either the Belvedere or Hamilton viewpoints are interpreted to be significant adverse impacts.

Views from the south. Skyline views from the south would likely experience less change than views from other directions. Relatively few sites would be subject to future redevelopment. One possible 24-30 story office building near 6th and Yesler (just west of I-5) could be the most prominent change in the skyline view from the south. Nearly all future development north of the office core would not be visible from the south under any alternative.

Views from the east. Skyline views from the east would depend upon the viewer's position in First Hill or Pike-Pine/Capitol Hill. From the southern portion of First Hill, there would be relatively little change in skyline views, because large buildings near I-5 already strongly define the skyline. Locations in Pike-Pine and the western slopes of Capitol Hill would experience a relatively large change in views over time, given the probable concentration of future development in the Denny Triangle area.

New commercial, residential and mixed-use projects built to the maximum height and density limits would contribute to a substantial cluster of development extending north from the existing core. The height of these structures could be relatively uniform, which could create a rather flat type of skyline silhouette. Because of shifts in the orientation of the street grids in adjacent Pike/Pine and Capitol Hill areas, separations between structures provided by streets in the area would be less apparent, potentially contributing to the impression of an uninterrupted mass of development. Because few developments are projected to extend out to the extreme northern and eastern edges of the Denny Triangle over 20 years, development in the foreground may remain relatively low (see Figure 30).

Figure 28



Figure 29

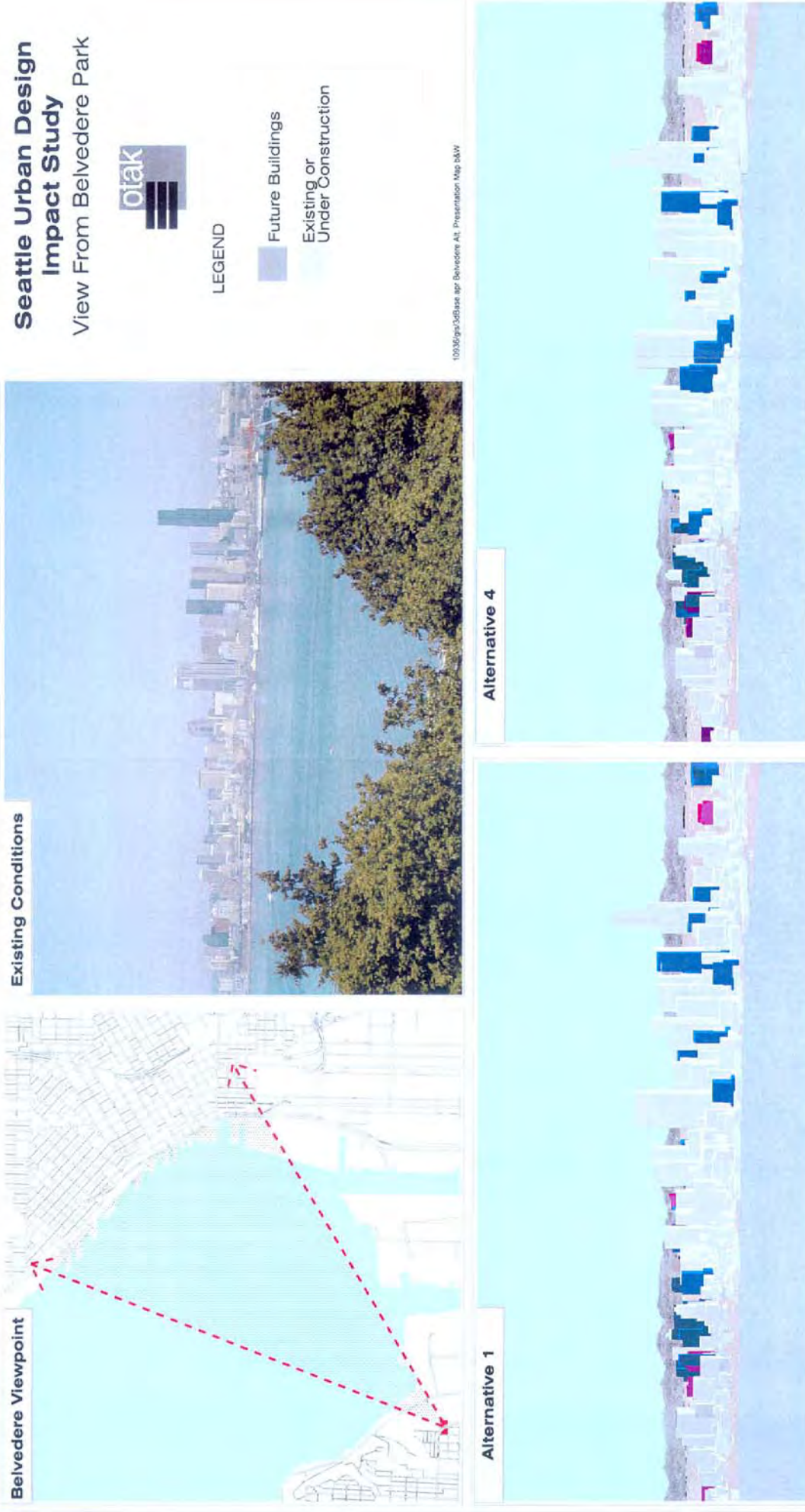


Figure 30



OTHER NON-PROTECTED VIEWS

Alternative 1 and the other alternatives would result in similar impacts on numerous public and private views from areas adjacent to Downtown. From surrounding hillside neighborhoods, the existing conditions may enable observers in many public and private locations to view features (including natural features such as mountains and water) beyond Downtown. For example, views toward portions of Puget Sound and/or the Olympics could be obscured from some portions of Pike/Pine and Capitol Hill.

Another example is Boren Avenue, which on the higher elevations of the Pike/Pine and First Hill neighborhoods provides views northward to Queen Anne Hill across the northeast corner of Downtown and South Lake Union. As higher density development moves into this portion of Downtown over time, such territorial views are increasingly likely to be blocked. Changes in the street grid from neighborhood to neighborhood prevent maintaining continuous views between areas, even along public street rights-of-way. The extent of this type of view impact is not likely to vary appreciably between the alternatives.

Alternative 2 – Concentrated Office Core

Alternative 2 is a subset of the changes proposed in Alternative 1, focusing on the DOC 1 and DOC 2 Downtown office core zones. Alternative 2's visual impacts would be similar to those of Alternative 1, except a somewhat lower skyline form would be maintained in the northern Denny Triangle vicinity and First Avenue/Western Avenue vicinity on the edges of the Commercial Core.

PUBLIC VIEWPOINTS

Alternative 2's impacts on public viewpoints would be similar to impacts of Alternative 1, except with no zoning changes in the Denny Way and 1st/2nd Avenue/Western Avenue vicinities, there would be slightly less change in overall building bulk added to skyline views. Consequently, there could be somewhat less potential than Alternative 1 for impairment of more northerly views from Four Columns Park across the vicinity near I-5 and Denny Way. Alternative 2's zone changes relevant to Harborview Viewpoint would be the same as under Alternative 1, so potential impacts would be the same as Alternative 1. (Kerry Park and West Seattle viewpoints discussed under skylines, below.)

VIEW PROTECTED LANDMARKS

Under Alternative 2, the identified landmarks within Downtown would be subject to the same impacts as Alternative 1, except there would not be any additional height and density increases in the vicinity of the Terminal Sales Building and the 1st Avenue Group of landmark buildings, thus avoiding potential additional impacts. Due to the lack of height and density increases in the northern Denny Triangle and edge of Belltown, there may be slightly less potential for blockage of public street views toward Queen Anne High School than under Alternative 1. However, with changes in the orientation of the street grid, development under any alternatives could potentially block these views (refer to Alternative 1 for further discussion of impacts to view-protected landmarks).

SCENIC ROUTES

With the lack of zone changes in the northern Denny Triangle and 1st /2nd Avenue/Western Avenue vicinities, there would be slightly less potential for impacts to scenic routes than under Alternative 1. The lower height and density limits in these areas would avoid some potential for aesthetic impacts of future development on Alaskan Way, the Viaduct, Westlake Avenue and Fairview Avenue scenic routes.

SKYLINE

Views from the north—Kerry Park. Without zone changes in the northern Denny Triangle vicinity, buildings in the middle ground of views (near Denny Way) would be approximately 100 feet lower than under Alternative 1. This would provide a more gradual visual transition or step-down in the arrangement of building bulk than Alternative 1, which can be interpreted as having lesser visual impacts on the skyline.

Views from the west—Belvedere and Hamilton Viewpoints. Under Alternative 2, the existing pattern of step-down transition toward the waterfront would be retained, avoiding additional permissible building bulk along the front of Downtown in this view. The retained height limits in the Denny Way vicinity would make a minimal difference in views from this location.

Views from the south. Alternative 2's zone changes in the office core south to Yesler Way would be the same as for Alternative 1, and thus the potential skyline impacts are the same as for Alternative 1.

Views from the east. Skyline views from the east would depend upon the viewer's position in First Hill or Pike-Pine/Capitol Hill. From the southern portion of First Hill, the skyline views would be the same as for Alternative 1. Visual changes in the I-5/Melrose Avenue vicinity of Capitol Hill are expected to be similar to those described under Alternative 1. However, over time, as more development pushes into the peripheral DMC areas closer to Denny Way, the lower height limits maintained in this area relative to Alternative 1 should allow for greater variation in the height of structures comprising the skyline, with lower buildings in the foreground. From several locations, the existing Metropolitan Park and Marriott SpringHill Suites Hotel would continue to screen views such that differences in the skyline would be less apparent.

OTHER NON-PROTECTED VIEWS

See discussion under Alternative 1.

Alternative 3 – Residential Emphasis

Alternative 3 is similar to Alternative 1 and 2 in the office core area south of Union Street, but would maintain existing zoning in the Denny Triangle DOC 2 zone east of 8th Avenue and west of 5th Avenue, and maintain height limits in DMC zones in the Denny Way, 1st /2nd Avenue/Western Avenue, and edge of Belltown vicinities. There would be some reduction in permitted bulk in portions of the DMC zones proposed for a more residential-oriented zoning designation, primarily in the north-central portion of the Denny Triangle and the southern edge of Belltown (refer to Chapter 2 for more description).

PUBLIC VIEWPOINTS

Alternative 3's impacts on public viewpoints would be similar to impacts of Alternatives 1 and 2 but with slightly less potential for impacts on views from Four Columns Park and the Harborview viewpoint (see the skyline discussion, below, regarding Kerry Park, Belvedere and Hamilton Viewpoints). This is due in part to maintaining existing heights on the edges of the DOC 2 and DMC zones in the Denny Triangle and greater bulk restrictions on development in areas proposed for a more residential-oriented designation on the edges of Belltown and the Denny Triangle.

Four Columns Park. Under Alternative 3, retaining existing conditions in the DOC 2 zone east of 8th Avenue and the changes proposed in the Denny Way vicinity would mean slightly less allowable building height and bulk than under Alternatives 1 and 2, which could be marginally more beneficial to views from Four Columns Park. However, the potential for impairment of views toward Queen Anne High School and the Olympics would still be present, as under existing conditions.

Harborview Viewpoint. Alternative 3's zone changes relevant to this viewpoint would be the same as under Alternatives 1 and 2.

VIEW PROTECTED LANDMARKS

Under Alternative 3, the identified landmarks within Downtown would be subject to similar impacts as Alternative 1, except zone changes would be relatively comparable to existing conditions near the Terminal Sales Building and the 1st Avenue Group of landmark buildings, and there would be no changes to the zoning on properties adjacent to the Times Square Building. This means the potential for impacts to view-protected landmarks is slightly less than for Alternatives 1 and 2. The proposed pattern of zone changes would also mean slightly less potential for blockage of public street views toward Queen Anne High School than under Alternatives 1 and 2.

SCENIC ROUTES

With the limited changes to DMC zones in the northern Denny Triangle, 1st /2nd Avenue/Western Avenue and edge of Belltown vicinities, there would be slightly less potential for impacts to scenic routes than under Alternative 1. The lesser potential for additional building bulk and height in these areas would avoid some potential for aesthetic impacts of future development on the Alaskan Way, Viaduct, Westlake and Fairview Avenue scenic routes.

SKYLINE

Views from the north—Kerry Park. With Alternative 3's zone changes in the northern Denny Triangle, 1st /2nd Avenue/Western Avenue and edge of Belltown vicinities, development in these areas would have lower heights than under Alternative 1, and in some areas reductions in permitted bulk, generally providing a transition in building scale to adjacent areas. This means Alternative 3 has slightly less potential for adverse view impacts than Alternatives 1 and 2 at this location.

Views from the west—Belvedere and Hamilton Viewpoints. With Alternative 3's zone changes, the potential impacts on these skyline views would be slightly less than for Alternatives 1 and 2.

Views from the south. With Alternative 3's proposed zone changes, the potential skyline impacts would be marginally less than for Alternatives 1 and 2.

Views from the east. Skyline views from the east would depend upon the viewer's position in First Hill, Pike-Pine or Capitol Hill. From the southern portion of First Hill, the skyline views would be the same as for Alternatives 1 and 2. With Alternative 3's zone changes in the Denny Way vicinity, retained step-downs in height limits would continue to provide a more gradual visual transition in building bulk generally similar to Alternatives 2 and 4. With retained zoning in a portion of the Denny Triangle DOC 2 zone east of 8th Avenue, the potential for large buildings significantly altering the skyline nearest the Pike-Pine vicinity would be similar to existing zoning. This could be interpreted as a positive attribute of Alternative 3 in that the bulk of buildings nearest the adjacent neighborhoods would be less visually dominant than under Alternatives 1 or 2. In several locations, existing development like the Metropolitan Park towers and Marriott SpringHill Suites hotel would continue to screen views such that differences in the skyline would be less apparent.

OTHER NON-PROTECTED VIEWS

See discussion under Alternative 1.

Alternative 4 – No Action

PUBLIC VIEWPOINTS

Selecting the No Action Alternative would result in no change from current regulatory conditions and therefore no additional impacts. However, in this case it should be noted that the existing zoned height and densities allow for future development that may obscure existing views over time at Four Columns Park and to a lesser extent at the Harborview Viewpoint. In general, Alternative 4 would have less potential for overall change in views at these locations than Alternatives 1 or 2. In areas where additional bulk limits apply, Alternative 3 would potentially have less overall impacts on these views than Alternative 4. Future project-specific review would afford the opportunity to review specific development proposals and conditioning of projects if warranted.

VIEW PROTECTED LANDMARKS

Selecting the No Action Alternative would result in no change from current regulatory conditions and therefore no additional impacts. However, as noted in the first paragraph of the view-protected landmarks discussion for Alternative 1, the potential for view impacts on landmarks from future development is generally similar under any alternative.

SCENIC ROUTES

Selecting the No Action Alternative would result in no change from current regulatory conditions and therefore no additional impacts. Over time, future development would add building bulk that would change the aesthetic qualities of the designated scenic routes relevant to Downtown.

SKYLINE

Selecting the No Action Alternative would result in no change from current regulatory conditions and therefore no additional impacts. However, it should be noted that existing regulations afford opportunities in the Denny Triangle to increase building heights by up to 30 percent more than mapped height limits, and by 10 to 20 percent in DOC 1 and DOC 2 zones throughout Downtown, if certain conditions are met. Over time, future development would change the skyline views in generally similar ways under any alternative.

OTHER NON-PROTECTED VIEWS

See discussion under Alternative 1.

MITIGATION STRATEGIES

The mitigation strategies outlined below address three different aspects of the view issue. The first concerns the potential blockage of existing views—for the most part views of natural features that can currently be seen from areas within or adjacent to Downtown. The second addresses the Downtown skyline as a view object, focusing on enhancing the quality of this view as it evolves over time. The third addresses views of protected landmark structures.

REQUIRED/PROPOSED MITIGATION STRATEGIES

Given the type and magnitude of impacts discussed in this section, no mitigation measures or strategies are required or proposed to be mandatory actions accompanying approval of any of the alternatives studied in this EIS.

OTHER POSSIBLE MITIGATION STRATEGIES

View Obstruction

Comprehensive assessment of view conditions, view preservation strategy, and clarification of SEPA policies. An effective strategy for view protection would likely incorporate a variety of actions tailored to address specific conditions and accomplish particular objectives. Implementing such a strategy would require an initial comprehensive assessment of view conditions that would ultimately identify specific views to be protected, as well as measures to protect them. This strategy should acknowledge reasonable limitations on the level of view protection that can realistically be achieved for the Downtown area and surroundings, if other policy objectives for Downtown are to be realized. Consequently, SEPA policies related to Downtown should be clarified and narrowed to focus protection on a limited number of views that are agreed to have the highest priority for protection.

Potential tools that could be incorporated into a comprehensive view preservation strategy might include:

- Designate additional view corridors along streets providing critical views and establish appropriate development standards for maintaining desired view conditions, such as setbacks for upper floors.
- Consider opportunities for promoting view protection in the siting of public open space and other public facilities.
- Consider lower height limits in some locations to maintain critical view corridors. Selective designation of views with height limits carefully detailed to protect those views would be a means of mitigating the view blockage potential.
- Examine potential use of the transfer of development rights or the purchase of view easements from properties that may be severely constrained by measures to protect views.
- Identify opportunities for off-site mitigation. Within an identified viewshed area, require development contributing to the overall loss of views to mitigate this loss by contributing to the preservation of a specified view corridor within the area.
- Provide stronger guidance in street and alley vacation policies to address conditions related to view impacts of development on larger sites. Large sites created by alley vacations promote taller, bulkier structures that can potentially have a greater impact on views. Identify areas that are especially view-sensitive where alley vacations would either be prohibited or considered only with impact-mitigating measures.
- Map selected view corridors to emphasize consideration of view issues in SEPA project review and promote better coordination with City Design Review process in addressing view issues.
- In designated view-sensitive areas, restrict development above base height and density limits unless view blockage issues are addressed.

- Require minimum site sizes and/or coverage limits for tower development in view-sensitive locations to enable massing solutions that minimize obstruction of specified protected views.
- Provide additional development standards or incentives related to building bulk (tower spacing provisions, maximum wall dimensions, maximum floor sizes, etc.) to encourage conditions that allow more opportunities for views in areas designated as view sensitive.

Exempt Downtown from SEPA view protection policies. This alternative mitigation measure assumes that there is an inherent conflict between the broad application of the existing SEPA view protection measures in an area where public policy promotes concentrated high-density development. To reinforce growth policies, development within Downtown would not be subject to any additional consideration of potential view impacts through SEPA. This exemption is further supported by the assumption that view protection Downtown is appropriately and adequately addressed through the policy decisions that established the height limits, view corridor designations and related setbacks, design guidelines related to views, and other existing or future provisions that specifically apply to view protection.

Skyline Appearance

Possible strategies to avoid or minimize impacts on skyline appearance could include:

- Maintain variable height limits across Downtown that continue to ensure the "stepping up" of Downtown development from the periphery to the core and provide transition or contrast with development heights in adjacent areas.
- Define requirements or incentives that require the tapering of towers with increased height. The tapering tower form appears less bulky to the observer and promotes greater architectural interest and distinction to new towers. Granting additional height and density above current limits could be conditioned on measures to reduce the bulky appearance of structures and add architectural interest.
- Require or incentivize special architectural treatment of building tops to add interest to the portion of the structure that is the most visible addition to the skyline.
- Establish additional controls on the overall bulk of development through provisions that address spacing between towers, maximum tower dimensions, and other characteristics of large buildings. This could help avoid or minimize visual perceptions of "solid walls" of development due to the massing of bulky buildings in an area.
- Provide stronger guidance in street and alley vacation policies. Identify areas that are especially view-sensitive where alley vacations would either be prohibited or considered only if measures addressing skyline impacts are taken.
- Promote design treatments through project permit and design review processes that offset the bulky appearance of large structures and increase visual interest, including variations of facade materials, lighting, façade modulation and setbacks to interrupt continuous horizontal and vertical surfaces, color, lighting, fenestration treatment and other design details.

Views Toward Protected Landmarks

Possible strategies to better address views toward protected landmarks could include:

- Identify landmark structures worthy of greater view protection and consider what views would be protected and how. These could include prominent structures visible beyond their immediate surroundings, such as Pac-Med Hospital and Queen Anne High School.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Additional height and bulk enabled by proposed zoning changes would add incrementally to the potential future impairment or blockage of views from some areas, predominantly portions of the Capitol Hill (south of Denny Way), Pike/Pine and First Hill neighborhoods.

CLIMATE—SHADOWS AND WIND

AFFECTED ENVIRONMENT

Shadows and Sun

The relative amount of shadow and sun available at the pedestrian level depends upon the landform, climate, vegetation, surrounding buildings, signs and bridges. In general, the land slopes downward to the southwest or west throughout much of Downtown, maximizing the potential sunlight during the midday and afternoon hours. Shadows cast by buildings create a mixed pattern of sunny and shady areas at street level, changing throughout the day and varying with the season. In the winter, portions of the retail and office cores are in the natural shadows of hills to the east until mid-morning. Although long periods of sunny weather are not uncommon, a clear day or two frequently provides a pleasant break after several continuous weeks of overcast skies, which can occur during any season.

The changing orientation of the street grid divides Downtown into three sectors. During daylight savings time, the heavily pedestrian-traveled avenues in the intensely developed central sector are exposed to full sunlight for a brief period around noon, while the east/west-oriented streets receive full sunlight later in the afternoon. These same changes occur roughly an hour earlier in the northern sector, and later in the southern sector. At other times of the day, both streets and avenues are affected, to varying degrees, by shadows from buildings. Building heights and widths are the primary factors affecting the amount of shadow, but other characteristics such as street level or upper level setbacks, locations of towers within a block, gaps between buildings, recessed plazas, roof overhangs, and marquees can modify the total amount and pattern of sun and shadow on the streetscape.

Although pedestrians tend to move to the shady side of the street on hot days, the more frequent choice is to walk in available sunlight along a route. Even on the hottest days, the sunniest parks and open spaces attract the most people. In a climate that is frequently gray and cloudy, sunshine provides a psychological lift, and the availability of sunlight at the street level Downtown is considered a valuable resource.

Relationship to building height and bulk. Very generally, higher building heights extend the *length* of the shadow cast, and increased bulk (or cross-section width) *widens* the shadow cast by a building. While the longer shadows may mean they are noticed farther from a building, their effects on more distant locations are briefer, because the sun's motion translates into faster movement of the shadow over the ground. Buildings with increasing amounts of bulk will generally result in wider shadows and an increased amount of shadowed area. The amount and impact of shadows cast by a group of buildings depends upon the spacing, orientation and relative locations of those buildings (e.g., some building arrangements may result in overlapping shadows, or cast shadows in patterns that are not detrimental to public areas where solar access is desirable). Effectively planning the spacing, orientation and relative locations of new buildings within a group of buildings can sometimes result in benefits, such as lesser area in shadow, or retention of good solar access in favored areas. Conceptually, taller and narrower towers with wide spacing may result in shadow impacts and light conditions that are more transitory and less objectionable than conditions resulting from lower and more bulky buildings set close together.

Wind

The onshore winds over coastal areas give Seattle a milder and moister climate than if winds were from the interior of the continent. The prevailing winds in Downtown Seattle blow from the south and southwest (about 22 percent of the time). In the summer months, prevailing winds are also experienced from the northwest (about 20 percent of the time).

Ground-level wind speeds can be significantly higher than speeds of prevailing winds. For example, a study conducted at 1001 Fourth Avenue Plaza (formerly the SeaFirst Tower) in 1978 recorded winds at the base of the building that were twice the velocity of prevailing winds. The increase in wind velocity near the ground can be caused by groupings of buildings that create corridors channeling winds, as well as by the shape, size, and position of the buildings.

In general, taller buildings with large, flat sides perpendicular to prevailing winds cause “downwash” currents that travel down the face of the structure. Downwash velocity may be greater than prevailing wind speeds. Round buildings or buildings at a 45-degree angle to the wind direction tend to reduce downwash. The Westin Hotel is an example of a design that helps to mitigate this downwash effect.

The orientation of the street grid relative to the prevailing winds influences street-level wind conditions when building walls parallel the grid. The grid orientation varies throughout Downtown, producing different wind conditions on the same day. The northern portion of Downtown between Denny Way and Stewart Street is oriented at a 49-degree angle west of north, with the long side of the blocks running from northwest to southeast. Prevailing summer winds from the northwest parallel these streets, while winter winds from the south form an acute angle with the long side of the block. This sector is least likely to experience the downwash effect during the summer months.

The vicinity between Stewart Street and Yesler Way is oriented with the long side of the blocks running from the north-northwest (32 degrees) to south-southeast. Both prevailing summer and winter winds form acute angles with the long block face. This sector is more likely than the north sector to experience the downwash effect throughout the year. South of Yesler Way to Royal Brougham Way, the street grid is oriented north/south. Winter winds blow parallel to the north/south streets. Prevailing summer winds form an acute angle with the street grid. Downwash effects would be similar to the north sector except the impacts would occur during the summer months.

Wind at the pedestrian level is accompanied by turbulence such as varying velocities, gusts and eddies. Researchers have established a relationship between ground-level wind effects on people and wind speed standards for pedestrian comfort. Each site and building project may have different effects on human comfort. Other nearby building developments may also influence particular wind effects at a given site. For some building types, the patterns of at-grade winds are predictable, by investigating relationships between climate, the site, the building form, and the resulting comfort and safety. As a result, it is possible to avoid creation of severe wind velocities from new development in urban areas.

At the pedestrian level, the building form, planting, and contours of the site often affect winds. Three general types of wind patterns affect wind flows at pedestrian levels: downwash wind flows from exterior walls to the base of a building; abrupt changes in wind speeds caused by differences in pressure between exposed and sheltered areas; and winds concentrated through openings such as passageways or arcades.

Relationship to building height and bulk. Tall buildings and structures can notably affect the wind environment for pedestrians. In cities, groups of structures tend to slow the winds near ground level, due to the friction and drag of the structures themselves. However, buildings that are much taller than the surrounding buildings intercept and redirect winds that might otherwise flow overhead, and bring them down the vertical faces of the building to ground level, where they can create ground-level wind and turbulence. These redirected winds can be relatively strong and also relatively turbulent, which can be incompatible with the intended uses of nearby ground-level spaces, or even hazardous.

Generally, the taller the high-rise building, the stronger the winds it encounters. These stronger winds are redirected down the face of the building. These redirected winds can be especially strong when the upwind buildings are much shorter, and can be diminished when the upwind buildings’ heights are similar to the height of the subject building. If, in addition, the building provides a wide face to the wind, more

wind will be directed down that face of the building toward ground level. Thus, both height and bulk can increase wind effects. However, these wind effects on the ground level usually can be controlled by design features that redirect those winds away from pedestrian areas. Typically, it is sufficient to provide a horizontal deflecting structure near the base of a building so that winds coming down the building face are redirected horizontally above the ground level. This is an effective design strategy for both taller towers and lower, bulkier buildings.

IMPACTS

Alternative 1 – High End Height and Density Increase

Consideration of shadow impacts under the City’s SEPA Ordinance is limited to certain open space resources in Downtown, as well as certain other locations such as schoolyards. Some regulatory guidance on control of wind effects is provided by City codes and design review processes. The following is intended as a qualitative discussion of adverse effects on the comfort of the urban setting, and is not meant to extend SEPA or regulatory protection to these topics beyond that currently afforded by City codes and ordinances.

The potential shadow and wind effects due to future development under Alternative 1 are summarized in Table 38 below.

Table 38
Shadow and Wind Effects of Alternative 1

Potential Shadow Effects	Potential Wind Effects
<ul style="list-style-type: none"> • Future developments in the DOC 1 office core may add to total extent of shading of city streets, although existing buildings already result in considerable shading. • Taller buildings in all of Denny Triangle would add to shading of city streets. • Taller buildings in 1st/Western Ave. vicinity and edge of Belltown would add to shading of city streets. • Additional shading of Downtown SEPA-identified parks not likely to occur due to zoning changes. • Additional building heights near Denny Park at Denny Way create slightly greater potential for shading impacts on the park. 	<ul style="list-style-type: none"> • Future new buildings in the office core and some peripheral areas would create the potential for additional wind effects near street level. However, interspersing of new buildings with existing buildings may help protect them from some wind exposure. • The additional bulk and distribution of future development in the Denny Triangle may provide some additional buffering of winds from the north. However, the new buildings at the northern periphery would be exposed to those winds and their effects. • Site design and architectural features can help avoid or reduce potential adverse wind effects at street level.

Alternative 2 – Concentrated Office Core

The potential shadow and wind effects due to future development under Alternative 2 are summarized in Table 39 below.

Table 39
Shadow and Wind Effects of Alternative 2

Potential Shadow Effects	Potential Wind Effects
<ul style="list-style-type: none"> • Potential shadow effects in DOC 1 office core would be nearly the same as for Alternative 1. • No zone changes in peripheral areas of Denny Triangle would result in somewhat less potential for shading of city streets. • No zone changes in 1st Ave./ Western Ave. vicinity or edge of Belltown would avoid additional shading effects. • Similar to Alternative 1, additional shading of Downtown SEPA-identified parks is not likely. • No zone changes near Denny Way would avoid additional shading effects on Denny Park. 	<ul style="list-style-type: none"> • Potential wind effects in the office core would be nearly the same as for Alternative 1. • Due to somewhat less height and bulk of future buildings in the Denny Triangle and peripheral areas, potential wind effects would be somewhat less than for Alternative 1. • As with Alternative 1, site design and architectural features can be used to avoid or reduce potential adverse wind effects at street level.

Alternative 3 – Residential Emphasis

The potential shadow and wind effects due to future development under Alternative 3 are summarized in Table 40 below.

Table 40
Shadow and Wind Effects of Alternative 3

Potential Shadow Effects	Potential Wind Effects
<ul style="list-style-type: none"> • Potential shadow effects in DOC 1 office core would be nearly the same as for Alternative 1. • Less intensive zoning in peripheral areas of Denny Triangle, edge of Belltown and 1st Ave./Western Ave. vicinities would result in less potential for shading of city streets than Alternatives 1 or 2. • Similar to Alternative 1, additional shading of Downtown SEPA-identified parks is not likely. • Changes would not affect zoned height/density near Denny Way, thus avoiding additional shading effects on Denny Park. 	<ul style="list-style-type: none"> • Potential wind effects in the office core would be slightly less than for Alternatives 1 or 2. • Due to somewhat less height and bulk of future buildings in the Denny Triangle and peripheral areas, potential wind effects would be somewhat less than for Alternatives 1 or 2. • As with the other alternatives, site design and architectural features can aid in avoiding wind effects at street level.

Alternative 4 – No Action

SHADOWS, SUN AND WIND

The potential shadow and wind effects due to future development under Alternative 4 are summarized in Table 41 below.

**Table 41
Shadow and Wind Effects of Alternative 4**

Potential Shadow Effects	Potential Wind Effects
<ul style="list-style-type: none"> • No zone changes, but future developments under existing height/density limits could add to total extent of shading of city streets. • No zone changes, but future developments under existing height/density limits could add to shading of city streets in Denny Triangle and other peripheral areas of Downtown. However, existing bulk and site coverage regulations provide some benefits in avoiding shading from upper level bulk. • No impact on Downtown SEPA-identified parks, but future development closer to protected parks could possibly trigger the need to use SEPA protections. 	<ul style="list-style-type: none"> • No impacts. However, due to less potential for height and bulk in future development, potential wind effects in the office core would be slightly less than for Alternatives 1, 2 or 3. • No impacts. However, due to somewhat less height and bulk of future buildings in the Denny Triangle and peripheral areas, potential wind effects would be slightly less than for Alternatives 1, 2 or 3. • Existing bulk and site coverage regulations provide some benefits in avoiding wind effects. • As with the other alternatives, site design and architectural features can aid in avoiding wind effects at street level.

MITIGATION STRATEGIES

Possible Mitigation Strategies

Given the current regulations, including the City's SEPA Ordinance, none of the alternatives are expected to generate significant adverse shadowing or wind impacts. Therefore, no SEPA mitigation measures are required to be implemented. However, the City may wish to explore a few strategies over the long term to improve overall consideration of shadowing and wind effects of future development.

- The City could review existing regulations and guidelines pertaining to control of wind effects. Additional quantitative criteria on acceptable wind speeds and/or design criteria for avoiding adverse wind conditions at the street level of structures could be provided. If identified, inconsistencies in Code requirements and guidelines could be remedied. This could aid City reviewers in evaluating the performance of proposals with regard to wind abatement.
- The City could consider additional design guidelines or regulatory requirements to assure that important public open spaces continue to have solar access. This could mean considering additional locations for SEPA protection against possible shadow impacts, and/or other measures.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

None are identified.

CLIMATE—SHADOWS AND WIND

AFFECTED ENVIRONMENT

Shadows and Sun

The relative amount of shadow and sun available at the pedestrian level depends upon the landform, climate, vegetation, surrounding buildings, signs and bridges. In general, the land slopes downward to the southwest or west throughout much of Downtown, maximizing the potential sunlight during the midday and afternoon hours. Shadows cast by buildings create a mixed pattern of sunny and shady areas at street level, changing throughout the day and varying with the season. In the winter, portions of the retail and office cores are in the natural shadows of hills to the east until mid-morning. Although long periods of sunny weather are not uncommon, a clear day or two frequently provides a pleasant break after several continuous weeks of overcast skies, which can occur during any season.

The changing orientation of the street grid divides Downtown into three sectors. During daylight savings time, the heavily pedestrian-traveled avenues in the intensely developed central sector are exposed to full sunlight for a brief period around noon, while the east/west-oriented streets receive full sunlight later in the afternoon. These same changes occur roughly an hour earlier in the northern sector, and later in the southern sector. At other times of the day, both streets and avenues are affected, to varying degrees, by shadows from buildings. Building heights and widths are the primary factors affecting the amount of shadow, but other characteristics such as street level or upper level setbacks, locations of towers within a block, gaps between buildings, recessed plazas, roof overhangs, and marquees can modify the total amount and pattern of sun and shadow on the streetscape.

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IMPACTS

Alternative 1 – High End Height and Density Increase

Consideration of shadow impacts under the City’s SEPA Ordinance is limited to certain open space resources in Downtown, as well as certain other locations such as schoolyards. Some regulatory guidance on control of wind effects is provided by City codes and design review processes. The following is intended as a qualitative discussion of adverse effects on the comfort of the urban setting, and is not meant to extend SEPA or regulatory protection to these topics beyond that currently afforded by City codes and ordinances.

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Alternative 2 – Concentrated Office Core

The potential shadow and wind effects due to future development under Alternative 2 are summarized in Table 39 below.

Table 39
Shadow and Wind Effects of Alternative 2

Potential Shadow Effects	Potential Wind Effects
<ul style="list-style-type: none"> • Potential shadow effects in DOC 1 office core would be nearly the same as for Alternative 1. • No zone changes in peripheral areas of Denny Triangle would result in somewhat less potential for shading of city streets. • No zone changes in 1st Ave./ Western Ave. vicinity or edge of Belltown would avoid additional shading effects. • Similar to Alternative 1, additional shading of Downtown SEPA-identified parks is not likely. • No zone changes near Denny Way would avoid additional shading effects on Denny Park. 	<ul style="list-style-type: none"> • Potential wind effects in the office core would be nearly the same as for Alternative 1. • Due to somewhat less height and bulk of future buildings in the Denny Triangle and peripheral areas, potential wind effects would be somewhat less than for Alternative 1. • As with Alternative 1, site design and architectural features can be used to avoid or reduce potential adverse wind effects at street level.

Alternative 3 – Residential Emphasis

The potential shadow and wind effects due to future development under Alternative 3 are summarized in Table 40 below.

Table 40
Shadow and Wind Effects of Alternative 3

Potential Shadow Effects	Potential Wind Effects
<ul style="list-style-type: none"> • Potential shadow effects in DOC 1 office core would be nearly the same as for Alternative 1. • Less intensive zoning in peripheral areas of Denny Triangle, edge of Belltown and 1st Ave./Western Ave. vicinities would result in less potential for shading of city streets than Alternatives 1 or 2. • Similar to Alternative 1, additional shading of Downtown SEPA-identified parks is not likely. • Changes would not affect zoned height/density near Denny Way, thus avoiding additional shading effects on Denny Park. 	<ul style="list-style-type: none"> • Potential wind effects in the office core would be slightly less than for Alternatives 1 or 2. • Due to somewhat less height and bulk of future buildings in the Denny Triangle and peripheral areas, potential wind effects would be somewhat less than for Alternatives 1 or 2. • As with the other alternatives, site design and architectural features can aid in avoiding wind effects at street level.

Alternative 4 – No Action

SHADOWS, SUN AND WIND

The potential shadow and wind effects due to future development under Alternative 4 are summarized in Table 41 below.

**Table 41
Shadow and Wind Effects of Alternative 4**

Potential Shadow Effects	Potential Wind Effects
<ul style="list-style-type: none"> • No zone changes, but future developments under existing height/density limits could add to total extent of shading of city streets. • No zone changes, but future developments under existing height/density limits could add to shading of city streets in Denny Triangle and other peripheral areas of Downtown. However, existing bulk and site coverage regulations provide some benefits in avoiding shading from upper level bulk. • No impact on Downtown SEPA-identified parks, but future development closer to protected parks could possibly trigger the need to use SEPA protections. 	<ul style="list-style-type: none"> • No impacts. However, due to less potential for height and bulk in future development, potential wind effects in the office core would be slightly less than for Alternatives 1, 2 or 3. • No impacts. However, due to somewhat less height and bulk of future buildings in the Denny Triangle and peripheral areas, potential wind effects would be slightly less than for Alternatives 1, 2 or 3. • Existing bulk and site coverage regulations provide some benefits in avoiding wind effects. • As with the other alternatives, site design and architectural features can aid in avoiding wind effects at street level.

MITIGATION STRATEGIES

Possible Mitigation Strategies

Given the current regulations, including the City's SEPA Ordinance, none of the alternatives are expected to generate significant adverse shadowing or wind impacts. Therefore, no SEPA mitigation measures are required to be implemented. However, the City may wish to explore a few strategies over the long term to improve overall consideration of shadowing and wind effects of future development.

- The City could review existing regulations and guidelines pertaining to control of wind effects. Additional quantitative criteria on acceptable wind speeds and/or design criteria for avoiding adverse wind conditions at the street level of structures could be provided. If identified, inconsistencies in Code requirements and guidelines could be remedied. This could aid City reviewers in evaluating the performance of proposals with regard to wind abatement.
- The City could consider additional design guidelines or regulatory requirements to assure that important public open spaces continue to have solar access. This could mean considering additional locations for SEPA protection against possible shadow impacts, and/or other measures.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

None are identified.

TRANSPORTATION

AFFECTED ENVIRONMENT

Travel Characteristics

Pertinent facts about existing Downtown travel characteristics include:

Average weekday trips with an origin or destination in Downtown:

- 815,000 person trips per day
- 519,400 vehicle trips per day

Percent of Downtown-oriented trips made by transit: 20%

Average automobile occupancy: 1.26 persons per vehicle.

EXISTING AM AND PM PEAK HOUR TRAFFIC CONDITIONS

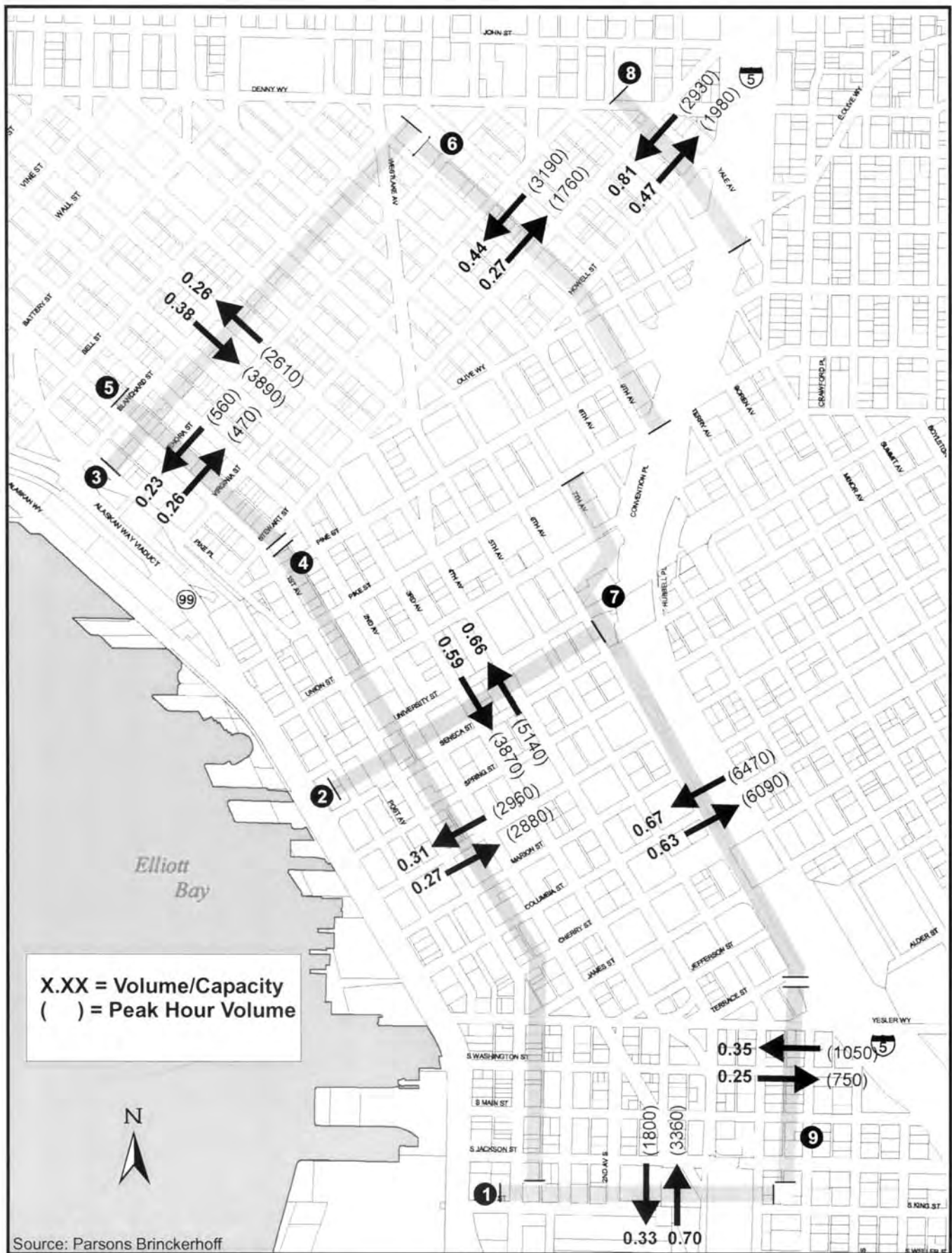
Travel patterns within and through Downtown can be interpreted using “screenlines” that measure traffic volumes and capacities on multiple streets carrying traffic in the same general direction. For this EIS, nine screenlines are defined to capture traffic entering and leaving Downtown from all directions, as well as locations within Downtown. This study examines traffic conditions during the AM and PM “peak hours,” which represent the most congested conditions during the morning and evening commute periods. Typical AM and PM peak hours are 7-8 AM and 5:30-6:30 PM. Figures 31 and 32 illustrate existing AM and PM peak hour traffic volumes across the nine screenlines.

For each screenline, the existing traffic volumes are summed for travel in each direction, and a “volume-to-capacity ratio” (v/c ratio) is calculated. Typical street capacities are used for these calculations, but because the capacity of a roadway is not a hard-and-fast value, typical capacities can be exceeded.¹ In this study, a v/c ratio of 1.20 for a screenline indicates that streets crossing this screenline are at or near their ultimate capacity. A v/c ratio between 0.80 and 1.00 indicates moderately congested operating conditions, and a ratio between 1.00 and 1.20 indicates more-than-moderately congested conditions. The City’s arterial level of service standard for these areas of Downtown is a screenline v/c ratio of 1.20 or less. Figures 31 and 32 show the peak hour traffic volumes and v/c ratios for each of the screenlines. Table 42 also summarizes that information.

Notable Findings

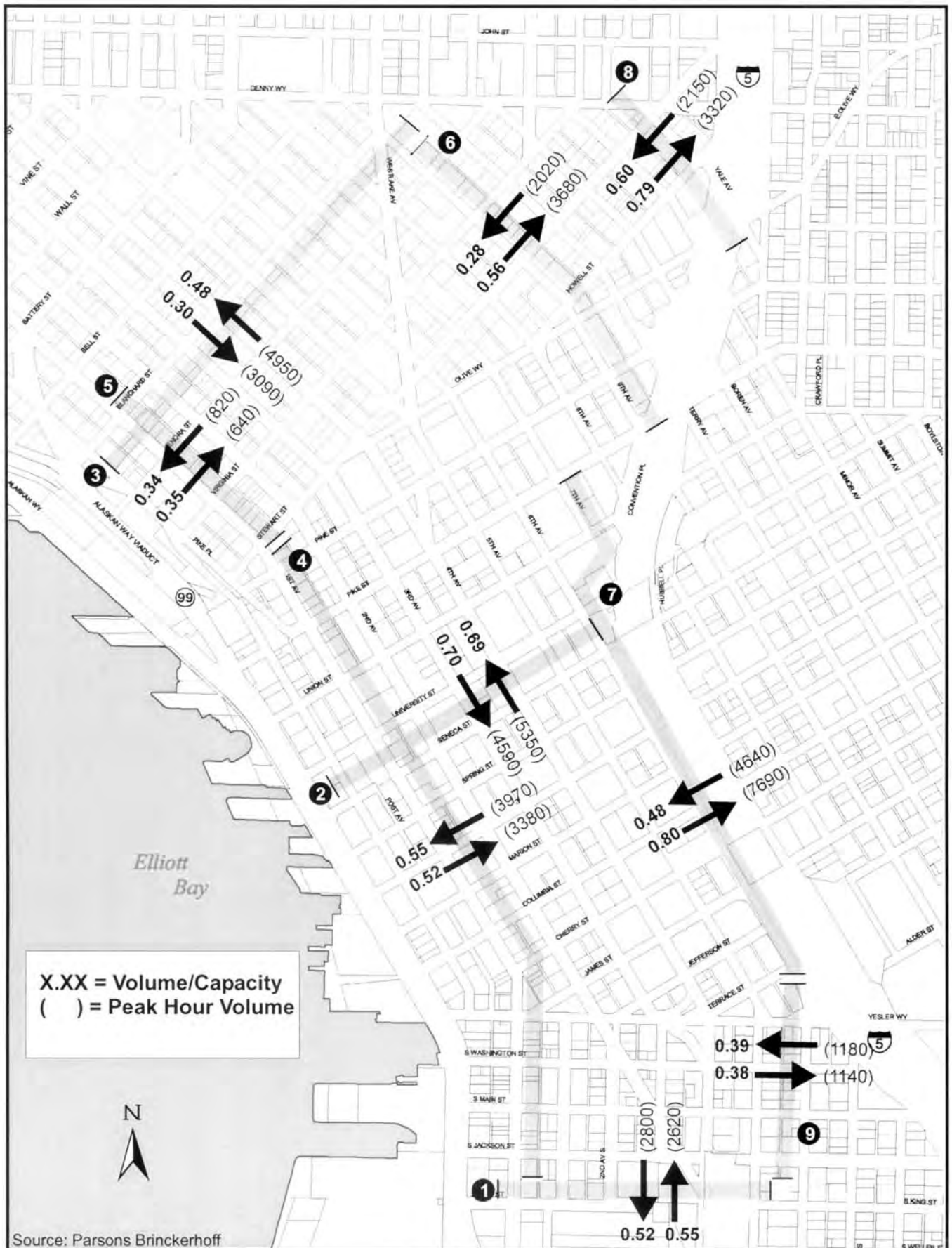
- As expected, inbound traffic volumes are greater during the AM peak hour, and outbound traffic volumes are greater during the PM peak hour.
- Traffic volumes across the studied screenlines during the PM peak hour are approximately 12% higher than screenline volumes during the AM peak hour.
- Outbound traffic during the PM peak hour represents 59% of traffic at screenlines (41% is inbound). During the AM peak hour, the inbound traffic represents 57% of traffic at screenlines (43% is outbound).
- Only two screenlines have v/c ratios of 0.80 or higher—Screenline 7 (east of Sixth Avenue, Pike St. to Yesler Way) eastbound during the PM peak hour; and Screenline 8 (east of Minor Avenue, Denny Way to Olive Way) westbound during the AM peak hour. These reflect the most heavily used commuting routes to/from Interstate 5 (via Stewart Street, Howell Street and Olive Way) as well as east-west traffic on Denny Way.

¹ For this study, the assumed street capacity is 600 vehicles per hour per lane.



Downtown Height & Density EIS

FIGURE 31
 Existing Screenline Volumes and V/C Ratios
 AM Peak Hour



Source: Parsons Brinckerhoff

Downtown Height & Density EIS

FIGURE 32
Existing Screenline Volumes and V/C Ratios
PM Peak Hour

Table 42
Existing Peak Hour Traffic Volumes and V/C Ratios Across Screenlines

Screenline	Map Key	AM Peak Hour		PM Peak Hour	
		Volume	V/C Ratio	Volume	V/C Ratio
S. King St. , First Ave. S. to Sixth Ave. S.	1				
Northbound Total		3,360	0.70	2,620	0.55
Southbound Total		1,800	0.33	2,800	0.52
North of Seneca St. , Western Ave. to Sixth Ave.	2				
Northbound Total		5,140	0.66	5,350	0.69
Southbound Total		3,870	0.59	4,590	0.70
South of Blanchard St. , Elliott Ave. to Ninth Ave.	3				
Northbound Total		2,610	0.26	4,950	0.48
Southbound Total		3,890	0.38	3,090	0.30
1st Ave/Office Core , East of First Ave., S. Jackson St. to Pine St.	4				
Westbound Total		2,960	0.31	3,970	0.55
Eastbound Total		2,880	0.27	3,380	0.52
1st Ave/Belltown , East of First Ave., Stewart St. to Blanchard St.	5				
Westbound Total		560	0.23	820	0.34
Eastbound Total		470	0.26	640	0.35
9th Ave/Denny Triangle , East of Ninth Ave., Lenora St. to Pike St.	6				
Westbound Total		3,190	0.44	2,020	0.28
Eastbound Total		1,760	0.27	3,680	0.56
6th Ave/Office Core , East of Sixth Ave., Union St. to S. Jackson St.	7				
Westbound Total		6,470	0.67	4,640	0.48
Eastbound Total		6,090	0.63	7,690	0.80
NE Denny Triangle , East of Minor Ave., Denny Way to Olive Way.	8				
Westbound Total		2,930	0.81	2,150	0.60
Eastbound Total		1,980	0.47	3,320	0.79
Yesler – Jackson , West of Sixth Ave.	9				
Westbound Total		1,050	0.35	1,180	0.39
Eastbound Total		750	0.25	1,140	0.38

Source: Parsons Brinckerhoff, 2002

- While Interstate 5 is the dominant origin and destination of commuting traffic, Aurora Avenue (SR 99) also is a frequent origin and destination. Screenline 3 captures traffic that arrives and departs Downtown via surface streets, to/from northern locations. Screenline 3 v/c ratios are approximately 0.38 for inbound traffic during the AM peak hour, and 0.48 for outbound traffic during the PM peak hour.
- Screenline 2 (north of Seneca Street) captures traffic moving north and south in the heart of Downtown. The v/c ratios ranging between 0.59 and 0.70 during the AM and PM peak hours reflect the moderately congested conditions observed in this area during peak commuting periods.

Traffic Circulation

The quality of traffic circulation on an arterial street system is generally the result of operating conditions at signalized intersections, since these are the locations where roadway capacity is shared by vehicles moving in conflicting directions. Operating conditions at key intersections along selected critical corridors serving the Downtown area were examined using a traffic model known as SYNCHRO. This tool simulates traffic operations at both a corridor and intersection level, and can indicate how operations at one intersection may affect those at nearby intersections. The results of the analysis are expressed in terms of “level of service”² and travel times through the corridors. Queuing conditions, referring to line-ups or back-ups of vehicles, are also evaluated, because back-ups may affect the operations of nearby intersections.

The studied corridors are the Denny Way corridor and the combined corridors of Stewart Street, Howell Street and Olive Way. Within these corridors, 38 intersections were analyzed—12 along Denny Way and 26 along the Stewart/Howell/Olive corridors. Table 43 and Figure 33 summarize current operating conditions for these corridors.

The analysis indicates that in the AM peak hour, only 2 intersections in the studied corridors operate at LOS F: Stewart St./Denny Way, and Stewart St./5th Avenue.

Operations in the PM peak hour are generally more congested than the morning peak hour, with 4 intersections experiencing operating conditions of LOS F: Stewart St./Yale Avenue, Howell St./Minor Avenue, Olive Way/Boren Avenue, and Stewart St./Denny Way. Denny Way/6th Avenue operates at LOS E. These findings are consistent with field observations.

While other studied intersections operate at LOS D or better, several of them still experience queuing problems on one or more approaches, such that queue back-ups may affect operations at nearby intersections (see Table 43). This is evident along Stewart Street in the westbound direction and along Denny Way in both directions between Stewart Street and 6th Avenue, in the AM peak hour. During the PM peak hour, queuing problems are additionally noted along Howell Street between Boren and Yale Avenues.

² Level of service is a measure defined by the Highway Capacity Manual that ranges from excellent conditions (LOS A) to overloaded conditions (LOS F). Average vehicle delay for LOS A is 10 seconds or less, and for LOS F is greater than 80 seconds. These level of service measures are not directly related to the City’s Arterial Level of Service Standard required by the Growth Management Act. The Arterial Level of Service Standard designated by the City is an areawide v/c ratio measured against all the arterials crossing certain specifically-defined screenlines.

Table 43
Current Peak Hour Intersection Levels of Service and Queuing Impacts

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Queuing Impacts*	LOS	Queuing Impacts*
Stewart & 3rd Ave	B	---	B	---
Stewart & 4th Ave	A	WB	A	---
Stewart & 5th Ave	F	SB/WB	B	---
Stewart & Westlake	B	WB	A	---
Stewart & 6th Ave	C	WB	B	---
Stewart & 7th Ave	B	---	A	---
Stewart & 8th Ave	A	---	B	---
Stewart & 9th Ave	A	---	A	---
Stewart & Terry	A	WB	A	---
Stewart & Boren	B	SB	B	SB
Stewart & Minor	B	---	D	SB/WB
Stewart & Yale	B	SB/WB	F	SB/WB
Howell & Yale	C	SB/EB/WB	D	SB/EB
Howell & Minor	C	WB	F	SB
Howell & Boren	D	NB/WB	D	NB/EB
Howell & Terry	A	---	A	---
Howell & 9th Ave	C	---	C	---
Howell & 8th/Olive	B	---	A	---
Olive & Melrose	B	EB	C	EB
Olive & Boren	D	NB	F	EB/NB/SB
Olive & Terry	A	---	A	---
Olive & 9th Ave	A	---	B	---
Olive & 7th Ave	B	---	A	---
Olive & 6th Ave	B	---	B	---
Olive & 5th/Westlake	D	SB	C	---
Olive & 4th Ave	B	---	B	---
Denny & Stewart	F	EB/WB/SW	F	EB/SW
Denny & Fairview	D	EB/WB/NB	C	EB/WB/NB
Denny & Westlake	A	---	C	EB/NB
Denny & 9th Ave	A	EB/SB	B	EB/SB
Denny & Dexter	D	EB/WB	D	EB/WB
Denny & Aurora NB	B	EB/WB	C	EB/WB/NB
Denny & Aurora SB	B	EB/WB/SB	B	EB/WB/SB
Denny & 6th Ave	B	WB	E	EB/WB/NB
Denny & Taylor	B	WB	B	---
Denny & 5th Ave	B	---	B	---
Denny & 4th Ave	A	---	B	---
Denny & Broad	B	---	B	WB

* Direction(s) indicated are for approaches where queues from the specified intersection are calculated to back up and affect operations at adjacent intersections.



Source: Parsons Brinckerhoff

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FIGURE 33
 Existing AM & PM Peak Hour Intersection
 Levels of Service

Travel Times

Table 44 shows current average AM and PM peak hour travel time summaries for the studied corridors. Travel time is frequently used as a measure of effectiveness for comparing transportation alternatives. These findings were developed based on output from the SYNCHRO model. The longer travel times along Stewart Street in the PM peak hour may be due to less advantageous signal timings compared to the morning commute when signals are better set to facilitate inbound volumes.

Table 44
Current Average Peak Hour Corridor Travel Time Summaries

Corridor	AM Peak Hour (minutes)	PM Peak Hour (minutes)
Denny Way Eastbound	5.5	5.9
Denny Way Westbound	5.9	6.3
Olive Way Eastbound	3.8	3.4
Stewart Street Westbound	4.0	8.5

Source: Parsons Brinckerhoff, 2002

Assumptions:

- * Stewart Street corridor evaluated from Yale Ave to 3rd Ave.
- * Olive Way corridor evaluated from 3rd Ave to Boren Ave.
- * Denny Corridor (both directions) evaluated from Broad St to Stewart St.
- * Average travel speed of 20 mph is assumed for all arterial segments

Transit Service

Transit Operations

The transit analysis considers two corridors and two transit screenlines to measure bus service. The two corridors—Stewart Street from Yale to 3rd Avenue, and Olive Way from 3rd Avenue to Boren Avenue—were chosen because they each carry relatively high transit volumes, and because peak hour traffic modeling was conducted on them. For the two corridors, the analysis applies transit volumes to the respective travel times to develop a combined aggregate bus travel time value for the corridors. The two transit screenlines are: 1st to 5th Avenue north of Seneca Street, and Denny Way between Broad Street and Stewart Street. These screenlines capture north-south routes through the commercial core and to/from the north. See Appendix N for additional details, including tables documenting transit volumes.

Stewart St./Olive Way Corridors. This screenline helps measure the relationship to regional transit service providers. Stewart Street and Olive Way are the principal transit access routes to/from Interstate 5 in the study area. A total of 149 buses use the corridor in the AM peak hour and 115 buses in the PM peak hour. Stewart Street and Olive Way experience significant transit volumes entering Downtown in the AM peak hour; Stewart Street's volumes are partly attributable to the volumes of Community Transit buses. Service on Olive Way does not show a directional peak and has fairly balanced volumes in both the AM and PM peak hours due to a large number of Sound Transit buses returning to Interstate 5. The overall cumulative peak-hour travel times weighted by bus volumes for the combined Stewart/Olive corridors is 572 bus-minutes in the AM peak hour and 651 bus-minutes in the PM peak hour.

North of Seneca Transit Screenline. This screenline measures the major transit spine on surface streets through the Downtown core. Approximately 421 buses move through the corridor in the AM peak hour and 414 buses in the PM peak hour, representing approximately 5 percent of the traffic stream. These bus volumes do not include transit tunnel buses. The transit volumes are roughly equivalent northbound and

southbound during the peak hours. Fourth and Second Avenue carry the highest transit volumes. Community Transit and Sound Transit bus service is focused exclusively on Fourth and Second Avenue.

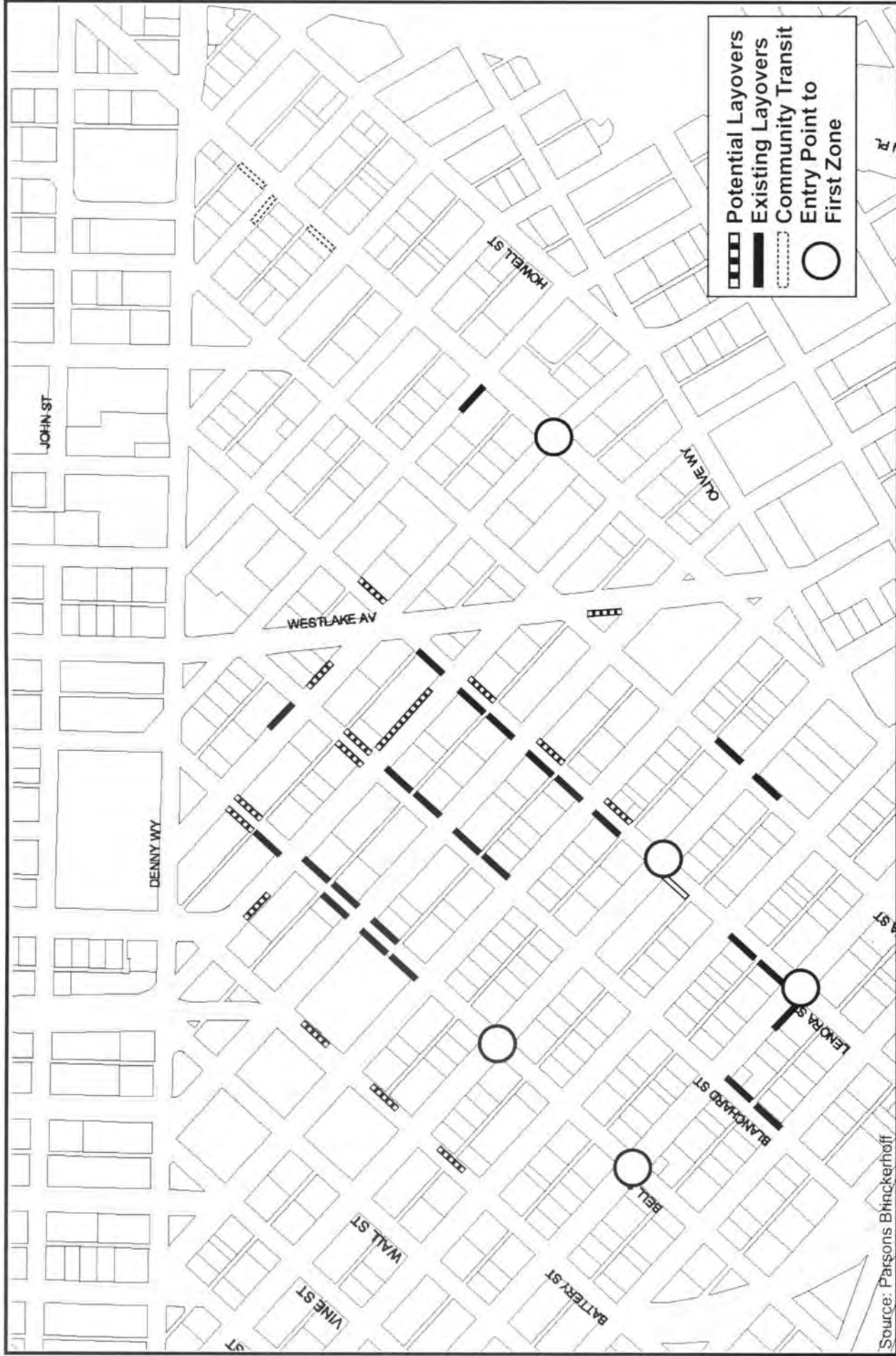
Denny Way Transit Screenline. This screenline captures more local-bound service than the Stewart/Olive screenline, generally to/from northern and northwestern portions of the city. Approximately 169 buses cross Denny Way in both directions during the AM and PM peak hours. This includes 81 buses in the AM peak hour and 88 in the PM peak hour. The existing cumulative peak-hour sum of delay for buses crossing Denny Way is estimated at 29 minutes in the AM peak hour and 40 minutes in the PM peak hour. Dexter Avenue experiences the highest delays crossing Denny Way, due to large numbers of buses using the street coupled with high average traffic delay at the Denny/Dexter intersection. Aurora Avenue and Fifth Avenue (near Seattle Center) have a large number of buses using the street but fairly modest delays, resulting in moderate levels of overall delay. Fourth, Ninth and Westlake Avenues carry relatively few buses compared to the other streets crossing the Denny Way screenline, and have low levels of delay.

Transit Layover

A layover space is a designated stopover location for a transit vehicle at or near one end of a route, or at a turn-back point. Layover is a critical element in transit service planning and has direct implications on operating costs and levels of service provided. King County Metro has a total of 25 existing layover spaces in the study area, and 17 other identified potential layover spaces (see Figure 34). Community Transit has four layover spaces in the study area. These layover spaces are all within the northern portion of Downtown in the Belltown and Denny Triangle neighborhoods, and are concentrated mostly on Blanchard, Bell and Lenora Streets. They accommodate buses that originate in this area and move through Downtown heading to the Eastside and southern destinations.

Potential layover spaces are those that King County Metro considers feasible based on compatible adjacent land uses and proximity to route origins. The potential layover spaces are intended to provide alternative sites if development displaces existing spaces, and/or to accommodate projected growth in service that increases the need for layover spaces. Typically, layovers are located adjacent to vacant lots, parking lots or buildings with blank walls. It is considered undesirable to have layover buses parked next to residential or commercial uses, due to potential noise and diesel fume issues.

Green Street designations on Bell and Blanchard Streets and Ninth Avenue correspond with some existing layover spaces, and will likely reduce the number of potential layover sites in the study area. Though not explicitly stated in codes, the desired character of Green Streets may be incompatible with bus layover spaces.



Source: Parsons Brinckerhoff

IMPACTS

This impact section summarizes the findings of the transportation impact analysis (see Appendix N for additional detailed information). This section first presents the baseline condition for the year 2020, based on the future growth assumptions of this EIS. This baseline condition corresponds to the EIS Alternative 4 – No Action condition, because it shows what is projected to occur if none of the proposed zone changes occur. The 2020 baseline condition represents the impacts of Alternative 4, and also serves as a benchmark against which to compare the impacts of Alternatives 1, 2 and 3.

2020 Baseline Condition (Alternative 4 – No Action)

TRAVEL CHARACTERISTICS

The transportation impact modeling is based on: the high-end growth assumptions made for this EIS; forecasts from the City of Seattle’s travel demand forecasting model; and travel “mode share” information from the Puget Sound Regional Council’s travel demand model. Traffic growth rates were obtained from the City’s model and applied to actual ground traffic counts to develop the future volumes used for analysis. Table 45 summarizes differences between existing conditions and 2020 travel assumptions. The highlights for 2020 include:

- a forecasted 58% increase in the number of person-trips to or from Downtown (including internal trips);
- an increase in the share of person-trips made by transit from 20% to 33%, translating to considerably more transit ridership;
- a 5.5% increase in average auto occupancy to 1.33 persons per vehicle; and
- an approximate 13% decrease in the share of person-trips made by automobiles.

Table 45
Comparison of Travel Characteristics

	Existing Condition	2020 Condition	% Change to Year 2020
Average person-trips/weekday to/from Downtown	815,000	1,285,000	58%
Average vehicle trips/weekday to/from Downtown	519,400	645,900	24%
Percent of person-trips made by transit	20%	33%	--
Daily person-trips made by transit	163,000	424,000	160%
Percent of person-trips made by automobile	80%	67%	--
Average auto occupancy	1.26 persons	1.33 persons	6%

The mode choice modeling assumed the presence of monorail, light rail from SeaTac to Northgate, and some growth in transit service. The transportation network for the traffic forecasting analysis assumed the existing capacity and function of SR 99, and no specific changes to the Mercer corridor. The Washington State Department of Transportation and the City of Seattle are analyzing replacement alternatives for the Alaskan Way Viaduct in an EIS. Some of the alternatives under consideration in that study would change how traffic accesses Downtown from SR 99, especially from the south. The City has also been studying alternatives for the Mercer Corridor, and will begin an EIS in the Fall of 2003. Options under consideration could have some impact on traffic volumes on Denny Way, but the extent of this impact has not yet been determined. Additionally, the following impact analysis does not analyze potential traffic operational impacts from monorail alignments because it is a programmatic study and sufficient detail

was not available at the time of study. However, the September 2003 Draft EIS for the monorail now identifies traffic impacts of the monorail alignment.

The 2020 analysis uses the same nine screenlines discussed for existing conditions. Table 46 shows 2020 peak hour traffic volumes and v/c (volume-to-capacity) ratios across the screenlines, for the AM and PM peak hour. The volumes shown are the summation of volumes on all individual streets crossing the screenline. Figures 35 and 36 portray these results graphically.

Table 46
Existing and 2020 No Action Peak Hour Traffic Volumes and Volume/Capacity Ratios

Screenline	Map Key	AM Peak Hour					PM Peak Hour				
		Existing		2020 No Action			Existing		2020 No Action		
		Volume	V/C Ratio	Volume	V/C Ratio	% Vol Chg.	Volume	V/C Ratio	Volume	V/C Ratio	% Vol Chg.
S. King St., 1st Ave. S. to 6th Ave. S.	1										
Northbound Total		3,360	0.70	2,920	0.61	-13.1	2,620	0.55	2,570	0.54	-1.9
Southbound Total		1,800	0.33	1,340	0.25	-25.6	2,800	0.52	2,720	0.50	-2.9
North of Seneca St., Western Ave. to 6th Ave.	2										
Northbound Total		5,140	0.66	4,950	0.63	-3.7	5,350	0.69	6,220	0.80	16.3
Southbound Total		3,870	0.59	3,760	0.57	-2.8	4,590	0.70	5,450	0.83	18.7
South of Blanchard St., Elliott Ave. to 9th Ave.	3										
Northbound Total		2,610	0.26	2,490	0.24	-4.6	4,950	0.48	5,320	0.52	7.5
Southbound Total		3,890	0.38	4,100	0.40	5.4	3,090	0.30	3,970	0.39	28.5
1st Ave/Office Core, East of 1st Ave., S. Jackson St. to Pine St.	4										
Westbound Total		2,960	0.31	2,560	0.27	-13.5	3,970	0.55	3,520	0.37	-11.3
Eastbound Total		2,880	0.27	2,820	0.26	-2.1	3,380	0.52	3,460	0.32	2.4
1st Ave/Belltown, East of 1st Ave., Stewart St. to Blanchard St.	5										
Westbound Total		560	0.23	900	0.38	60.7	820	0.34	1,020	0.42	24.4
Eastbound Total		470	0.26	610	0.34	29.8	640	0.35	910	0.51	42.2
9th Ave/Denny Triangle, East of 9th Ave., Lenora St. to Pike St.	6										
Westbound Total		3,190	0.44	3,640	0.51	14.1	2,020	0.28	3,780	0.53	87.1
Eastbound Total		1,760	0.27	4,380	0.66	148.9	3,680	0.56	5,830	0.88	58.4
6th Ave/Office Core, East of 6th Ave., Union St. to Jefferson St.	7										
Westbound Total		6,470	0.67	6,740	0.70	4.2	4,640	0.48	5,600	0.58	20.7
Eastbound Total		6,090	0.63	6,250	0.65	2.6	7,690	0.80	8,970	0.93	16.6
NE Denny Triangle: E. of Minor Ave., Denny Way to Olive Way	8										
Westbound Total		2,930	0.81	3,380	0.94	15.4	2,150	0.60	3,360	0.93	56.3
Eastbound Total		1,980	0.47	4,280	1.02	116.2	3,320	0.79	4,680	1.11	41.0
Yesler – Jackson, West of 6th Ave., Yesler Wy to S. Jackson St	9										
Westbound Total		1,050	0.35	860	0.29	-18.1	1,180	0.39	810	0.27	-31.4
Eastbound Total		750	0.25	650	0.22	-13.3	1,140	0.38	1,100	0.37	-3.5
Grand Totals		57,700		65,470		13.5	63,370		76,580		20.8

Source: Parsons Brinckerhoff, 2002





Notable Findings

- On an aggregate basis, volumes across all screenlines are projected to increase by 9.4% in the AM peak hour, and by 19.4% in the PM peak hour. This level of increase would be generally consistent with overall regional growth.
- Some individual screenlines are predicted to experience more significant percentage traffic growth, including Screenlines 6 and 8 measuring east-west traffic and I-5 accessing traffic in the Denny Triangle, and Screenline 5 measuring east-west traffic near 1st Avenue in Belltown. For example, PM peak hour traffic volumes across Screenline 6 would increase almost 70 percent, across Screenline 8 would increase 47 percent, and across Screenline 5 would increase 33 percent by 2020.
- PM peak hour traffic volumes across Screenline 7 (including access to/from I-5 at the Commercial Core) would increase approximately 18 percent by 2020.
- Three screenlines are forecast to experience modest decreases in peak hour volumes by 2020, including Screenline 1 measuring north-south traffic near S. King Street, Screenline 4 measuring east-west traffic for Downtown areas near 1st Avenue between Pine Street and Pioneer Square, and Screenline 9 measuring east-west traffic near 6th Avenue between Yesler Way and Jackson Street. These decreases may be attributable to the addition of the SR 519 connection between I-5 and the Alaskan Way viaduct by 2020, which may alter traffic flow patterns measured by these screenlines.
- For the 2020 AM peak hour, probable increases in housing supply in the study area will likely result in more traffic departing Downtown. This outbound traffic will likely account for 48 percent of AM peak hour screenline volumes rather than the current 44 percent. This pattern will be most evident in the Denny Triangle area, where the two screenlines show large percentage increases in this AM peak hour outbound traffic.
- The directional split in the PM peak hour traffic will stay about the same, with outbound traffic representing 58 percent of the total screenline volumes, and inbound representing 42 percent.
- PM peak hour traffic is expected to grow at a faster rate than AM peak hour traffic. By 2020, PM peak hour traffic is projected to be over 22 percent greater than AM peak hour traffic, when summing up volumes across all screenlines.
- By 2020, four screenlines (two more than existing conditions) are anticipated to have v/c ratios of 0.80 or higher, indicating potentially congested operations:
 - Screenline 2, north of Seneca St., both directions in the PM peak hour
 - Screenline 6, east of 9th Avenue, eastbound in the PM peak hour
 - Screenline 7, east of 6th Avenue, eastbound in the PM peak hour
 - Screenline 8, north of Minor Avenue, both directions in the AM and PM peak hours.

These results are consistent with expected traffic growth patterns and orientation of a large portion of traffic either to/from the east (e.g., Interstate 5) or to/from the north via surface streets.

- None of the screenlines are projected to exceed a v/c ratio of 1.20. At Screenline 8 east of Minor Avenue, eastbound volumes are expected to reach a v/c ratio of 1.01 in the AM peak hour and 1.11 in the PM peak hour. These ratios in excess of 1.0 indicate a relatively high level of congestion in both peak hours.

TRAFFIC CIRCULATION

As noted for Existing Conditions, traffic operating conditions were analyzed for two arterial corridors—the Denny Way corridor and the Stewart/Howell/Olive Way corridor. The SYNCHRO model assessed 38 intersections along these corridors for the 2020 AM and PM peak hours. For this analysis, the signal phasing and timing were held constant for both the existing conditions and 2020 period, to provide a consistent basis for comparing the impacts of the alternatives.

Table 48 shows projected 2020 peak hour levels of service as compared to existing levels for the identified corridors.³ The table also identifies intersections with specific queuing problems. Figure 37 shows the results graphically for both the AM and PM peak hours.

2020 Baseline, AM Peak Hour

The analysis indicates that AM peak hour operations are expected to significantly worsen by 2020. Eleven of the 38 intersections analyzed are projected to operate at levels of service LOS E or worse, compared to only two intersections in Existing Conditions. These include two intersections each along Stewart and Howell Streets, three on Olive Way and four along Denny Way. Nine of these eleven intersection levels of service would be LOS F, and only two would be LOS E.

Although several intersections analyzed are expected to operate at LOS D or better in the AM peak hour, many of these are expected to experience queuing problems on one or more approaches such that queues will back up and affect operations at nearby intersections. Eight of the 12 intersections on Stewart Street would experience this for the westbound (inbound) direction during the AM peak hour. All 12 Denny Way intersections would experience queuing problems in the eastbound direction. These results indicate these travel directions for these two corridors in particular will experience significant congestion by 2020, even if no zoning changes occur.

Along Howell Street and Olive Way, nearly half of the intersections in the AM peak hour are also projected to experience queuing problems in the eastbound or outbound direction. This is a noticeable increase from existing conditions indicating that by 2020, outbound traffic from Downtown is expected to increase significantly in the AM peak hour.

2020 Baseline, PM Peak Hour

Similar to existing conditions, the 2020 PM peak hour traffic operating conditions are projected to be generally worse than AM peak hour conditions. The biggest change in operating conditions is projected to occur at the northeastern ends of Stewart Street, Howell Street, and Olive Way. Denny Way is expected to experience significant increases in congestion throughout the corridor, with a slightly higher predominance of congestion toward the western end. Between Dexter Avenue and Broad Street, all but two intersections are projected to operate at LOS E or F. Overall, 17 of the 38 intersections analyzed (45%), are projected to operate at LOS E or worse by the 2020 PM peak hour, up from 5 today, and 15 of those will operate at LOS F. A summarized comparison of performance is shown in Table 47.

Table 47
Performance Summary for 2020 Baseline PM Peak Hour

	Number of Intersections Operating at LOS E or F	
	Existing Conditions	2020 Baseline
Stewart Street	1 of 12	5 of 12
Olive/Howell	2 of 14	5 of 14
Denny Way	2 of 12	7 of 12

Source: SPO, Parsons Brinckerhoff, 2002

³ Direction(s) indicated in Table 48 below are for those approaches where queues from the specified intersection are expected to back up and affect operations at adjacent intersections.

Table 48
Existing and 2020 No Action Peak Hour Intersection Levels of Service and Queuing Impacts

Intersection	AM Peak Hour				PM Peak Hour			
	Existing Conditions		2020 No-Action		Existing Conditions		2020 No-Action	
	LOS	Queuing Impacts	LOS	Queuing Impacts	LOS	Queuing Impacts	LOS	Queuing Impacts
Stewart & 3rd Ave	B	---	B	---	B	---	B	---
Stewart & 4th Ave	A	WB	B	NB/WB	A	---	A	NB/WB
Stewart & 5th Ave	F	SB/WB	F	SB/WB	B	---	C	SB/WB
Stewart & Westlake	B	WB	B	WB	A	---	B	---
Stewart & 6th Ave	C	WB	C	WB	B	---	C	WB
Stewart & 7th Ave	B	---	B	SB/WB	A	---	F	SB/WB
Stewart & 8th Ave	A	---	A	---	B	---	B	---
Stewart & 9th Ave	A	---	A	---	A	---	F	SB/WB
Stewart & Terry	A	WB	B	WB	A	---	A	---
Stewart & Boren	B	SB	D	SB/WB	B	SB	F	SB/WB
Stewart & Minor	B	---	B	---	D	SB/WB	F	SB/WB
Stewart & Yale	B	SB/WB	F	SB/WB	F	SB/WB	F	SB/WB
Howell & Yale	C	SB/EB/WB	F	SB/EB/WB	D	SB/EB	C	SB/EB
Howell & Minor	C	WB	C	WB	F	SB	F	SB/WB
Howell & Boren	D	NB/WB	E	NB/EB/WB	D	NB/EB	E	---
Howell & Terry	A	---	B	---	A	---	A	---
Howell & 9th Ave	C	---	D	---	C	---	F	SB
Howell & 8th/Olive	B	---	C	EB	A	---	B	EB
Olive & Melrose	B	EB	F	EB/NB	C	EB	F	EB/NB
Olive & Boren	D	NB	F	EB/NB	F	EB/NB/SB	F	EB/NB/SB
Olive & Terry	A	---	E	EB	A	---	D	EB
Olive & 9th Ave	A	---	D	EB	B	---	C	EB/SB
Olive & 7th Ave	B	---	C	---	A	---	D	SB
Olive & 6th Ave	B	---	B	---	B	---	B	NB
Olive & 5th/Westlake	D	SB	C	SB	C	---	D	EB/SB
Olive & 4th Ave	B	---	B	---	B	---	B	---
Denny & Stewart	F	EB/WB/SW	F	EB/WB/SW	F	EB/SW	F	EB/WB/SW
Denny & Fairview	D	EB/WB/NB	F	EB/WB/NB	C	EB/WB/NB	D	EB/WB/NB
Denny & Westlake	A	---	D	EB	C	EB/NB	B	EB/NB
Denny & 9th Ave	A	EB/SB	F	EB/SB	B	EB/SB	B	EB/SB
Denny & Dexter	D	EB/WB	F	EB	D	EB/WB	F	EB/WB/NB
Denny & Aurora NB	B	EB/WB	C	EB/WB	C	EB/WB/NB	F	EB/WB/NB
Denny & Aurora SB	B	EB/WB/SB	B	EB/WB/SB	B	EB/WB/SB	B	EB/WB/SB
Denny & 6th Ave	B	WB	C	EB/WB/NB	E	EB/WB/NB	F	EB/NB
Denny & Taylor	B	WB	C	EB	B	---	D	EB
Denny & 5th Ave	B	---	C	EB	B	---	E	EB/WB
Denny & 4th Ave	A	---	B	EB	B	---	F	EB
Denny & Broad	B	---	C	EB	B	WB	F	EB/WB/NE



Source: Parsons Brinckerhoff

Seattle Height & Density EIS

FIGURE 37

Year 2020 No Action
AM & PM Peak Hour Intersection Levels of Service

The queuing analysis for the PM peak hour indicates that by 2020, most of the corridors analyzed are expected to experience corridor-wide congestion. Eight of the 12 intersections along Stewart Street would likely experience queues in the westbound direction that would back up into adjacent intersections, compared to 2 in the existing condition. Along Denny Way, every intersection in the eastbound direction, and over half in the westbound direction, are expected to experience queuing problems. While not dramatically different from current conditions, this does indicate that congested conditions will be exacerbated in the future.

Travel Time

Table 49 shows projected 2020 average AM and PM peak hour travel time summaries for the studied corridors. The results indicate that all corridors are expected to experience significant increases in travel time by the 2020 baseline condition.

Table 49
Existing and 2020 No Action Peak Hour Corridor Travel Time Summaries

Corridor	AM Peak Hour (minutes)			PM Peak Hour (minutes)		
	Existing	2020	% Change	Existing	2020	% Change
Denny Way Eastbound	5.5	12.7	133%	5.9	19.7	232%
Denny Way Westbound	5.9	14.7	147%	6.3	10.6	68%
Olive Way Eastbound	3.8	6.6	75%	3.4	5.3	55%
Stewart Street Westbound	4.0	4.4	11%	8.5	11.9	40%

Source: Parsons Brinckerhoff, 2002

Assumptions:

- * Stewart Street corridor evaluated from Yale Avenue to 3rd Avenue
- * Olive Way corridor evaluated from 3rd Avenue to Boren Avenue
- * Denny Corridor (both directions) evaluated from Broad Street to Stewart Street.
- * Average travel speed of 20 mph is assumed from all arterial segments

TRANSIT SERVICE

Transit Operations

Assumed transit facilities in 2020 include Link Light Rail in its Locally Preferred Alternative alignment from Northgate to SeaTac. In addition, some joint bus/rail operations are projected to occur in the tunnel. Also, the presence of monorail is factored into the PSRC's mode share modeling.

North of Seneca Street Screenline. The 2020 AM peak hour conditions (baseline) would be nearly the same or slightly improved over existing conditions, meaning no adverse effects on transit operations in the Commercial Core. The PM peak hour traffic conditions are projected to worsen from a v/c ratio of 0.69 to 0.80 (northbound) and from 0.70 to 0.83 (southbound), which could mean a proportional increase in transit delay. Due to its southbound emphasis in the PM peak hour, transit service on 2nd Avenue will likely experience the greatest increase in delay. Transit traffic on 3rd and 4th Avenue will also experience increases in delay.

Stewart/Olive Corridors. By 2020, the cumulative amount of travel time spent by transit vehicles in the Stewart Street and Olive Way corridors is projected to increase by approximately 40% in the AM peak hour and 45% in the PM peak hour (see Table 50).

Table 50
Comparison of Existing and 2020 No Action
Cumulative Transit Travel Time – Olive/Stewart Corridors

Peak Hour	Total Bus-Minutes		% Change
	Existing	2020 No-Action	
AM	572	801	40%
PM	651	942	45%
Total, AM and PM	1223	1743	43%

Source: Parsons Brinckerhoff, 2002

Denny Way Screenline. Table 51 summarizes total minutes of delay incurred by buses crossing the Denny Way transit screenline in the 2020 baseline condition. Total minutes of delay are projected to increase from 29 minutes to 63 minutes in the AM peak hour, and from 40 minutes to 108 minutes in the PM peak hour. Denny Way's intersections with Dexter, Aurora, Fourth and Fifth Avenues (and Fairview Avenue in the AM peak hour) show the greatest predicted increase in transit delay.

Table 51
Comparison of Existing and 2020 No Action
Cumulative Bus Delay in Minutes Crossing Denny Way

	Bus-Minutes of Delay					
Crossing	Existing		2020 No-Action		% Change	
	AM	PM	AM	PM	AM	PM
Fourth Avenue	0.5	2.9	0.9	13.6	91%	368%
Fifth Avenue	6.0	6.1	8.8	27.4	46%	348%
Aurora Avenue	9.1	11.9	11.0	31.0	22%	161%
Dexter Avenue	6.4	11.7	15.0	26.7	134%	129%
Ninth Avenue	0.9	0.5	8.4	0.7	809%	24%
Westlake Avenue	0.6	2.1	3.5	1.6	496%	-25%
Fairview Avenue	5.7	5.2	15.0	7.4	165%	42%
Totals	29	40	63	108	115%	168%
AM and PM Totals	70 minutes		171 minutes		146%	

Source: Parsons Brinckerhoff, 2002

Transit Layover

The analysis conservatively assumes that redevelopment projects adjacent to layover locations would displace the layover spaces, as a worst-case impact. With this assumption, future development in the 2020 baseline condition may displace 10 existing and 7 potential Metro layover locations. No Community Transit layover locations would be affected. If these existing and potential layover locations are lost over time, it may be challenging to locate a sufficient number of additional replacement layover locations.

Alternative 1 – High End Height and Density Increase

Travel Characteristics

While substantial changes from existing conditions are projected for the 2020 Baseline Condition, there are relatively limited differences between Alternatives 1, 2 and 3 and the Baseline Condition (Alternative 4). Tables 52 and 53 summarize the differences between the Alternatives and the 2020 Baseline Condition for the PM peak hour at the nine screenlines, in terms of volumes, percent difference from the Baseline

Condition, and volume-to-capacity (v/c) ratio⁴. Table 52 illustrates that essentially all screenlines except Screenline 8 (East of Minor Avenue, Denny Way to Olive Way) would experience the same relative capacity conditions, as measured by v/c ratios. Given the nature of travel demand forecasting, differences of 5 percent or less are generally considered to be insignificant due to modeling accuracy limits.

Table 52
Comparison of 2020 PM Peak Hour Screenline Volumes to Baseline Condition

Screenline	2020 No Action	Alt. 1	Alt. 2	Alt. 3
	PM peak hr. total volume	Percent difference	Percent difference	Percent difference
1. S. King St.				
Northbound	2,570	0.8%	0.4%	0.0%
Southbound	2,720	1.5%	0.0%	1.5%
2. Seneca St.				
Northbound	6,220	1.1%	0.8%	0.2%
Southbound	5,450	1.3%	0.0%	0.4%
3. Blanchard St.				
Northbound	5,320	1.7%	1.1%	-0.2%
Southbound	3,970	1.0%	-0.3%	-0.5%
4. 1st Ave./Office Core				
Westbound	3,520	1.4%	0.9%	-0.3%
Eastbound	3,460	-3.2%	-2.3%	-2.3%
5. 1st Ave./Belltown				
Westbound	1,020	2.9%	4.9% (1,070)	8.8% (1,110)
Eastbound	910	0.0%	-2.2%	-3.3%
6. 9th Ave./Denny Triangle				
Westbound	3,780	4.2%	-0.5%	1.6%
Eastbound	5,830	2.4%	2.7%	2.2%
7. 6th Ave./Office Core				
Westbound	5,600	0.4%	0.2%	0.4%
Eastbound	8,970	-0.4%	-0.4%	0.0%
8. NE Denny Triangle				
Westbound	3,360	-3.6%	-3.3%	9.5% (3,680)
Eastbound	4,680	7.9% (5,050)	1.3%	0.0%
9. Yesler – Jackson				
Westbound	810	1.2%	1.2%	1.2%
Eastbound	1,100	0.0%	0.0%	-0.9%

Source: SPO, Parsons Brinckerhoff, 2002

Note: Numbers in parentheses are 2020 PM peak hour screenline traffic volumes under the alternatives.

At Screenline 8, eastbound PM peak hour traffic under Alternative 1 is projected to be approximately 8 percent greater than projected for the 2020 Baseline Condition (refer to Table 52). This additional traffic could be related to slightly greater concentration of future development in the Denny Triangle vicinity under Alternative 1 than for the No Action Alternative. With this additional traffic, the predicted v/c ratio at Screenline 8 for eastbound PM peak hour traffic would reach 1.20 by 2020, the highest v/c ratio for any alternative or screenline in this study (see Table 53). This would be right at the 1.20 threshold defined as the City's maximum arterial level of service standard⁵. This screenline covers a relatively small number of routes (Stewart Street, Howell Street, Denny Way, Olive Way) that are intensively used by commuters to enter and leave Downtown during peak hours. Other screenlines anticipated to experience v/c ratios of

⁴ AM peak hour information is provided in the technical analysis prepared by Parsons Brinckerhoff (see Appendix N).

⁵ Because Screenline 8 is not an official concurrency screenline, the 1.20 threshold is relevant only for general comparison purposes.

0.80 or higher for one or both travel directions include Screenlines 2, 6 and 7, in a manner similar to the Baseline Condition (see Table 53). Figures 38 and 39 illustrate the anticipated AM and PM peak hour volumes and v/c ratios across the studied screenlines.

Table 53
Comparison of 2020 Volume-to-Capacity Ratios to Baseline Condition

Screenline	2020 No Action	Alt. 1	Alt. 2	Alt. 3
	PM peak hr. v/c ratio	PM peak hr. v/c ratio	PM peak hr. v/c ratio	PM peak hr. v/c ratio
1. S. King St.				
Northbound	0.54	0.54	0.54	0.53
Southbound	0.50	0.51	0.50	0.51
2. Seneca St.				
Northbound	0.80	0.81	0.80	0.80
Southbound	0.83	0.84	0.83	0.83
3. Blanchard St.				
Northbound	0.59	0.60	0.60	0.59
Southbound	0.44	0.45	0.44	0.44
4. 1st Ave./Office Core				
Westbound	0.37	0.37	0.37	0.37
Eastbound	0.32	0.31	0.31	0.31
5. 1st Ave./Belltown				
Westbound	0.42	0.44	0.44	0.46
Eastbound	0.51	0.51	0.49	0.49
6. 9th Ave./D. Triangle				
Westbound	0.53	0.55	0.52	0.53
Eastbound	0.88	0.90	0.91	0.90
7. 6th Ave./Off. Core				
Westbound	0.58	0.59	0.58	0.59
Eastbound	0.93	0.93	0.93	0.93
8. NE Denny Triangle				
Westbound	0.93	0.90	0.90	1.02
Eastbound	1.11	1.20	1.13	1.12
9. Yesler – Jackson				
Westbound	0.27	0.27	0.27	0.27
Eastbound	0.37	0.37	0.36	0.37

Source: SPO, Parsons Brinckerhoff, 2002

Traffic Circulation

Tables 54 and 55 show 2020 AM and PM peak hour intersection levels of service and queuing impacts for the alternatives, compared to the Baseline Condition. Figure 40 illustrates the AM and PM peak hour levels of service at intersections in the studied corridors.

AM Peak Hour

- In the studied corridors, 14 of 38 intersections are projected to experience operating conditions at LOS E or worse in 2020, 3 more than the Baseline Condition. Operational levels would decline along Stewart Street and Denny Way, but improve somewhat along Howell Street.
- Five intersections would decrease in level of service by two or more LOS levels compared to the Baseline Condition, and two would improve by that amount.
- **Queuing impacts:** generally similar to the Baseline Condition, with several noted problem areas.





Downtown Height & Density EIS

FIGURE 39
 Screenline Volumes and V/C Ratios for Alternative 1
 PM Peak Hour

Table 54
Comparison of Year 2020 AM Peak Hour Intersection LOS and Queuing Impacts

Intersection	2020 No-Action		2020 Alternative 1		2020 Alternative 2		2020 Alternative 3	
	LOS	Queuing Impacts*	LOS	Queuing Impacts*	LOS	Queuing Impacts*	LOS	Queuing Impacts*
Stewart & 3rd Ave	B	---	A	---	A	---	B	---
Stewart & 4th Ave	B	NB/WB	B	NB/WB	B	NB	B	NB/WB
Stewart & 5th Ave	F	SB/WB	F	SB/WB	F	SB/WB	F	SB/WB
Stewart & Westlake	B	WB	C	WB	B	WB	B	WB
Stewart & 6th Ave	C	WB	D	WB	D	WB	D	WB
Stewart & 7th Ave	B	SB/WB	E	SB/WB	C	WB	E	SB/WB
Stewart & 8th Ave	A	---	B	---	A	---	B	WB
Stewart & 9th Ave	A	---	A	---	A	---	B	---
Stewart & Terry	B	WB	B	WB	B	WB	B	WB
Stewart & Boren	D	SB/WB	F	SB/WB	D	SB/WB	E	SB/WB
Stewart & Minor	B	---	B	---	B	---	B	WB
Howell & Yale	F	SB/EB/WB	C	SB/WB	D	SB/WB	C	SB/WB
Howell & Minor	C	WB	C	WB	D	WB	B	WB
Howell & Boren	E	NB/EB/WB	D	NB/EB/WB	D	NB/EB/WB	F	NB/EB/WB
Howell & Terry	B	---	B	---	B	---	D	---
Howell & 9th Ave	D	---	C	---	D	---	C	---
Howell & 8th/Olive	C	EB	D	EB	B	---	A	---
Olive & Melrose	F	EB/NB	F	EB/NB	B	EB	F	EB/NB
Olive & Boren	F	EB/NB	E	EB/NB	C	EB	C	EB/NB
Olive & Terry	E	EB	E	EB	F	EB	C	EB
Olive & 9th Ave	D	EB	F	EB	C	EB	B	---
Olive & 7th Ave	C	---	C	---	B	---	B	---
Olive & 6th Ave	B	---	B	---	D	NB	B	---
Olive & 5th/Westlake	C	SB	C	SB	C	SB	D	SB
Olive & 4th Ave	B	---	B	---	B	---	B	---
Denny & Stewart	F	EB/WB/SW	F	EB/WB/SW	F	EB/WB/SW	F	EB/WB/SW
Denny & Fairview	F	EB/WB/NB	F	EB/WB/NB	F	EB/WB/NB	F	EB/WB/NB
Denny & Westlake	D	EB	B	EB	B	---	B	EB
Denny & 9th Ave	F	EB/SB	F	EB/SB	B	SB	B	EB/SB
Denny & Dexter	F	EB	F	EB	F	EB/WB	F	EB
Denny & Aurora NB	C	EB/WB	C	EB/WB	E	EB/WB	C	EB/WB
Denny & Aurora SB	B	EB/WB/SB	B	EB/WB/SB	B	EB/WB/SB	B	EB/WB/SB
Denny & 6th Ave	C	EB/WB/NB	D	EB/WB/NB	D	EB/WB/NB	B	EB/NB
Denny & Taylor	C	EB	F	EB	F	EB	B	---
Denny & 5th Ave	C	EB	C	EB	D	EB	A	EB
Denny & 4th Ave	B	EB	E	EB	D	EB	B	EB
Denny & Broad	C	EB	D	EB/WB	E	EB/WB	C	WB

Source: Parsons Brinckerhoff, 2002

* Direction(s) indicated are for those approaches where queues from the specified intersection are expected to back up and affect operations at adjacent intersections.

Table 55
Comparison of Year 2020 PM Peak Hour Intersection LOS and Queuing Impacts

Intersection	2020 No-Action		2020 Alternative 1		2020 Alternative 2		2020 Alternative 3	
	LOS	Queuing Impacts*	LOS	Queuing Impacts*	LOS	Queuing Impacts*	LOS	Queuing Impacts*
Stewart & 3rd Ave	B	---	B	---	B	---	B	---
Stewart & 4th Ave	A	NB/WB	A	NB	A	NB/WB	A	NB/WB
Stewart & 5th Ave	C	SB/WB	C	SB/WB	C	SB/WB	C	SB/WB
Stewart & Westlake	B	---	B	---	B	---	B	---
Stewart & 6th Ave	C	WB	F	WB	D	WB	C	WB
Stewart & 7th Ave	F	SB/WB	F	SB/WB	E	SB	F	SB/WB
Stewart & 8th Ave	B	---	D	WB	B	---	B	---
Stewart & 9th Ave	F	SB/WB	F	SB/WB	F	SB/WB	F	SB/WB
Stewart & Terry	A	---	D	WB	B	---	B	---
Stewart & Boren	F	SB/WB	F	SB/WB	F	SB/WB	F	SB/WB
Stewart & Minor	F	SB/WB	F	---	E	SB/WB	F	SB/WB
Stewart & Yale	F	SB/WB	F	SB/WB	F	SB/WB	F	SB/WB
Howell & Yale	C	SB/EB	D	SB/EB	D	SB/EB	C	SB/EB
Howell & Minor	F	SB/WB	F	SB/WB	F	SB/WB	F	NB/SB/WB
Howell & Boren	E	---	E	NB/SB/EB	E	NB/SB/EB	E	NB/SB/EB
Howell & Terry	A	---	A	---	A	---	A	---
Howell & 9th Ave	F	SB	F	---	F	SB	F	SB
Howell & 8th/Olive	B	EB	B	---	B	---	D	EB/NB
Olive & Melrose	F	EB/NB	F	EB/NB	F	EB/NB	F	EB/NB
Olive & Boren	F	EB/NB/SB	F	EB/NB/SB	F	EB/NB/SB	F	EB/NB/SB
Olive & Terry	D	EB	C	EB	C	EB	E	EB
Olive & 9th Ave	C	EB/SB	B	EB	B	---	D	EB/SB
Olive & 7th Ave	D	SB	B	---	C	SB	F	EB/SB
Olive & 6th Ave	B	NB	B	NB	B	NB	F	EB/NB
Olive & 5th/Westlake	D	EB/SB	C	SB	C	SB	C	SB
Olive & 4th Ave	B	---	B	---	B	---	B	---
Denny & Stewart	F	EB/WB/SW	F	EB/WB/SW	F	EB/SW	F	EB/WB/SW
Denny & Fairview	D	EB/WB/NB	F	EB/WB/NB	F	EB/WB/NB	F	EB/WB/NB
Denny & Westlake	B	EB/NB	F	EB/NB	F	EB/NB	F	EB/NB
Denny & 9th Ave	B	EB/SB	E	EB/SB	C	EB/SB	D	EB/SB
Denny & Dexter	F	EB/WB/NB	F	EB/WB/NB	F	EB/WB/NB	F	EB/NB
Denny & Aurora NB	F	EB/WB/NB	E	EB/WB/NB	F	EB/WB/NB	F	EB/WB/NB
Denny & Aurora SB	B	EB/WB/SB	B	EB/WB/SB	B	EB/WB/SB	B	EB/WB/SB
Denny & 6th Ave	F	EB/NB	F	EB/NB	F	EB/NB	F	EB/NB
Denny & Taylor	D	EB	F	EB	D	EB	D	EB
Denny & 5th Ave	E	EB/WB	D	EB/NB	E	EB/NB	E	EB/WB/NB
Denny & 4th Ave	F	EB	D	EB	F	EB	F	EB
Denny & Broad	F	EB/WB/NE	D	EB/WB	F	EB/WB/NE	F	EB/WB/NE

Source: Parsons Brinckerhoff, 2002

* Direction(s) indicated are for those approaches where queues from the specified intersection are expected to back up and affect operations at adjacent intersections.



FIGURE 40
Year 2020 Peak Hour Intersection LOS for Alternative 1

PM Peak Hour

- In the studied corridors, 19 of 38 intersections are projected to experience operating conditions at LOS E or worse in 2020, 2 more than the Baseline Condition. Operational levels would decline along Stewart Street and Denny Way.
- Seven intersections would decrease in level of service by two or more LOS levels compared to the Baseline Condition.
- **Queuing impacts:** generally similar to the Baseline Condition, with several noted problem areas. Additional queuing impacts predicted at two locations westbound on Stewart Street (at 8th and at Terry), and in multiple directions at Boren Avenue/Howell Street. Queuing impacts appear to lessen on Olive Way eastbound, compared to the Baseline Condition.

Table 56 further summarizes intersection performance of the alternatives in the PM peak hour.

Table 56
Intersection Performance Summary for 2020 PM Peak Hour (Without Mitigation)

	Number of Intersections Operating at LOS E or F				
	Existing Conditions	2020 Baseline	Alt. 1	Alt. 2	Alt. 3
Stewart St.	1 of 12	5 of 12	6 of 12	5 of 12	5 of 12
Olive/Howell	2 of 14	5 of 14	5 of 14	5 of 14	8 of 14
Denny Way	2 of 12	7 of 12	8 of 12	9 of 12	9 of 12
Totals	5 of 38	17 of 38	19 of 38	19 of 38	22 of 38

Source: SPO, 2002

Travel Time

Table 57 summarizes the PM peak hour corridor travel times by alternative (see Table 22 in Appendix N for AM peak hour travel times).

Table 57
Comparison of Corridor Travel Time Summaries by Alternative—PM Peak Hour

	No Action	Alternative 1		Alternative 2		Alternative 3	
	Time (minutes)	Time (minutes)	% Change from No Action	Time (minutes)	% Change from No Action	Time (minutes)	% Change from No Action
Denny Way Eastbound	19.7	16.6	-16%	14.4	-27%	24.5	24%
Denny Way Westbound	10.6	10.4	-2%	10.1	-5%	10.3	-3%
Olive Way Eastbound	5.3	4.0	-24%	3.5	-34%	6.4	23%
Stewart Street Westbound	11.9	17.8	50%	11.3	-5%	15.0	26%

Source: Parsons Brinckerhoff, 2002

Transit Service

North of Seneca Street Screenline. For the AM and PM peak hour, Alternative 1's v/c ratios are similar to the Baseline Condition, indicating no substantial differences in transit service impacts.

Olive/Stewart Corridors. Under Alternative 1, the cumulative amount of travel time spent by transit vehicles in the Olive and Stewart corridors would increase by approximately 10% in the AM peak hour and 24% in the PM peak hour, compared to the Baseline Condition. The sum of delay in both peak hours

(300 additional minutes) would represent an approximately 17% increase in transit travel time compared to the Baseline Condition.

Denny Way Screenline. Under Alternative 1, the cumulative additional delay for transit routes crossing the Denny Way screenline would be relatively similar to the Baseline Condition for both AM and PM peak hours, summing to an overall 2% improvement under Alternative 1. Aurora, Dexter, Fairview and 5th Avenues would experience relatively high amounts of delay.

Transit Layover

Alternative 1 would concentrate the projected future employment and housing growth into fewer overall properties than the other alternatives. Alternative 4, the Baseline Condition, would result in the greatest spread of future development across more properties than the other alternatives. Overall, with only 5 existing layover locations potentially displaced (compared to 10 in the 2020 Baseline), Alternative 1's impact on transit layover locations can be categorized as slightly less than the Baseline Condition.

Alternative 2 – Concentrated Office Core

Travel Characteristics

Table 53 earlier in this section shows the difference between Alternative 2 and the 2020 Baseline Condition for the PM peak hour at the nine screenlines. At Screenline 8, eastbound PM peak hour traffic under Alternative 2 is predicted to be approximately 1.3% greater than predicted for the Baseline Condition. This additional traffic could be related to slightly greater concentration of future development in the Denny Triangle vicinity under Alternative 2 than for the No Action Alternative. With this additional traffic, the predicted v/c ratio at Screenline 8 for eastbound traffic would reach 1.13, nearly the same as the Baseline Condition and less than Alternative 1 (refer to Table 53). This would be less than the 1.20 threshold defined as the City's maximum arterial level of service standard. Other screenlines anticipated to experience v/c ratios of 0.80 or higher for one or both travel directions include Screenlines 2, 6 and 7, in a manner similar to the Baseline Condition (refer to Table 53). Figures 41 and 42 illustrate the anticipated AM and PM peak hour volumes and v/c ratios across the studied screenlines.

Traffic Circulation

Tables 54 and 55 above show 2020 AM and PM peak hour intersection levels of service and queuing impacts for the alternatives, compared to the Baseline Condition. Figure 43 illustrates the AM and PM peak hour levels of service at intersections in the studied corridors for Alternative 2.

AM Peak Hour

- In the studied corridors, 9 of 38 intersections are projected to experience operating conditions at LOS E or worse in 2020, 2 less than the Baseline Condition. Operational levels would decline along Denny Way, but improve along Olive Way and Howell Street.
- Five intersections would decrease in level of service by two or more LOS levels compared to the Baseline Condition, and five would improve by that amount. Four of these declining intersections would be along Denny Way.
- **Queuing impacts:** Queuing impacts would be somewhat less than for the 2020 Baseline Condition, with some improvement along Stewart, Howell, Olive Way, and eastbound Denny Way (refer to Table 54). Some degradation would occur for westbound Denny Way.

PM Peak Hour

- In the studied corridors, 19 of 38 intersections are projected to experience operating conditions at LOS E or worse in 2020, 2 more than the Baseline Condition. Operational levels would decline along Denny Way and Stewart Street.



Source: Parsons Brinckerhoff

FIGURE 41
 Screenline Volumes and V/C Ratios for Alternative 2
 AM Peak Hour





Source: Parsons Brinckerhoff

Seattle Height & Density EIS

FIGURE 43
Year 2020 Peak Hour Intersection LOS for Alternative 2

- Two intersections would worsen in level of service by two or more LOS levels compared to the Baseline Condition.
- **Queuing impacts:** generally similar to the Baseline Condition, with several noted problem areas (refer to Table 55). There would be fewer queuing impacts on Olive Way than the Baseline Condition or Alternative 1.

Travel Time

Refer to Table 57 earlier in this section for a comparison of corridor travel times.

Transit Service

North of Seneca Street Screenline. For the AM and PM peak hour, Alternative 2's v/c ratios are similar to the Baseline Condition, indicating no substantial differences in transit service impacts.

Olive/Stewart Corridors. Under Alternative 2, the cumulative amount of travel time spent by transit vehicles in the Olive and Stewart corridors would improve by approximately 1% in the AM peak hour and 15% in the PM peak hour, compared to the Baseline Condition. The sum of delay in both peak hours (149 fewer minutes) would represent an approximately 9% improvement in transit travel time compared to the Baseline Condition.

Denny Way Screenline. Transit delay for routes across the Denny Way Screenline would be notably greater than the Baseline Condition for both AM and PM peak hours, summing to an overall 21% greater level of delay under Alternative 2. Aurora, Dexter, Fairview and 5th Avenues would experience relatively high amounts of delay.

Transit Layover

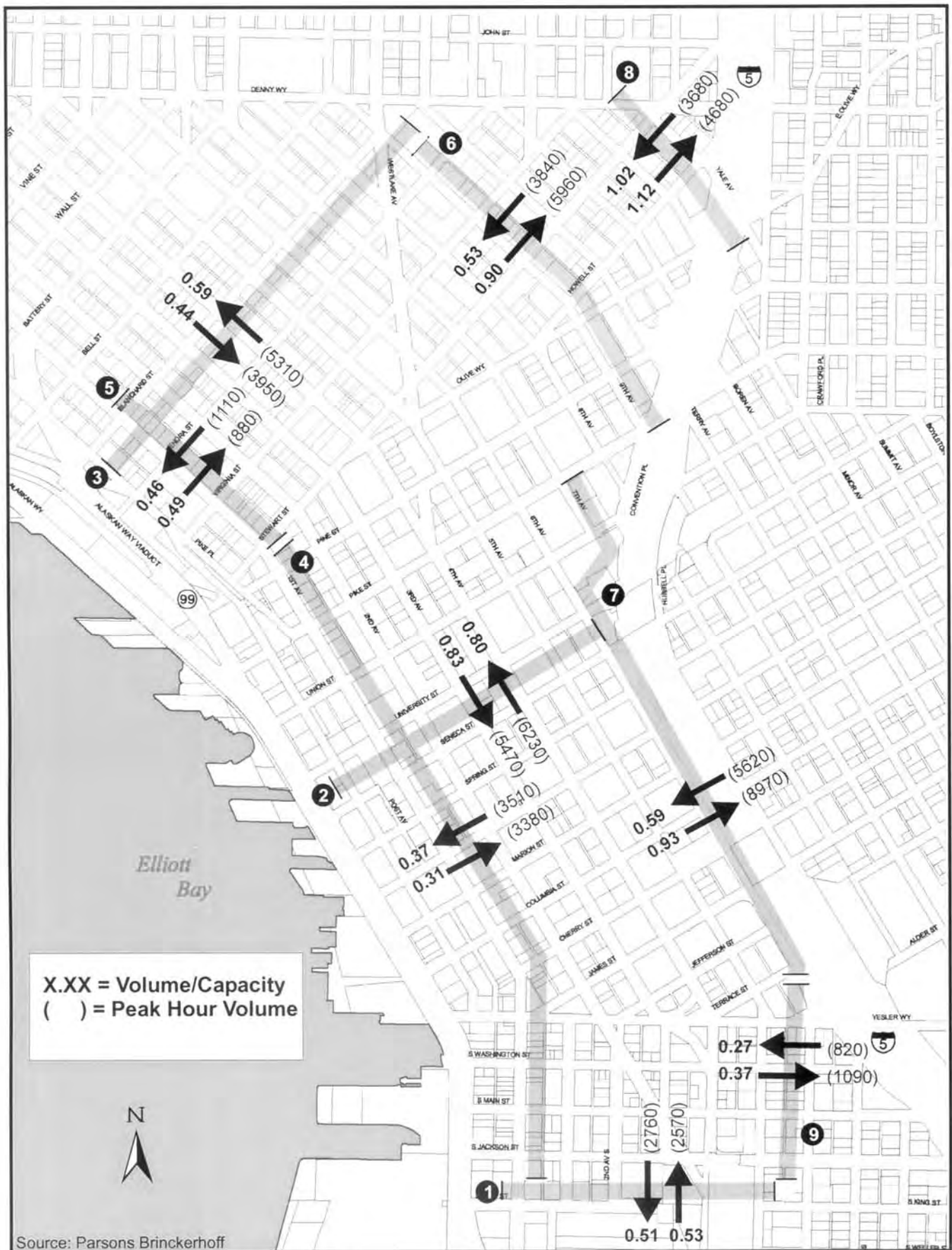
Alternative 2 would concentrate the projected future employment and housing growth into fewer overall properties than Alternatives 3 or 4. Alternative 4, the Baseline Condition, would result in the greatest spread of future development across more properties than the other alternatives. Overall, Alternative 2's impact on transit layover locations can be categorized as slightly less than the Baseline Condition.

Alternative 3 – Residential Emphasis

Travel Characteristics

Table 53 earlier in this section shows the difference between Alternative 3 and the 2020 Baseline Condition for the PM peak hour at the nine screenlines, in terms of volumes, percent difference from the Baseline Condition, and volume-to-capacity (v/c) ratio. At Screenline 8, westbound PM peak hour traffic under Alternative 3 is predicted to be approximately 9.5% greater than predicted for the Baseline Condition. This is probably due to the higher amount of residential use in the Denny Triangle vicinity under Alternative 3. With this additional traffic, the predicted v/c ratio at Screenline 8 for westbound traffic would reach 1.02 (refer to Table 53). This would be approximately 10% greater than the westbound v/c ratio for the other alternatives in this location. Other screenlines anticipated to experience v/c ratios of 0.80 or higher for one or both travel directions include Screenlines 2, 6 and 7, in a manner similar to the Baseline Condition (refer to Table 53). Another finding particular to Alternative 3 is a projected 8.8% increase over the Baseline Condition in westbound PM peak hour traffic at Screenline 5 (just east of 1st Avenue in Belltown). This might relate to traffic generated by projected employment and residential development in the 1st Avenue/Western Avenue and Belltown vicinities. Figures 44 and 45 illustrate the anticipated AM and PM peak hour volumes and v/c ratios across the studied screenlines.





Traffic Circulation

Tables 54 and 55 earlier in this section show 2020 AM and PM peak hour intersection levels of service and queuing impacts for the alternatives, compared to the Baseline Condition. Figure 46 illustrates the AM and PM peak hour levels of service at intersections in the studied corridors.

AM Peak Hour

- In the studied corridors, 9 of 38 intersections are projected to experience operating conditions at LOS E or worse in 2020, two fewer than the Baseline Condition. Operational levels would decline along Stewart Street, but improve somewhat along Denny Way, Olive Way and Howell Street compared to the Baseline Condition.
- Two intersections would decrease in level of service by two or more LOS levels compared to the Baseline Condition, and eight intersections would improve by that amount.
- **Queuing impacts:** generally similar to the Baseline Condition, with several noted problem areas (refer to Table 54). However, conditions would be slightly worse along Stewart Street and improve somewhat along Denny Way, Olive Way and Howell Street.

PM Peak Hour

- In the studied corridors, 22 of 38 intersections are projected to experience operating conditions at LOS E or worse in 2020, 5 more than the Baseline Condition. Operational levels would decline along Olive Way and Denny Way.
- Six intersections would decrease in level of service by two or more LOS levels compared to the Baseline Condition, and none would improve by that amount.
- **Queuing impacts:** generally similar to the Baseline Condition, with several noted problem areas (refer to Table 55). Queuing impacts appear to slightly increase along Stewart Street, and lessen on Olive Way, Howell Street and Denny Way compared to the Baseline Condition.

Travel Time

Refer to Table 57 earlier in this section for a comparison of corridor travel times.

Transit Service

North of Seneca Street Screenline. For the AM and PM peak hour, Alternative 3's v/c ratios are similar to the Baseline Condition, indicating no substantial differences in transit service impacts.

Olive/Stewart Corridors. Under Alternative 3, the cumulative amount of travel time spent by transit vehicles in the Olive and Stewart corridors would decrease by approximately 4% in the AM peak hour but increase by 25% in the PM peak hour, compared to the Baseline Condition. The sum of delay in both peak hours (204 additional minutes) would represent an approximately 12% increase in transit travel time compared to the Baseline Condition.

Denny Way Screenline. Total cumulative transit delay for routes across the Denny Way Screenline would be nearly the same as the Baseline Condition for both AM and PM peak hours. An 18-minute (28%) improvement in transit delay for the AM peak hour would be offset by a 20-minute (18%) increase in transit delay during the PM peak hour. Aurora, Dexter, Fairview and 5th Avenues would experience relatively high amounts of delay.

Transit Layover

Alternative 3 would spread the projected future employment and housing growth over more properties than Alternatives 1 or 2. Alternative 4, the Baseline Condition, would result in the greatest spread of future development across more properties than the other alternatives. Given that Alternative 3 would potentially displace the same number of existing transit layover locations, it can be categorized as having impacts similar to the Baseline Condition.



Source: Parsons Brinckerhoff

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FIGURE 46
 Year 2020 Peak Hour Intersection LOS for Alternative 3

Relationship to Transportation Plans and Policies

All of the alternatives studied in this EIS are generally consistent with the objectives of regional and local transportation-related plans and policies, although they are neutral with respect to certain topics such as pedestrian and bicycle travel modes. The concept of accommodating additional employment and residential growth within the Downtown Urban Center (the largest urban center in the region) is generally consistent with growth management objectives. Such a pattern should encourage greater transit use and more efficient investments in transportation improvements, compared to more typical suburbanized growth patterns. With future growth under any alternative, long-term transportation planning needs to promote improvements that will maintain the overall functionality of the system. See Appendix P for description of relevant plans and policies and additional discussion of the relationship of the alternatives.

MITIGATION STRATEGIES

Proposed Mitigation Strategies

With or without zone changes, the study area is likely to experience adverse impacts to travel conditions by 2020 with projected increases in levels of congestion and delay for all vehicles using Downtown streets, compared to today. For most studied locations, the projected traffic volumes for the three land use alternatives would be within 5% percent of the 2020 Baseline Condition. The biggest exception is in the northeast corner of the Denny Triangle (screenline #8) under Alternative 1, which would generate approximately 8% more traffic in the PM peak hour (peak direction) than the 2020 Baseline Condition. Data from other studied screenlines (#2, 6 and 7) indicate that PM peak hour traffic in 2020 will use a large portion of the available road capacity in the Downtown Commercial Core and Denny Triangle.

In order to alleviate future adverse impacts to traffic conditions as identified in this study, a combination of mitigation strategies should be implemented over time. The mix of mitigation strategies should be flexible and responsive to the magnitude and timing of significant adverse impacts experienced (or likely to be experienced) in the future. Because this is a programmatic EIS, the mitigation strategies are discussed at a somewhat generalized level of detail.

Demand Reduction Strategies

TRANSPORTATION DEMAND MANAGEMENT STRATEGIES

Over the past several years, transportation demand management (TDM) strategies have helped reduce the percentage of workers driving alone to Downtown. King County and other government agencies continue to enhance TDM strategies and programs over time. King County's Downtown Seattle Access Project is a federally funded demonstration project that seeks to reduce the single-occupant vehicle (SOV) parking supply and promote alternative transportation modes.

Continuing and strengthening the use of TDM strategies is proposed as a primary mitigation strategy to address projected significant adverse impacts.

- The current method of requiring transportation management plans (TMPs) for new development should be continued and improved as possible.
- The City should seek to include the most advanced and effective TDM strategies in TMPs for new developments.
- The City and other public agencies should continue to promote (and require as possible) greater implementation of TDM strategies, coordinated through worksites. The following TDM strategies should be promoted:
 - ◆ Discounted transit passes (e.g., Flex Pass)

- ◆ Promotion of other alternative modes (walking, biking)
 - ◆ Increased telecommuting
 - ◆ Business use of vans
 - ◆ Carsharing
 - ◆ Preferential parking for carpools/vanpools
 - ◆ Guaranteed ride home
 - ◆ Enhanced computerized ridematching database and mapping services
 - ◆ Parking cashout (discontinuing parking subsidies and providing incentives for alternative modes)
 - ◆ Enhanced real-time transit information via Internet and on-street kiosks.
- **Residential-oriented TDM programs.** The City should pursue the implementation of residential-oriented TDM programs Downtown to reduce vehicle trip generation by encouraging alternatives to automobile ownership. These programs should explore options such as FlexCar and bus pass incentives.
 - **Transportation Management Association (TMA).** The City should promote formation of a TMA by Downtown stakeholders to aid in future TDM planning activities.

REDUCE TRIP GENERATION THROUGH AREA-SPECIFIC REZONES.

The City could pursue area-specific rezones that would govern the size and type of development, and its associated potential to generate trips in particularly congested areas. For example, future development of residential uses might generate fewer overall vehicle trips than office development on the same properties. Specific zoning could be targeted to certain locations where high traffic volumes might otherwise generate significant adverse impacts on traffic operations.

Mitigation Funding Strategies

CREATE A TRANSPORTATION MITIGATION PROGRAM FOR DOWNTOWN OR PORTIONS OF DOWNTOWN.

The City should develop a comprehensive approach to defining transportation mitigation requirements for projects in Downtown or portions of Downtown. The City is studying such an approach in analyses for the University District and South Lake Union neighborhoods. A transportation mitigation program could include defining a set of improvements to address significant adverse impacts, and a mechanism by which new development and redevelopment would contribute a fair share toward transportation system improvements. These improvements could address impacts to all mode choices, including roads, transit facilities, bicycle, pedestrian and ride-sharing programs. A transportation mitigation program could provide more certainty and clarity for Downtown property owners and developers, and greater certainty that significant transportation impacts would be remedied over the long term.

Mobility Strategies

A combination of strategies should be pursued to improve overall mobility of people and vehicles in the study area over the long term. The following discussion provides several possible options for mitigation strategies that could be pursued at the discretion of the decisionmakers.

DEFINE PHYSICAL IMPROVEMENT OPTIONS THAT SHOULD BE PLANNED AND IMPLEMENTED TO ENHANCE THE CAPACITY OF THE TRANSPORTATION NETWORK.

A comprehensive set of physical improvement options or specific improvement projects could be identified, and related to a transportation mitigation program. This could include previously-identified capital improvement projects, new capital improvements and/or changes (such as lane restriping or designation changes) that would make better use of existing rights-of-way. It could also include projects needing additional right-of-way, such as adding travel lanes or turn lanes to streets, and/or

pedestrian/bicycle-oriented improvements, transit facilities, and improvements such as grade-separation of selected intersections. Lane modifications could also include changes to better accommodate transit vehicles and reduce transit delay. The following improvement strategies are suggested as options by the transportation consultant:

Options for Stewart Street

- *Restripe Stewart Street between Yale and Sixth Avenue to allow for four 12-foot travel lanes, with no on-street parking during the AM or PM peak periods; or,*
- *Restripe Stewart Street between Yale and Sixth Avenue to allow for four ten-foot travel lanes and (along most segments) an eight-foot parking lane; and/or,*
- *Restripe Stewart Street to accommodate a right-side peak-period transit-only lane.*
- *Construct a grade-separated intersection of Stewart Street with Denny Way.*
Grade-separating this intersection could provide significant relief to both the Denny Way and Stewart Street corridors. Before serious consideration is given to this measure, a more thorough analysis of its impacts, constructibility and costs would need to be undertaken.
- *Stewart Street configuration adjustments to discourage diversion of I-5 traffic.*
It has been observed that a significant volume of traffic in the AM peak period exits the express lanes southbound onto Stewart Street and re-enters I-5 southbound at Yale Avenue in order to exit at later Downtown exits or continue south on the mainline. Modifications to the street system to discourage this movement could provide benefits to Stewart Street traffic operations in the AM peak hour. One possible reconfiguration would incorporate a left-turn only lane from Stewart Street onto Denny Way, to alter lane choices made by drivers seeking to turn left from Stewart Street to Yale Avenue.

Options for Olive Way and Howell Street

- *Restripe Olive Way between Fourth and Eighth Avenue to allow for four travel lanes during both the AM and PM peak periods.*
- *Restripe Olive Way to accommodate a right-side peak-period transit-only lane.*
- *Convert westbound contra-flow lane on Howell Street to eastbound direction.*

Options for Denny Way

- *Construct a grade-separated intersection of Stewart Street with Denny Way.*
Same as discussed above.
- *Locate transit queue jumps at intersections with significant queues.*
Under all of the alternatives, Fairview Avenue North would experience the longest queues and would likely benefit the most from a signal queue jump for transit vehicles. Other streets crossing Denny Way with significant delays and transit volumes that could also benefit from transit signal queue jumps include Fifth Avenue North, the Aurora Avenue North ramps, and Dexter Avenue North.
- *Potential benefit from restoring street grid over Aurora Avenue north of Denny Way.*
This type of improvement is being considered as part of the Alaskan Way Viaduct Project. Reconnection of several east/west arterial streets currently severed by Aurora Avenue north of Denny Way would allow for more east/west traffic capacity, and potentially reduce the amount of traffic using Denny Way (particularly in the western portion of the corridor). Although assessment of these impacts to Denny Way is beyond the scope of this study, separate studies analyzing the overall impacts of these improvements are currently underway.

CURB LANE MANAGEMENT

- Truck loading and passenger loading in curb lanes can significantly affect capacity, as can driveway access points. Controls (development standards or conditions) could be placed on future development to require them to locate loading zones in alleys or on side streets, and locate access drives (preferably right-in and right-out only) on side streets rather than key arterials.
- Where loading zones and passenger pick-up/drop-off zones already exist, or are not possible to locate off-street or on a minor street, the City could consider time-of-day restrictions on use of loading zones and pick-up/drop-off zones to avoid peak hour conflicts.

RETIMING TRAFFIC SIGNALS TO OPTIMIZE CORRIDOR TRAFFIC FLOW

Retiming or re-synchronizing signals is a long-term operational strategy best implemented within the context of the entire Downtown street network, and on an ongoing periodic basis as actual changes in traffic volumes and patterns are experienced. More funding would allow more frequent updates to signal timing to better meet changing demands and travel patterns.

FUNDING FOR ADDITIONAL STAFFING OF CITY'S TRAFFIC MANAGEMENT CENTER

With additional funding for more staffing, the City's Traffic Management Center would be able to improve management of Downtown's traffic signal systems. More funding would allow the City to increase staffing and better utilize the capabilities of its traffic management center, including providing quicker signal timing responses to incidents, special events or other fluctuations in day-to-day traffic flows. More staffing would also allow more frequent updates of signal timing and coordination plans. This strategy would benefit traffic conditions throughout the Downtown street network.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Without mitigation, future development through the year 2020 would generate additional traffic volumes and increase congestion in portions of Downtown, most notably in the Denny Triangle area. Much of this impact would occur with or without zoning changes. However, if Alternative 1 or Alternative 3 is implemented, congestion in the northeastern Denny Triangle could be approximately 5-10 percent worse than under the other alternatives, including the 2020 baseline condition (Alternative 4 - No Action). Under all the alternatives considered, additional congestion will likely increase overall travel times on Denny Way, Stewart Street and Olive Way, including transit travel time. Implementation of mitigation strategies, at the City's discretion, would likely improve overall transportation conditions, so that a portion of the impacts of traffic congestion could be avoided.

PARKING

AFFECTED ENVIRONMENT

The study area for this analysis includes the portion of Downtown Seattle bordered by Denny Way on the north, I-5 on the east, Yesler Way on the south and Alaskan Way on the west, omitting Pioneer Square and the International District. This study generally characterizes the area south of Olive Way as part of the Commercial Core neighborhood, and areas north of Olive Way (and Stewart Street west of 3rd Avenue) as the Denny Triangle and Belltown neighborhoods.

Parking Supply and Utilization

OFF-STREET PARKING SUPPLY

Sources for off-street parking supply information include the 1999 PSRC *Parking Inventory for Seattle and Bellevue*, 2002 PSRC *Parking Inventory for the Central Puget Sound Region*, and supplemental data from the City of Seattle. In 1999, the Downtown EIS study area contained roughly 48,000 off-street parking spaces in 540 lots and garages. The types of spaces were approximately as follows:

- 38,000 spaces, general public paid parking
- 5,600 spaces, employee parking
- 3,200 spaces, residential parking
- 1,000 spaces, short-term free parking

As of 1999, approximately 19,220 parking spaces, or about 40 percent of the total inventory, were located north of Olive Way, while approximately 28,000 parking spaces (60 percent of the total) were located south of Olive Way. An additional 700 parking spaces were located in unspecified newer developments throughout the study area. The data indicate that parking facilities in the commercial core area south of Olive Way tend to be larger than facilities north of Olive Way. However, there are a greater number of off-street facilities (likely smaller surface parking lots) in areas north of Olive Way.

Data in the 2002 *Inventory* suggest that overall parking supply increased by approximately 3,000 parking spaces in the EIS study area since 1999, representing a 4-6% increase to approximately 50,000 total parking spaces. Due to a change in methodology in the 2002 *Inventory*, trends in types of parking since 1999 are not interpreted for the EIS study area.

OFF-STREET PARKING UTILIZATION

Average weekday utilization of off-street parking is available from 1999 PSRC data for the study area as a whole and for areas north and south of Olive Way (see Table 58). Average weekday morning parking utilization for the entire study area in 1999 was approximately 81 percent, and average afternoon parking utilization was approximately 77 percent. The subarea data indicate that off-street parking in areas south of Olive Way were slightly more occupied on average than areas north of Olive Way. This is generally consistent with the greater employment density and commercial activity in the commercial core area. These parking utilization rates indicate that a modest amount of off-street parking capacity is available on an average day, if the user is willing to pay. Parking rates are generally highest in the central part of the commercial core, easing gradually with greater distance to the north and south.

The 2002 PSRC data indicate that occupancy rates have dropped noticeably since 1999. In the entire PSRC Downtown study area, average occupancy dropped about 15% to about 63% in 2002. Only the waterfront vicinity experienced a slight increase in average occupancy. The overall drop in average occupancy could be due to a combination of increased parking supply and the effects of the economic downturn.

Table 58
Average Weekday Off-Street Parking Utilization, 1999

	Max. Capacity (see note)	Average Weekday Utilization			
		Morning (9-11:30 am)		Afternoon (1-3:30 pm)	
Total Study Area	47,230	38,380	81%	36,450	77%
N/of Stewart/Olive	19,220	15,090	79%	14,545	76%
S/of Stewart/Olive	28,010	23,290	83%	21,905	78%

Source: PSRC data compiled by Parsons Brinckerhoff.

Note: The maximum capacity for the total study area (47,230) does not include 700 parking spaces at new developments. Utilization data was not available for parking at these new developments.

Historical Trends in Parking Utilization, Supply, and Price

The PSRC's inventories of off-street parking in Downtown Seattle include a count of total parking stalls, occupancy and cost. Table 59 below summarizes the 1999 parking information for Downtown Seattle.

The relationships between parking supply, demand (represented as occupancy) and cost are complex. As shown in Table 59, from 1989 to 1999, the cost of parking increased faster than the demand or supply of parking changed. Between 1989 and 1999, parking supply increased by an annual average of 1.8%. During this same time period, the average daily cost increased by an annual average of 6.8%. The demand, expressed as occupancy, has at times increased, and at other times decreased. It decreased between 1989 and 1992, possibly because of an increase in parking supply during this same period of more than 5,000 spaces. As shown in Figure 47, occupancy decreased between 1996 and 1999. During this period the cost of daily parking jumped considerably, while the supply of parking increased only modestly. Parking supply increased by only about 900 spaces, but the daily cost of parking increased by about \$4.50, or over 13 percent. This suggests that between 1996 and 1999, the demand for parking decreased partially because it became too expensive for some to park.

As of 2002, total stalls in PSRC's Downtown study area (including Pioneer Square and the International District) increased to approximately 58,538 stalls, representing a slightly higher rate of growth in parking supply than in past years. Between 1999 and 2002, the average cost for two-hour parking rose about 5% annually to \$7.20, mirroring the past trend. However, the average cost for daily parking remained nearly unchanged for the past three years, at \$14.52. Over time, market forces will continue to influence the supply of parking, the demand for it, and the cost. More detailed information about parking inventories can be found at the PSRC website, (www.psrc.org).

Table 59
Summary of Parking in Downtown Seattle, 1989–1999

Parking Data	1989	1992	1994	1996	1999	Avg. Annual % Change
Total Stalls	45,389	50,863	52,596	53,164	54,063	
Total Stalls -- Annual Percent Change	—	3.9%	1.1%	0.5%	0.9%	1.8%
Occupancy Rates	75.4%	73.3%	74.6%	80.3%	78.2%	
Occupancy Rates -- Annual Percent Change	—	-0.9%	0.6%	3.7%	-1.3%	0.4%
Two Hour Cost	\$3.76	\$4.28	\$4.41	\$4.99	\$6.20	
Two Hour Cost -- Annual Percent Change	—	4.4%	1.5%	6.4%	7.5%	5.1%
Average Daily Cost	\$7.45	\$8.37	\$8.60	\$9.83	\$14.39	
Average Daily Cost -- Annual Percent Change	—	4.0%	1.4%	6.9%	13.6%	6.8%

Figure 47
Summary of Parking Changes in Downtown Seattle, 1989–1999



On-Street Parking Supply

Although much of the Downtown study area's on-street parking supply primarily consists of parallel curb parking controlled by parking meters, the different subareas have different mixes of on-street parking resources, as described below.

Commercial Core (south of Olive Way)

Office core and retail core vicinity

- Metered parallel parking typically present on east-west streets, but more limited on portions of the north-south avenues such as 3rd, 4th, 5th and 1st Avenues. Typical metering is 2-hours, with some meters 30-minutes or less.

- Commercial vehicle parking zones and pickup/drop-off zones
- Selected areas reserved for government vehicles near public facilities
- Limited carpool parking on some blocks, primarily in peripheral areas
- Curb parking frequently interrupted by bus stop zones and curb cuts

Western Avenue vicinity

- Metered parallel parking in a majority of locations, 2-hour and short-term
- Metered angle parking beneath adjacent Alaskan Way Viaduct
- Commercial vehicle parking zones and pickup/drop-off zones

Belltown

- Metered parallel parking in majority of area, majority with 2-hour term

Denny Triangle (north of Olive Way)

- Metered parallel parking in majority of area, majority with 2-hour term
- Limited number of streets with no curb parking
- Limited carpool parking on a few blocks, primarily in northern vicinity
- Angled parking available in some non-arterial blocks
- Free short-term curb parking available
- Curb parking occasionally interrupted by bus stop zones and curb cuts
- Bus layover zones defined in a few blocks

Nearby Areas Outside Denny Triangle

South Lake Union vicinity

- Other than Denny and Valley, most streets offer plenty of parking
- Most parking is free parallel parking with a time limit of 2 hours or no time limit at all.
- Metered parking is mainly limited to 2 hours.
- In the Seattle Times area, metered parking is limited to 15 minutes.
- In the Denny/Harrison/Westlake area, there is a mix of angled parking with parallel, with a couple of blocks limiting parking to 4 hours
- Commercial vehicle parking zones and pickup/drop-off zones
- Curb parking is frequently interrupted by bus stop zones and curb cuts

On-street parking utilization data from 1999 are available for portions of the Belltown and Denny Triangle neighborhoods, but not the commercial core. Table 60 describes the 1999 average weekday and peak hour on-street parking utilization for sampled portions of those neighborhoods, with a comparison to the Pike-Pine neighborhood, adjacent and east of Downtown. The 1999 peak hour on-street parking utilization in Belltown was approximately 87 percent, considerably higher than the Denny Triangle's peak hour utilization of approximately 71 percent. The average parking utilization for both neighborhoods was approximately the same at 61-62 percent.¹ In an everyday operational sense, on-street parking is generally perceived to be near capacity when rates reach 80 to 85 percent. The perception of low parking availability at these rates can occur because, while turnover may be relatively high, the available spaces are dispersed infrequently within the entire street network, making them difficult to find. The somewhat lower rate of utilization in the Denny Triangle may reflect the tendency for lower parking utilization in peripheral locations and greater utilization closer to the retail core and commercial core.

¹ These utilization figures are based on a sample of the on-street parking inventory, including 210 spaces in Denny Triangle and 360 spaces in the Belltown neighborhood.

As a comparison, the Pike-Pine neighborhood adjacent to Downtown had an average utilization of 84 percent and a peak hour utilization of 91 percent in 1999, higher than both of the studied Downtown neighborhoods. This high utilization was likely due to the combination of dense residential use and growing commercial uses in that neighborhood.

Table 60
On-Street Parking Utilization in Selected Neighborhoods, 1999

Sub-Area	On-Street	
	Average Utilization	Peak Hour Utilization
Denny Triangle	61%	71%
Belltown	62%	87%
Pike-Pine	84%	91%

Source: PSRC and City of Seattle data compiled by Parsons Brinckerhoff.

A considerable amount of on-street parking is available in or near the south end of the study area, serving Pioneer Square, the International District, and the baseball and football stadiums. Within a ten-minute walk of the stadiums (about 5 or 6 blocks largely in the Pioneer Square and International District areas), approximately 1,830 on-street parking spaces are available.²

IMPACTS

Alternative 4 – No Action

Future projected growth and redevelopment in the Downtown study area will result in changes to parking supply and demand conditions, with or without any changes to zoning. This discussion first addresses conditions in 2020 for Alternative 4 - the No Action Alternative.

OFF-STREET PARKING

Future residential and employment growth throughout the study area would increase overall demand for parking. Table 61 compares predicted parking supply and demand conditions in 2020 for all of the alternatives. Parking supply estimates in Table 61 assume that minimum parking requirements for commercial uses would be met, and that residential development (which has no minimum parking requirement) would provide 0.63 parking spaces per residential unit³.

As shown in Table 61, the predicted amount of off-street parking supply provided with future development would be approximately 16,991 spaces, including approximately 12,200 commercial (e.g., office/retail) parking spaces and approximately 4,800 residential spaces. Since the commercial parking calculations are based on minimum requirements, they may be lower than the amount actually provided with future development. The residential parking calculation could also be low, at 0.63 parking spaces per residential unit (based on the most current census data available for vehicle ownership per household in Downtown Seattle). Residential developers could provide more parking. If one parking space per

² Source: SR 519 Operational Analysis Team-SR 519 - *Operational Analysis Weekday Event*, May 1998.

³ The value 0.63 is a low-end estimate based on 1990 census data for auto ownership per household in Downtown Seattle census tracts.

residential unit is provided for all future residential development, the residential parking supply would be approximately 2,800 spaces greater than shown in Table 61.

Table 61 shows parking demands for 2020 under two scenarios: one with “moderate” implementation of TDM measures, and one with more aggressive implementation of TDM measures. The 2020 estimated parking demand with moderate TDM is for approximately 23,837 spaces, while estimated parking demand with more aggressive TDM is for approximately 19,598 spaces. This suggests that future development could generate more parking demand than the minimum supply provided, by approximately 2,600 to 6,850 spaces. However, developers could choose to provide more than the minimum parking, if market conditions warrant.

Future development under Alternative 4 would displace approximately 7,550 existing off-street parking spaces by 2020, of which approximately one-half would be from existing principal-use parking lots/garages and one-half would be from parking that is accessory to other land uses. A large majority of the displaced off-street parking will be concentrated into three areas Downtown (see Figure 48). In Area 1 (between 9th Avenue and 6th Avenue, from Pine Street to Denny Way) approximately 1,900 parking spaces from lots and garages are likely to be displaced by future development. In Area 2 (from Lenora Street to Stewart Street, between 5th Avenue and 1st Avenue), approximately 373 parking spaces from lots or garages are likely to be displaced by future development. In Area 3 (one block between 4th and 5th Avenues, Seneca and Spring Streets), a 700-space parking garage is projected to be displaced by future development.

Table 61
Parking Supply and Demand Changes, by Alternative

2020 PARKING SUPPLY				
	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Parking Spaces Displaced From Principal-Use Parking Lots/Garages	3,481	3,481	3,661	3,775
Other Displaced Parking (accessory to other existing uses)	3,656	3,656	3,656	3,774
Total Displaced	7,137	7,137	7,317	7,549
Parking Spaces Added by Future Comm. Development (minimum req.)	12,357	12,178	12,201	12,187
Parking Spaces Added by Residential Development (assumption)	4,648	4,811	4,696	4,804
Total Added	17,005	16,989	16,897	16,991
2020 PARKING DEMAND (with “moderate” TDM measures)				
	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Parking Spaces to Meet Demand				
Commercial Parking	19,113	18,942	18,983	19,034
Residential Parking	4,648	4,811	4,696	4,803
Total Demand	23,762	23,752	23,678	23,837
2020 PARKING DEMAND (with more aggressive TDM measures)				
Parking Spaces to Meet Demand				
Commercial Parking	14,857	14,723	14,755	14,795
Residential Parking	4,648	4,811	4,696	4,803
Total Demand	19,505	19,534	19,451	19,598

Source: Parsons Brinckerhoff, 2002

One consequence of parking demand unmet by off-street parking supply would be increased demand for other off-street and on-street parking resources. Competition would likely increase for on-street parking in a greater portion of the study area, and prices for off-street parking could increase. Higher parking prices could potentially affect shoppers' interest in patronizing Downtown businesses, but detailed analysis of this topic is beyond the scope of this EIS. The City could consider adjusting its minimum parking requirements to increase the supply of parking provided with future redevelopment. However, given City policies to promote alternative transportation modes, a higher parking requirement is not likely to be a City priority.

ON-STREET PARKING

As noted above, increased overall parking demand from future development would likely lead to increased competition for on-street parking resources. This trend would be gradual and occur in response to the amount of additional development in a particular area. However, given that the largest concentration of future development would occur in the Denny Triangle neighborhood, the increased competition would most strongly occur in the Denny Triangle and nearby surrounding areas. More specifically, the areas most impacted by increased competition for on-street parking are the same three areas shown in Figure 48.

In addition, as future development occurs, some displacement of on-street parking resources would likely occur due to the need for garage access points and possibly additional commercial vehicle parking spaces or other specialized types of parking or curb uses.

Alternative 1 – High End Height and Density Increase

OFF-STREET PARKING

Future residential and employment growth throughout the study area would increase overall demand for parking. As shown in Table 61, the predicted amount of off-street parking supply provided with future development would be approximately 17,005 spaces, including approximately 12,357 commercial (e.g., office/retail) parking spaces and approximately 4,648 residential spaces. This would be nearly the same parking supply as under Alternative 4 – the No Action Alternative.

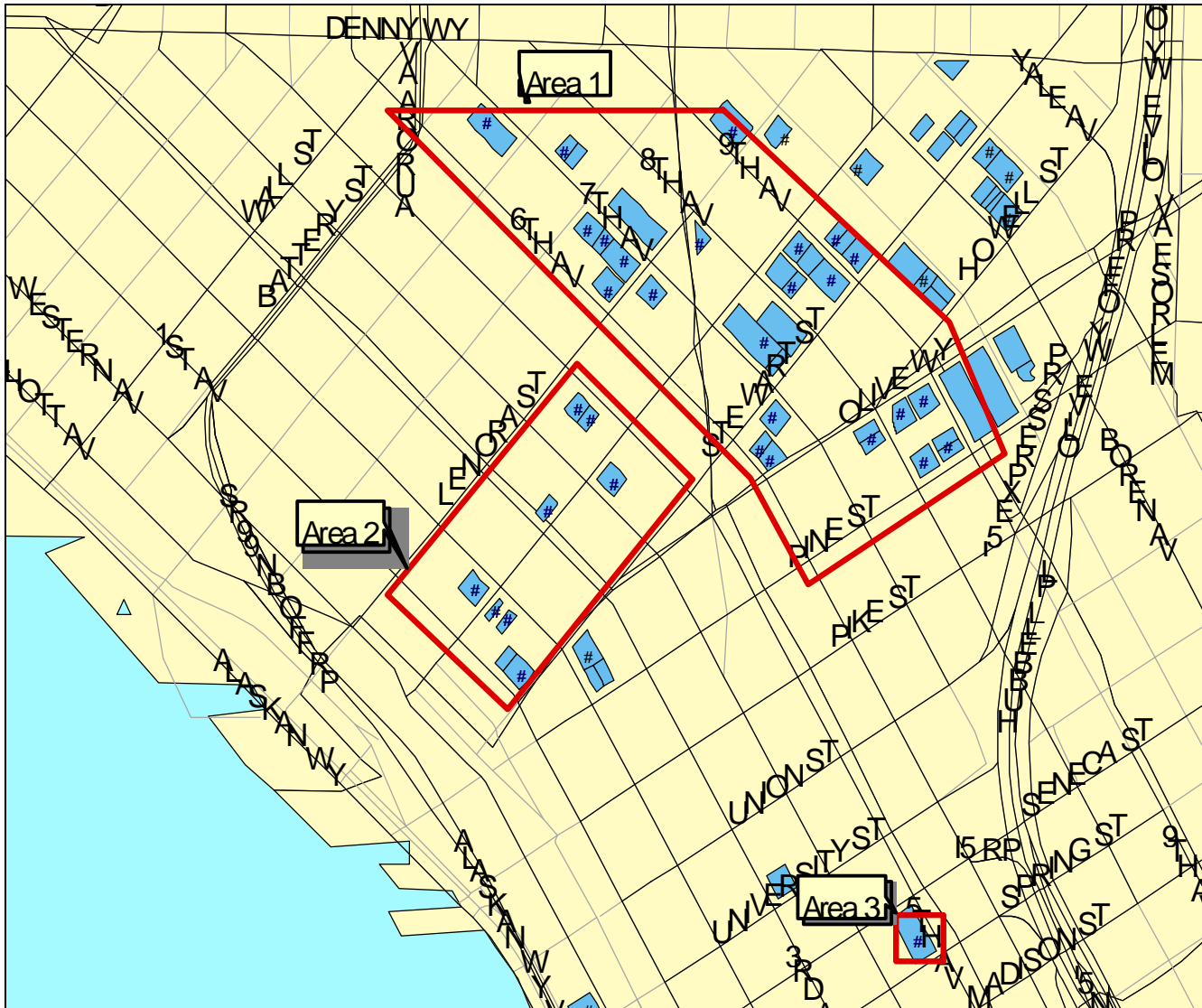
The 2020 estimated parking demand with moderate TDM is for approximately 23,762 spaces, while estimated parking demand with more aggressive TDM is for approximately 19,505 spaces. This suggests that future development could generate more parking demand than the minimum supply provided by approximately 2,500 to 6,750 spaces. However, developers could choose to provide more than the minimum parking, if market conditions warrant. This level of parking demand would nearly the same as under Alternative 4 – the No Action Alternative.

Future development under Alternative 1 would displace approximately 7,137 existing off-street parking spaces by 2020, approximately 400 fewer displaced spaces than under Alternative 4 – the No Action Alternative. Most of the displaced off-street parking would occur in the three areas shown in Figure 48.

ON-STREET PARKING

Alternative 1 would likely generate increased competition for on-street parking in a greater portion of the study area, and increased prices for off-street parking, in a manner similar to Alternative 4. However, with future development spreading across fewer blocks under Alternative 1, displacement of off-street and on-street parking resources would likely be slightly less than under Alternative 4.

Figure 48
Three Areas Most Affected by Displacement of Parking Garages*



Source: Parsons Brinckerhoff, 2002. *Polygons indicate future new development areas. Dots indicate displaced off-street parking lots/garages

Alternative 2 – Concentrated Office Core

OFF-STREET PARKING

Future residential and employment growth throughout the study area would increase overall demand for parking, in a manner similar to Alternative 1 and 4 (refer to Table 61 for details).

ON-STREET PARKING

Alternative 2 would likely generate increased competition for on-street parking in a greater portion of the study area, and increased prices for off-street parking, in a manner similar to Alternative 1.

Alternative 3 – Residential Emphasis

OFF-STREET PARKING

Future residential and employment growth throughout the study area would increase overall demand for parking. Overall impacts on off-street parking would be between those of Alternatives 1 and 4 (refer to Table 61 for details).

ON-STREET PARKING

Alternative 2 would likely generate increased competition for on-street parking in a greater portion of the study area, and increased prices for off-street parking. Overall on-street parking impacts would be between those of Alternatives 1 and 4.

Relationship of Alternatives to Parking Policies

The Comprehensive Plan's parking policies support the provision of adequate parking for economic viability of commercial areas while discouraging single-occupant-vehicle commuting by employees. The policies also seek to make best use of the City's limited street space, a balance among competing uses, and protection of neighborhoods from overflow parking. The Downtown Urban Center Goals and Policies are generally similar in intent, and promote incentives for use of transit, vanpools, carpools and bicycles as alternatives to single-occupant-vehicle commuting.

All of the alternatives, including No Action, are likely to displace several existing off-street parking lots and garages. Some of these are in proximity to the retail core, and a portion of their use is likely attributable to customers of the retail core and immediate vicinity. However, a substantial portion of existing parking demand in these off-street locations is likely due to commuter employees, mostly single-occupant vehicle drivers. The continuing availability of such parking encourages travel choices that foster traffic congestion and are less energy-efficient.

Placing greater restrictions on parking supply is a demand-reduction strategy that would discourage single-occupant-vehicle commuting and help (to some degree) avoid adverse traffic impacts. Given the potential severity of traffic impacts identified in this EIS for all of the alternatives, an aggressive approach to managing parking supply may be warranted.

Due to the projected high traffic volumes and congestion with or without zoning changes, it will likely be necessary over time to increase the efficiency of existing street use, which may mean removing some on-street parking lanes on some streets to optimize their capacities.

MITIGATION STRATEGIES

Proposed Mitigation Strategies

Demand Reduction Strategies (TDM Programs)

See the demand reduction strategies proposed as mitigation in the Transportation section of this EIS. In addition to addressing predicted significant adverse impacts on the road network, transportation demand reduction strategies would aid in reducing parking demand. Furthermore, these strategies could include parking-specific actions, such as "parking cashout" and residential-oriented TDM programs (using options such as FlexCar and bus pass incentives).

Possible Mitigation Strategies

The following strategies are other possible mitigation strategies that could be pursued at the decisionmakers' option, to further influence parking in Downtown as growth occurs over the long term.

Influence Parking Demand Through Financial Mechanisms

Over the long-term, the City could explore methods of more aggressively influencing parking demand through direct or indirect financial mechanisms. Methods could include parking taxes or other user fees. This could influence a greater percentage of single-occupant vehicle commuters to seek alternative transit modes that more efficiently use the transportation network.

Lower Minimum and Maximum Parking Requirements

Minimum and maximum parking requirements in the Land Use Code could be reduced for specific zones to discourage single-occupant-vehicle commuting by employees. Such changes should be targeted to the supply of long-term employee-oriented parking rather than short-term customer-oriented parking.

Area-Specific Changes in Parking Requirements

Reductions or waivers in parking requirements could be targeted to specific locations (such as portions of the Denny Triangle) to help reduce parking supplies with future development. This would aid in encouraging use of transit and other non-single-occupant-vehicle travel modes and thereby discourage growth in traffic congestion.

Reduce Parking Demand and Trip Generation Through Area-Specific Rezones

The probable amount of traffic generation and parking demand could be influenced through rezones of certain areas. For example, future development of residential uses might generate fewer overall vehicle trips than office development on the same properties. Specific zoning could be targeted to certain locations where high traffic volumes might otherwise generate significant adverse impacts on traffic operations.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Additional development over the long term would contribute to increased commuter vehicle trips to and from the Downtown study area, and increased parking demand.

ENERGY

AFFECTED ENVIRONMENT

Introduction

Seattle City Light (SCL) serves Downtown customers with an underground network system fed by three substations. This system is known as the Downtown Network. Many of the region's largest businesses and governmental operations depend on the highly reliable power supply from the network system, and certain new businesses consider this reliability when deciding where to locate. Downtown electrical load has continued to grow over the last several years.

Description of the Downtown Network

The Downtown Network serves the Downtown area between Denny Way and S. King Street, plus a dozen other blocks north of Denny Way in the Aurora/Broad Street and Fairview Avenue vicinities. This is a 1.2-square mile area. The Downtown Network accounts for approximately 10% of total system load. Three distribution substations located at Broad Street, Union Street and S. Massachusetts Street serve this area. The Downtown Network is connected via transmission lines and 142 circuit miles of feeder lines. The network is designed to provide highly reliable electric power by means of a complex system of multiple power-supply cables, transformers and network protectors to each customer. This reliability is highly desired in a Downtown core area and is more costly to build, operate and maintain. In recognition of this, several years ago a separate electric rate was established for medium and large commercial customers served from the Downtown network.

Downtown Demand and Substation Capacity

The current peak demand in Downtown is approximately 260 MVA. Summer and winter peak demands are comparable. Commercial customers account for approximately 95% of energy sales in the Downtown service area.

A report by R.W. Beck titled "Downtown and First Hill Load Analysis" was published in March 2002. Based on a revised load forecast, the report states that "a new substation serving the Downtown network must be energized by 2012 in order to provide for a service need date of 2015." This study assumed a load growth throughout the Downtown network area of 2% per year and identifies factors that could accelerate or delay the date the substation is needed (such as greater-than-expected "large loads").

Seattle City Light has currently embarked on a comprehensive Capacity Plan to identify improvements to the transmission and distribution systems that may be needed to meet the load growth requirements in the entire Seattle City Light service area. Included in that effort will be a review of the 2002 R.W. Beck report. Seattle City Light will pursue the recommendations that result from the Capacity Plan, including those relating to the Downtown area. This Capacity Plan will be completed by the end of 2004.

In the near term, City Light is performing work that will maximize the available substation and distribution feeder capacities. Capacity work is being phased in by re-conductoring feeders using larger cables, balancing and redistributing feeder loads between neighboring substations, increasing some network capacities, and adding a small amount of transformer capacity at an existing substation. City Light is also promoting load management to reduce loading of the existing Seattle City Light system. This work will result in maximum capacity for the network feeder cables that best utilizes the substation capacity available from the three existing substations.

Economic development and its impact on the electrical system will be regularly and closely monitored. If loads ramp up or the request for large loads happens sooner than presently projected, the need for infrastructure will accelerate. Ultimately as development and loads ramp up over time, additional substation and distribution capacity will be needed and a new Downtown substation and associated distribution feeders will be built.

HIGH ENERGY DEMANDING USES

The economic boom of the late 1990s and early 2000 spurred greater demand for electricity to serve “wired” offices, laboratories, and concentrations of computers and telecommunications equipment. “Server farms” or “server hotels” are an emerging category of high-tech use that concentrates many computer servers into a hub that handles computer and telecommunication traffic and business data processing needs. These uses have few employees but very large energy demands, up to 150 watts per square feet, many times more than typical commercial energy demands. Air conditioning to prevent equipment overheating is a key need, as is highly reliable power to prevent interruptions of service. In 1999 and 2000, there was much competition to develop server farms, and several projects were pending or contemplated.

During 2000 and 2001, however, the high-tech and telecommunications sectors experienced rapid changes that dramatically altered future expectations for those sectors as well as the overall national and regional economy. Numerous local high-tech business ventures failed, resulting in vacation of office space and significant implications for local real estate leasing and development. Added to this were further economic challenges of an earthquake, a regional drought and an energy crisis. These economic factors combined to delay or cancel the development of several “server hotels” and high-tech-oriented office projects.

Predicting future energy use in this context is difficult. Future growth in energy consumption will relate to the regional economy, including the rather volatile high-tech economic sectors, and the pace of new real estate development. Economic challenges may continue to limit demand for new facilities oriented to high-tech uses over the next year or two. However, future energy projections should bear in mind the large energy demands of individual “server hotels” (see the Impacts section below for further discussion) and the significant energy demands of large or high-rise buildings primarily dedicated to high-tech office and/or bio-tech uses.

Downtown System Plans and Policies

NETWORK STRATEGIC SYSTEM PLAN

City Light’s Network Strategic System Plan (September 2000) addresses planned system upgrades to increase system capacity, reliability and safety. It presents a Capital Improvement Plan for the network including approximately \$20 million annually for network additions and new service, rebuilding of vaults, and improvements to increase feeder capacity at the substations.

LARGE LOAD ORDINANCE

In October 2001, the City Council adopted a “large load ordinance” that defined a new rate class for New Large Loads to help recover some of the additional costs to City Light to serve large energy users. A large load is defined as “any service fed from an expanded or a new installation equal to or greater than 12.5 MVA energized capacity installed within any consecutive 5-year period.” The ordinance notes that the Pacific Northwest Power Planning and Conservation Act requires the Bonneville Power Administration to set higher prices for electricity provided to customers “whose consumption of electricity increases by more than 10 average MW over any consecutive 12-month period.” The ordinance

allows City Light to recover the incremental costs for transmission, distribution, capacity, administration, and mitigation of greenhouse gas emissions associated with energy production.

SUSTAINABLE BUILDING POLICY

On February 22nd, 2000 the Seattle City Council unanimously approved the Sustainable Building Policy that is part of the City's Environmental Management Program (EMP). The Office of Sustainability and Environment (OSE) guides City governmental operations toward sustainability by coordinating implementation of Seattle's Environmental Management Program and the Mayor's Environmental Strategy. The mission of the EMP is to foster the City's compliance with environmental laws, assist departments to reduce environmental impacts from operations, and improve environmental performance.

The purpose of a Citywide policy on sustainable building is to:

- demonstrate the City's commitment to environmental, economic and social stewardship;
- yield cost savings to the City taxpayers through reduced operating costs;
- provide healthy work environments for staff and visitors;
- contribute to the City's goals of protecting, conserving and enhancing the region's environmental resources; and
- help set a community standard of sustainable building.

The City of Seattle's Sustainable Building Policy is tied to a "green building" rating system known as LEED¹, developed by the US Green Building Council (USGBC). LEED is a self-certifying system designed for rating new and existing commercial, institutional and high-rise residential buildings. Different levels of green building certification (Certified, Silver, Gold, Platinum) are awarded based on the total credits earned in each of several categories: site, energy, material resources, indoor environmental quality and water.

To date, a total of 12 City of Seattle new development and renovation projects (totaling 2.7 million square feet) are expected to meet or exceed the "Silver" LEED Standard. Examples include the City's Justice Center, City Hall, Downtown Library, McCaw Performance Hall and Key Tower remodel. The 12 projects are expected, on average, to exceed ASHRAE/IESNA² standards by 24 percent. Using a baseline energy consumption of 15/Kwh/sf/yr for an average office building, this can be estimated to result in a reduction of energy use of 10,000 Kwh/year, saving the City an estimated \$491,000 annually. The City's internal policy requires a minimum of a 20% efficiency increase over ASHRAE standards. Most of the City's projects have exceeded this requirement, in some cases achieving up to a 40% increase in energy efficiency. A monitoring and evaluation program is planned for the City's LEED projects once they are completed, in order to track actual savings.

In Council Resolution 30280, Seattle City Council asked for "possible steps and measures for the City to require or provide incentives to developers of commercial buildings to meet the Silver LEED standard by 2003." A full report was given to Council with recommendations on sustainable building incentives as well as other issues outlined in the resolution.

In addition, the Resolution directed DCLU with support from City Light to propose "*Energy Code amendments options for amending the Seattle Energy Code to achieve energy savings up to 20% beyond the current...ASHRAE and...IESNA energy efficiency requirements for nonresidential buildings: ASHRAE/IESNA Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings.*"

¹ LEED is a trademark and abbreviation for "Leadership in Energy and Environmental Design."

² ASHRAE/IESNA refers to the American Society of Heating, Refrigerating and Air-Conditioning Engineers and the Illuminating Energy Society of North America.

In September 2001, the City Council adopted and the Mayor signed Ordinance 120525 containing revisions to the Seattle Energy Code for nonresidential buildings. These revisions will achieve estimated energy savings of 15-20% compared to the baseline in ASHRAE/IESNA Standard 90.1-1999.³

“GREEN” POWER

In 2001, the State Legislature passed a new law to allow customers to partner with their electric utility to purchase new clean, renewable energy sources. Seattle City Light responded by creating “Seattle Green Power” whereby any customer can make voluntary payments that will go toward building and acquiring a wider range of new renewable energy sources. In 2002, City Light brought Seattle’s first wind-generated electricity to its customers.

CONSERVATION AND DEMAND MANAGEMENT

City Light has been a forerunner in conservation and demand side management. In 2001-2002, load analysis studies for Downtown reviewed various strategies for gaining capacity, including distributed generation, renewable energy, solar power, wind power, demand peak shaving, and energy conservation. While these strategies may offer incremental positive benefits, a number of technical issues continue to be a challenge. At least for the near future, implementing further strategies of this type would not be sufficient to deal with projected electrical loads on the Downtown Network.

IMPACTS

Alternative 1 – High End Height and Density Increase

GROWTH SCENARIOS AND CAPACITY IMPACTS

Comparability between EIS projected commercial growth rate and City Light electrical load growth rate: The EIS growth scenario projects commercial development trends on a year-by-year basis for the next 20 years. The amount of commercial growth predicted by this model fluctuates between 0% and 6% per year, with a 20-year average of 2.1% per year. This is relatively comparable to City Light’s base economic forecast assumption of 2% annual load growth. This is a rough indicator that the amount of growth studied in the EIS is generally consistent with City Light projections.

Real estate analyses for this EIS conclude that *“changes to zoning, in and of themselves, do not change the supply and demand cycles. In other words, increasing commercial densities does not necessarily lead to more development occurring Downtown. However, changes in zoning will influence where development occurs and the size and density of the buildings developed.”* Thus capacity needs to be available to serve areas of growth. If several new large projects with significant energy demands are located in a concentrated area, this could challenge available electrical infrastructure capacity. These limitations and needed improvements will be closely monitored on an ongoing basis and addressed in City Light’s Capacity Plan in 2004.

A new substation needs to be energized by 2012, and significant planning and construction over 7-8 years is needed: Under the assumptions in the 2002 R.W. Beck report, a new Downtown substation needs to be energized by 2012. Permitting, transmission and design/construction work required to build and energize a new substation will take 7-8 years (to 2010 or 2011 if started immediately). Exact timing

³ This is a comparison to the baseline in the standard, not to current practice in Seattle, Washington State or the State’s Energy Code. Actual energy savings are not estimated because of past variation in design practices and variation in building types.

of the need for a new substation will vary to some degree depending on several factors. The R.W. Beck report identifies the following factors that could accelerate or delay growth in electrical loads over time:

Factors potentially accelerating load growth

Higher than forecast economic activity (1 to 3 years acceleration).

Greater than expected high-density loads such as server hotels (7 new server hotels would accelerate this date by 2 to 3 years).

A policy decision that greater redundancy is required.

Factors potentially delaying load growth

Lower than forecast economic activity (3 to 4 year delay).

Greater than expected energy efficiency improvements (1 to 2 year delay).

Greater acceptance of demand-side management strategies such as peak load shifting (1 to 2 year delay).

All of the above comments apply to all Alternatives. The following comment applies only to Alternative 1.

Limits of capacity in a portion of the Denny Triangle: The portion of the Denny Triangle bounded by 8th Avenue, Westlake, Denny Way and Interstate 5 is served by the Broad East subnetwork. This subnetwork is already accommodating emerging developments. Higher zoning height/density limits in this area could result in more immediate capacity limitations due to increased commercial load. City Light will address needed short-term and long-term infrastructure improvements in its capacity plan.

Cumulative Impacts

Future growth over the next 10 to 20 years is likely to occur across several economic sectors, including the high-tech and biotech sectors. Regional and national economic trends will likely influence the overall amount of employment growth. Demand for office space will likely continue to grow in Downtown, in high-tech as well as other employment sectors. South Lake Union, adjacent to Downtown, may also continue to attract high-tech and biotech growth due to the tendency of research/development efforts to cluster around centers of intellectual resources. Because separate distribution systems serve these two neighborhoods, these areas will not compete for use of the same substation transformer and distribution capacity. Depending upon the amount and location of load growth within this timeframe, there could be competition for transmission capacity, capital funds and labor resources.

Alternative 2 – Concentrated Office Core

GROWTH SCENARIOS AND CAPACITY IMPACTS

The total amount of growth predicted to occur over 20 years under Alternative 2 would be nearly the same as predicted for Alternative 1. The predicted pattern of growth would also be very similar, with a majority of redeveloped properties located within the Denny Triangle neighborhood. Existing zoning would remain unchanged in areas near Denny Way, in the 1st Avenue and Western Avenue vicinity, and the southern edge of Belltown. Under Alternative 2, the overall commercial and residential development capacity would be approximately 12% less than under Alternative 1.

Given the similarities in the amount and location of predicted 20-year growth, the overall energy impacts of Alternative 2 would be approximately similar to impacts of Alternative 1. However, slightly less-intensive zoning changes in portions of the Denny Triangle east of 8th Avenue could reduce the worst-

case potential for electrical infrastructure impacts in that portion of the Denny Triangle. The potential for large load impacts under Alternative 2 would be essentially the same as under Alternative 1.

Alternative 3 – Residential Emphasis

GROWTH SCENARIOS AND CAPACITY IMPACTS

The total amount of growth predicted to occur over 20 years under Alternative 3 would be nearly the same as predicted for Alternative 1. The predicted pattern of growth would also be roughly similar, with a majority of redeveloped properties located within the Denny Triangle neighborhood. However, zoning changes in portions of Denny Triangle, the 1st Avenue and Western Avenue vicinity and the edge of Belltown would maintain lower commercial densities and place more emphasis on housing production. Under Alternative 3, the overall commercial development capacity would be approximately 20% less and residential capacity 3% less than under Alternative 1.

Given the differences in zoning emphasis, the overall energy impacts of Alternative 3 would be somewhat less than impacts of Alternative 1. Alternative 3's concept of lower commercial densities and greater residential emphasis in portions of the Denny Triangle east of 8th Avenue would reduce the magnitude of impacts on the electrical system compared to Alternatives 1 and 2, because residential uses would generate lower electrical demands than commercial uses. Alternative 3's impacts would even be lower than impacts of Alternative 4 (No Action). The potential for large load impacts would be similar to impacts of other alternatives.

Alternative 4 – No Action

GROWTH SCENARIOS AND CAPACITY IMPACTS

The total amount of growth predicted to occur over 20 years under Alternative 4 would be nearly the same as predicted for Alternative 1. The predicted pattern of growth would be similar to Alternative 1, but may spread over a few more properties in the Commercial Core vicinity. Under Alternative 4, the overall commercial development capacity would be approximately 25% less and residential capacity 19% less than under Alternative 1.

Given the shades of differences in the pattern of predicted 20-year growth, the overall energy impacts of Alternative 4 would be somewhat less than Alternatives 1 and 2, but greater than Alternative 3. Permissible commercial densities within most of the Denny Triangle would be less than Alternative 1. The potential for large load impacts on energy demands under Alternative 4 would be similar to Alternative 1. Under all alternatives, a new Downtown substation will be needed.

MITIGATION STRATEGIES

Proposed Mitigation Strategies

Given the significant adverse impacts identified in this section, approval of zoning changes should be accompanied by a combination of mitigation strategies that would adequately address the identified significant impacts. These could be selected from the following range of possible strategies, or other strategies not yet identified.

Implement recommendations of City Light's Capacity Plan: Complete City Light's Capacity Plan in 2004 and implement the recommendations that result from that Plan.

Strategically address high-energy-demanding uses: A combined land use and energy strategy could be developed to address impacts of new large loads or staged new large loads in the Downtown.

Incorporate LEED into the Downtown Density Bonus program: Incentives or requirements to use the LEED system's Green Building energy efficiency strategy could promote better energy conservation in future development. In response to the City Council's Resolution 30280, City staff have discussed integration of sustainable building incentives into the building permitting process, and integration of the LEED system into the Downtown density bonus system. The LEED system could be required for participation in the Downtown Density Bonus program as a mitigation strategy to help offset impacts on the electrical system.

A particular threshold of performance in the energy category could be established. Consistent with the City's own internal sustainable building policy, this requirement could be set as a minimum achievement in energy efficiency.

A minimum overall LEED performance could also be set in order to capture other benefits of the program, such as mitigating increased demands on water and wastewater infrastructure, reduction of stormwater impacts, and mitigation of global climate effects. If this was implemented, a development project would go through the certification process administered nationally by the US Green Building Council. A copy of the certification package could be submitted to the City to endorse the required participation in the program. Since LEED certification is not fulfilled until after construction, a strategy would be needed to handle projects that did not meet performance targets when built.

Incorporate LEED into Land Use Code, Design Review, or Building Code: Alternatively, the City could seek to incorporate elements of the LEED system into the Land Use Code, the design review guidelines, and potentially the Building Code. Measures and tools developed as part of LEED would be required or encouraged to be met before a project receives its land use approval. For example, the Downtown design guidelines could be amended to include guidelines on floorplate design, encouraging designs that would allow natural light to intrude to the center of buildings, potentially reducing the amount of lighting required during the day.

More efficient design of buildings' electrical systems: Developers could be required to design their buildings' electrical services so that their average monthly power factor is no less than 0.97. The present financial penalty for having a power factor below 0.97 could be increased to encourage installation of better equipment and/or power factor correction equipment.

Coordination with the building permit process: DPD and City Light will continue their efforts to work with developers during the pre-application process, before issuing building permits.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

With implementation of recommended mitigation strategies, significant unavoidable adverse energy impacts are unlikely to occur.

WATER UTILITY

AFFECTED ENVIRONMENT

Supply and Demand

Seattle Public Utilities (SPU) manages the water system that serves Seattle and numerous suburban cities. Approximately 1.3 million residents are served in this area, including 595,000 direct customers (through 175,000 metered connections) and nearly 687,000 customers served by water districts and cities that are wholesale purchasers. The system's water supply sources are the Cedar River and Tolt River watersheds, and the Highline well field. SPU does not anticipate needing any additional water rights in order to meet system demands over the next 20 years. SPU is negotiating an agreement to participate in a "Second Supply Project" that should help further assure long-term supply availability and reliability.

SPU correctly predicted that per capita water demands would decline during the 1990s due to programmatic changes, conservation, plumbing code changes and rate increases. Since a 1992 drought, growth in water demand from suburban purveyors has been less than predicted, and total water demand in Seattle actually decreased during that period. Average daily water demand is projected by SPU to decline slightly through 2010, from 149 million gallons per day (mgd) in 1999 to 144 mgd in 2010. Conservation efforts were effective in spring/summer 2001 as the region dealt with limitations brought about by low snowfall conditions in winter 2000/2001.

Infrastructure

In Downtown, a majority of water mains are more than 50 years old. Portions of the system have been upgraded over time concurrent with road improvements. The older pipes are predominantly cast iron, and upgraded sections are ductile iron. Pipes range in size from 6 to 30 inches in diameter. Planned system improvements in central Seattle include replacement of the Lincoln Reservoir with a new below-ground reservoir, and major improvements at the Beacon reservoir as well. In general, SPU considers the system to have adequate capacity to meet existing demands. SPU is engaged in a long-term planning effort to comprehensively analyze the system and prioritize future improvements, taking into consideration factors such as need for seismic protection.

Water Pressure

Within Seattle, the reservoirs and distribution system provide gravity flow in most areas. The Commercial Core, Denny Triangle and Belltown areas are all within the 326 pressure zone; storage for water serving these areas is provided at the Lincoln reservoir on Capitol Hill and the Beacon reservoir on Beacon Hill. Water pressure ranges from adequate to very good (see Table 62).

Table 62
Existing Water Pressure Ranges in Downtown Seattle

Area	Pressure Range	Pressure Quality
Commercial Core	40 to 135 psi	Adequate
Denny Triangle	68 to 113 psi	Very good
Denny Regrade	68 to 135 psi	Very good

Note: 30 psi is the standard minimum working pressure for new construction.

Fire Flow Capability

Fire flow capability relates to the volume of water available to fight fires, typically accessed by hydrants. Fire flow needs for structures relate to the age, type of construction, size and presence of fire-protective features such as sprinkler systems. Due to the superior fire protection provided by sprinkler systems, a sprinkler-equipped building requires roughly half as much fire flow capability at nearby hydrants as an older building without sprinklers.

The network of water mains in the study area has segments varying considerably in age, size and condition. Cement-lined pipes less than 60 years old are typically in excellent internal condition, but older cast iron pipes can have reduced flow capabilities due to corrosion problems.

In order to characterize the capabilities of the system in the study area, SPU used a calibrated hydraulic model (EPANET) to evaluate fire flow capacities. This model had been recently revised and updated, and available field test data and other technical data were used to help verify model results. Per recommendations of the Fire Department, the worst-case, conservative fire flow criteria are 4,000 gallons per minute (gpm) for a sprinklered building and 8,000 gpm for an unsprinklered building. For individual hydrants, availability of 2,000 gpm at residual pressure of 20 psi is the threshold to meet those worst-case criteria.

Within the study area, the analysis identified two locations in the study area with relatively minor deficiencies in hydrant capacity: 1) Boren Avenue between Stewart and Virginia Streets; and 2) the Olive Way/Boren Avenue vicinity. At the first of these locations, the hydrant near Boren Avenue/Virginia Street has approximately 1,200 gpm of fire flow capacity rather than the desired 2,000 gpm, and the water line is only 6 inches in diameter. At Olive Way/Boren Avenue, the two hydrants together have fire flow capacity of approximately 2,500 gpm rather than the desired 4,000 gpm. In both cases the 80 to 100-year age of the pipes may contribute to capacity limitations. Project-specific review by Fire Department and SPU staff helps determine fire flow sufficiency, and allows the City to require system improvements if necessary.

IMPACTS

Alternative 1 – High End Height and Density Increase

SUPPLY, DEMAND AND INFRASTRUCTURE

This analysis addresses water use impacts for full buildout conditions and for 20 years of growth. While both are long-term analyses, the full-buildout analysis illustrates the maximum potential impacts over time and the variations among the alternatives.

Buildout Water Use

With zone changes proposed for Alternative 1, full buildout of the affected zones would generate up to approximately 24-25 percent more water demand in the study area than full buildout under the No Action Alternative.¹ This would be equivalent to an additional 1.2 to 1.4 million gallons per day if full buildout

¹ Quantitative estimates are used for daily water use per residence (80 gallons/dwelling unit), per office employee (30 gallons/employee) and per hotel room (80 to 130 gallons/room). The buildout that could occur under Alternative 4 (the No Action Alternative) is defined as the baseline condition.

was achieved. Table 63 illustrates the maximum potential water demands generated by full buildout of the alternatives in this EIS. Office and hotel development would be primarily responsible for the additional demands of Alternative 1. This maximum additional water demand of Alternative 1 at buildout is the greatest among the alternatives but would represent less than one percent of the current citywide daily water demand. Potentially occurring more than 20 years in the future, it would not represent a significant adverse impact on the City's water system infrastructure due to its relatively limited magnitude. If location-specific infrastructure problems are identified in the future, development review for individual projects would afford opportunities to require specific improvements.

Table 63
Comparison of Maximum Additional Water Demands from Full Buildout of Alternatives

	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Maximum additional water demand at buildout (gal/day)	6.3 - 7.1 million gallons	5.7 - 6.4 million gallons	5.4 - 6.0 million gallons	5.1 - 5.7 million gallons
Difference from existing zoning buildout (gal/day)	1.2 - 1.4 million gallons	650,000 - 750,000 gallons	300,000 - 350,000 gallons	0 gallons
Percent change from existing zoning buildout (%)	24 - 25%	12 - 13%	6%	0%

Source: SPO, 2002

Twenty-Year Growth in Water Use

Over twenty years, predicted amounts of total development are very similar among the alternatives, so predicted new water demands are in the range of 2.9 to 3.1 million gallons per day. Additional water demands from Alternative 1 would likely fall in the upper portion of this range, only about 1 to 2 percent (40,000 - 60,000 gallons per day) more than additional demands from the No Action Alternative. Alternative 1's additional water demand would not represent a significant adverse impact on the City's water system infrastructure due to its relatively limited magnitude.

Location of Water Meters

The location of water meters in future development is an infrastructure-related concern noted by SPU staff, for all alternatives. Water meters are commonly located in subsurface chambers within public rights-of-way, which can hinder accessibility to the meters for maintenance and require expensive work to cut open streets and sidewalks. To increase accessibility and lessen or avoid construction/maintenance impacts within public rights-of-way, the City could require water meters to be located within buildings. This would also contribute to more effective and maintainable metering of water use, to the City's benefit.

Fire Flow Capability

With zone changes proposed for Alternative 1, the potential for taller, denser buildings throughout the study area would not significantly affect the ability of the water system to provide adequate fire flows. Future development over time would increase the total number of buildings protected by the fire flow capabilities of the system.

In the locations with existing deficiencies (in comparison to worst-case fire flow criteria), project-specific review of future development proposals would allow identification of system improvements to meet fire flow requirements. Potential future improvements might be to increase the size of water lines, through City and/or project-related funding. The existing 6-inch water line along Boren Avenue between Howell Street and Denny Way is the segment most likely to be considered for replacement.

Alternative 2 – Concentrated Office Core

SUPPLY, DEMAND AND INFRASTRUCTURE

Buildout Water Use

With zone changes proposed for Alternative 2, the full buildout of the affected zones would generate approximately 12-13% more water demand in the study area than full buildout under the No Action Alternative (refer to Table 63). This would be equivalent to an additional 650,000 to 750,000 gallons per day if full buildout was achieved. Office and hotel development would be primarily responsible for the additional demands. This maximum additional water demand at buildout is approximately half as much as generated by Alternative 1, and would represent about 0.5% of the current citywide daily water demand.

Twenty-Year Growth Water Use

Additional water demand generated by Alternative 2 would be essentially the same as generated by the No Action Alternative (2.9 to 3.1 million gallons per day), and therefore no adverse impacts are identified.

Fire Flow Capability

Similar to Alternative 1, fire flow impacts of Alternative 2 would not be significant. The vicinity of Boren Avenue between Stewart and Virginia Streets with an existing fire flow deficiency would not be subject to rezone in Alternative 2.

Alternative 3 – Residential Emphasis

SUPPLY, DEMAND AND INFRASTRUCTURE

Buildout Water Use

With zone changes proposed for Alternative 3, the full buildout of the affected zones would generate approximately 6% more water demand in the study area than full buildout under the No Action Alternative (refer to Table 63). This would be equivalent to an additional 300,000 to 350,000 gallons per day if full buildout was achieved. Office, hotel and additional residential development would be responsible for the additional demands. This maximum additional water demand at buildout is approximately one-quarter as much as generated by Alternative 1, and would represent about 0.25% of the current citywide daily water demand.

Twenty-Year Growth Water Use

Additional water demand generated by Alternative 3 would be essentially the same as generated by the No Action Alternative (2.9 to 3.1 million gallons per day), and therefore no adverse impacts are identified.

Fire Flow Capability

Potential fire flow impacts of Alternative 3 would not be significant, and could be less than under Alternatives 1, 2 or 4. The vicinity of Boren Avenue between Stewart and Virginia Streets with an existing fire flow deficiency would be rezoned with lower densities and a greater emphasis on residential development, which could make fire flow needs less than expected under current zoning. Zoning in the

Olive Way/Boren Avenue vicinity with an existing deficiency would change in a way with only minor implications for building bulk and fire flow needs.

Alternative 4 – No Action

The No Action Alternative would not result in adverse impacts on the water system. Future development under the existing Land Use Code would be accommodated by the existing system. Past studies, such as analyses for the 1994 Comprehensive Plan EIS, indicated that the system would be able to handle the anticipated growth. This analysis reaches the same conclusion, even for a larger amount of growth than previously studied.

SUPPLY, DEMAND AND INFRASTRUCTURE

Buildout Water Use

No zone changes are proposed for Alternative 4, so no adverse impacts would occur. As shown on Table 63, the future buildout of existing zoning would generate approximately 5.1 to 5.7 million gallons per day of additional water demand in the study area. No adverse impacts related to infrastructure are identified.

Twenty-Year Growth Water Use

The No Action Alternative would generate additional water demand of approximately 2.9 to 3.1 million gallons per day with 20 years of growth. No adverse impacts are identified.

Fire Flow Capability

Alternative 4 would result in no adverse impacts related to fire flow. However, existing deficiencies in two locations of the Denny Triangle may need to be addressed over the long term to serve future development.

MITIGATION STRATEGIES

Although no significant adverse supply/demand impacts on the water system are expected, a strategy could be implemented to address an identified shortcoming of the water system infrastructure.

Possible Mitigation Strategies

Require water meters in accessible on-site locations

Implement code changes to require future development to locate water meters in on-site spaces, to improve accessibility and avoid needless utility maintenance work within public rights-of-way. This would also contribute to better metering of water use and greater cost-effectiveness in the City's utility operations.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

None identified.

SEWER AND STORMWATER UTILITIES

AFFECTED ENVIRONMENT

Sewage/Stormwater Drainage Collection Systems

Seattle Public Utilities (SPU) manages drainage, surface runoff and sewer systems in the City, with overall goals of maintaining public safety, water quality and resource protection. Seattle has three types of drainage and wastewater systems: combined sanitary/stormwater sewers, partially separated sanitary/stormwater sewers, and fully separated sanitary and stormwater sewer systems. Combined sewers that handle both surface stormwater drainage and sewage volumes serve most of the Commercial Core and Denny Triangle neighborhoods.

The system consists of concrete pipes ranging from a minimum of 8 inches in diameter, to a maximum of approximately 144 inches in diameter, typically located within rights-of-way. Portions of the 1st Avenue, Western Avenue, and 3rd Avenue vicinities are served by partially separated systems that have stormdrains separating the stormwater runoff from the sewage volumes. The system routes Commercial Core wastewater flows toward King County Metro lines under 2nd Avenue, and Denny Triangle flows northward to Republican Street and then westward. Metro King County's system then conveys flows to the West Point Treatment Plant via Interbay.

Current drainage codes require new development to limit the peak volumes of stormwater runoff to a rate similar to runoff from an undeveloped site. In contrast, long-established land uses such as older paved parking lots contribute to rapid stormwater runoff because they are impervious surfaces that typically do not have detention capabilities or allow for infiltration into soils. Given the more stringent requirements imposed with new construction, new development Downtown will aid in controlling peak stormwater flows generated by a typical site.

The City's Capital Improvement Program included sewer rehabilitation projects at 1st/Union/Pike in 1997, Western Avenue/Bell Street in 1998, and Pike Street in 2000-2001. Other than incidental repair, replacement or relining of pipes, no wastewater system improvements are anticipated for the study area (SPU, 2001).

Treatment Facilities

The City's collection system delivers wastewater from Downtown to larger interceptor lines operated by King County that convey it to the West Point Treatment Plant. King County's regional wastewater treatment system serves approximately 1.3 million people. The West Point plant, located near Discovery Park, provides primary and secondary treatment of wastewater flows, and is designed for a maximum monthly average flow of 215 million gallons per day (mgd) and instantaneous maximum capacity for 440 mgd. The plant's annual flows are equivalent to an average of 191 mgd. Two other treatment plants at Alki and Carkeek Park are used only for wet weather flows.

Combined Sewer Overflow (CSO) Planning

In some areas, the capacity of the wastewater system is limited when larger peak stormwater flows enter the combined systems. When runoff volumes are large due to intense rainfall, there may be "combined sewer overflows" (CSOs) into area waters in several locations. CSOs occur in both the regional and City

systems. Seattle adopted a CSO Control Plan in 1988 to address specific improvements to control CSOs. SPU has already completed improvements (primarily increased storage and overflow monitors) to approximately 80-90 percent of the CSO locations, including outfalls to Portage Bay, Elliott Bay, the Duwamish River, Lake Union and the Ship Canal. Joint efforts with King County are still ongoing at Lake Union and the Ship Canal.

The City is updating the 1988 CSO Control Plan to direct further improvements in areas near Ballard, Magnolia, Delridge, Duwamish, Rainier, Seward Park, Wallingford, and Laurelhurst. Areas in or near Downtown are identified on a recent CSO-related map as improved basins that will be monitored.

IMPACTS

No significant adverse impacts on sewer/stormdrain capacity are anticipated. Future development under any of the alternatives would result in two different types of impacts on stormwater and sanitary sewage volumes:

- Increased volumes of sanitary sewage from new commercial and residential development; and

- Reduced size of peak stormwater flows during storms through installation of required improvements at redeveloped sites. The Drainage Control Ordinance requires on-site detention of stormwater (such as roof runoff), typically in vaults with flow control devices.

With greatly improved drainage controls on redeveloped sites, stormwater would be held on properties for longer periods of time and released in a more controlled manner to the system, thereby moderating peak flows.

Alternative 1 – High End Height and Density Increase

With Alternative 1, future development could occur in a denser manner and generate more sanitary sewage volumes in some areas than under current zoning. Infill development on a limited number of properties would occur in the Commercial Core and edge of Belltown, but the Denny Triangle vicinity would accommodate the greatest amount of future development.

The most common site conditions within the Denny Triangle are either large paved areas or older buildings. Both conditions include large amounts of impervious surfaces and minimal drainage controls, which promote rapid runoff of stormwater during rainstorms. Total rainfall volume for a 2-year/1-hour storm (a one-hour storm of a size likely to occur only once every two years) within the Denny Triangle is approximately equivalent to 20,200 gallons per minute (gpm). Most of this volume drains quickly from impervious surfaces to the combined sewer system.

With future development, the installation of required stormwater control facilities would slow down runoff such that the peak flows leaving redeveloped sites and entering the drainage system would be less than existing conditions. As more redevelopment occurs in the Denny Triangle over time, progressively better control of stormwater means the drainage system would be less likely to exceed capacity from surges of stormwater rapidly draining from impervious surfaces.

Compared to stormwater, sanitary sewage volumes use a much smaller fraction of system capacity. The estimated peak sanitary sewage flow with future development in the Denny Triangle by 2020 is approximately 3,750 gpm. This is much less than the estimated 2-year storm's flow of 20,200 gpm.

It is possible that the improved control of peak stormwater flows with redevelopment would more than offset the additional sewage volumes generated by new development. This suggests that adverse impacts

on combined sewer systems would be avoided, and that net impacts would be positive. However, the EIS analysis did not identify enough conclusive information to prove this hypothesis.

This EIS identifies no sewer/drainage system capacity problems in specific locations within the study area. SPU staff reviewed the Denny Triangle sewer/drainage system and found it will have sufficient capacity for the level of development that could occur with these zoning changes. If specific localized problems are identified in the future, development review for individual projects would afford opportunities to require site-specific improvements.

The maximum additional sewage that could be generated due to Alternative 1 would not represent a significant adverse impact on sewage treatment facilities. If all of the additional predicted daily water use from buildout of Alternative 1 was assumed to become sewage (1.2-1.4 million gallons), this would represent only approximately 0.75% of the annual average daily flow at the West Point treatment facility.

Alternative 2 – Concentrated Office Core

The storm drainage and sewage volume impacts of Alternative 2 on the sewer/drainage system would be similar to those of Alternative 1. The estimated peak sewage volumes generated by future development in the Denny Triangle vicinity by 2020 would be approximately 3,822 gpm, or 1.5% greater than for Alternative 1, due to a greater concentration of residential uses. However, similar to Alternative 1, no significant adverse impacts on system capacity are identified.

The maximum additional sewage that could be generated due to Alternative 2 would not represent a significant adverse impact on sewage treatment facilities. If all of the additional predicted daily water use from buildout of Alternative 2 was assumed to become wastewater (650,000-750,000 gallons), this would represent less than 0.5% of the annual average of daily flows at the West Point treatment facility.

Alternative 3 – Residential Emphasis

The storm drainage and sewage volume impacts of Alternative 3 on the sewer/drainage system would be similar to those of Alternative 1. The estimated peak sewage volumes generated by future development in the Denny Triangle vicinity by 2020 would be approximately 3,805 gpm, or about 1.5% greater than for Alternative 1, due to a greater concentration of residential uses. However, similar to Alternative 1, no significant adverse impacts on system capacity are identified.

The maximum additional sewage that could be generated due to Alternative 3 would not represent a significant adverse impact on sewage treatment facilities. If all of the additional predicted daily water use from buildout of Alternative 3 was assumed to become wastewater (300,000-350,000 gallons), this would represent less than 0.2% of the annual average of daily flows at the West Point treatment facility.

Alternative 4 – No Action

The No Action Alternative would generate no significant adverse impacts on sewers and stormdrains. Future development under the existing Land Use Code could be accommodated by the existing system. Required stormwater control facilities with new development would provide better control of peak stormwater flows than existing conditions. Past studies, such as analyses for the 1994 Comprehensive Plan EIS, indicated that the system would be able to handle the anticipated growth. This EIS supports those conclusions, even for a larger amount of growth than previously studied.

The impacts of Alternative 4 on the sewer/drainage system would be slightly less than those of Alternative 1. The estimated peak sewage volumes generated by future development in the Denny Triangle vicinity by 2020 would be approximately 3,616 gpm, or about 3.6% less than for Alternative 1.

MITIGATION STRATEGIES

No mitigation measures are required because this analysis does not identify any significant adverse impacts on the sewer/drainage system.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

None identified.

Appendix A

Population and Employment

APPENDIX A

POPULATION AND EMPLOYMENT: DETAILED TABLES

Table A-1
City, County and State Population Growth Trends, 1980-2000

		1980	1990	2000
Downtown Urban Center	Total Population	N/A	12,193	20,088
	% Change	--	--	1990-2000: 65%
Downtown Seattle Subarea¹	Total Population	15,456	15,557	24,253
	% Change	--	1980-1990: 0.6%	1990-2000: 56%
Seattle	Total Population	493,846	516,259	563,374
	% Change	--	1980-1990: 4.5%	1990-2000: 9.1%
King County	Total Population	1.27 million	1.51 million	1.74 million
	% Change	--	1980-1990: 19%	1990-2000: 15%
Four-County Region²	Total Population	2.24 million	2.75 million	3.28 million
	% Change	--	1980-1990: 23%	1990-2000: 19%
Washington State	Total Population	4.13 million	4.87 million	5.89 million
	% Change	--	1980-1990: 18%	1990-2000: 21%

Sources: U.S. Census Bureau, City of Seattle, King County, Washington State Office of Fiscal Management, 2001

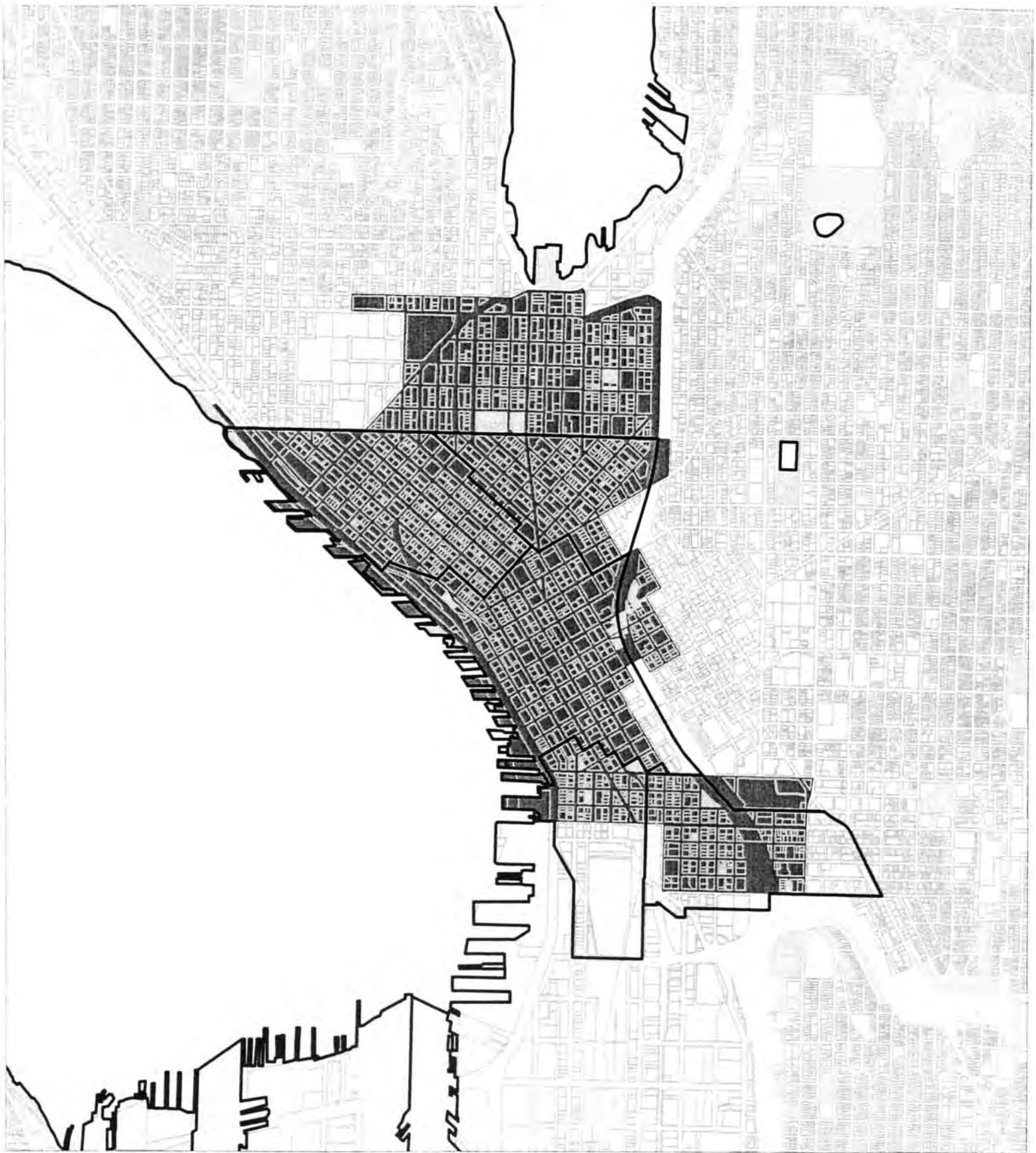
Table A-2
Percent of Residents in Households by Place of Birth, 2000

Place of Birth	Downtown Urban Center	Seattle	King County	Washington State
Native Born	80.3%	83.1%	84.6%	89.6%
Born in United States	78.5%	81.4%	83.1%	88.2%
Washington State	27.0%	38.8%	42.9%	47.2%
Other States	51.5%	42.6%	40.2%	41.0%
US Territories or abroad to US Citizens	1.8%	1.7%	1.4%	1.4%
Foreign Born	19.7%	16.9%	15.4	10.4%
Total	100%	100%	100%	100%

Source: U. S. Census Bureau, 2002, DP-2 Profile of Selected Social Characteristics: 2000



¹ Includes the following 2000 Census tracts: 72, 73, 80.01, 80.02, 81, 82, 83, 91 and 92. This district includes most of South Lake Union and portions of 1st Hill. It is similar to, but not equivalent to the Downtown Urban Center boundary. See Figure A-1 for a comparison of the Downtown Subarea and the Downtown Urban Center.

² King, Snohomish, Pierce and Kitsap Counties.



DOWNTOWN URBAN CENTER AND CENSUS SUBAREA

FIGURE A-1

-  Downtown Urban Center Villages
-  Census Tracts in the Downtown Census Subarea

Department of Design,
Construction and Land Use
City of Seattle
August 27, 2003

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or merchantability, accompany this project.

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**Table A-3
Population by Sex, 2000**

Sex	Downtown Urban Center		Seattle		King County		Four County Region	
Male	12,342	61.4%	280,973	49.9%	864,457	49.8%	1,633,733	49.9%
Female	7,746	38.6%	282,401	50.1%	872,577	50.2%	1,642,114	50.1%
Total Population	20,088		563,374		1,737,034		3,275,847	

Source: U.S. Census Bureau, 2001

Note: Four County Region equals King, Snohomish, Pierce and Kitsap Counties

**Table A-4
Population by Race and Ethnicity, 2000**

Race/Ethnicity	Downtown Urban Center		Seattle		King County		Four County Region	
One Race	19,209	96%	538,226	96%	1,666,535	96%	3,121,550	95%
American Indian and Alaskan Native	458	2%	5,659	1%	15,922	1%	37,895	1%
Asian	2,787	14%	73,910	13%	187,745	11%	268,550	8%
Black	2,613	13%	47,541	8%	93,875	5%	159,366	5%
Native Hawaiian and Pacific Islander	52	0%	2,804	0%	9,013	1%	18,445	1%
Some Other Race	394	2%	13,423	2%	44,473	3%	74,821	2%
White	12,904	64%	394,889	70%	1,315,507	76%	2,579,305	79%
Two or More Races	879	4%	25,148	4%	70,499	4%	137,465	4%
Hispanic, Any Race	1,117	6%	29,719	5%	95,242	5%	172,062	5%
Non-Hispanic, Any Race	18,971	94%	533,655	95%	1,641,792	95%	3,103,875	95%
Total Population	20,088		563,374		1,737,034		3,275,847	

Source: U. S. Census Bureau, 2001

Note: Four County Region equals King, Snohomish, Pierce and Kitsap Counties

Table A-5
Age, 2000

	Downtown Urban Center		Seattle		King County		Four County Region	
Less than 18 Years Old	748	4%	87,827	16%	390,646	22%	809,418	25%
18 to 24 Years Old	2,423	12%	66,934	12%	160,687	9%	302,152	9%
25 to 44 Years Old	8,907	44%	217,359	39%	603,266	35%	1,091,322	33%
44 to 64 Years Old	5,423	27%	123,447	22%	400,663	23%	739,606	23%
65 Years Old and Older	2,587	13%	67,807	12%	181,772	10%	333,349	10%
Total Households	20,088	100%	563,374	100%	1,737,034	100%	3,275,847	100%

Source: U. S. Census Bureau, Puget Sound Regional Council, 2001

Note: Four County Region equals King, Snohomish, Pierce and Kitsap Counties

Table A-6
Households by Size

Household Size	Downtown Urban Center		Seattle		King County		Four County Region	
1-person	8,425	74%	105,542	41%	217,163	31%	351,016	27%
2-person	2,495	22%	87,441	34%	240,334	34%	431,675	34%
3-person	307	3%	30,969	12%	106,579	15%	204,615	16%
4-person	79	1%	20,767	8%	89,918	13%	179,209	14%
5+ person	55	0%	13,780	5%	56,922	8%	116,469	9%
Total Households	11,361		258,499		710,916		1,282,984	
Avg. Household Size	1.34		2.08		2.39		2.49	

Source: U. S. Census Bureau, 2001

Note: Four County Region equals King, Snohomish, Pierce and Kitsap Counties

Table A-7
Household Composition, 2000

Household Type	Downtown Urban Center		Seattle		King County		Four County Region	
Family Households	1,915	17%	113,400	44%	419,959	59%	819,322	64%
Married-couple Households	1,529	13%	84,648	33%	329,768	46%	643,237	50%
Non-Family Households	9,446	83%	145,099	56%	290,957	41%	463,662	36%
Total Households	11,361		258,499		710,916		1,282,984	

Source: U. S. Census Bureau, Puget Sound Regional Council, 2001

Note: Four County Region equals King, Snohomish, Pierce and Kitsap Counties

Table A-8
Group Quarters Population, 2000

	Downtown Urban Center		Seattle		King County		Four County Region	
	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total
Group Quarters Population	5,106	25	26,655	5	37,619	2	75,466	2
Institutionalized	1,732	9	6,860	1	12,525	1	27,856	1
Non-institutionalized	3,374	17	19,795	4	25,094	1	47,610	1
Population in Households	14,982	75	536,719	95	1,699,415	98	3,200,381	98
Total Population	20,088	100	563,374	100	1,737,034	100	3,275,847	100

Source: U. S. Census Bureau, Puget Sound Regional Council, 2001 Note: Four County Region equals King, Snohomish, Pierce and Kitsap Counties

Table A-9
Seattle's Homeless Population
Annual Street Count

Individuals	2002	2001	2000	1999	1998
Men	920	718	515	451	420
Women	163	129	83	93	64
Unknown	918	528	433	417	297
Minors	39	79	54	22	3
Total	2,040	1,454	1,085	983	784

Annual One-Night Survey of Homeless Shelters and Transitional Housing

Individuals by Household Type	Seattle	King County	Total
Two parent family w/ children	478	239	717
Couples w/ no children	28	2	30
Adult women w/ children	828	494	1322
Teen women (18 & under) w/ child	33	6	39
Men w/ children	69	19	88
Single Women	542	70	612
Single Men	1660	155	1815
Minor alone	36	16	52
Total Information	3,674	1,001	4,675

Source: Education Committee of the Seattle-King County Coalition for the Homeless, March 2003

Table A-10
Covered Employees by Industrial Category, 2001

Industrial Category	Downtown Urban Center Total	Seattle Total	King County	Four County Region
Total Employment	168,830	502,514	1,155,525	1,676,031
Finance, Insurance, Real Estate, and Services (FIRES)	95,266	220,928	448,339	600,972
Government and Education	29,647	86,296	148,089	259,432
Retail	20,053	73,639	189,889	291,143
Wholesale, Trade, Communications, and Utilities (WTCU)	17,658	59,165	157,240	194,570
Manufacturing	4,274	39,267	142,209	219,700
Construction and Resources	1,931	23,219	69,759	110,214

Source: Washington State Employment Security Department, Puget Sound Regional Council, 2002

Table A-11
Seattle Employment by Centers and Villages, 2000 and 2001

Area	2000		2001		2000-2001
	Covered Jobs	% of Citywide Employment	Covered Jobs	% of Citywide Employment	% Change
Urban Centers	272,113	53%	268,860	54%	-1%
Downtown	174,528	34%	168,830	34%	-3%
First Hill/Capitol Hill	36,171	7%	38,137	8%	5%
Northgate	11,090	2%	11,469	2%	3%
University Community	33,413	7%	34,181	7%	2%
Uptown	16,911	3%	16,243	3%	-4%
Hub Urban Villages	47,574	9%	44,548	9%	-6%
Manufacturing/Industrial Centers	83,705	16%	81,697	16%	-2%
BINMIC	14,969	3%	16,441	3%	10%
Duwamish	68,736	13%	65,256	13%	-5%
Outside Centers and Hub Villages	107,837	21%	107,410	21%	0%
Total City of Seattle	511,229	100%	502,514	100%	-2%

Source: Washington State Employment Security Department, Puget Sound Regional Council

Table A-11
Employed Residents by Industry, 2000

Industry	Downtown Seattle		Seattle		King County	
	Residents	%	Residents	%	Residents	%
Agriculture, forestry, fishing and hunting, and mining	64	0.7	1,103	0.3	4,011	0.4
Construction	289	3.2	12,892	4.0	52,546	5.7
Manufacturing	463	5.1	26,753	8.3	116,832	12.6
Wholesale Trade	252	2.8	10,471	3.3	39,783	4.3
Retail Trade	1,174	12.9	35,645	11.1	110,212	11.9
Transportation and warehousing, and utilities	329	3.6	13,492	4.2	49,660	5.3
Information	663	7.3	19,175	6.0	51,337	5.5
Finance, Insurance, Real Estate, and Rental and Leasing	659	7.2	22,171	6.9	67,565	7.3
Professional, Scientific, Management, Administrative, and Waste Management Services	1,871	20.6	51,813	16.1	124,019	13.3
Educational, Health and Social Services	1,242	13.7	69,507	21.6	164,459	17.7
Arts, Entertainment, Recreation, Accommodation and Food Services	1,381	15.2	31,762	9.9	75,283	8.1
Other Services (except Public Administration)	453	5.0	15,538	4.8	43,051	4.6
Public Administration	250	2.8	11,202	3.5	30,447	3.3
Total Employed Civilian Population 16 Years and Over	9,090	100.0	321,524	100	929,205	100

Source: U. S. Census Bureau, 2002, Table DP-3 Profile of Selected Economic Characteristics: 2000

Table A-13
Households by Income, 1999

Income Range	Downtown Urban Center		Seattle		King County	
	Households	%	Households	%	Households	%
Less than \$10,000	3,110	27.4	23,130	8.9	45,534	6.4
\$10,000 to \$14,999	1,206	10.6	14,422	5.6	30,146	4.2
\$15,000 to \$19,999	865	7.6	13,513	5.2	30,575	4.3
\$20,000 to \$24,999	891	7.8	15,515	6.0	35,839	5.0
\$25,000 to \$34,999	1,058	9.3	31,698	12.3	77,320	10.9
\$35,000 to \$49,999	1,227	10.8	41,045	15.9	111,224	15.6
\$50,000 to \$74,999	1080	9.5	48,882	18.9	150,548	21.2
\$75,000 to \$99,999	587	5.2	29,387	11.4	96,885	13.6
\$100,000 to \$149,999	589	5.2	24,413	9.4	81,613	11.5
\$150,000 to \$199,999	282	2.5	76,18	2.9	24,479	3.4
\$200,000 or more	471	4.1	90,12	3.5	27,072	3.8
Total households	11,366	100.0	258,635	100.0	711,235	100.0
Median Household Income	\$22,816		\$45,736		\$53,175	

Sources: U. S. Census Bureau, 2002, Table DP-3 Profile of Selected Economic Characteristics: 2000; DCLU, 2003

Table A-14
Employed Residents by Occupation, 2000

Occupation	Downtown Urban Center		Seattle		King County	
	Residents	%	Residents	%	Residents	%
Management, Professional, and Related occupations	4,140	45.5	155,636	48.4	403,287	43.4
Sales and Office occupations	2,151	23.7	78,605	24.4	244,903	26.4
Service occupations	1,688	18.6	44,533	13.9	119,770	12.9
Production, Transportation, and Material Moving occupations	755	8.3	26,230	8.2	94,306	10.1
Construction, Extraction and Maintenance occupations	299	3.3	15,605	4.9	64,467	6.9
Farming, Fishing and Forestry occupations	57	0.6	915	0.3	2,472	0.3
Total Employed Civilian Population 16 and Over	9,090	100	321,524	100	929,205	100

Source: U. S. Census Bureau, 2002, Table DP-3 Profile of Selected Economic Characteristics: 2000, DCLU, 2003

Appendix B

Housing – Bonus & TDR Program Production

APPENDIX B

HOUSING: BONUS AND TDR PROGRAM PRODUCTION

Within the study area, two innovative programs are in place in order to help ensure that large new office and hotel structures mitigate some of their impacts on the Downtown environment. The Downtown Bonus and Transfer of Development Rights (TDR) programs generally allow developers to choose to build more commercial space than they would otherwise be permitted if they mitigate some of the impacts of that increased density.

Description of the Bonus and TDR Programs

In the City's Office Core zones, DOC1 and DOC2, and the Downtown Mixed Commercial (DMC) zone base and maximum density limits are in place. The base density is permitted to any property owner outright. Any property owner that wants to build a commercial building to the base floor area ratio (FAR) could (assuming they meet any other permit requirements). In order to be permitted to build above the base FAR limit, a developer must mitigate some of the impacts of new uses occupying floor area above the base FAR limit to a maximum FAR limit. Table B-1 presents the base and maximum FAR limits under each Alternative.

TABLE B-1
Base and Maximum Permitted FARs

Urban Village/ Current Zoning	Alternative 1		Alternative 2		Alternative 3 ¹		Alternative 4	
	Base FAR	Max. FAR	Base FAR	Max. FAR	Base FAR	Max. FAR	Base FAR	Max. FAR
Commercial Core								
DOC1	7	17	6	17	6	17	6	14
DOC2 300'	6	14	5	13	5	13/10	5	10
DOC2 240'	6	13	5	13	5	13	5	10
DMC	7	10	5	7	5	7	5	7
Denny Triangle								
DOC2	7	14	5	13	5	13/10	5	10
DMC 240' or 160'	7	10	5	7	5/2	7/5	5	7
DMC 125'	7	10	5	7	5/1	7/4	5	7
Belltown								
DOC2	6	14	5	13	5	10	5	10
DMC 240' or 160'	7	10	5	7	5/2	7/5	5	7
DMC 125'	7	10	5	7	5/1	7/4	5	7

Two existing programs are available to mitigate the impacts of floor area above the base: the Transfer of Development Rights (TDR) program and a Floor Area Bonus program.

¹ 1st FAR above the base in place in those areas where the height and density limits are not increased.

Under a TDR program, a developer is allowed to transfer the right to unused base floor area from a “sending” site to a “receiving” site. A sending site must have a City of Seattle landmark structure, public open space or low-income housing and not use all permitted base FAR. For example, a 25,000 square foot Landmark office building on a 10,000 square foot parcel in the DOC1 zone would be a 2.5 FAR building. Because the base FAR limit in DOC1, the Landmark would currently be able to sell the right to build up to 3.5 FAR, or 35,000 square feet to one or more “receiving sites.” Those sites would be able to build 35,000 square of office space above the base limit. The owners of the Landmark would receive the sales price for the Landmark structure, but would agree never to redevelop their property. The goal of TDR programs is generally to preserve existing resources that could be lost to development.

The Floor Area Bonus program allows for the mitigation of the impact of additional Downtown workers on demand for low-income housing, childcare, human services, open space and transportation. Developers who provide funding or facilities to mitigate some or all of these impacts are permitted additional non-exempt floor area. For example, a developer building a new hotel project in the DOC2 zone, has the opportunity to build additional floor area above their base FAR limit of 5 in exchange for payments of \$22 for every square foot. Eighteen dollars and seventy-five cents of that \$22 will go into a pot that is then given to low-income housing developers who agree to build affordable housing within Downtown Seattle. The other \$3.25 will go towards subsidizing child care costs for low-income employees of Downtown Seattle companies. The goal of bonus programs is generally to create new resources that mitigate the impact of new jobs and employees Downtown.

The current program prioritizes the use of different Bonus and Transfer of Development Rights features in a number of ways. In DOC-1 and DOC-2 seventy-five percent (75%) of any floor area above 1 FAR above the base FAR is earned by TDR transferred from low-income housing sites or through the Downtown Bonus program for mitigation of housing and child care impacts. Twenty-five percent of the floor area above 1 FAR above the base is earned through development rights transfers off of Landmarks and new open spaces, or through provision of on-site features, such as on-site open space or access to the Downtown transit tunnel. One-fifth of this twenty-five percent is required to be achieved through the use of Landmarks TDR if such TDR are available. Finally, the first FAR above the base in DOC-1 and DOC-2 zones can be achieved through the use of amenity bonuses, including short-term parking and retail uses, or non-housing TDR. Developers with projects in the DMC zone, with its two FAR above the base, can choose to provide housing bonuses and other amenities through a 75%/25% split as described for the DOC-1 and DOC-2 zones, or they can choose to provide all 2 FAR through on-site amenities such as open space, street level retail space, cinemas or other features.

Some changes to these rules would be made under the different alternatives. Table B-2 presents how the bonus and TDR programs would be treated under different zones under the different alternatives.

TABLE B-2
Structure of the Bonus/TDR Programs

Zone/Feature	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Downtown Office Core 1 (DOC-1)				
75%/25% split between housing/non-housing required	Yes	Yes	Yes	Yes
1 st FAR above base set aside for non-housing amenities	No	No	No	Yes
1/5 of 25% required from City of Seattle Landmarks	Yes	Yes	Yes	Yes
Downtown Office Core 2 (DOC-2)				
75%/25% split between housing/non-housing required	Yes	Yes	Yes	Yes
1 st FAR above base set aside for non-housing amenities	No	No	No/Yes ²	Yes
1/5 of 25% required from City of Seattle Landmarks	Yes	Yes	Yes	Yes
Downtown Mixed Commercial (DMC)				
75%/25% split between housing/non-housing required	Yes	Yes	No	No
1 st FAR above base set aside for non-housing amenities	No	No	No	No
1/5 of 25% required from City of Seattle Landmarks	Yes	Yes	No	No

Methodology to Determine Production from the Bonus/TDR Programs

In order to determine differences among the EIS Alternatives in the amount of commercial floor area that would contribute to the Downtown Bonus and TDR programs and the results of those contributions, three different time scales were explored. The first analysis compared how use of the TDR and Bonus programs changed on particular Downtown sites under the four alternatives. The second analysis explored the potential amount of TDR and Bonus use over a twenty-year period. The final analysis identified the potential use of the TDR and Bonus programs if all available sites Downtown were to be redeveloped. The same process was used for all three of these analyses.

In order to determine the amount of square footage subject to bonus and TDR program requirements that a developer might choose to build the following steps would need to be undertaken:

Identify the parcel area for the redevelopable site(s).

Subtract the base FAR limit from the maximum FAR limit to identify the FAR that would be subject to the Bonus and TDR program provisions ("bonusable FAR").

If the 75%/25% split is not in place:

Multiply the bonusable FAR by the parcel area to identify the amount of floor area that could be built if developers choose to provide on-site amenities ("bonusable floor area").³

If the 75%/25% split is in place and the 1 FAR above the base rule is not in place:

Multiply the bonusable FAR by the site size to identify the "bonusable floor area."

Multiply bonusable floor area by .75 to identify the amount of floor area subject to the housing/childcare bonus program provisions ("housing/childcare bonus floor area").

² 1st FAR above the base in place in those areas where the height and density limits are not increased.

³ Although the housing bonus program is available to developers whose sites are not subject to the 75%/25% split, it is likely that they will choose to provide on-site amenities that are often cheaper to develop than the \$22/SF charge for the housing/child care bonuses, and that will be income generating to the property, or otherwise increase the value of their property, such as providing street level retail space or short-term parking.

Multiply the bonusable floor area by .05 to identify the amount of floor area that must be achieved through the use of the Landmark TDR program if available (“Landmark TDR floor area”).

Subtract the housing/childcare bonus floor area and Landmark TDR floor area from the bonusable floor area to identify the amount of floor area that might be achieved through use of other on-site amenity bonuses or TDR.

Multiply the housing/childcare bonus floor area by \$3.25 to identify the dollar contribution to the childcare bonus fund.

Multiply the housing/childcare bonus floor area by \$3.20 to identify the dollar contribution to the housing bonus fund for households earning less than thirty percent of the median household income in King County (MAI).

Multiply the housing/childcare bonus floor area by \$9.28 to identify the dollar contribution to the housing bonus fund for households earning between thirty and fifty percent MAI.

Multiply the housing/childcare bonus floor area by \$6.27 to identify the dollar contribution to the housing bonus fund for households earning between fifty and eighty percent MAI.

Divide the total number of housing funds available for each income group by \$30,000⁴ to identify the potential number of units that could be built under each alternative.

If the 75%/25% split is in place and the 1 FAR above the base rule is in place:

Multiply the bonusable FAR by the site size to identify the “bonusable floor area.”

Subtract one from the bonusable FAR to identify the amount of FAR that is subject to the 75%/25% split (“bonusable FAR above 1 FAR”).

Multiply the “bonusable FAR above 1 FAR” by the site size to identify the “bonusable floor area above 1 FAR.”

Multiply that figure by .75 to identify the amount of floor area subject to the housing/childcare bonus program provisions (“housing/childcare bonus floor area”).

Multiply the bonusable floor area above 1 FAR by .05 to identify the amount of floor area that must be achieved through the use of the Landmark TDR program (“Landmark TDR floor area”).

Subtract the housing/childcare bonus floor area and Landmark TDR floor area from the bonusable floor area to identify the amount of floor area that might be achieved through use of other on-site amenity bonuses or TDR.

Multiply the housing/childcare bonus floor area by \$3.25 to identify the dollar contribution to the childcare bonus fund.

Multiply the housing/childcare bonus floor area by \$3.20 to identify the dollar contribution to the housing bonus fund for households earning less than thirty percent MAI.

Multiply the housing/childcare bonus floor area by \$9.28 to identify the dollar contribution to the housing bonus fund for households earning between thirty and fifty percent MAI.

Multiply the housing/childcare bonus floor area by \$6.27 to identify the dollar contribution to the housing bonus fund for households earning between fifty and eighty percent MAI.

Divide the total number of housing funds available for each income group by \$30,000 to identify the potential number of units that could be built under each alternative.

⁴ This figure assumes that additional public and private could be leveraged from a number of other sources in order to build the housing units. If all of the costs of the new housing were to come from the Housing Bonus program between \$60,000 and \$120,000 per unit would be needed to fund construction, in addition to any income from rents.

TDR/Bonus Program Production on Individual Sites

Commercial Core

DOC1

Site Area: 56,400 SF (Full Block)

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	6	6	6
Maximum FAR	17	17	17	14
Bonusable Floor Area	564,000	620,400	620,400	451,200
Housing/Childcare Floor Area	423,000	465,300	465,300	296,100
Required Landmark TDR	28,200	31,020	31,020	19,740
Other Bonus/TDR Floor Area	112,800	124,080	124,080	135,360
Childcare Funds	\$1,374,750	\$1,512,225	\$1,512,225	\$962,325
Housing Funds <30% MAI	\$1,353,600	\$1,488,960	\$1,488,960	\$947,520
Housing Units <30% MAI	45	49	49	31
Housing Funds 30%-50% MAI	\$3,925,440	\$4,317,984	\$4,317,984	\$2,747,808
Housing Units 30%-50% MAI	130	143	143	91
Housing Funds 50%-80% MAI	\$2,652,210	\$2,917,431	\$2,917,431	\$1,856,547
Housing Units 50%-80% MAI	88	97	97	61

Commercial Core

DOC1

Site Area: 28,560 SF (Half Block)

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	6	6	6
Maximum FAR	17	17	17	14
Bonusable Floor Area	285,600	314,160	314,160	228,480
Housing/Childcare Floor Area	214,200	235,620	235,620	149,940
Required Landmark TDR	14,280	15,708	15,708	9,996
Other Bonus/TDR Floor Area	57,120	62,832	62,832	68,544
Childcare Funds	\$696,150	\$765,765	\$765,765	\$487,305
Housing Funds <30% MAI	\$685,440	\$753,984	\$753,984	\$479,808
Housing Units <30% MAI	22	25	25	15
Housing Funds 30%-50% MAI	\$1,987,776	\$2,186,554	\$2,186,554	\$1,391,443
Housing Units 30%-50% MAI	66	72	72	46
Housing Funds 50%-80% MAI	\$1,343,034	\$1,477,337	\$1,477,337	\$940,124
Housing Units 50%-80% MAI	44	49	49	31

**Commercial Core
DOC2-240
Site Area: 26,640 SF (Half Block)**

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	6	5	5	5
Maximum FAR	13	13	13	10
Bonusable Floor Area	186,480	213,120	213,120	133,200
Housing/Childcare Floor Area	139,860	159,840	159,840	79,920
Required Landmark TDR	9,324	10,656	10,656	5,328
Other Bonus/TDR Floor Area	37,296	42,624	42,624	47,952
Childcare Funds	\$454,545	\$519,480	\$519,480	\$259,740
Housing Funds <30% MAI	\$447,552	\$511,488	\$511,488	\$255,744
Housing Units <30% MAI	14	17	17	8
Housing Funds 30%-50% MAI	\$1,297,901	\$1,483,315	\$1,483,315	\$741,658
Housing Units 30%-50% MAI	43	49	49	24
Housing Funds 50%-80% MAI	\$876,922	\$1,002,197	\$1,002,197	\$501,098
Housing Units 50%-80% MAI	29	33	33	16

**Commercial Core
DOC2-240
Site Area: 13,920 SF (Quarter Block)**

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	6	5	5	5
Maximum FAR	13	13	13	10
Bonusable Floor Area	97,440	111,360	111,360	69,600
Housing/Childcare Floor Area	73,080	83,520	83,520	41,760
Required Landmark TDR	4,872	5,568	5,568	2,784
Other Bonus/TDR Floor Area	19,488	22,272	22,272	25,056
Childcare Funds	\$237,510	\$271,440	\$271,440	\$135,720
Housing Funds <30% MAI	\$233,856	\$267,264	\$267,264	\$133,632
Housing Units <30% MAI	7	8	8	4
Housing Funds 30%-50% MAI	\$678,182	\$775,066	\$775,066	\$387,533
Housing Units 30%-50% MAI	22	25	25	12
Housing Funds 50%-80% MAI	\$458,212	\$523,670	\$523,670	\$261,835
Housing Units 50%-80% MAI	15	17	17	8

**Commercial Core
DMC
Site Area: 23,980 SF (Half Block)**

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	5	5	5
Maximum FAR	10	7	7	7
Bonusable Floor Area	71,940	47,960	47,960	47,960
Housing/Childcare Floor Area	53,955	35,970	0	0
Required Landmark TDR	3,597	2,398	0	0
Other Bonus/TDR Floor Area	14,388	9,592	47,960	47,960
Childcare Funds	\$175,354	\$116,903	\$0	\$0
Housing Funds <30% MAI	\$172,656	\$115,104	\$0	\$0
Housing Units <30% MAI	5	3	0	0
Housing Funds 30%-50% MAI	\$500,702	\$333,802	\$0	\$0
Housing Units 30%-50% MAI	16	11	0	0
Housing Funds 50%-80% MAI	\$338,298	\$225,532	\$0	\$0
Housing Units 50%-80% MAI	11	7	0	0

**Commercial Core
DMC
Site Area: 13,320 SF (Quarter Block)**

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	5	5	5
Maximum FAR	10	7	7	7
Bonusable Floor Area	39,960	26,640	26,640	26,640
Housing/Childcare Floor Area	29,970	19,980	0	0
Required Landmark TDR	1,998	1,332	0	0
Other Bonus/TDR Floor Area	7,992	5,328	26,640	26,640
Childcare Funds	\$97,403	\$64,935	\$0	\$0
Housing Funds <30% MAI	\$95,904	\$63,936	\$0	\$0
Housing Units <30% MAI	3	2	0	0
Housing Funds 30%-50% MAI	\$278,122	\$185,414	\$0	\$0
Housing Units 30%-50% MAI	9	6	0	0
Housing Funds 50%-80% MAI	\$187,912	\$125,275	\$0	\$0
Housing Units 50%-80% MAI	6	4	0	0

Denny Triangle
DOC2-300 (Between 6th Avenue and 8th Avenue)
Site Area: 77,760 SF (Full Block)

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	5	5	5
Maximum FAR	14	13	13	10
Bonusable Floor Area	544,320	622,080	622,080	388,800
Housing/Childcare Floor Area	408,240	466,560	466,560	233,280
Required Landmark TDR	27,216	31,104	31,104	15,552
Other Bonus/TDR Floor Area	108,864	124,416	124,416	139,968
Childcare Funds	\$1,326,780	\$1,516,320	\$1,516,320	\$758,160
Housing Funds <30% MAI	\$1,306,368	\$1,492,992	\$1,492,992	\$746,496
Housing Units <30% MAI	43	49	49	24
Housing Funds 30%-50% MAI	\$3,788,467	\$4,329,677	\$4,329,677	\$2,164,838
Housing Units 30%-50% MAI	126	144	144	72
Housing Funds 50%-80% MAI	\$2,559,665	\$2,925,331	\$2,925,331	\$1,462,666
Housing Units 50%-80% MAI	85	97	97	48

Denny Triangle
DOC2-300 (East of 8th Avenue)
Site Area: 42,360 SF (Half Block)

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	5	5	5
Maximum FAR	14	13	10	10
Bonusable Floor Area	296,520	338,880	211,800	211,800
Housing/Childcare Floor Area	222,390	254,160	127,080	127,080
Required Landmark TDR	14,826	16,944	8,472	8,472
Other Bonus/TDR Floor Area	59,304	67,776	76,248	76,248
Childcare Funds	\$722,768	\$826,020	\$413,010	\$413,010
Housing Funds <30% MAI	\$711,648	\$813,312	\$406,656	\$406,656
Housing Units <30% MAI	23	27	13	13
Housing Funds 30%-50% MAI	\$2,063,779	\$2,358,605	\$1,179,302	\$1,179,302
Housing Units 30%-50% MAI	68	78	39	39
Housing Funds 50%-80% MAI	\$1,394,385	\$1,593,583	\$796,792	\$796,792
Housing Units 50%-80% MAI	46	53	26	26

Denny Triangle
DMC-240 (Area not rezoned to DMR/C under Alternative 3)
Site Area: 42,360 SF (Half Block)

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	5	5	5
Maximum FAR	10	7	7	7
Bonusable Floor Area	127,080	84,720	84,720	84,720
Housing/Childcare Floor Area	95,310	63,540	0	0
Required Landmark TDR	6,354	4,236	0	0
Other Bonus/TDR Floor Area	25,416	16,944	84,720	84,720
Childcare Funds	\$309,758	\$206,505	\$0	\$0
Housing Funds <30% MAI	\$304,992	\$203,328	\$0	\$0
Housing Units <30% MAI	10	6	0	0
Housing Funds 30%-50% MAI	\$884,477	\$589,651	\$0	\$0
Housing Units 30%-50% MAI	29	19	0	0
Housing Funds 50%-80% MAI	\$597,594	\$398,396	\$0	\$0
Housing Units 50%-80% MAI	19	13	0	0

Denny Triangle
DMC-240 (Area rezoned to DMR/C under Alternative 3)
Site Area: 21,600 SF (Quarter Block)

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	5	2	5
Maximum FAR	10	7	5	7
Bonusable Floor Area	64,800	43,200	64,800	43,200
Housing/Childcare Floor Area	48,600	32,400	0	0
Required Landmark TDR	3,240	2,160	0	0
Other Bonus/TDR Floor Area	12,960	8,640	64,800	43,200
Childcare Funds	\$157,950	\$105,300	\$0	\$0
Housing Funds <30% MAI	\$155,520	\$103,680	\$0	\$0
Housing Units <30% MAI	5	3	0	0
Housing Funds 30%-50% MAI	\$451,008	\$300,672	\$0	\$0
Housing Units 30%-50% MAI	15	10	0	0
Housing Funds 50%-80% MAI	\$304,722	\$203,148	\$0	\$0
Housing Units 50%-80% MAI	10	6	0	0

**Belltown
DOC2-300
Site Area: 77,760 SF (Half Block)**

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	5	5	5
Maximum FAR	14	13	10	10
Bonusable Floor Area	544,320	622,080	388,800	388,800
Housing/Childcare Floor Area	408,240	466,560	233,280	233,280
Required Landmark TDR	27,216	31,104	15,552	15,552
Other Bonus/TDR Floor Area	108,864	124,416	139,968	139,968
Childcare Funds	\$1,326,780	\$1,516,320	\$758,160	\$758,160
Housing Funds <30% MAI	\$1,306,368	\$1,492,992	\$746,496	\$746,496
Housing Units <30% MAI	43	49	24	24
Housing Funds 30%-50% MAI	\$3,788,467	\$4,329,677	\$2,164,838	\$2,164,838
Housing Units 30%-50% MAI	126	144	72	72
Housing Funds 50%-80% MAI	\$2,559,665	\$2,925,331	\$1,462,666	\$1,462,666
Housing Units 50%-80% MAI	85	97	48	48

**Belltown
DMC-125 (Area rezoned to DMR/C)
Site Size: 19,980**

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	5	1	5
Maximum FAR	10	7	4	7
Bonusable Floor Area	59,940	39,960	59,940	39,960
Housing/Childcare Floor Area	44,955	29,970	0	0
Required Landmark TDR	2,997	1,998	0	0
Other Bonus/TDR Floor Area	11,988	7,992	59,940	39,960
Childcare Funds	\$146,104	\$97,403	\$0	\$0
Housing Funds <30% MAI	\$143,856	\$95,904	\$0	\$0
Housing Units <30% MAI	4	3	0	0
Housing Funds 30%-50% MAI	\$417,182	\$278,122	\$0	\$0
Housing Units 30%-50% MAI	13	9	0	0
Housing Funds 50%-80% MAI	\$281,868	\$187,912	\$0	\$0
Housing Units 50%-80% MAI	9	6	0	0

Bonus/TDR Program Production over 20 Years

Commercial Core

DOC1

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of New Commercial Projects	4	5	5	6
Site Area	147,600	189,720	189,720	215,640
Total New Commercial Floor Area	2,509,200	3,225,240	3,225,240	3,018,960
Base FAR Limit	7	6	6	6
Maximum FAR	17	17	17	14
Bonusable Floor Area	1,476,000	2,086,920	2,086,920	1,725,120
Housing/Childcare Floor Area	1,107,000	1,565,190	1,565,190	1,132,110
Required Landmark TDR	73,800	104,346	104,346	75,474
Other Bonus/TDR Floor Area	295,200	417,384	417,384	517,536
Childcare Funds	\$3,597,750	\$5,086,868	\$5,086,868	\$3,679,358
Housing Funds <30% MAI	\$3,542,400	\$5,008,608	\$5,008,608	\$3,622,752
Units Funded at <30% MAI	118	166	166	120
Housing Funds 30%-50% MAI	\$10,272,960	\$14,524,963	\$14,524,963	\$10,505,981
Units Funded at 30%-50% MAI	342	484	484	350
Housing Funds 50%-80% MAI	\$6,940,890	\$9,813,741	\$9,813,741	\$7,098,330
Units Funded at 50%-80% MAI	231	327	327	236

DOC2

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of New Commercial Projects	4	4	4	4
Site Area	201,083	201,083	201,083	201,083
Total New Commercial Floor Area	1,397,594	1,397,594	1,317,380	1,317,380
Base FAR Limit	6	5	5	5
Maximum FAR	14	13	13	10
Bonusable Floor Area	721,646	834,304	754,090	754,090
Housing/Childcare Floor Area	541,235	625,728	481,074	414,755
Required Landmark TDR	36,082	41,715	32,072	27,650
Other Bonus/TDR Floor Area	144,329	166,861	240,944	311,684
Childcare Funds	\$1,759,014	\$2,033,616	\$1,563,491	\$1,347,954
Housing Funds <30% MAI	\$1,731,952	\$2,002,330	\$1,539,437	\$1,327,216
Units Funded at <30% MAI	57	66	51	44
Housing Funds 30%-50% MAI	\$5,022,661	\$5,806,756	\$4,464,367	\$3,848,926
Units Funded at 30%-50% MAI	167	193	148	128
Housing Funds 50%-80% MAI	\$3,393,543	\$3,923,315	\$3,016,334	\$2,600,514
Units Funded at 50%-80% MAI	113	130	100	86

DMC

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of New Commercial Projects	4	4	4	4
Site Area	99,795	99,795	99,795	99,795
Total New Commercial Floor Area	997,950	698,565	698,565	698,565
Base FAR Limit	7	5	5	5
Maximum FAR	10	7	7	7
Bonusable Floor Area	299,385	199,590	199,590	199,590
Housing/Childcare Floor Area	224,539	149,693	0	0
Required Landmark TDR	14,969	9,980	0	0
Other Bonus/TDR Floor Area	59,877	39,918	199,590	199,590
Childcare Funds	\$729,751	\$486,501	\$0	\$0
Housing Funds <30% MAI	\$718,525	\$479,018	\$0	\$0
Units Funded at <30% MAI	23	15	0	0
Housing Funds 30%-50% MAI	\$2,083,722	\$1,389,151	\$0	\$0
Units Funded at 30%-50% MAI	69	46	0	0
Housing Funds 50%-80% MAI	\$1,407,860	\$938,575	\$0	\$0
Units Funded at 50%-80% MAI	46	31	0	0

All Zones

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of New Commercial Projects	12	13	13	14
Site Area	448,478	490,598	490,598	516,518
Total New Commercial Floor Area	4,904,744	5,321,399	5,241,185	5,034,905
Bonusable Floor Area	2,497,031	3,120,814	3,040,600	2,678,800
Housing/Childcare Floor Area	1,872,774	2,340,611	2,046,264	1,546,865
Required Landmark TDR	124,851	156,041	136,418	103,124
Other Bonus/TDR Floor Area	499,406	624,163	857,918	1,028,810
Childcare Funds	\$6,086,515	\$7,606,985	\$6,650,359	\$5,027,312
Housing Funds <30% MAI	\$5,992,877	\$7,489,955	\$6,548,045	\$4,949,968
Units Funded at <30% MAI	199	249	218	164
Housing Funds 30%-50% MAI	\$17,379,343	\$21,720,870	\$18,989,330	\$14,354,907
Units Funded at 30%-50% MAI	579	724	632	478
Housing Funds 50%-80% MAI	\$11,742,293	\$14,675,631	\$12,830,075	\$9,698,844
Units Funded at 50%-80% MAI	391	489	427	323

Denny Triangle

DOC2

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of New Commercial Projects	9	9	11	12
Site Area	536,089	536,089	603,042	641,109
Total New Commercial Floor Area	6,618,004	6,216,718	6,504,477	6,063,060
Base FAR Limit	6	5	5	5
Maximum FAR	14	13	13	10
Bonusable Floor Area	2,914,103	3,529,674	3,524,068	2,892,316
Housing/Childcare Floor Area	2,185,577	2,647,256	2,424,978	1,714,326
Required Landmark TDR	145,705	176,484	161,665	114,288
Other Bonus/TDR Floor Area	582,821	705,935	937,426	1,063,702
Childcare Funds	\$7,103,126	\$8,603,581	\$7,881,177	\$5,571,559
Housing Funds <30% MAI	\$6,993,846	\$8,471,219	\$7,759,930	\$5,485,843
Housing Units <30% MAI	233	282	258	182
Housing Funds 30%-50% MAI	\$20,282,155	\$24,566,536	\$22,503,796	\$15,908,945
Housing Units 30%-50% MAI	676	818	750	530
Housing Funds 50%-80% MAI	\$13,703,568	\$16,598,295	\$15,204,612	\$10,748,824
Housing Units 50%-80% MAI	456	553	506	358

DMC

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of New Commercial Projects	4	4	4	5
Site Area	224,661	224,661	224,661	263,541
Total New Commercial Floor Area	1,333,200	996,240	823,440	1,268,400
Base FAR Limit	7	5	5/2/1	5
Maximum FAR	10	7	7/5/4	7
Bonusable Floor Area	336,960	224,640	311,040	302,400
Housing/Childcare Floor Area	252,720	168,480	0	0
Required Landmark TDR	16,848	11,232	0	0
Other Bonus/TDR Floor Area	67,392	44,928	311,040	302,400
Childcare Funds	\$480,397	\$360,537	\$0	\$0
Housing Funds <30% MAI	\$808,704	\$539,136	\$0	\$0
Housing Units <30% MAI	26	17	0	0
Housing Funds 30%-50% MAI	\$2,345,242	\$1,563,494	\$0	\$0
Housing Units 30%-50% MAI	78	52	0	0
Housing Funds 50%-80% MAI	\$1,584,554	\$1,056,370	\$0	\$0
Housing Units 50%-80% MAI	52	35	0	0

All Zones

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of New Commercial Projects	13	13	15	17
Site Area	760,750	760,750	827,703	904,650
Total New Commercial Floor Area	7,951,204	7,212,958	7,327,917	7,331,460
Bonusable Floor Area	3,251,063	3,754,314	3,835,108	3,194,716
Housing/Childcare Floor Area	2,438,297	2,815,736	2,424,978	1,714,326
Required Landmark TDR	162,553	187,716	161,665	114,288
Other Bonus/TDR Floor Area	650,213	750,863	1,248,466	1,366,102
Childcare Funds	\$7,583,523	\$8,964,118	\$7,881,177	\$5,571,559
Housing Funds <30% MAI	\$7,802,550	\$9,010,355	\$7,759,930	\$5,485,843
Housing Units <30% MAI	259	299	258	182
Housing Funds 30%-50% MAI	\$22,627,396	\$26,130,030	\$22,503,796	\$15,908,945
Housing Units 30%-50% MAI	754	870	750	530
Housing Funds 50%-80% MAI	\$15,288,122	\$17,654,665	\$15,204,612	\$10,748,824
Housing Units 50%-80% MAI	508	588	506	358

Belltown

DMC

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of New Commercial Projects	0	0	0	1
Site Area	0	0	0	1
Total New Commercial Floor Area	0	0	0	1
Base FAR Limit	7	5	5/2/1	5
Maximum FAR	10	7	7/5/4	7
Bonusable Floor Area	0	0	0	51,840
Housing/Childcare Floor Area	0	0	0	0
Required Landmark TDR	0	0	0	0
Other Bonus/TDR Floor Area	0	0	0	51,840
Childcare Funds	\$0	\$0	\$0	\$0
Housing Funds <30% MAI	\$0	\$0	\$0	\$0
Housing Units <30% MAI	0	0	0	0
Housing Funds 30%-50% MAI	\$0	\$0	\$0	\$0
Housing Units 30%-50% MAI	0	0	0	0
Housing Funds 50%-80% MAI	\$0	\$0	\$0	\$0
Housing Units 50%-80% MAI	0	0	0	0

Note: Under the twenty-year development scenario, only one commercial building was modeled in Belltown that has not been vested to previous Bonus and TDR program provisions. For more information about that model, please see Appendix G: Land Use—Further Analysis of Development Capacity.

All Villages

All Zones

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of New Commercial Projects	25	26	28	32
Site Area	1,209,228	1,251,348	1,318,301	1,421,169
Total New Commercial Floor Area	12,855,948	12,534,357	12,569,102	12,366,366
Bonusable Floor Area	5,748,094	6,875,128	6,875,708	5,925,356
Housing/Childcare Floor Area	4,311,071	5,156,347	4,471,242	3,261,191
Required Landmark TDR	287,404	343,757	298,083	217,412
Other Bonus/TDR Floor Area	1,149,619	1,375,026	2,106,384	2,446,752
Childcare Funds	\$13,670,038	\$16,571,103	\$14,531,536	\$10,598,871
Housing Funds <30% MAI	\$13,795,427	\$16,500,310	\$14,307,974	\$10,435,811
Housing Units <30% MAI	458	548	476	346
Housing Funds 30%-50% MAI	\$40,006,739	\$47,850,900	\$41,493,126	\$30,263,852
Housing Units 30%-50% MAI	1,333	1,594	1,382	1,008
Housing Funds 50%-80% MAI	\$27,030,415	\$32,330,296	\$28,034,687	\$20,447,668
Housing Units 50%-80% MAI	899	1,077	933	681

Bonus/TDR Program Production at Development Build-Out

Commercial Core

DOC1 18 Parcels (394,320 SF)

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	6	6	6
Maximum FAR	17	17	17	14
Max. Potential Commercial Floor Area	6,703,440	6,703,440	6,703,440	5,520,480
Bonusable Floor Area	3,943,200	4,337,520	4,337,520	3,154,560
Housing/Childcare Floor Area	2,957,400	3,253,140	3,253,140	2,070,180
Required Landmark TDR	197,160	216,876	216,876	138,012
Other Bonus/TDR Floor Area	788,640	867,504	867,504	946,368
Childcare Funds	\$9,611,550	\$10,572,705	\$10,572,705	\$6,728,085
Housing Funds <30% MAI	\$3,542,400	\$5,008,608	\$5,008,608	\$3,622,752
Housing Units <30% MAI	118	166	166	120
Housing Funds 30%-50% MAI	\$10,272,960	\$14,524,963	\$14,524,963	\$10,505,981
Housing Units 30%-50% MAI	342	484	484	350
Housing Funds 50%-80% MAI	\$6,940,890	\$9,813,741	\$9,813,741	\$7,098,330
Housing Units 50%-80% MAI	231	327	327	236

DOC2 11 Parcels (302,955 SF)

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	6	5	5	5
Maximum FAR	13/14	13	13/10	10
Max. Potential Commercial Floor Area	3,239,596	3,143,971	3,122,371	2,235,106
Bonusable Floor Area	1,952,416	2,071,321	2,049,721	1,162,456
Housing/Childcare Floor Area	1,627,010	1,605,323	1,537,291	710,945
Required Landmark TDR	97,621	103,566	102,486	47,396
Other Bonus/TDR Floor Area	227,785	362,432	409,944	404,115
Childcare Funds	\$5,287,783	\$5,217,300	\$4,996,196	\$2,310,571
Housing Funds <30% MAI	\$1,731,952	\$2,002,330	\$1,539,437	\$1,327,216
Housing Units <30% MAI	57	66	51	44
Housing Funds 30%-50% MAI	\$5,022,661	\$5,806,756	\$4,464,367	\$3,848,926
Housing Units 30%-50% MAI	167	193	148	128
Housing Funds 50%-80% MAI	\$3,393,543	\$3,923,315	\$3,016,334	\$2,600,514
Housing Units 50%-80% MAI	113	130	100	86

**DMC
24 Parcels (271,060 SF)**

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	5	5	5
Maximum FAR	10	7	7	7
Max. Potential Commercial Floor Area	2,710,600	1,897,420	1,897,420	1,897,420
Bonusable Floor Area	813,180	542,120	542,120	542,120
Housing/Childcare Floor Area	609,885	406,590	0	0
Required Landmark TDR	40,659	27,106	0	0
Other Bonus/TDR Floor Area	162,636	108,424	542,120	542,120
Childcare Funds	\$1,982,126	\$1,321,418	\$0	\$0
Housing Funds <30% MAI	\$718,525	\$479,018	\$0	\$0
Housing Units <30% MAI	23	15	-	-
Housing Funds 30%-50% MAI	\$2,083,722	\$1,389,151	\$0	\$0
Housing Units 30%-50% MAI	69	46	-	-
Housing Funds 50%-80% MAI	\$1,407,860	\$938,575	\$0	\$0
Housing Units 50%-80% MAI	46	31	-	-

**All Zones
53 Parcels (968,335 SF)**

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Max. Potential Commercial Floor Area	12,653,636	11,744,831	11,723,231	9,653,006
Bonusable Floor Area	6,708,796	6,950,961	6,929,361	4,859,136
Housing/Childcare Floor Area	5,194,295	5,265,053	4,790,431	2,781,125
Required Landmark TDR	335,440	347,548	319,362	185,408
Other Bonus/TDR Floor Area	1,179,061	1,338,360	1,819,568	1,892,603
Childcare Funds	\$16,881,459	\$17,111,422	\$15,568,901	\$9,038,656
Housing Funds <30% MAI	\$5,992,877	\$7,489,955	\$6,548,045	\$4,949,968
Housing Units <30% MAI	199	249	218	164
Housing Funds 30%-50% MAI	\$17,379,343	\$21,720,870	\$18,989,330	\$14,354,907
Housing Units 30%-50% MAI	579	724	632	478
Housing Funds 50%-80% MAI	\$11,742,293	\$14,675,631	\$12,830,075	\$9,698,844
Housing Units 50%-80% MAI	391	489	427	323

Denny Triangle

DOC2 56 Parcels (771,165 SF)

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	5	5	5
Maximum FAR	14	13	13/10	10
Max. Potential Commercial Floor Area	10,796,310	10,025,145	8,467,077	7,711,650
Bonusable Floor Area	5,398,155	6,169,320	4,611,252	3,855,825
Housing/Childcare Floor Area	4,418,568	5,049,792	3,502,220	2,524,896
Required Landmark TDR	269,908	308,466	205,295	154,233
Other Bonus/TDR Floor Area	709,679	811,062	903,737	1,176,696
Childcare Funds	\$14,139,418	\$16,159,334	\$11,207,104	\$8,079,667
Housing Funds <30% MAI	\$14,360,346	\$16,411,824	\$11,382,215	\$8,205,912
Housing Units <30% MAI	479	547	379	274
Housing Funds 30%-50% MAI	\$41,004,311	\$46,862,070	\$32,500,602	\$23,431,035
Housing Units 30%-50% MAI	1,367	1,562	1,083	781
Housing Funds 50%-80% MAI	\$27,704,421	\$31,662,196	\$21,958,919	\$15,831,098
Housing Units 50%-80% MAI	923	1,055	732	528

DMC 79 Parcels (908,202 SF)

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	5	5/2/1	5
Maximum FAR	10	7	7/5/4	7
Max. Potential Commercial Floor Area	7,981,410	5,847,987	4,981,371	5,847,987
Bonusable Floor Area	2,401,983	1,802,682	2,336,234	1,802,682
Housing/Childcare Floor Area	1,801,487	1,352,011	0	0
Required Landmark TDR	120,099	90,134	0	0
Other Bonus/TDR Floor Area	480,397	360,537	2,336,234	1,802,682
Childcare Funds	\$5,854,833	\$4,394,036	\$0	\$0
Housing Funds <30% MAI	\$5,764,758	\$4,326,435	\$0	\$0
Housing Units <30% MAI	192	144	0	0
Housing Funds 30%-50% MAI	\$16,717,799	\$12,546,662	\$0	\$0
Housing Units 30%-50% MAI	557	418	0	0
Housing Funds 50%-80% MAI	\$11,295,323	\$8,477,109	\$0	\$0
Housing Units 50%-80% MAI	377	283	0	0

**All Zones
135 Parcels (1,679,367 SF)**

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Max. Potential Commercial Floor Area	18,777,720	15,873,132	13,448,448	13,559,637
Bonusable Floor Area	7,800,138	7,972,002	6,947,486	5,658,507
Housing/Childcare Floor Area	6,220,055	6,401,803	3,502,220	2,524,896
Required Landmark TDR	390,007	398,600	205,295	154,233
Other Bonus/TDR Floor Area	1,190,076	1,171,599	3,239,971	2,979,378
Childcare Funds	\$20,215,179	\$20,805,860	\$11,382,215	\$8,205,912
Housing Funds <30% MAI	\$19,904,176	\$20,485,770	\$11,207,104	\$8,079,667
Housing Units <30% MAI	663	683	374	269
Housing Funds 30%-50% MAI	\$57,722,110	\$59,408,732	\$32,500,602	\$23,431,035
Housing Units 30%-50% MAI	1,924	1,980	1,083	781
Housing Funds 50%-80% MAI	\$38,999,745	\$40,139,305	\$21,958,919	\$15,831,098
Housing Units 50%-80% MAI	1,300	1,338	732	528

Belltown

**DOC2
14 Parcels (110,160 SF)**

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	6	5	5	5
Maximum FAR	14	13	10	10
Max. Potential Commercial Floor Area	1,542,240	1,432,080	1,101,600	1,101,600
Bonusable Floor Area	881,280	881,280	550,800	550,800
Housing/Childcare Floor Area	660,960	660,960	330,480	330,480
Required Landmark TDR	44,064	44,064	22,032	22,032
Other Bonus/TDR Floor Area	176,256	176,256	198,288	198,288
Childcare Funds	\$2,148,120	\$2,148,120	\$1,074,060	\$1,074,060
Housing Funds <30% MAI	\$2,115,072	\$2,115,072	\$1,057,536	\$1,057,536
Housing Units <30% MAI	71	71	35	35
Housing Funds 30%-50% MAI	\$6,133,709	\$6,133,709	\$3,066,854	\$3,066,854
Housing Units 30%-50% MAI	204	204	102	102
Housing Funds 50%-80% MAI	\$4,144,219	\$4,144,219	\$2,072,110	\$2,072,110
Housing Units 50%-80% MAI	138	138	69	69

**DMC
28 Parcels (197,750 SF)**

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Base FAR Limit	7	5	5/2/1	5
Maximum FAR	10	7	7/5/4	7
Max. Potential Commercial Floor Area	1,957,500	1,370,250	1,071,090	1,370,250
Bonusable Floor Area	587,250	391,500	541,080	391,500
Housing/Childcare Floor Area	440,438	293,625	0	0
Required Landmark TDR	29,363	19,575	0	0
Other Bonus/TDR Floor Area	117,449	78,300	541,080	391,500
Childcare Funds	\$1,431,424	\$954,281	\$0	\$0
Housing Funds <30% MAI	\$1,409,402	\$939,600	\$0	\$0
Housing Units <30% MAI	47	31	0	0
Housing Funds 30%-50% MAI	\$4,087,265	\$2,724,840	\$0	\$0
Housing Units 30%-50% MAI	136	91	0	0
Housing Funds 50%-80% MAI	\$2,761,546	\$1,841,029	\$0	\$0
Housing Units 50%-80% MAI	92	61	0	0

**All Zones
42 Parcels (305,910 SF)**

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Max. Potential Commercial Floor Area	3,499,740	2,802,330	2,172,690	2,471,850
Bonusable Floor Area	1,468,530	1,272,780	1,091,880	942,300
Housing/Childcare Floor Area	1,101,398	954,585	330,480	330,480
Required Landmark TDR	73,427	63,639	22,032	22,032
Other Bonus/TDR Floor Area	293,705	254,556	739,368	589,788
Childcare Funds	\$3,579,544	\$3,102,401	\$1,074,060	\$1,074,060
Housing Funds <30% MAI	\$3,524,474	\$3,054,672	\$1,057,536	\$1,057,536
Housing Units <30% MAI	117	102	35	35
Housing Funds 30%-50% MAI	\$10,220,973	\$8,858,549	\$3,066,854	\$3,066,854
Housing Units 30%-50% MAI	341	295	102	102
Housing Funds 50%-80% MAI	\$6,905,765	\$5,985,248	\$2,072,110	\$2,072,110
Housing Units 50%-80% MAI	230	200	69	69

Total – All Villages

237 Parcels (3,114,447 SF)

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Max. Potential Commercial Floor Area	34,931,096	30,420,293	27,344,369	25,684,493
Bonusable Floor Area	15,977,464	16,195,743	14,968,727	11,459,943
Housing/Childcare Floor Area	12,515,748	12,621,441	8,623,131	5,636,501
Required Landmark TDR	798,874	809,787	546,689	361,673
Other Bonus/TDR Floor Area	2,662,842	2,764,515	5,798,907	5,461,769
Childcare Funds	\$40,676,181	\$41,019,683	\$28,025,176	\$18,318,628
Housing Funds <30% MAI	\$40,050,394	\$40,388,611	\$27,594,019	\$18,036,803
Housing Units <30% MAI	1,335	1,346	920	601
Housing Funds 30%-50% MAI	\$116,146,141	\$117,126,972	\$80,022,656	\$52,306,729
Housing Units 30%-50% MAI	3,872	3,904	2,667	1,744
Housing Funds 50%-80% MAI	\$78,473,740	\$79,136,435	\$54,067,031	\$35,340,861
Housing Units 50%-80% MAI	2,616	2,638	1,802	1,178

Summary by Zone

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
DOC1				
Total Potential Square Feet	6,703,440	6,703,440	6,703,440	5,520,480
Potential Subsidized Units	1,848	2,033	2,033	1,294
Potential Landmark TDR	197,160	216,876	216,876	138,012
Other Bonus/TDR Floor Area	788,640	867,504	867,504	946,368
% of Total Floor Area through Housing/Childcare Bonus	44%	49%	49%	38%
% of Total Floor Area through Landmark TDR and other Programs	15%	16%	16%	20%
DOC2				
Total Potential Square Feet	17,969,128	16,921,711	15,011,563	13,157,470
Potential Subsidized Units	4,212	4,705	3,521	2,352
Potential Landmark TDR	449,451	501,899	375,615	250,949
Other Bonus/TDR Floor Area	1,797,802	2,007,595	2,117,983	2,258,545
% of Total Floor Area through Housing/Childcare Bonus	38%	44%	38%	29%
% of Total Floor Area through Landmark TDR and other Bonus/TDR Programs	13%	15%	17%	19%
DMC				
Total Potential Square Feet	12,649,510	9,115,657	7,949,881	9,115,657
Potential Subsidized Units	1,782	1,282	0	0
Potential Landmark TDR	190,121	136,815	0	0
Other Bonus/TDR Floor Area	760,482	547,261	3,419,434	2,736,302
% of Total Floor Area through Housing/Childcare Bonus	23%	23%	0%	0%
% of Total Floor Area through Landmark TDR and other Bonus/TDR Programs	8%	8%	43%	30%

Appendix C

Proposed Downtown Seattle Projects with Office or Residential Components

APPENDIX C

LAND USE: FUTURE DOWNTOWN SEATTLE PROJECTS WITH OFFICE OR RESIDENTIAL COMPONENTS

Table C-1
Proposed Downtown Urban Center Office

Project	Address	Owner/Developer	Estimated Total SF
Commercial Core			
811 5 th Avenue		First United Methodist Church	590,000
Colman Tower	810 Western Ave	Triad Development	160,000
Fifth And Yesler Building	300 5 th Ave	Martin Selig Real Estate	267,000
Washington Mutual Tower	1301 2 nd Ave	Washington Mutual/SAM	938,000
		Subtotal	1,955,000
Belltown			
2000 Third Avenue		Tarragon Development	265,000
Third & Battery Building	2400 3 rd Ave	Martin Selig Real Estate	51,000
		Subtotal	316,000
Denny Triangle			
1925 9 th Ave. Mixed Use		Bentall	190,000
2121 Sixth (Sixth and Blanchard)		Armada-Lagerquist	180,000
2200 Westlake		Vulcan Northwest/Milliken	30,000
Boren & Howell Life Sciences Building	1100 Howell St	Touchstone Corporation	220,000
Greyhound Bus Site	807 Stewart St.	RC Hedreen Company	700,900
Sixth and Bell Office Tower	2300 5 th Avenue	Clise Properties	592,000
Stewart Place	1000 Stewart St.	Touchstone Corporation	660,000
Tower at 8 th & Olive	720 Olive St.	R C Hedreen Company	292,000
Westlake Plaza	Westlake and 8 th Ave.	Touchstone Corporation	330,000
		Subtotal	3,194,900
Pioneer Square			
83 King Street Phase II		Martin Smith, Inc.	173,800
Martin Smith/Diamond Mixed-Use	200 Occidental Ave. S	Martin Smith, Inc./Diamond	211,000
		Subtotal	384,800
Chinatown/International District			
1020 Dearborn Street		Coho Real Estate	280,000
Dearborn @ 5/90	1400 S Dearborn St.	Wright Runstad	495,000
Gateway Square	1118 S Dearborn St.	ABCD Trust	300,000
		Subtotal	1,075,000
Total SF			6,925,700

Source: Craig Kinzer & Co., The Seneca Real Estate Group, Cushman & Wakefield of Washington, 2001; Downtown Seattle Association, DCLU, 2003



DOWNTOWN SEATTLE OFFICE BUILDINGS AND MIXED USE PROJECTS WITH OFFICE, 2003

FIGURE C-1

- | | | | |
|---|--------------------|---|--------------------|
|  | Existing |  | Zoning Boundary |
|  | Proposed |  | Outside Study Area |
|  | Under Construction | | |

Department of Design,
Construction, and Land Use
City of Seattle
July 25, 2003

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Table C-2
Proposed Downtown Urban Center Residential/Mixed-Use Projects

Project	Address	Owner/Developer	Estimated Units
Commercial Core			
1000 1 st Ave.		1 st & Madison Assoc.	72
1608 2 nd Ave.		Avalon Seattle LLC	31
			103
Belltown			
55 Bell		Martin Tobias	20
1st & Bell	2233 1 st Ave	LIHI	33
159 Denny Way		Fortune Group	77
2000 3rd Ave.		Tarragon	14
2716 Western Ave		Intracorp	161
Belltown View	2407 1st Ave.	LIHI	TBD
			305
Denny Triangle			
1811 Eastlake Ave		John Woodworth/ DESC	75
2200 Westlake		Vulcan/Milliken	270
800 Stewart		Bentall Corp.	450
8 th and Virginia Tower		Continental Bentall	166
Olivian Tower (Camlin Block)		Interpac	321
			1,282
Pioneer Square			
Campbell Fuller Building	201 Yesler Way	Excelsior Alliance Investment	56
			56
Chinatown/International District			
1017 S Jackson St.		Coho Real Estate	70
1020 S Dearborn St.		Coho Real Estate	70
Maynard Avenue Housing	507 Maynard Ave. S	InterIm	57
ID Village Square II	701 8 th Avenue S	SCIDPDA	57
			254
Total Downtown Urban Center			2,000+

Source: Craig Kinzer & Co., The Seneca Real Estate Group, Cushman & Wakefield of Washington, 2001; Downtown Seattle Association, DCLU, 2003

FIGURE C-2


Existing
Proposed
Under Construction

— Zoning Boundary

Outside Study Area

Department of Design,
Construction, and Land Use
City of Seattle
July 25, 2003

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Appendix D

Landmarks and Historic Districts

APPENDIX D

LAND USE: LANDMARKS AND HISTORIC DISTRICTS

CITY OF SEATTLE LANDMARKS WITHIN THE STUDY AREA

Commercial Core

Downtown Office Core 1

150: Arctic Building
131: Brooklyn Building
111: Eagles Temple Building
196: Leamington Hotel and Apartments
147: Rainier Club
130: Seattle Tower
139: YMCA Central Branch: South Building

Downtown Office Core 2

153: Dexter Horton Building
148: Exchange Building
155: Hoge Building
203: Lyon Building
149: Puget Sound Bank (Bank of California)

Downtown Mixed Commercial

1st Avenue Groups/Waterfront Center:
143: *Beebe Building*
137: *Colman Building*
136: *Colonial Hotel*
144: *Globe Building*
135: *Grand Pacific Hotel*
142: *Hotel Cecil*
145: *National Building*
152: Colman Building
117: J.S. Graham Store/Doyle Building
138: Holyoke Building
134: Olympic Warehouse and Cold Storage Building

Denny Triangle

Downtown Office Core 2

220: Camlin Hotel
99: McGraw Square/McGraw Place
95: Paramount Theatre and Building
100: Times Square Building

Downtown Mixed Commercial

80: El Rio (Julie) Apartments
221: Old Norway Hall

Belltown

Downtown Mixed Commercial

107: Josephinum/New Washington Hotel
102: Moore Theatre and Hotel Building

106: Terminal Sales Building

WITHIN TWO BLOCKS OF THE STUDY AREA

Commercial Core Retail Core

122: 1411 4th Ave. Building
108: Bon Marche
110: Coliseum Theater Building
104: Decatur Building
204: Frederick & Nelson Building
121: Great Northern Building

120: Joshua Green Building
118: Liggett/4th & Pike Building
128: Mann Building
115: Northern Bank and Trust/Seaboard Building
114: Olympic Tower
103: Shafer Building/6th & Pine Building



HISTORIC DISTRICTS AND LANDMARKED BUILDINGS

FIGURE D-1

- Buildings Designated as Landmarks by the City of Seattle
- //// International District Special Review District
- Historic Districts (Pike Place Market and Pioneer Square)

Strategic Planning Office
City of Seattle
May 21, 2002

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dwbeneis/historic.apr

Commercial Core Harborfront

236: Pier 59

Belltown/Pike Place Market

129: 84 Union/U.S. Immigration Building	113: Guiry Hotel
92: Barnes Building	90: Hull Building
91: Bell Building	101: Shillstead Building
87: Fire Station #2	79: Tillicum Place, "Seattle, Chief of the Suquamish" Statue
88: New Pacific Apartment Building	

South Lake Union

74: Immanuel Lutheran Church	73: St. Spiridon Russian Orthodox Cathedral
228: New Richmond Laundry Building	199: Troy Laundry Building
198: Seattle Times Building	231: Van Vorst Building

First Hill/Pike/Pine/Capitol Hill

132: St. James Cathedral	81: Ward House
141: Trinity Parish Episcopal Church	200: Wintonia Building
140: U.S. Assay Building/German House	

Pioneer Square/Chinatown-International District

156: L.C. Smith Building (Smith Tower)	157: Old Main Street School
--	-----------------------------

ABUTTING SPECIAL REVIEW DISTRICTS

International District Special Review District
Pike Place Market Historical District

Pioneer Square Preservation District

NATIONAL REGISTER OR WASHINGTON HISTORIC REGISTER LANDMARKS WITHIN THE STUDY AREA NOT DESIGNATED AS SEATTLE LANDMARKS

Commercial Core

Downtown Office Core 1

Cobb Building
Federal Office Building*
Skinner Building
The Olympic Hotel
The United States Court House*

*National Register Landmark only

Denny Triangle

DMC zone

William Volker Building (Lenora Square)

Appendix E

Current Zoning Regulations

APPENDIX E

LAND USE: CURRENT ZONING REGULATIONS

The study area is subject to three different zoning designations: Downtown Office Core 1 (DOC1), Downtown Office Core 2 (DOC2) and the Downtown Mixed Commercial (DMC) zone. These zones are all intended to accommodate a wide range of uses, and are differentiated primarily by the density of the buildings permitted. Height limits and floor area ratios¹ (FAR) are the defining factor in how these areas are regulated, rather than the mix of uses permitted or prohibited. Additional information discussion of zones, height limits and density limits is provided in the Urban Design section.

DOC1. The Downtown Office Core 1 zone is intended to function as a high-density office and commercial area with related support services and retail shopping. This area is intended to be the densest of all areas Downtown, with the tallest height limits, in order to capitalize on existing transportation and utilities infrastructure. The DOC1 zone has an existing height limit of 450 feet, and a maximum commercial FAR limit of 14 FAR.

DOC2. The Downtown Office Core 2 zone is intended to accommodate significant office densities, and provide a transition between the Office Core 1 zone and less dense areas to the north and south of the Downtown core. Office uses are a primary emphasis, along with other commercial uses, retail shopping and services to support the DOC1 area. The DOC2 zones in the study area have existing height limits of 300 and 240 feet, and a maximum commercial FAR limit of 10 FAR.

DMC. The Downtown Mixed Commercial zone is intended for “lower-scale” office, retail and commercial uses supportive of the Office Core, along with housing and services for that housing. Buildings are expected to be lower in order to provide a transition between the office core and the surrounding lower-density neighborhoods. The DMC zones in the study area have existing height limits of 125, 160 and 240 feet, and a maximum commercial FAR limit of 7 FAR.

Uses

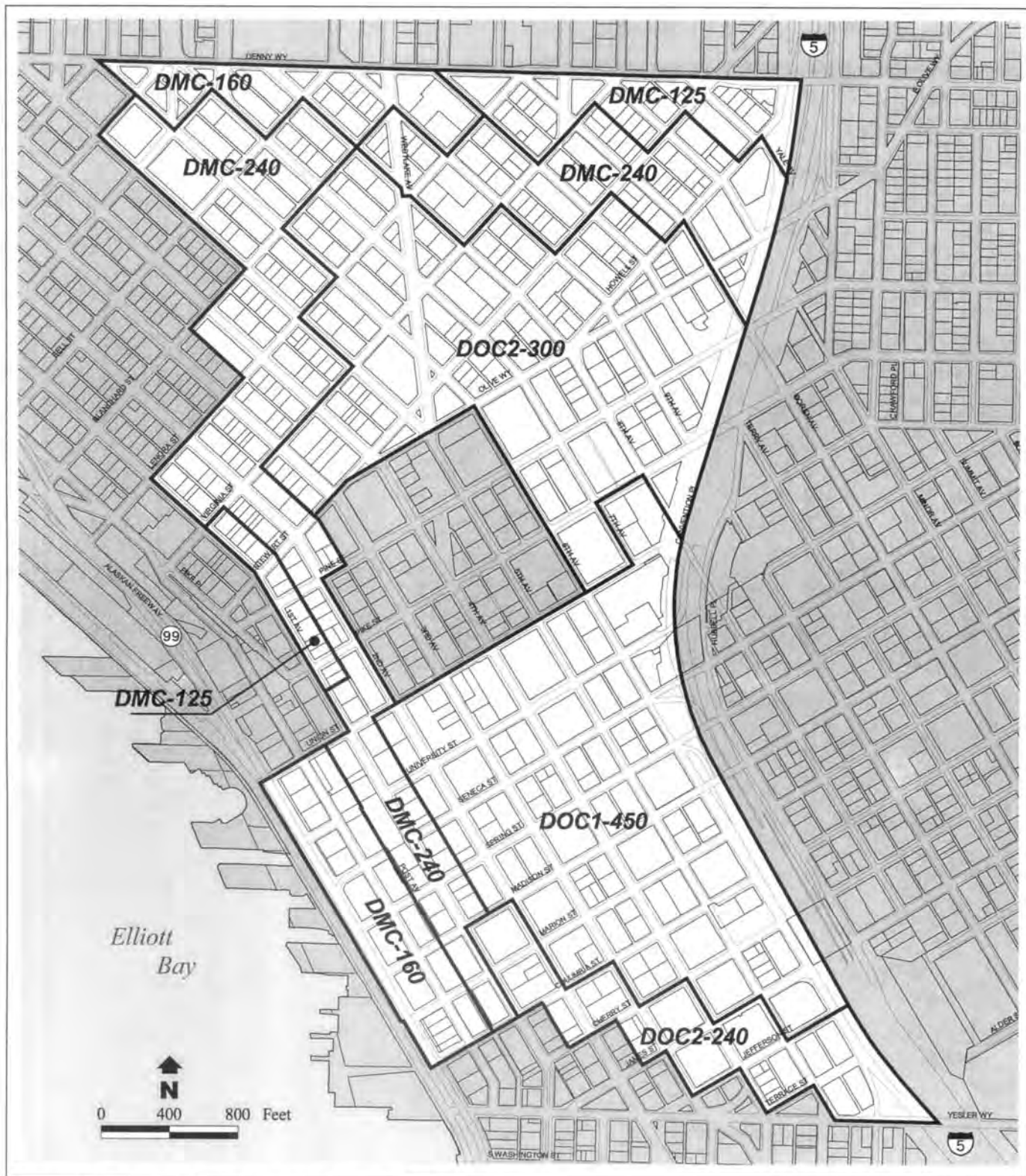
All three zones in the study area permit the same broad range of uses. All uses are permitted unless they are prohibited outright. The uses prohibited in these areas are:

- Drive-in businesses, except for gas stations located within parking garages;
- Outdoor storage;
- General and heavy manufacturing uses;
- Salvage and recycling uses except recycling collection stations;
- High-impact uses, such as slaughterhouses or manufacture of explosives; and
- adult motion picture theaters are prohibited in the DMC zone.

Some uses are permitted only if they comply with criteria laid out by the City to make sure they do not have significant impacts. These uses include:

- Long-term parking garages not associated with another use;
- Uses in public facilities that are not similar to other types of uses;
- Helistops and heliports;

¹ A floor area ratio (FAR) is a representation of the density of a building (or buildings) on a site. In Downtown Seattle is used to regulate the size of office and hotel development. It is equal to the usable amount of floor space in a building divided by the site area. A building with a FAR of ten on a 5,000 square foot site has 50,000 square feet of office or hotel space within the building. FAR does not indicate how tall that building is, so it could have one 50,000 SF floor, two 25,000 SF floors, or five 10,000 SF floors.



CURRENT ZONING WITHIN THE STUDY AREA

FIGURE E-1

- Zoning Boundary
- Outside Study Area

Strategic Planning Office
City of Seattle
May 20, 2002

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or merchantability, accompany this product.



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Work release centers; and
Jails.

Surface parking lots are prohibited in the DOC1 zone. In the DOC2 and DMC zones, surface lots are prohibited in some areas and permitted in other mapped locations.

Height and Density Limits

Table E-1 shows the current FAR and height limits for the subject zones, each with base and maximum FAR limits. Developers interested in building above the base FAR limit must mitigate some of the impacts of that additional floor area through use of the City of Seattle's Bonus or Transfer of Development Rights programs. Additional height is permitted in the Office Core zones for projects that provide additional setbacks to reduce the feeling of bulk. Additional height is also permitted in the Denny Triangle through the Transfer of Development Credits program.

Table E-1
Zoning, Current FAR Limits and Height Limits

	Base FAR Limit	Maximum FAR Limit	Height Limit
Downtown Office Core 1	6	14	450 ft. ²
Downtown Office Core 2	5	10	300 ft. ³ 240 ft. ²
Downtown Mixed Commercial	5	7	240 ft. ⁴ 160 ft. ³ 125 ft. ³

The Floor Area Ratio limits apply to all uses in DOC1 and DOC2, except:

Residential uses;	Area below grade;
Child care facilities;	Short-term parking; and
Museums;	Parking accessory to residential uses, up to
Performing arts theaters;	one parking space for each dwelling unit.
Street level uses, such as retail;	

The following uses, which may make a project eligible for additional floor area above the base limit, are also exempt from the floor area limits:

- Human service use;
- Public restrooms;
- Public open space amenities, including hillside terrace, urban plaza, parcel park, public atrium, green street improvement, green street setback;
- Hillclimb assists, shopping corridor, or transit tunnel station access where a map indicates that they can be provided; and
- Restoration and preservation of landmark performing arts theaters.

Developers in the DMC zone have two regulatory options for developing their property. The first option would permit the exemption of the same set of uses from floor area limits as DOC1 and DOC2 zones.

² height increase up to 20% above mapped limit allowed under specified conditions

³ height increase up to 10% above mapped height allowed under specified conditions; additional 10% increase (total 20% increase) allowed in mapped area; height increase up to 30% above mapped height allowed in Denny Triangle through TDC

⁴ height increase up to 30% above mapped height allowed in Denny Triangle through TDC

The second option exempts the following uses from floor area limits:

- Residential uses, except on lots from which development rights have been or are transferred;
- Area below grade;
- Accessory parking;
- Area of public benefit features that would be eligible for a bonus on the lot where the feature is located, regardless of size or use of the floor area bonus program.

Transfer of Development Rights and Downtown Bonus Programs

In order to be permitted to build above the base FAR limit, a developer must mitigate some of the impacts of uses occupying the floor area above that base FAR limit. There are two methods used to mitigate specific impacts, the Transfer of Development Rights (TDR) program and through a Floor Area Bonus program.

Under a TDR program, a developer is allowed to transfer the right to unused base floor area from a “sending” site to a “receiving” site. A sending site must have a City of Seattle landmark structure, public open space or low-income housing and not use all permitted base FAR. For example, a 2 FAR landmark structure in the DOC1 zone would be able to transfer up to 4 FAR to one or more “receiving sites” (a new structure with more than the base FAR).

The Floor Area Bonus program allows for the mitigation of the impact of additional Downtown workers on demand for low-income housing, childcare, human services, open space and transportation. Developers who provide funding or facilities to mitigate some or all of these impacts are permitted additional non-exempt floor area.

Transfer of Development Credits Program

In 1999, the City amended Downtown zoning to allow a 30% height increase in the DOC 2 and DMC zones within the Denny Triangle neighborhood boundaries. Additional residential floor area gained through the purchase of development credits from rural lands in King County and contributions to a City fund for public amenities in the Denny Triangle neighborhood. The height increase allows residential and mixed-use projects to accommodate the additional residential area. The TDC program differs from the City’s TDR program in that it only allows for additional residential density. Since residential development Downtown is not subject to a density limit, the only option for increasing the residential floor area in a project is to allow more height. The TDC program cannot be used by commercial projects to increase non-residential floor area above existing base and maximum FAR limits. Therefore, it does not compete with the TDR programs in place to accommodate commercial density increases.

Additional Height

A 10% height increase above the mapped height limits in DOC 1 and DOC 2 zones is allowed for projects that decrease the floor size of upper floors by a specified percentage. In DOC 1, the 450-foot height limit is increased to 495 feet (approximately 3 to 4 additional floors), DOC 2 300’ is increased to 330 feet (2 to 3 additional floors), and DOC 2 240’ is increased to 264 feet (2 additional floors). The added height does not allow additional building density. Maximum FAR limits continue to control commercial density. The additional height limit also contains a separate limit on gross floor area which applies to lots using the extra height, to restrict additional bulk from most floor area that is exempt from FAR limits, such as market-rate housing. With three exceptions, none of the floor area above grade, including floor area in residential use could exceed the maximum FAR on the lot that contains the structure exceeding the height limit. The exceptions are street level uses, bonused housing, and floor area above the height limit gained through the TDC program (the last applies in the Denny Triangle only).

Appendix F

Height and Density Study Report

APPENDIX F

LAND USE: HEIGHT & DENSITY STUDY REPORT

THE DISTRIBUTION AND PROBABLE MIX OF EMPLOYMENT AND HOUSING GROWTH WITHIN DOWNTOWN, AS AFFECTED BY PROPOSED ZONING ALTERNATIVES

[#2]



HEIGHT & DENSITY STUDY REPORT # 2

December 14, 2001

Report Prepared for
City of Seattle
Strategic Planning Office

Prepared By:

Craig Kinzer & Co.
The Seneca Real Estate Group
Cushman & Wakefield of Washington
1201 Third Avenue, Suite 2350
Seattle, Washington 98101

Telephone: 206-628-3333
Facsimile: 206-628-7105

**THE DISTRIBUTION AND PROBABLE MIX OF EMPLOYMENT AND
HOUSING GROWTH WITHIN DOWNTOWN, AS AFFECTED BY
PROPOSED ZONING ALTERNATIVES**

HEIGHT & DENSITY STUDY REPORT #2

TABLE OF CONTENTS

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IMPACT ANALYSIS	4
CONCLUSION.....	5

Executive Summary

The City of Seattle is in the process of conducting an environmental review for proposed height and density increases in Downtown Seattle. One component of the environmental review is a study that identifies the economic and real estate impacts associated with the City allowing developers to construct new projects with three to four additional maximum FAR and additional height in the Downtown Office Core 1 (DOC-1), Downtown Office Core 2 (DOC-2), and Downtown Mixed Commercial (DMC) zones.

The environmental review examines four alternatives proposed by the City of Seattle covering a range of possible actions specifically within the study area, primarily the Denny Triangle and Downtown Commercial Core Urban Center Villages. The geographic boundary of the study area is generally described as Denny Way to the north, I-5 to the east, Yesler Way to the south, and a zigzag pattern to the west starting at the corner of Alaskan Way and Yesler Way (the southwest corner of the study area) and ending at the corner of 6th Avenue and Denny Way (the northwest corner of the study area). A “No Action” alternative (Alternative 4), is included to assess what is likely to occur if no changes are made to the current Land Use Code. The other three alternatives (Alternatives 1, 2 and 3) include changes in allowable maximum height and density of buildings (measured by floor area) in the DOC-1, DOC-2 and most DMC zones. Because Alternative 4 provides the “No Action” baseline for the study, it is discussed first throughout this report.

As part of the environmental review, our team was retained to create a model that demonstrates Downtown's potential commercial development capacity, commercial development distribution, and possible housing growth under each of the four zoning alternatives. The results of the analysis, together with a brief overview of the market, and outline of the alternatives, and a discussion of impact analysis itself (methodology, assumptions, etc), are presented herein. Our analysis does not consider the types of housing that might be developed within the study area such as how many condominium units, apartment units, and affordable housing units would be built, where these types of housing might be developed or the distribution of affordable units among very low, low and moderate income households. It is our understanding that the information presented here will be referenced in the Land Use section of the environmental impact statement (EIS), and that it will provide background for key assumptions incorporated into the Urban Design, Energy, and Transportation segments of the EIS.

The assumptions utilized in the Capacity Analysis are summarized below and discussed in greater detail in the Impact Analysis section of the report. These assumptions were generated based on historical averages and may not reflect recent trends or figures.

Category	Assumption
Average Job Growth	3,550 employees per year
Average Office Square Feet/Employee	250 square feet per employee
Average Office Absorption	887,500 square feet per year

Average Square Feet/Residential Unit	850 square feet per residential unit
Average Residential Absorption	320 residential units per year
Building Site Coverage	60%
Average Office Floor Height	13-feet
Average Residential Floor Height	10-feet
Land Value - Allowable Office	\$30.00 per allowable office square feet
Land Value - Allowable Residential	\$2,500.00 per allowable residential unit
Maximum Capacity	Office to maximum FAR, plus residential to maximum ht limit (some exceptions apply)
Transfer of Development Credits	Not factored into model

Pertinent results of our analysis are as follows:

Key Findings

- Based on historical absorption, there appears to be enough capacity for commercial space and housing units in the DOC-1, DOC-2 and DMC zones beyond the 20-year development timeline for the environmental review, without any changes to the existing zoning regulations. In fact, depending on the alternative, there is approximately 35 years of capacity for residential and commercial development.
- Supply has historically followed demand. Changes to zoning, in and of themselves, do not change the supply and demand cycles. In other words, increasing commercial densities does not necessarily lead to more development occurring in Downtown. However, changes to zoning will influence where development occurs and the size and density of the buildings developed.
- Increasing the maximum density, and therefore the difference between the base FAR and maximum FAR, would increase the use of the Downtown bonus and TDR programs on each site that is developed to its maximum permitted FAR and consequently provide more money for affordable housing.
- Increasing the permitted FAR will increase land values and provide existing landowners of redevelopable sites with an increase in the value of their property, which in turn will result in more tax revenue for the City as all sites are built to their maximum capacity.
- Increases in land value tend to promote more intensive development of sites when demand is present. This may encourage more mixed use projects on sites large enough to accommodate commercial and residential uses in separate towers, depending on the relationship between the size of the maximum potential building envelope and the building envelope required to accommodate the permitted commercial floor area.

- Increasing density better utilizes City infrastructure, including transportation and utilities.
- Permitting higher density development will result in higher land prices, which could increase the cost of acquiring land for affordable housing development downtown. However, one of the most effective ways to increase opportunities for affordable housing development is through subsidies generated by commercial development through housing bonuses and TDRs, which would increase with higher density commercial development as noted above. Other options to promote the development of affordable housing such as expanding the receiving area and providing incentives to develop on-site affordable housing should be explored.
- Incentives, subsidies and changing zoning policy are all ways to encourage housing in Downtown Seattle.

Results of Four Alternatives

- Summary Table - Potential Future Capacity

Alt. #	Total Commercial SF	# of Res. Units	# of Res. Units Per 1 Million Com.SF	# of Workers	Workers Per Res. Unit	Potential Tax Revenue
Alt. 4 : No Action	28,750,000	8,475	295	115,000	13.57	\$9.6MM
Alt. 1: High End Height and Density Increases	38,320,000	10,481	274	153,280	14.63	\$12.7MM
Alt. 2: Concentrated Office Core	33,700,000	9,252	275	134,800	14.57	\$11.0MM
Alt. 3: Residential Emphasis	30,600,000	10,187	333	122,400	12.02	\$10.2MM

- Alternative 4 – No Action. This alternative results in a total capacity on redevelopment properties of 28.75 million SF of commercial space and 8,475 residential units, resulting in a ratio of 295 residential units per million SF of space. Based on historical absorption, this alternative provides enough capacity for the next 30-plus years of commercial development growth and 25-plus years of residential growth. If fully developed today, total market value for the redevelopment sites would be approximately \$1.16 billion. If all sites were developed to their full capacity, they would generate approximately \$9.6 million in tax revenue. If built to capacity, an additional 115,000 employees could be added. [Note that the maximum capacity provides commercial space for a significantly higher number of employees than forecast to be added over the next 20 years -- PSRC forecast average growth of 2,096 employees per year, ERA forecast average growth of 3,556 employees per year, and the Comprehensive Plan's targeted average growth of 3,135 employees per year.]

- Alternative 1 - High End Height and Density Increases. This alternative results in a total capacity on redevelopable properties of 38.32 million SF of commercial space and 10,481 residential units (ratio = 274 residential units per million SF of space). Based on historical absorption, there is enough capacity under this alternative for the next 40-plus years of commercial growth and 30-plus years of residential growth. Total market value for the redevelopable sites under Alternative 1 is approximately \$1.51 billion, an increase of approximately \$351 million over Alternative 4. If all sites were developed to their full capacity, they would generate approximately \$12.7 million in tax revenue, an increase of \$3.1 million over Alternative 4. An additional 153,280 employees could be accommodated if the study area were built out to its full capacity.
- Alternative 2 - Concentrated Office Core. This alternative results in a total capacity on redevelopable properties of 33.70 million SF of commercial space and 9,252 residential units (ratio = 275 residential units per million SF of space). There is enough estimated capacity under this alternative for the next 35-plus years of commercial growth and approximately 25-plus years of residential growth. Total market value for the fully developed sites under Alternative 2 is approximately \$1.34 billion, an increase of approximately \$188 million over Alternative 4. If all sites were developed to their full capacity, they would generate approximately \$11.0 million in tax revenue, an increase of \$1.4 million over Alternative 4. An additional 134,800 employees could be accommodated if the study area were built out to its full capacity.
- Alternative 3 – Residential Emphasis. This alternative results in a total capacity on redevelopable properties of 30.60 million SF of commercial space and 10,187 residential units (ratio = 333 residential units per million SF of space). There is enough estimated capacity under this alternative for the next 30-plus years of commercial growth and 30-plus years of residential growth. Total market value for the fully developed sites under Alternative 3 is approximately \$1.25 billion, an increase of approximately \$98 million over Alternative 4. If all sites were developed to their full capacity, they would generate approximately \$10.2 million in tax revenue, an increase of approximately \$600,000 over Alternative 4. An additional 122,400 employees could be accommodated if the study area were built out to its full capacity.

Market Overview

Existing Market Conditions

Office

Downtown Seattle's office market reflects current national and regional business/economic trends, including setbacks in the technology sector and a weakened overall economy. The shake-out of technology companies, and the resulting flood of sublease space into the market, has led to increased vacancy rates and softened rental rates. The fallout is expected to continue through the remainder of 2001 and at least the first half of 2002.

Though the recent exodus of tech tenants has challenged the Downtown office market, the financial community has provided market-watchers something to cheer about. Construction lenders have shown solid discipline in this market, often requiring between 50% and break-even preleasing prior to funding proposed projects. This tight lending environment should limit the supply of new space in the near-term, allowing the market to regain its footing. Given this prudent constraint by lenders, available sublease space is not expected to create an alarming oversupply situation.

Hotel

As of the end of the second quarter 2001, the Downtown hotel market figures had rebounded from the year prior (2000 experienced a drop off due to the cancellation of three large citywide events in the first quarter). Year-end 2001 occupancy may dip due to the introduction of several new hotels to the market and the events of September 11th, but this should be partially offset by the opening of the Washington State Convention and Trade Center expansion and the additional room nights this expansion will pull into the market.

Actual construction of several proposed hotels has become uncertain in the near-term due to restrictive lending requirements. However, as demand in the hotel market increases in future years, the overall market should absorb new hotel projects without dramatic changes in occupancy and room rates.

Residential

Downtown has experienced significant residential development over the past several years, particularly in the Belltown neighborhood (a submarket adjacent to the study area). The surge in multi-family construction, both market-rate rental units and condominium units, has been fueled by the growing demand for housing options near employment centers. Many believe the appeal of in-city living is based upon a desire to avoid traffic congestion and long commutes, but may also be a result of changing demographics (i.e. the boom of empty-nesters and young professionals).

Market Projections

Demand, together with land use codes, will continue to dictate Downtown's mix of future uses. However, based upon what we know from yesterday and today, we can make some projections regarding what Downtown may look like tomorrow.

Moving forward, though the continued influx of apartments and condominium projects will lead to a greater balance between office and residential development downtown, it is expected that office buildings will continue to be the primary type of development Downtown. Due to its available existing transportation and utility infrastructure, Downtown's financial core will continue to be the most densely built-out area of the region. Within the Existing Office Core (DOC-1 and DOC-2) of Downtown, future development will be primarily office infill projects on the few remaining underdeveloped sites.

Downtown's natural (Elliott Bay to the west) and physical (Interstate 5 to the east) barriers limit expansion to the east and west; so development over the next 20 years will occur north and, to a lesser extent, south of the Downtown core. Based upon the availability of land, real estate experts consistently identify the Denny Triangle and South Lake Union neighborhoods as Seattle's prime growth areas for the next twenty years. Both of these areas will compete with the Downtown commercial core for tenants, yet each area will also have the opportunity to develop a distinct identity to service specific types of tenant (i.e. South Lake Union is becoming a biotechnology center due to its proximity to Fred Hutchinson Cancer Research Center and the University of Washington).

The Alternatives

The EIS examines four proposed alternatives covering a range of possible actions. A "No Action" alternative (Alternative 4) is included to assess what is likely to occur if no changes are made to the current Land Use Code beyond recently adopted amendments allowing additional height in the DOC-1 and DOC-2 zones, increased base FARs in these zones and revised bonus and TDR provisions. The other three alternatives (Alternatives 1, 2 and 3) include changes in allowable maximum height and density of buildings (measured by floor area) in the DOC-1, DOC-2 and most DMC zones. Because Alternative 4 provides the "No Action" baseline for the study, it is discussed first throughout this report.

Following is a brief description of each alternative, a table of the proposed changes and a map of the areas impacted by the proposed changes.

* height increase allowed



Alternative 4 – No Action

Assumes exiting zoning with recent changes to bonus TDR provisions and limited height increases in DOC-1 and DOC-2.

Under the “No Action” alternative, the existing zoning and Land Use Code regulations would remain intact. This alternative assumes no major changes would be implemented to increase development capacity in the Denny Triangle or in the Commercial Core. The following table summarizes the Alternative 4, including bonus/TDR revisions:

AREA	ZONE	BASE FAR	MAXIMUM FAR	HEIGHT
Office Core	DOC 1	6	14	450*
Office Expansion Area/Denny Triangle	DOC 2 300	5	10	300**
Office Expansion Area/South Downtown	DOC 2 240	5	10	240*
Commercial Mixed Use Area/Denny Triangle, South Belltown and Commercial Core	DMC	5	7	125'*** 160'*** 240'***

* Height increase up to 20% above mapped limit allowed under specified conditions.

** Height increase up to 10% above mapped height allowed under specified conditions; additional 10% increase (total 20% increase) allowed in mapped area; height increase up to 30% above mapped height allowed in Denny Triangle through TDC.

*** Height increase up to 30% above mapped height allowed in Denny Triangle through TDC.

Areas where no changes are proposed

Downtown Classifications

HARBORFRONT SHORELINE

OH-1 Downtown Harborfront-1

D4H-2 Downtown Harborfront-2

RETAIL

DRC Downtown Retail Core

MIXED USE

D1MC Downtown Mixed

Commercial

PSM Pioneer Square Mixed

IDM International District Mixed

IDR International District

Residential

PMM Pike Market Mixed

NC 3 Neighborhood Commercial

C1 Commercial

C2 Commercial

RESIDENTIAL

D.M.R. Downtown Mixed Residential

L3 Lowrise Multifamily

Residential

OFFICE

DOC-1 Downtown Office Core-1

DOC-2 Downtown Office Core-2

INDUSTRIAL

IC Industrial Commercial

DENNY TRIANGLE

30 % height increase allowed

through IDC program

SCALE IN FEET



Alternative 1 High End Height and Density Increases (Downtown Neighborhood Plan and Advisory Committee proposals)

Increase capacity for all uses in Office Core and Mixed Commercial Zones;

Alternative 1 emphasizes regulatory changes suggested by Denny Triangle and Commercial Core neighborhood plans, as well as recommendations by a Citizens Advisory Committee review of the bonus/TDR provisions. Alternative 1 proposes the greatest magnitude of changes in height and density from the current land use code. This alternative aims to promote employment and housing growth by adding capacity for commercial development through height and density increases. Additional capacity for housing is achieved through increased height limits. Increased commercial densities are expected to increase resources for housing through additional use of housing bonuses and TDRs. The Transfer of Development Credits program, which allows height increases for housing similar to those proposed as an incentive for residential use, would be eliminated.

The following table summarizes Alternative 1:

AREA	ZONE	BASE FAR	MAXIMUM FAR	HEIGHT
Existing Office Core	DOC 1	7	17	585'
Office Expansion Area/Denny Triangle	DOC 2 400	7	14	400'
Office Expansion Area/South Downtown	DOC 2 312	6	13	312'
Commercial Mixed Use Area/Denny Triangle	DMC 340 DMC 260 DMC 225	5	10	340' 260' 225'
Commercial Mixed Use Area/South Belltown and Commercial Core	DMC 312 DMC 208 DMC 165	5	10	312' 208' 165'

DOC-2 400'

DOC-1 595'

DOC-2 312'

Maximum FAR 13

Maximum FAR 17

Maximum FAR 13

Elliott Bay

Elliott Street

North Arrow

Areas where no changes are proposed

HARBORFRONT SHORELINE	
DH-1	Downtown Harborfront-1
DH-2	Downtown Harborfront-2
RETAIL	
DRC	Downtown Retail Core
MIXED USE	
DUC	Downtown Mixed Commercial
PSM	Pioneer Square Mixed
IDM	International District Mixed
IDR	International District Residential
PMH	Pike Market Mixed
NC 3	Neighborhood Commercial
C1	Commercial
C2	Commercial
RESIDENTIAL	
DHR	Downtown Mixed Residential
L3	Louise 3 Multifamily Residential
OFFICE	
DCC-1	Downtown Office Core-1
DCC-2	Downtown Office Core-2
INDUSTRIAL	
IC	Industrial Commercial
DENNY TRIANGLE	
30 % height increase allowed through TDC program	

SCALE IN FEET



Alternative 2 – Concentrated Office Core

Increase capacity for all uses through height and density increases in Office Core Zones only.

Alternative 2 concentrates proposed height and density changes within the existing DOC-1 and DOC-2 office core zones, and would not change land use regulations in areas peripheral to the office core (i.e. no changes in the DMC area of the Denny Triangle, Belltown and Commercial Core neighborhoods). Alternative 2's theme is that greater height and density is preferable within areas already favored by current zoning for the highest concentration of uses. This alternative reflects the zoning pattern established by existing policies, and limits height and density increases to those areas that already possess the greatest employment concentrations and superior transit access. For this alternative, zoning in mixed-use areas is left unchanged (does not create additional housing or employment capacity outside DOC-1 and DOC-2).

Within the office core, Alternative 2's proposed height and density changes are the same as in Alternative 1. The current zoning for peripheral areas, such as the northern portion of the Denny Triangle, the edge of Belltown, and the First Avenue and Western Avenue corridors, would remain unchanged in this alternative. Consequently, the TDC program would be retained in areas zoned DMC in the Denny Triangle. The following table summarizes Alternative 2:

AREA	ZONE	BASE FAR	MAXIMUM FAR	HEIGHT
Existing Office Core	DOC 1	6	17	585'
Office Expansion Area/Denny Triangle	DOC 2 400	5	13	400'
Office Expansion Area/South Downtown	DOC 2 312	5	13	312'
Commercial Mixed Use Area/Denny Triangle, South Belltown and Commercial Core	DMC	5	7	125'* 160'* 240'*

* Height increase up to 30% above mapped height allowed in Denny Triangle through TDC.

[illegible]

Areas where no changes are proposed

Downtown Classifications

HARBORFRONT SHORELINE
DH-1 Downtown Harborfront-1
DH-2 Downtown Harborfront-2

RETAIL

Downtown Retail Core

MIXED USE

D11C Downtown Mixed

Commercial

PSM Pion

IDM International District M...

IDR International District

Residential

PMMA P-10a

NC 3 Neighborhood Commercial

CI Commercial

C2 Commercial

RESIDENTIAL

DMB Downtown Mixed Residential

L3 Louise 3 Multifamily

Residential

OFFICE

DOC-1 Downtown Office Core-1

DOC-2 Downtown Office Core-2

INDUSTRIAL

IC Industrial Commercial

DEMYN TRIANGLE

30% height increase allowed

through TDC program

...and ...

SCALE IN FEET



Alternative 3 – Residential Emphasis

Increase capacity for all uses through height and density increases in DOC-1 and DOC-2 zones only; targeted increases in capacity for residential use in DMC zones.

Alternative 3 places a greater emphasis on regulatory changes tailored to encourage housing in specific locations. This alternative supports increased height and densities in the office core, but with mapped height limit transitions and continued use of the transfer of development credits (TDC) program that is currently available in Denny Triangle zones.

Alternative 3 aims to increased residential capacity by rezoning some DMC areas to DMR/C and by adjusting density limits in DMC zones to promote housing and mixed-use development. The TDC program is also retained in most of the Denny Triangle, with the exception of the DOC-2 zone where the height limit is raised to 400 feet. The following table summarizes Alternative 3:

AREA	ZONE	BASE FAR	MAXIMUM FAR	HEIGHT
Existing Office Core	DOC 1	6	17	585'
Office Expansion Area/Denny Triangle	DOC 2 400	5	13	400'
Office Expansion Area/Denny Triangle	DOC 2 300	5	10	300' *
Office Expansion Area/South Downtown	DOC 2 312	5	13	312'
Residential Mixed Use Area	DMR/C 240	2	5	240'*
	DMR/C 160	2	5	160'*
	DMR/C 125	1	4	125'*
Commercial Mixed Use Area with housing incentive	DMC	5	7***	125*
				160*
				240*

* Height increase up to 30% above mapped height allowed in Denny Triangle through TDC; 10% height increase allowed under specified conditions.

** Increases in non-residential density above base FAR contingent on including housing on site; additional bulk constraints on tower structures.

Impact Analysis

The team performed two types of analysis to arrive at its conclusion. The first analysis, a capacity analysis, tested the potential impacts the four alternatives have on maximum capacities of commercial and residential uses within the study area. The model built for this analysis uses a number of assumptions, which are based on generally accepted real estate standards or information provided by the City of Seattle. The model produces the potential maximum capacity for commercial square footage, number of residential units and number of employees within the study area. However, the supply of new buildings is not typically driven by zoning (i.e. capacity), but rather by market demand for additional space. Therefore, on a parallel track to the above-described capacity analysis, the projected year-by-year ebb and flow of Downtown development over the next 20 years was also modeled in a supply and demand analysis.

I. Capacity Analysis

Capacity Analysis Overview

Based on a number of assumptions and a consistent methodology, an analysis was performed to test the potential impacts the four alternatives would have on maximum capacities of commercial and residential uses within the study area. The spreadsheet utilized in the capacity analysis is located in Appendix C.

The results of the analysis, as well as an outline of the assumptions and a description of the methodology utilized, are discussed below.

Capacity Analysis Assumptions

Assumptions Summary

The assumptions utilized in the Capacity Analysis are summarized below and discussed in greater detail through this section. Some of these assumptions were generated based on historical averages and may not reflect recent trends or figures.

Category	Assumption
Average Job Growth	3,550 employees per year
Average Office Square Feet/Employee	250 square feet per employee
Average Office Absorption	887,500 square feet per year
Average Square Feet/Residential Unit	850 square feet per residential unit
Average Residential Absorption	320 residential units per year
Building Site Coverage	60%
Average Office Floor Height	13-feet
Average Residential Floor Height	10-feet
Land Value - Allowable Office	\$30.00 per allowable office square feet
Land Value - Allowable Residential	\$2,500.00 per allowable residential unit

Maximum Capacity	Office to maximum FAR, plus residential to maximum ht limit (some exceptions apply)
Transfer of Development Credits	Not factored into model

Building Mix

To determine how much capacity, or total building square footage, could be built within the study area under each alternative, specific assumptions were made regarding developers' likely behavior. For the purpose of the model, it was generally assumed that developers will maximize the office floor area ratio allowed under the land use code with commercial space, and will then add residential uses beyond the office square footage up to the maximum building envelope.

This assumption suggests most development sites within the study area would be improved with mostly office and some residential component. On smaller sites, this would occur within a single building. On larger sites, separate residential and office towers could be accommodated. It is more likely that some sites Downtown will be improved with all office or all residential, or at least single uses in separate buildings (rather than mixed use within a single building). However, rather than attempt to "crystal ball" which sites might be 100% of one use or another, for modeling purposes it was assumed that most sites, outside of DOC-1, will be mixed-use sites, thus minimizing the margin of error with the model results. Residential capacity is therefore assumed to equal the additional amount of building area permitted on a site after all of the permitted commercial FAR is utilized.

There are some exceptions to this assumption, however. These exceptions are as follows:

- First of all, it was assumed no housing would be constructed in DOC-1 (neither on top of office space nor as a stand-alone building). This assumption was based on historical development trends, as the only residential buildings in DOC-1 were built over 70 years ago. So although the land use code permits residential development, the market has not produced this use in this zone for several decades, and it is therefore highly unlikely any housing will be built in this area over the next twenty years.
- Again, based on the historically limited demand for residential units in the DOC-2, it was assumed that only 50% of the residential capacity within DOC-2 would be available.
- It was assumed 100% of the total potential residential capacity on development sites in DMC would be available. The success of residential development in the DMR zone (a zone that prohibits large commercial buildings adjacent to DMC) and the fact that recent permit applications submitted to the City of Seattle in this zone incorporate residential units into their designs suggest the DMC zone is the next likely location for significant in-city residential development.

- The analysis includes seven sites that (1) contain less than 20,000 SF in land area, and (2) are not likely to become part of larger assemblages. The limited footprint size of these sites would make it logistically unfeasible for a developer to accommodate an office lobby/elevator core as well as a residential lobby/elevator core. Depending on their location, then, each of these seven sites will most likely become 100% hotel, 100% office or 100% residential, but are not likely to become office plus residential in line with the broad assumptions discussed above. For these sites, then, it was assumed they would be developed 100% office. Though these properties may ultimately be improved with a residential use, the "loss" of the on-top residential units in the model is offset by the likelihood that other sites modeled as office/residential may be ultimately be developed as purely office

An important note: based upon feedback received from developers, it appears that most individual projects may not be improved in the manner modeled here (i.e. a mix of office and residential within the same building). In reality, developers are more likely to improve a site exclusively with an office tower, a residential tower, or a tower mixed with hotel and residential units. Although a number of projects have recently considered the relatively untried combination of residential use on top of office space. On sites large enough for two towers, developers may construct one tower with all office and the other tower with all residential units, creating a mixed-use site although the towers themselves are not mixed-use. An example of this type of mixed-use site is the proposed project at the current Quinton Instruments site.

Building Specifications

Several other assumptions made in the model relate to general building specifications. For instance, it was assumed that on average a building's floorplate would equal 60% of the site area and that the building floors would average 13-feet in height from floor to floor for commercial development.

As for the residential component, an average residential unit size of 850 SF was assumed, reflecting the approximate 675 SF average unit size indicated in the most recent study by Dupre+Scott, plus some accommodation for common areas such as hallways and lobbies. Typical residential building floors range from 9-feet to 11-feet per floor in height so an average of 10-feet per floor in height was assumed. This assumes that all of the parking would be built underground.

Office Absorption

To arrive at an estimate of average annual office absorption over the 20-year projection period, projected employment growth over that same period was identified.

The analysis assumed average Downtown job growth of 3,550 people per year over the next twenty years. This growth rate was provided by the City of Seattle Strategic

Planning Office, and is derived from a compilation of Puget Sound Regional Council (PSRC) information, projections by ERA and Comprehensive Plan projections.

It was assumed that, on average, the total office space (including common area) required is 250 SF per employee. The 250 SF per employee ratio is generally accepted and widely used within the real estate industry.

Multiplying 3,350 new Downtown employees per year by 250 SF per employee suggests that the market could absorb an average of 887,500 SF of additional office space per year.

Testing the estimated annual absorption rate of 887,500 SF against historical absorption rates provides support for this assumption. Over the past twelve years (1989 to 2001) Downtown office space absorption averaged approximately 820,000 SF per year, while low vacancy rates and a strong economy between 1996 and 2001 provided a considerably higher average annual absorption rate of 940,000 SF over that five-year period.

Because an increase in overall office inventory should cause a corresponding increase in average annual absorption, it is logical that the estimated absorption rate be slightly higher than the historical 12-year average. At the same time, it also makes sense that the assumed absorption rate, which will be utilized over an assumed 20-year projection period, be lower than the gangbusters absorption demonstrated over the past 5 years. The assumed annual rate of 887,500 SF, then, is reasonable.

Residential Absorption

According to Dupre+Scott, net absorption for residential units in the study area from 1996 to 2001 averaged 319 units per year. The last five years provide the best indicator of future absorption in the Downtown market, so an average absorption of 320 residential units per year was utilized for analysis purposes.

Land Value

For valuation purposes, land value was assumed to equal \$30.00 per allowable FAR of office and \$2,500.00 per allowable dwelling unit. Both values are generally accepted within the real estate industry for proforma and modeling purposes.

Tax Revenue

To calculate tax revenue, the existing blended levy rate for each zone was applied to the potential market value. For example, the existing blended levy rate in DOC-1 is \$7.125465 per \$1,000 of value. The blended rate includes the land and improvement value for all parcels, whether they are improved to the full capacity, under improved or vacant.

Transfer of Development Credits Impact

- ✓ The analysis model did not apply King County's Transfer of Development Credits (TDC) program to all qualified potential development sites within the Denny Triangle portion of the study area. The TDC program was adopted in 1999. Although a half-dozen projects have explored using the program, none of those projects have yet been built. Therefore, no project has actually used the program. Consequently, it is too early to assess the impact of the program.

Excluded Impacts

Finally, the impact of development activity in the South Lake Union and Lower Queen Anne neighborhoods was not taken into consideration in the analysis. As these neighborhoods are improved, there is no doubt there will be an impact on at least some types of development within the study area. However, the potential impacts, both positive and negative, are too numerous to consider here and are outside the scope of this analysis.



The City of Seattle



Highest and Best Use

- Office
- Hotel
- Office and/or Residential
- Mixed Use or Residential-only
- Residential-only
- Government/Open Space

Downtown Seattle

Cushman and Wakefield

Highest and Best Use Analysis

Produced by the City of Seattle

August 29, 2001

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500' 0' 500' Feet

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Capacity Analysis Methodology

A brief summary of the methodology behind the capacity analysis is described below.

Step 1 - Inventory Organization

For a first step, the city blocks within each zone (DOC-1, DOC-2 and DMC) were identified by number in a logical order (1, 2, 3, etc.) on a map. The numbered blocks were then further divided by the legal parcels or, in the case of assembled blocks, by ownership interest, and identified by letter (A, B, C, etc.). These identified blocks/parcels were then put into the database, thus organizing a thorough inventory of all properties within the study area.

Step 2 - Identify Redevelopable Properties

Each property in the study area was then critically reviewed to identify its future development potential, or lack thereof, over the next 20 years. This evaluation involved both a review of the county tax records as well as a physical/visual inspection of all properties in the study area.

Properties were identified as "potential development sites" based on several factors:

- Highest and best use analysis. A 60-year-old, two-story office on a site that could support a 20-story hotel is one theoretical example of a property that is not being utilized to its highest and best use, and which therefore would be identified as developable in our analysis. Map A illustrates the determined highest and best use for the potential developable sites within the study area.
- High likelihood of increased financial return for a developer. Because it can be difficult for small sites to "pencil out" profitably (no economy of scale), it is more likely that larger sites will be improved to maximum capacity than a single 7,200 square foot parcel. Some small sites, then, were not identified as developable, while larger sites were typically identified as such.
- Neighborhoods in transition. If one developer starts the momentum by constructing a new project in a transitional area, it is anticipated that the remainder of that same block will also be improved. Properties located adjacent to new and/or proposed projects, then, were generally identified as developable.
- Assemblage potential. Because several contiguous small parcels owned by different parties could be assembled for future development, these were identified as potential development sites in the analysis. Numerous parcels owned by one entity are clearly expected to be developed in the near-term, and are so identified here.

☒ More Likely
☐ Less Likely
☐ Not Likely

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- Landmark status. Properties identified as "landmarks" within the City could cause an otherwise developable property to be excluded from our list. [Note: other properties' proximity to a landmark building may encourage development.]
- Nearby development or amenities encouraging redevelopment. Properties with water views are considered good targets for residential development. Residential properties also tend to be constructed near retail, entertainment uses, parks and other such amenities. Both of these trends are taken into account in the analysis.

Step 3 - Categorize Redevelopable Properties - Primary or Secondary Sites

Eighteen potential development sites were identified in DOC-1; 88 in DOC-2, and 137 in DMC. The combined 243 sites are further categorized based upon the likely timing of their future development. Those likely to be developed in the next round of development were described as "Primary Sites", while those likely to be developed farther out were described as "Secondary Sites."

The Marion Court block in DOC-1 is an example of the differentiation between a Primary Site and a Secondary Site. This property, 75% controlled by one owner and with just one parcel remaining for full site assemblage, is identified as a Primary Site in the analysis. Compare this to an unassembled block in DMC with 8 to 12 different owners (some of whom may be owner-users, some investors willing to sell, and some competing developers). The longer-term potential of the potential DMC assemblage caused that property to be identified as a Secondary Site in the study.

The most likely potential developable sites, of which there are 167, fall in the Primary Site category. In the event of an extreme regional and/or national economic slowdown, development might take considerably longer, but these properties are considered to be the most likely to be developed, and likely to be developed relatively soon. The remaining 76 potential development sites are categorized as Secondary Sites. Map B illustrates the study area's potentially developable sites, categorized as either Primary Sites or Secondary Sites.

Step 4 - Maximum Capacity Under Each Alternative

Once the potential development sites were identified, their current building square footage was totaled. The next step was to calculate these sites' total building area if built to the maximum allowable parameters under each of the four proposed alternatives. A table summarizing the results is available on the following page.

Note that the total maximum number of residential units on the potential developable sites was determined as follows: 1) the site area was multiplied by the site coverage percentage; 2) the resulting number was then multiplied by the maximum number of residential floors allowed by the height limit after maximizing the office FAR; 3) once the total residential area was calculated, the maximum residential square footage was divided by 850 SF per unit to identify the maximum number of residential units.

Maximum Capacity Under Each Alternative

DOC-1 Zoned Parcels		Alternative 1		Alternative 2		Alternative 3		Alternative 4	
		Maximum Commercial SF	Potential Add'l Housing Units	Maximum Commercial SF	Potential Add'l Housing Units	Maximum Commercial SF	Potential Add'l Housing Units	Maximum Commercial SF	Potential Add'l Housing Units
Total Number of Redevelopable Sites		Current		18					
SF Built on these sites									
Office		5,691,600		5,691,600		5,691,600		5,691,600	
Other		1,011,840		1,011,840		1,011,840		1,011,840	
Total		6,703,440	0	6,703,440	0	6,703,440	0	6,703,440	0
Increase from Today (Proposed Zoning)		4,485,575		4,485,575		4,485,575		4,485,575	
DOC-2 Zoned Parcels									
Total Number of Redevelopable Sites		88							
SF Built on these sites									
Office		11,321,795		10,718,176		9,536,061		8,385,520	
Other		6,647,332		6,203,535		5,375,502		4,771,950	
Total		17,969,128	3,773	16,921,711	4,344	15,011,563	3,622	13,157,470	3,236
Increase from Today (Proposed Zoning)		15,762,061		14,714,644		12,804,496		10,950,403	
DMC-Zoned Parcels									
Total Number of Redevelopable Sites		137							
SF Built on these sites									
Office		8,375,070		6,123,549		5,120,853		6,123,549	
Other		5,272,040		3,950,828		3,761,828		3,950,828	
Total		13,647,110	6,708	10,074,377	5,223	8,882,681	6,792	10,074,377	5,238
Increase from Today (Proposed Zoning)		12,387,938		8,815,205		7,623,509		8,815,205	
Total Square Footage									
Total Number of Redevelopable Sites		243							
Office		25,388,466		22,533,325		20,448,514		19,196,269	
Other		12,931,212		11,166,203		10,149,170		9,556,058	
Total		38,319,678	10,481	33,699,528	9,568	30,597,684	10,414	28,752,327	8,475
Increase from Today (Proposed Zoning)		32,635,574		29,015,424		24,913,500		23,068,223	

The potential number of employees that could be added to the workforce under each alternative is calculated by dividing the redevelopable sites' maximum commercial square footage by the common ratio of 250 SF per employee.

Capacity Analysis Results

General Results

Some of the pertinent general results (i.e. not specific to any of the four alternatives) of the analysis are as follows:

- The identified developable parcels are currently improved with 5.7 million commercial SF and an aggregate assessed value of \$544 million.
- Eighteen potential developable sites were identified in DOC-1; 88 sites in DOC-2, and 137 sites in DMC, for a total of 243 developable sites.
- In terms of land area, the redevelopable parcels in each zone represent about 34% of the total land area in the study area.

Capacity Results by Alternative

The analysis identified the maximum estimated office capacity and maximum estimated residential capacity, the ratio of residential units to total commercial SF, the estimated number of years to absorb that capacity (dividing total space by average annual absorption), the effect on land value, the effect on tax revenue, and the capacity for average annual employment growth (dividing total commercial space by 250 SF per employee, and dividing that by 20 years) under each of the four alternatives. The results are discussed, by alternative, below. (Again, Alternative 4 is discussed first since it is the baseline to which the other three alternatives are compared.)

Alternative 4 – No Action

Since this is essentially a status quo alternative, no significant changes were identified from what could be built on the developable sites today. The analysis estimated maximum capacity on the identified properties to be 28.75 million SF of commercial space and 8,475 residential units, resulting in a ratio of 295 residential units per million SF of space. Based on historical absorption, this alternative provides enough capacity for the next 30-plus years of commercial development growth and 25-plus years of residential growth. If fully developed today, total market value for the redevelopment sites would be approximately \$1.16 billion. If all sites were developed to their full capacity, they would generate approximately \$9.6 million in tax revenue. If built to capacity, an additional 115,000 employees could be added. If Seattle was to reach this capacity over the next 20 years, it would need to add an average of 5,750 employees per year. [Note that the maximum capacity provides commercial space for a significantly higher number of employees than forecast to require space over the next 20 years -- PSRC forecast average growth of 2,096 employees per year, ERA forecast average growth of 3,556 employees per year, and the Comprehensive Plan forecast average growth of 3,135 employees per year.]

Alternative 1 - High End Height and Density Increases

This alternative results in a total capacity on redevelopable properties of 38.32 million SF of commercial space and 10,481 residential units (ratio = 274 residential units per million SF of space). Based on historical absorption, there is enough capacity under this alternative for the next 40-plus years of commercial growth and 30-plus years of residential growth. Total market value for the redevelopable sites under Alternative 1 is approximately \$1.51 billion, an increase of approximately \$351 million over Alternative 4. If all sites were developed to their full capacity, they would generate approximately \$12.7 million in tax revenue, an increase of \$3.1 million over Alternative 4. An additional 153,280 employees could be accommodated if the study area were built out to its full capacity.

Alternative 2 - Concentrated Office Core

This alternative results in a total capacity on redevelopable properties of 33.70 million SF of commercial space and 9,252 residential units (ratio = 275 residential units per million SF of space). There is enough estimated capacity under this alternative for the next 35-plus years of commercial growth and approximately 25-plus years of residential growth. Total market value for the fully developed sites under Alternative 2 is approximately \$1.34 billion, an increase of approximately \$188 million over Alternative 4. If all sites were developed to their full capacity, they would generate approximately \$11.0 million in tax revenue, an increase of \$1.4 million over Alternative 4. An additional 134,800 employees could be accommodated if the study area were built out to its full capacity.

Alternative 3 - Residential Emphasis

This alternative results in a total capacity on redevelopable properties of 30.60 million SF of commercial space and 10,187 residential units (ratio = 333 residential units per million SF of space). There is enough estimated capacity under this alternative for the next 30-plus years of commercial growth and 30-plus years of residential growth. Total market value for the fully developed sites under Alternative 3 is approximately \$1.25 billion, an increase of approximately \$98 million over Alternative 4. If all sites were developed to their full capacity, they would generate approximately \$10.2 million in tax revenue, an increase of approximately \$600,000 over Alternative 4. An additional 122,400 employees could be accommodated if the study area were built out to its full capacity.

II. Supply & Demand Analysis – Year-by-Year Projection

Supply & Demand Analysis Overview

Based upon projected office absorption, the above Capacity Analysis illustrated that each of the four proposed alternatives could accommodate at least, and often more, of the next 20-years' projected commercial and residential growth Downtown. Yet the supply of new buildings is not typically driven by zoning, but rather by market demand for additional space.

Therefore, on a parallel track to the above-described "snapshot" Capacity Analysis, the projected year-by-year ebb and flow of Downtown development over the next 20 years was also modeled. The results of analysis are illustrated in the Appendix A table entitled "Downtown Office Absorption, New Construction, and Projected Vacancy "

Supply & Demand Analysis Assumptions

Office Absorption - Demand

Absorption, which quantifies the demand for space, is a key driver in this analysis. As in the Capacity Analysis described above, an average office absorption rate of 887,500 SF per year was utilized.

New Construction - Supply

New construction, or the supply of new space, is the second key driver in the analysis. For the year-to-year projection modeling, hard information was gathered on permitted and proposed new projects through 2006. A completion probability was then given to each project, depending on its stage in the development process. For instance, projects that have already broken ground were given a 100% probability of completion, while merely proposed projects were given a 10% likelihood of completion.

For projecting new construction beyond 2006, Downtown Seattle's 15-year construction average of 802,196 SF of new office construction per year was utilized.

Supply Adjustments Due to Vacancy

The analysis assumed that office vacancy, which is the relative relationship between supply and demand, is one of the strongest predictors of future development timing. In other words, if vacancy is high, tenants are scarce, lenders are less willing to finance projects, and developers are less likely to construct speculative projects. The converse, of course, is true with low vacancies. Thus few developments are constructed when vacancies are high, and many developments are constructed when vacancies are low.

The analysis generally assumed that the annual absorption rate and the projected new construction rate would remain constant over the 20-year projection period. However, this general assumption was not strictly workable since it gradually brought vacancy down to 3% over the 20-year period. Developers' likely actions were therefore introduced into the analysis.

When "natural" vacancies reached 5% for any single analysis year, 500,000 SF of new construction was automatically added in the next year, plus 1.5 million SF of space added the following year, and one million SF of space added in the third year. In the fourth year following the 5% vacancy trigger, as the market becomes overbuilt but projects are not cancelled wholesale, the analysis pulled back to using the 15-year average new

construction rate of 802.196 SF per year. This assumption is applied only once in the 20-year projection period, triggered by a 5% vacancy in year 2013.

Residential Unit Ratio

In the Capacity Analysis, the ratio of residential units per million SF of commercial space within the study area was calculated for each proposed alternative. These results are summarized below:

Alternative #	# Residential Units per 1 Million SF of Commercial Space
Alternative 4	295
Alternative 1	274
Alternative 2	275
Alternative 3	333

By comparison, below is a five-year history of the ratio of residential units constructed per 1 million SF of commercial space constructed in Downtown (including Belltown):

Residential Units per 1 Million SF of Commercial Space				
Past 5 Years 468	Past 4 Years 552	Past 3 Years 680	Past 2 Years 870	2001 (proj) 685

The disparity between the Capacity Analysis' average residential ratio and the historical average is due, in large part, to the specific geographic areas that the numbers reflect. While the 5-year historical numbers include projects constructed in the Belltown district of Downtown (a very popular residential area with tremendous view amenities and exclusive residential zoning), the study area does not include Belltown.

Yet even excluding the "Belltown Factor," it appears that the residential unit ratios generated in the Capacity Analysis represent the low-end estimate of housing capacity in the study area. The Capacity Analysis' conservative residential results reflect the fact that the Capacity Analysis assumed maximum office build-out of every property identified as a potential development site, and did not include any residential-only buildings.

Looking at the year-to-year projection, Downtown's development trend towards increased residential density was taken into account. Per the information above, the past few years' ratios in all of Downtown are in the range of 680 to 870 residential units per million SF of commercial space. Therefore, a ratio of 750 residential units per million would appear reasonable. However, the fact that much of the new development in the next 5 to 10 years will occur in historically non-residential areas (i.e. DOC-1, DOC-2 zones) had to be considered.

For early years in the projection, when planned residential projects were known, the actual number of planned residential units was utilized in the analysis. For years when

the number of units was not known, a ratio of 477 residential units per million SF was utilized in the first ten years of the projection. This ratio was established using the base assumption of 750 residential units per million (in line with recent history), but then reducing that ratio by the weighted average of development specifically within DOC-1 and DOC-2 zones (per the Capacity Analysis, it was assumed that no residential would be built in the DOC-1 zone, and only 50% of the maximum residential capacity would be built in the DOC-2 zone).

For the second ten years of the 20-year projection, the residential ratio would increase to 548 units per million SF of commercial space. This higher ratio reflects the belief that a higher concentration of residential units will be added to the marketplace later in the analysis period, after the potential development sites in DOC-1 and DOC-2 have been improved. The last area to be developed within the study area, the DMC zone, is much more likely to have a higher concentration of residential units, so a higher residential ratio is warranted later in the analysis when this zone is built out.

Supply & Demand Analysis Results

Office Results

Per the "Downtown Office Absorption, New Construction, and Projected Vacancy" table located in Appendix A, a total of almost 18 million SF of commercial space will be added to the study area over the next 20 years.

Residential Results

Utilizing the residential ratios described above, the year-to-year add-on for housing over the next twenty years was projected to total an addition of 8,577 residential units by 2021 in the study area. This is equivalent to an average of 429 units per year.

Supply & Demand Sensitivity Analysis

To understand the sensitivity of the baseline 20-year projection, the two driving assumptions of absorption (demand) and new construction (supply) were each inflated, and then reduced, by ten and twenty percent annually.

While this mirror image of variance (above and below the base projection) yields figures that are equal to the initial projections, the range of possibilities enhances our understanding of what is most likely to occur. This sensitivity analysis, with its ranges of inventory and vacancy scenarios, is illustrated in the Appendix B graph.

Conclusion

Some pertinent points derived from the analyses presented herein include the following:

- Based on historical absorption, there appears to be enough capacity for commercial space and housing units in the DOC-1, DOC-2 and DMC zones beyond the 20-year development timeline for the environmental review, without any changes to the existing zoning regulations. In fact, depending on the alternative, there is approximately 35 years of capacity for residential and commercial development.
- Supply has historically followed demand. Changes to zoning, in and of themselves, do not change the supply and demand cycles. In other words, increasing commercial densities does not necessarily lead to more development occurring in Downtown. However, changes to zoning will influence where development occurs and the size and density of the buildings developed.
- Increasing the maximum density, and therefore the difference between the base FAR and maximum FAR, would increase the use of the Downtown bonus and TDR programs on each site that is developed to its maximum permitted FAR and consequently provide more money for affordable housing.
- Increasing the permitted FAR will increase land values and provide existing landowners of redevelopable sites with an increase in the value of their property, which in turn will result in more tax revenue for the City as all sites are built to their maximum capacity.
- Increases in land value tend to promote more intensive development of sites when demand is present. This may encourage more mixed use projects on sites large enough to accommodate commercial and residential uses in separate towers, depending on the relationship between the size of the maximum potential building envelope and the building envelope required to accommodate the permitted commercial floor area.
- Increasing density better utilizes City infrastructure, including transportation and utilities.
- Permitting higher density development will result in higher land prices, which could increase the cost of acquiring land for affordable housing development downtown. However, one of the most effective ways to increase opportunities for affordable housing development is through subsidies generated by commercial development through housing bonuses and TDRs, which would increase with higher density commercial development as noted above. Other options to promote the development

of affordable housing such as expanding the receiving area and providing incentives to develop on-site affordable housing should be explored.

- Incentives, subsidies and changing zoning policy are all ways to encourage housing in Downtown Seattle.

- ✓ Appendix A – Table: "Downtown Office Absorption, New Construction, and Projected Vacancy"

DOWNTOWN OFFICE ABSORPTION, NEW CONSTRUCTION AND PROJECTED VACANCY

[illegible]

ERRATA

After the "Height & Density Study Report #2" by Craig Kinzer & Co., The Seneca Real Estate Group and Cushman & Wakefield of Washington was published, typos were found in the Model that formed the basis of the report's findings. These typos resulted in errors in the findings. The following changes should be made to the report's findings.

Page 3:

The summary table should be replaced with the following table:

• **Summary Table – Potential Future Capacity**

Alt. #	Total Commercial SF	# of Res. Units	# of Res. Units per 1 Million Comm. SF	# of Workers	Workers per Res. Unit	Potential Tax Revenue
Alt. 4: No Action	28,750,000	8,490	295	115,000	13.55	\$9.6 MM
Alt. 1: High End Height and Density Increases	38,320,000	10,504	274	153,280	14.59	\$12.7 MM
Alt. 2: Concentrated Office Core	33,700,000	9,820	291	134,800	13.73	\$11.3 MM
Alt. 3: Residential Emphasis	30,600,000	10,676	349	122,400	11.47	\$10.5 MM

A replacement **Maximum Capacity Under Each Alternative** table is attached as a replacement to the one in the report on the page-facing page 19.

The following changes should be made on both pages 3 and 4 and pages 19 and 20.

Alternative 4 – No Action

8,475 residential units should be changed to 8,490 residential units.

Alternative 1 – High End Height and Density Increases

10,481 residential units should be changed to 10,504 residential units.

Alternative 2 – Concentrated Office Core

9,252 residential units should be changed to 9,820 residential units.

The ratio of residential units per million SF of space should be 291 units/million SF of commercial space.

There is capacity for approximately 30-plus years of residential growth rather than 25-plus years.

Tax revenue from this alternative could be \$11.3 million rather than \$11.0 million.

Alternative 3 – Residential Emphasis

10,187 residential units should be changed to 10,676 residential units.

The ratio of residential units per million SF of space should be 349 units/million SF of commercial space.

Tax revenue from this alternative could be \$10.5 million rather than \$10.2 million.

CRAIG KINZER & CO.

CORPORATE REAL ESTATE SERVICES

Mr. Lish Whitson
City of Seattle
Strategic Planning Office
Suite 300
600 Fourth Avenue
Seattle, Washington 98104

Dear Lish,

The attached sheets are errata sheets to our Height and Density Study Report #2 dated December 14, 2001. This should be included with our report and, hopefully, sufficiently corrects the the typos found in the model used to produce the results in our report.

We sincerely apologize for this oversight and trust that with the following corrections, you will be able to continue to use the model to test your own scenarios and other possible alternatives for the study area.

Do not hesitate contacting me regarding any other questions or comments regarding this report or the model framework we provided for the Strategic Planning Office's use as it continues to review and plan for the future of the north downtown area.

Sincerely,



Amy Bolich

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2002 JAN -6 PM 12:01

STRATEGIC PLANNING OFFICE

On page 22 the table showing the Residential Unit Ratio should be replaced with the following table:

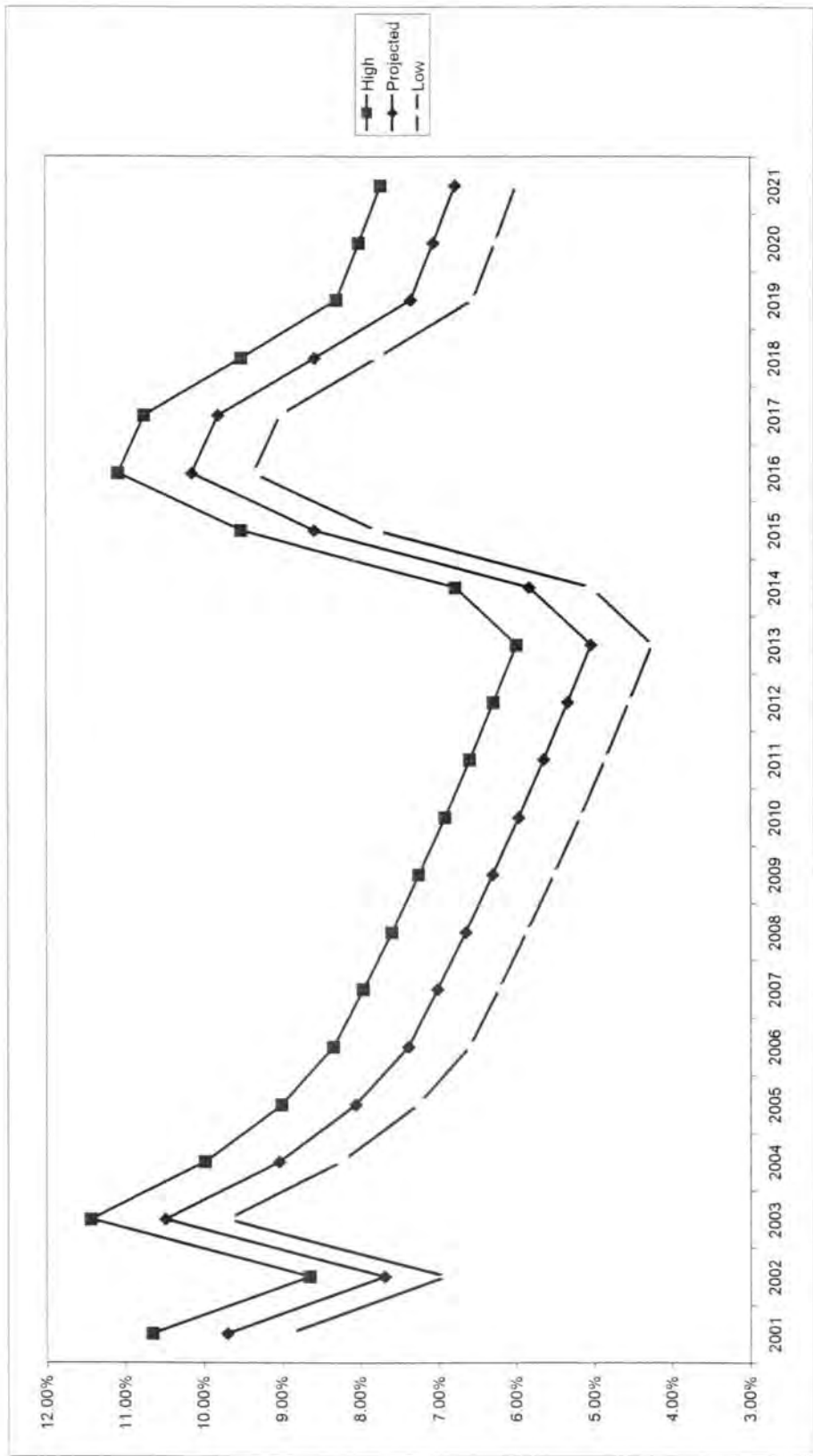
Alternative #	# Residential Units per 1 Million SF of Commercial Space
Alternative 4	295
Alternative 1	274
Alternative 2	291
Alternative 3	349

We apologize for any confusion these errors may have caused.

Maximum Capacity Under Each Alternative

	Alternative 1		Alternative 2		Alternative 3		Alternative 4	
	Maximum Commercial SF	Potential Add'l Housing Units	Maximum Commercial SF	Potential Add'l Housing Units	Maximum Commercial SF	Potential Add'l Housing Units	Maximum Commercial SF	Potential Add'l Housing Units
DOC-1 Zoned Parcels								
Total Number of Redevelopable Sites		0						
SF Built on these sites								
Office	5,691,600		5,691,600		5,691,600		4,687,200	
Other	1,011,840		1,011,840		1,011,840		833,280	
Total	6,703,440	0	6,703,440	0	6,703,440	0	5,520,480	0
Increase from Today (Proposed Zoning)	4,485,575		4,485,575		4,485,575		3,302,615	
DOC-2 Zoned Parcels								
Total Number of Redevelopable Sites		64						
SF Built on these sites								
Office	11,321,796		10,718,176		9,636,061		8,385,520	
Other	6,647,332		6,203,535		5,375,502		4,771,950	
Total	17,969,128	3,796	16,921,711	4,596	15,011,563	3,885	13,157,470	3,251
Increase from Today (Proposed Zoning)	15,762,061		14,714,644		12,804,496		10,950,403	
DMC-Zoned Parcels								
Total Number of Redevelopable Sites		0						
SF Built on these sites								
Office	4,118,590		5,521,279		4,944,305		2,974,780	
Other	17,765,700		15,595,656		13,826,986		13,049,157	
Total	13,647,110	6,708	10,074,377	5,223	8,882,681	6,792	10,074,377	5,238
Increase from Today (Proposed Zoning)	12,387,938		8,815,205		7,623,509		8,815,205	
Total Square Footage								
Total Number of Redevelopable Sites		64						
Office	12,894,806		10,888,497		10,383,356		10,097,940	
Other	25,424,872		22,811,031		20,214,328		18,654,387	
Total	38,319,678	10,504	33,699,528	9,820	30,597,684	10,676	28,752,327	8,490
Increase from Today (Proposed Zoning)	32,635,574		28,015,424		24,913,580		23,068,223	

Appendix B - Sensitivity Analysis Graph



Appendix G

Further Analysis of Development Capacity

APPENDIX G

LAND USE: FURTHER ANALYSIS OF DEVELOPMENT CAPACITY

ANALYSIS OF TRANSFER OF DEVELOPMENT CREDITS PROGRAM

The City of Seattle used the model developed by Cushman and Wakefield for Craig Kinzer to identify the difference in development capacity if all appropriate sites in the Denny Triangle neighborhood used the Transfer of Development Credits (TDC) program. For more information about this program, please see the Housing section of Chapter 3 and Land Use Appendix C, Current Zoning Regulations.

In order to determine the maximum amount of units that could be produced through the TDC program, the height limits in the model were changed to present the maximum height limit that could be achieved on each parcel by residential and mixed-use projects choosing to use the TDC program, or choosing not to use the TDC program (see Table G-1).

TABLE G-1
Height Limits for Residential Projects in the Denny Triangle by Alternative

Current Zoning	Alternative 1	Alternative 2	Alternative 3	Alternative 4	TDC Program
DOC2 300'	400	400	400/300	300	390
DMC 240'	340	240	240	240	312
DMC 160'	260	160	160	160	208
DMC 125'	225	125	125	125	162

Under many of the alternatives, the height limits for projects using the TDC program in portions of the Denny Triangle would be lower than the maximum height limit permitted without the height limit. It was assumed, under these conditions, that developers would not choose to participate in the TDC program, but would rather build to the maximum height limit permitted without contributing to the TDC program funds.

Table G-2 presents the difference these changes make in the number of potential units in the Denny Triangle. It was assumed that developers would choose the least-cost option for developing the maximum number of units. Therefore, if a higher number of units is possible without using the TDC program, it was assumed developers would choose to build without the TDC program, even if it was available. Thus, under Alternative 1, no developers were assumed to choose to use the TDC program.

TABLE G-2
Number of Potential Residential Units in the Denny Triangle, by Alternative, at Maximum Build-Out with and without use of the TDC program

Current Zoning	Alternative 1		Alternative 2		Alternative 3		Alternative 4	
	No TDC	TDC	No TDC	TDC	No TDC	TDC	No TDC	TDC
DOC2 300'	2,896	2,896	3,545	3,545	2,969	4,558	2,497	5,193
DMC 240'	3,571	3,571	2,558	4,642	3,264	5,348	2,573	4,642
DMC 160'	596	596	306	703	306	703	306	703
DMC 125'	108	108	0	140	365	760	0	140
Total	7,171	7,171	6,409	9,030	6,904	11,369	5,376	10,678
Difference	0		2,621		4,465		5,302	

Source: City of Seattle – Strategic Planning Office, 2002

20-YEAR DEVELOPMENT PROJECTION

Using the sites and the methodology developed by Craig Kinzer et al, the City of Seattle's Strategic Planning Office identified one set of potential development scenarios for the four Alternatives between the years 2000 and 2020. These development scenarios provide one possible configuration of 20 years worth of development. The amount of development projected Downtown over those 20 years was based on the employment and housing growth projections developed by ERA (see the Population and Employment section of Chapter 3 for more information.) In addition, it was influenced by information on current development trends from Craig Kinzer et al.

Identify Current Development Proposals

Taking the universe of potentially developable sites identified by Craig Kinzer et al, a set of criteria were used to identify where development would occur, and what type of development might occur on those sites.

The first set of sites identified were projects that were under construction as of January 1, 2000, which were expected to be completed between 2000 and 2001. The amount of development projected to occur on those sites remained constant across all alternatives. Fourteen projects in the study area fit this description.

The next set of sites identified were projects that had received permits from the City of Seattle for new construction, but had not yet started construction. In addition, projects that had undergone substantial review, but had not yet received permits were included. The amount of development projected to occur on these sites was also held constant across the alternatives. Seven projects fell into this category.

Another set of projects included those that as of Fall 2001 had submitted permits for review, but were still in the early permit review stage. Those projects that had appeared as potential projects in newspaper articles, but that had not yet submitted any permits, were also in this category. Finally, some projects that had received some permit approval (for example, undergone environmental review) before 1999, but had not had any recent development activity, were part of this set of projects. It was assumed that development would occur on these sites in substantially the same configuration as the proposed projects, but that these projects might take advantage of higher height and density limits. The uses on these sites remained constant under all of the alternatives, but the densities on the sites shifted as permitted height limits and densities changed under each Alternative. Fifteen projects fell into these categories.

Categorize Potential Development Sites by Potential Uses

The next step was to identify the mix of potential uses and the size of each potential project for all of the other sites identified as potential development sites. Craig Kinzer, et al developed a highest and best use analysis that indicated what type of uses might potentially locate in each part of the study area. Information from this analysis was used to identify potential uses or combinations of uses for each potential development site. In addition, the assumptions contained in the development capacity analysis, any specific development proposals for specific sites and recent development activity near each site were considered. The potential combinations of uses considered included: office-only, residential-only, hotel-only, or any combination of these three uses, and, depending on the site size in separate towers or combined in one tower.

After a likely combination of uses for a site was identified, the amount of development on the site from the Craig Kinzer & Co. development capacity model was determined. A number of site-specific amendments were made to the results of that model. The development capacity model is intended to identify a gross amount of development capacity available Downtown. It projects a mixed-use project for every available site in the DMC zone and half of the sites in the DOC2 zone. The basic method of

calculating development capacity that the Kinzer model used was amended on a site-by-site basis depending on the potential uses projected for each site. This amount of development was checked using prototypes for each site. It was assumed that some but not all residential projects in the Denny Triangle would use the TDC program. For the 20-year period, approximately 25% of the projects in the Denny Triangle were projected to use the TDC program.

Identify Additional Development Sites for Each Alternative

The proposed projects identified above would not be able to accommodate all of the projected twenty-year demand for new housing, office and hotel space. Consequently, additional sites where no project is currently proposed needed to be identified as potential development sites. The following two criteria drawn from work done by Craig Kinzer et al were used to identify these additional sites:

- 1) Only sites identified as potential development sites were used; and
- 2) Future development was expected to occur as close to the existing Downtown core (the DOC1 zone) as possible.

However, these criteria were tempered by other factors that influence development decisions:

- 1) **Site size.** Sites of a half-block or more were expected to be more attractive to developers than small sites.
- 3) **Existing development on the site.** Sites with existing structures, especially structures that had been identified by neighborhood groups as “Icon” or “Character” buildings (see the Land Use Chapter for a list of these buildings) were considered less attractive for development.
- 4) **Ownership patterns.** Sites with multiple parcels owned by multiple entities were considered less attractive for development than sites owned by one party.
- 5) **Neighborhoods in transition.** Properties adjacent to new and/or proposed projects were generally identified as attractive for development.
- 6) **Nearby development or amenities encouraging redevelopment.** Properties with water views were considered good targets for residential development. Residential properties also tend to be constructed near retail, entertainment uses, parks and other such amenities.

All of these factors were weighed in deciding which sites might be most likely to redevelop between 2000 and 2020. Probable development on each site was matched with the criteria to identify the sites that could meet the demand for new office, hotel and residential space over 20-years. As much as possible, the same sites were used for all alternatives in order to ensure consistency across all alternatives. Most of the Downtown sites identified can accommodate buildings larger than 200,000. In addition, the exact amount of development in a hypothetical building could range by as much as 40% over the different alternatives. Therefore, the projects did not add up to in a uniform amount of commercial square feet and residential units over the 20-year time span across all Alternatives. Instead, as in the real market, the match between demand and supply was inexact.

Table G-3 summarizes the amount of development identified in each zone under each alternative.

TABLE G-3
Downtown Development Scenario 2000-2020

Urban Village/ Current Zoning	Potential Commercial Square Feet				Potential Residential Units			
	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Commercial Core								
DOC1	4.12M	4.84M	4.84M	4.63M	0	0	0	0
DOC2	1.17M	1.17M	1.09M	1.09M	20	20	20	20
DMC	0.99M	0.70M	0.70M	0.70M	405	395	425	395
Denny Triangle								
DOC2	8.28M	7.88M	8.08M	7.65M	4,495	4,725	4,660	4,540
DMC	2.5M	2.08M	1.91M	2.35M	990	1,165	1,340	1,170
Belltown								
DOC2	0	0	0	0	565	565	420	420
DMC	0.87M	0.87M	0.87M	1.05M	895	770	685	770
Total	17.93M	17.54M	17.49M	17.47M	7,370	7,640	7,550	7,315

Source: Strategic Planning Office, Craig Kinzer & Co., Cushman & Wakefield and The Seneca Real Estate Group, 2001

The scenarios developed under each alternative indicate only one potential future among many, and are only intended to indicate a potential mix of development, not predict the future. Since these scenarios were developed, at least one project has been proposed on a potential development site that was not included in any of the 20-year development projections. They provide a measure of understanding of how Downtown Seattle might change under the different alternatives, but development Downtown is likely to be different than these models project. For example, building on the criteria above, few DMC-zoned sites were identified as likely to develop in the next 20 years. However, a number of projects have been proposed in the DMC zone in all three Urban Villages, and it is likely that more projects than projected would be proposed for this zone. The findings of this 20-year projection should be considered alongside the maximum potential development in any zone to gain an understanding of a range of possible futures.

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DOWNTOWN EIS PROJECT PROFILES

The EIS analysis of the 20 years of development projected for the study area between 2000 and 2020 includes three categories of projects. The first category is "known" projects—projects with the greatest certainty of occurring, either because they have been completed since 2000 or are currently under construction. These projects are numbered 1 through 23 on Table G-4 below. The second category includes projects considered to be committed because of their permit application status or public sector involvement. Numbered 24 through 30 on the chart, it is reasonable to assume that these projects are likely to move forward. The location of these projects is shown on Figure G-1.

TABLE G-4
Projects Recently Completed or Currently Under Construction

Project Name and Number	Project Type	Residential Units	Office Square Feet	Hotel Rooms	Employees
1. Justice Center	Government office	0	285,000	0	1,140
2. Municipal Building	Government office	0	192,412		No net gain
3. Millennium Tower	Mixed use	19 units 34,000 SF	196,000	0	784
4. IDX Tower	Office	0	846,600	0	3,386
5. Seattle Central Public Library	Public library	0	0	0	No net gain
6. Expeditors International	Pre 2001*				
7. W Hotel	Pre 2001*				
8. Harbor Steps final phase	Residential	285 units			
9. Meridian West	Pre 2001*				
10. Meridian East	Pre 2001*				
11. One Convention Place	Office Building	0	288,000	0	1,152
11A Convention Center expansion					
12. Elliott Hotel	Hotel			400	400
13. Paramount Hotel	Pre 2001*				
14. Pacific Place	Pre 2001*				
15. 700 Olive Way	Office building	0	525,900	0	2,104
16. Stewart House	Residential	60			
17. Metropolitan Tower	Residential	346			
18. Federal Courthouse	Government				620
19. 819 Virginia (Century)	Residential	218			
20. West Precinct Police Station	Pre 2001*				
21. Metropolitan Park III	Office and athletic club; w/ above grade parking	0	130,000	0	520
22. Spring Hill Suites Marriott	Hotel			234	234
23. 2301 5 th Avenue	Outside area				
SUBTOTAL (1 - 23)		928		634	10,340

*Note: pre 1993 projects were included to update GIS base; not part of forecasted growth analyzed

TABLE G-5
Projects with Permit Applications in Process or Public Sector Involvement and
Assumed to Move Forward

Project Name and Number	Project Type	Residential Units	Office Square Feet	Hotel Rooms	Employees
24. 2200 Westlake (Quinton Instruments site)	Mixed use	237 units	210,000		840
25. Touchstone Stewart Place	Office	0	660,000	0	2,640
26. 2300 5 th Avenue (Frederick Cadillac site)	Office	0	592,000	0	2,368
27. Taragon/YWCA	Mixed use	161	276,000	0	1,104
28. Bethel Temple/Crystal Pool	Residential	187	0	0	
29. Sheraton addition	Hotel	0	0	460	460
30. County Convention Place TOD site**	Mixed use	900	600,000	800	1,520
SUBTOTAL (24 - 30)		1,483		1,260	8,932
TOTAL (1 - 30)		2,411		1,894	19,272

**No permit activity on this project; assumed to move forward because of County involvement

The third category includes potential development on sites identified by the economic/real estate consultant as the most likely properties to be redeveloped over the next 20 years to accommodate demand for space remaining after known and committed projects are accounted for. For these sites, hypothetical projects were "constructed," using assumptions about which uses--residential, office, or hotel--would most likely be accommodated in certain locations, and relying on the maximum achievable densities under the different alternatives to determine how much floor area would be developed on each site. This third category includes projects 31 through 72, located on Figure G-1 below. Included within this category are some projects with permit applications in process. However, current plans are assumed to be tentative and may be subject to changes in response to whatever proposed zoning changes may be in affect in the future.

To ensure that development projected on available sites reasonably reflects what actually might be built, certain assumptions were made about project characteristics, generally based on standard development practices. These assumptions included the following:

Floor to floor heights are generally assumed to be 13 feet per floor in commercial buildings and 10 feet per floor in residential buildings.

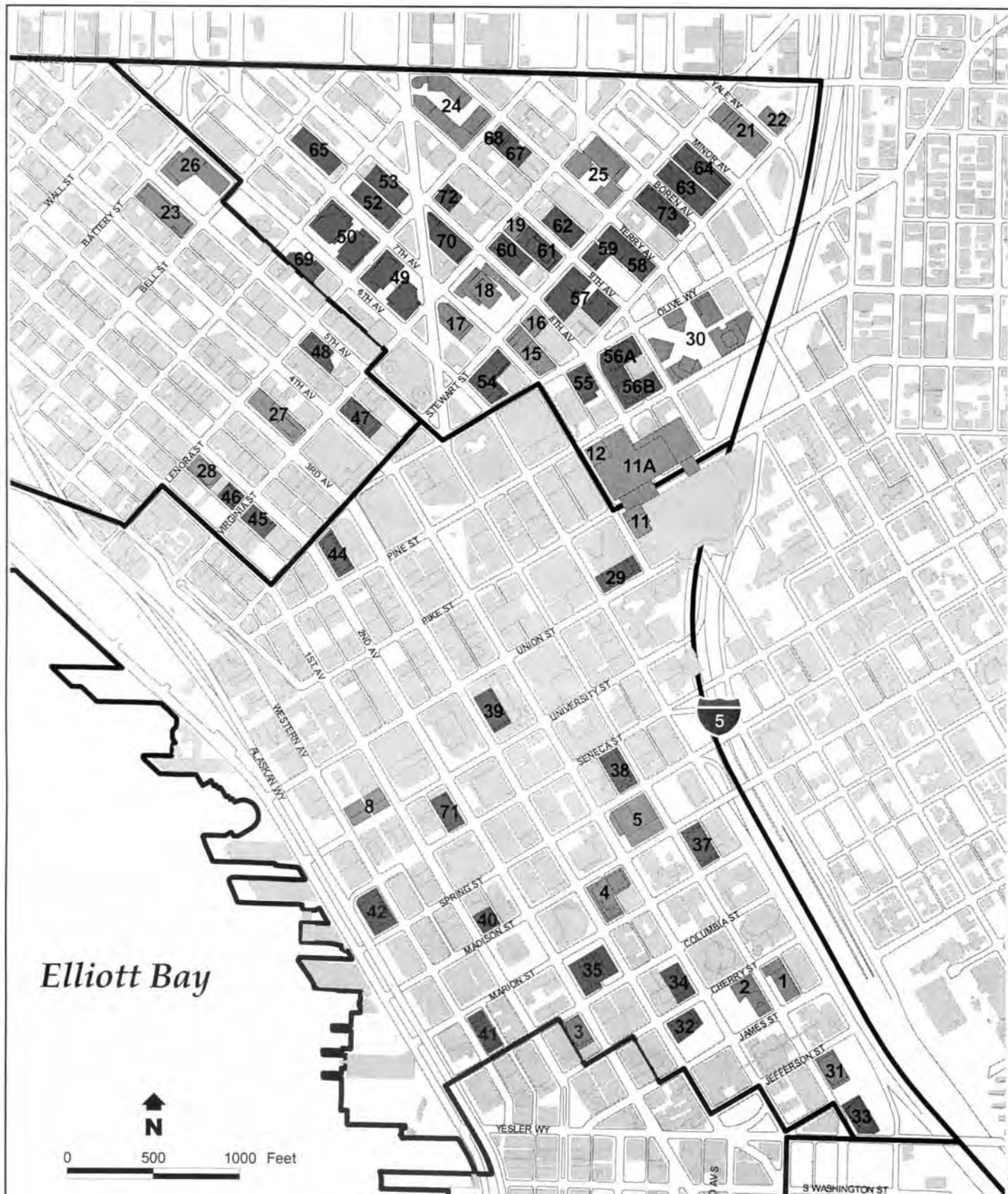
For office projects, average floor sizes in the range of 20,000 to 30,000 square feet per floor were considered optimal, although floor sizes varied depending on sites size and elevation, taking into account upper level development standards.

The specified heights of buildings apply to occupied floors; rooftop features, which are allowed to extend beyond height limits, would likely add height above the elevations indicated.

Since there are no density limits on residential use, the permitted building envelope was used to determine the amount of floor area that could be accommodated, recognizing that limits to the depth of residential structures result in reduced site coverage compared to commercial development.

Parking for commercial use (primarily long-term parking for office development) in DOC 1 and DOC 2 zones is assumed to be provided below grade, since floor area occupied by long term parking above grade counts in the project FAR. In all zones, some portion of the accessory parking provided in residential projects is assumed to occupy a base structure above grade, since parking accessory to housing is exempt from FAR calculations, and this solution seems to be the trend in recent development.

An average unit size of 850 square feet is used to estimate the number of units in residential projects.



Building Sites and Identification Numbers




-  Urban Village Boundary
-  Buildings Under Construction or in the Permit Pipeline
-  Potential Buildings

Figure G 1

Strategic Planning Office
City of Seattle
April 12, 2002



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The general assumptions outlined above, and more site specific considerations, were used to develop the more detailed descriptions provided on the following project profiles.

Project 31: King County "Goat Hill" site

Alternatives: All

Zone: DOC-2

Site Size: 1 and 1/2 block site (82,912sf); only 1/2 block developed

Development type: County government development; office tower with below grade parking; the amount of floor area shown reflects the amount of space County identified as needed at this location, and not the maximum floor area allowed by zoning.

Special Features: bonus hillside terrace co-developed with project 33

Project 31	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	250,000 sf	Same as Alt 1	Same as Alt 1	Same as Alt 1
Height	165' (12 stories)	Same as Alt 1	Same as Alt 1	Same as Alt 1
Typical floor sizes	9 @ 24,000 sf/flr 2 @ 17,000 sf/flr	Same as Alt 1	Same as Alt 1	Same as Alt 1
Total FAR	8.7 FAR	8.7 FAR	8.7 FAR	8.7 FAR

Project 32: Public Safety Building site

Alternatives: All

Zone: DOC-2

Site Size: Full block site (57,120 sf)

Development type: Commercial development; office tower with street level retail and below grade parking; City owned site, assumed to be developed jointly with open space improvement on most of site.

Special Features: assume TDR or bonus for open space development on remainder of site; transit tunnel access

Project 32	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	380,000 sf	Same as Alt 1	Same as Alt 1	Same as Alt 1
Height	265' (21 stories)	Same as Alt 1	Same as Alt 1 *project meets conditions allowing 20% height increase	Same as Alt 1 *project meets conditions allowing 20% height increase
Typical floor sizes	9 @ 20,000 sf/flr 10 @ 17,000 sf/flr 2 @ 14,200 sf/flr	Same as Alt 1	Same as Alt 1	Same as Alt 1
Total FAR	6.6 FAR	6.6 FAR	6.6 FAR	6.6 FAR

Project 33: 5th Avenue at Yesler Way

Alternatives: All

Zone: DOC-2

Site Size: Half block site (26,738 sf) site proposed to be enlarged through street and alley vacations

Development type: Commercial development; office tower with street level retail/below grade parking

Special Features: bonus hillside terrace along Terrace Street R-O-W

Project 33	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	347,594 sf	Same as Alt 1	Same as Alt 1	267,380 sf
Height	225' (17 stories)	Same as Alt 1	Same as Alt 1	180' (14 stories)
Typical floor sizes	9 @ 22,000 sf/flr 8 @ 18,800 sf/flr	Same as Alt 1	Same as Alt 1	9 @ 22,000 sf/flr 4 @ 18,000 sf/flr
Total FAR	13 FAR	13 FAR	13 FAR	10 FAR

Project 34: 4th Avenue and Columbia/Cherry

Alternatives: All

Zone: DOC-1

Site Size: Half block site (28,560 sf)

Development type: Commercial development; office tower with street level retail/below grade parking

Special Features: bonus hillside terrace along Columbia Street

Project 34	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	485,520 sf	485,520 sf	485,520 sf	399,840 sf
Height	288' (22 stories)	288' (22 stories)	288' (22 stories)	230' (18 stories)
Typical floor sizes	9 @ 25,200 sf/flr 9 @ 21,200 sf/flr 4 @ 18,000 sf/flr	Same as Alt 1	Same as Alt 1	9 @ 25,200 sf/flr 9 @ 21,200 sf/flr
Total FAR	17 FAR	17 FAR	17 FAR	14 FAR

Project 35: Seattle Trust Court site

Alternatives: All

Zone: DOC 1

Site Size: full block site (61,440 sf)

Development Type: Commercial development, office tower with base structure/street level retail, below grade parking

Special Features: View corridor setbacks on Marion and Columbia Streets, with bonus hillside terraces along Marion and portion of Columbia

Project 35	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	1,044,480 sf	1,044,480 sf	1,044,480 sf	860,160 sf
Height	585' 47 stories	585' 47 stories	585' 47 stories	540' 42 stories (meets conditions allowing 20% height increase above 450' limit)
Typical floor sizes	3 @ 37,800 sf/flr 31 @ 22,500 sf/flr 13 @ 18,000 sf/flr	Same as Alt 1	Same as Alt 1	3 @ 37,800 sf 31 @ 21,025 sf 8 @ 16,820 sf
Total FAR	17 FAR	17 FAR	17 FAR	14 FAR

Project 36: Bank of California site (not used)**Project 37: College Club site**

Alternatives: All

Zone: DOC 1

Lot Size: half block development site (28,800 sf)

Development Type: Commercial development: office tower/below grade parking

Special Features: Hillside terrace bonus open space along Madison Street

Project 37	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	489,600 sf	Same as Alt 1	Same as Alt 1	403,600 sf
Height	290' (22 stories)	290' (22 stories)	290' (22 stories)	240' (18 stories)
Typical Floor sizes	9 @ 26,400 sf/flr 9 @ 20,750 sf/flr 4 @ 17,600 sf/flr	Same as Alt 1	Same as Alt 1	9 @ 26,400 sf/flr 9 @ 20,750 sf/flr
Total FAR	17 FAR	17 FAR	17 FAR	14 FAR

Project 38 Olympic Garage Site**Alternatives:** All**Zone:** DOC 1**Lot Size:** half block development site (28,800 sf)**Development Type:** Commercial development: office tower/below grade parking**Special Features:** None--full coverage at ground level

Project 38	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	489,600 sf	Same as Alt 1	Same as Alt 1	403,600 sf
Height	312' (22 stories)	312' (22 stories)	312' (22 stories)	230' (18 stories)
Typical Floor sizes	1 exempt ground flr retail 8 @ 28,000 sf/flr 9 @ 20,000 sf/flr 5 @ 17,000 sf/flr	Same as Alt 1	Same as Alt 1	1 exempt ground floor retail 8 @ 28,000 sf/flr 9 @ 20,000 sf/flr
Total FAR	17 FAR	17 FAR	17 FAR	14 FAR

Project 39: University Tract Post Office site**Alternatives:** Alternatives 2, 3, and 4**Zone:** DOC 1**Lot Size:** half block development site (42,120 sf)**Development Type:** Commercial development: office tower/street level retail/below grade parking**Special Features:** corner plaza on Union Street; transit tunnel access on University Street

Project 39	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	NA	716,040 sf	Same as Alt 2	589,680 sf
Height	NA	445' (33 stories)	Same as Alt 2	340' (26 stories)
Typical Floor sizes	NA	3 @ 35,000 sf 6 @ 31,320 sf 29 @ 15,000 sf	Same as Alt 2	3 @ 35,000 sf 6 @ 31,320 sf 20 @ 19,000 sf
Total FAR	NA	17 FAR	17 FAR	14 FAR

Project 40: Warshall's site**Alternatives:** All Alternatives**Zone:** DMC 240**Lot Size:** 1/4 block development site (13,320 sf)**Development Type:** Mixed use development: hotel tower with housing above/street level retail/below grade parking**Special Features:** 30' view corridor setbacks along Madison Street

Project 40	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	133,200 sf (179 rooms) 79 housing units	93,240 sf (120 rooms) 79 housing units	93,240 sf (120 rooms) 79 housing units	93,240 sf (120 rooms) 79 housing units
Height	312' (24 stories)	240' (19 Stories)	240' (19 Stories)	240' (19 Stories)
Typical Floor sizes	3 @ 13,200 sf 21 @ 9,960 sf	3 @ 13,200 sf 16 @ 9,960 sf	Same as Alt 2	Same as Alt 2
Total FAR	18.7 FAR	14.9 FAR	14.9 FAR	14.9 FAR

Project 41: Colman Tower site**Alternatives:** All Alternatives**Zone:** DMC 160**Lot Size:** 1/2 block development site (23,980 sf)**Development Type:** Commercial development: office tower with street level retail/below and above grade parking (water table restricts below grade)**Special Features:** 40' view corridor setbacks along Marion Street

Project 41	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	239,800 sf	167,860 sf	167,860 sf	167,860 sf
Height	208'	160'	160'	160'
Typical Floor sizes				
Total FAR	10 FAR	10 FAR	10 FAR	10 FAR

Project 42: Western @ Seneca/Spring site**Alternatives:** All Alternatives**Zone:** DMC 160**Lot Size:** small full block development site (35,233 sf)**Development Type:** Alt 1, 2, and 4: Commercial development: office tower with street level retail/below and above grade parking (water table restricts below grade)

Alts. 3: mixed use; includes 2 levels housing above commercial

Special Features: 40' view corridor setbacks along Spring and Seneca Streets

Project 42	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	447,365 sf	360,965 sf	368,165 sf 32 residential units	360,965 sf
Height	208' (17 stories)	160' (13 stories)	160' (14 stories)	160' (13 stories)
Typical Floor sizes	5 @ 35,233 sf/flr(includes 2 1/2 levels parking above grade 5 @ 24,000 sf/flr 7 @ 21,600 sf/flr	5 @ 35,233 sf/flr(includes 2 levels parking above grade 5 @ 24,000 sf/flr 3 @ 21,600 sf/flr	5 @ 35,233 sf/flr(includes 2 levels parking above grade 5 @ 24,000 sf/flr 4 @ 18,000 sf/flr	Same as Alt 2
Total FAR	12.7 FAR	10.25 FAR	10.45 FAR	10.25 FAR

Project 43: Steam Plant site**(not used)****Project 44: Avalon Hotel site****Alternatives:** All**Zone:** DMC 240**Lot Size:** 1/2 block development site (27,262 sf)**Development Type:** Mixed use development: hotel/residential tower above retail base includes 2 levels retail, and hotel support uses; below grade parking

Project 44	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	272,620 sf (270 rooms and retail) 40 housing units	190,854 sf (189 rooms and retail) 31 housing units	Same as Alt 2	Same as Alt 2
Height	312' (24 stories)	240' (19 Stories)	Same as Alt 2	Same as Alt 2
Typical Floor sizes	5 @ 27,262 sf/flr (includes exempt retail on 2 levels) 5 @ 23,662 14 @ 16,200 sf/fl (includes residential floors)	5 @ 27,262 sf/flr (includes exempt retail on 2 levels) 5 @ 23,662 9 @ 16,200 sf/fl (includes residential floors)	Same as Alt 2	Same as Alt 2
Total FAR	17.7 FAR	14.7 FAR	14.7 FAR	14.7 FAR

Project 45: SW corner 2nd and Virginia

Alternatives: All

Zone: DMC 240

Lot Size: 1/4 block development site (19,440 sf)

Development Type: Residential tower above base with street level retail and some parking, most parking below grade.

Project 45	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	329 units	252 units	Same as Alt 2	Same as Alt 2
Height	312' (approx. 30 stories)	240' (approx. 23 stories)	240'	240'
Typical Floor sizes	Base: 3 @ 19,440 sf/flr Tower: 8 @ 10,800 sf/flr 19 @ 9,000 sf/flr	Base: 3 @ 19,440 sf/flr Tower: 8 @ 10,800 sf/flr 12 @ 9,000 sf/flr	Same as Alt 2	Same as Alt 2
Total FAR	16.2 FAR	16.2 FAR	13.0 FAR	16.2 FAR

Project 46: NW corner 2nd and Virginia

Alternatives: All

Zone: DMC 240

Lot Size: 2 lot development site (12,960 sf)

Development Type: Alts 1, 2, and 4; project is a residential tower above base with street level retail and some parking, most parking below grade. In Alt. 3, minimum site size provision limits development to 125'

Project 46	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	220 units	169 units	84 units	169 units
Height	312' (approx. 30 stories)	240' (approx. 23 stories)	125' (approx. 12 stories)	Same as Alt 2
Typical Floor sizes	Base: 5 @ 12,960 sf/flr Tower: 25 @ 8,100 sf/flr	Base: 5 @ 12,960 sf/flr Tower: 18 @ 8,100 sf/flr	Tower 65' to 85' is 9,720 sf/flr; 85' to 125' is 8,424 sf/flr	Same as Alt 2
Total FAR	20.6 FAR	16.3 FAR	10.1 FAR	16.3 FAR

Project 47: 4th Ave at Virginia Street**Alternatives:** All**Zone:** DOC 2**Lot Size:** 4 lot development site (25,920 sf)**Development Type:** Residential slab/tower above base with street level retail and some parking; parking also below grade.

Project 47	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	562 units	562 units	423 units	423 units
Height	400'	400'	300'	300'
Typical Floor sizes	40' @ 25920 sf/flr (street level retail, parking) 360' tower (approx. 36 floors @ approx. 15,000 sf/flr)	Same as Alt 1	40' @ 25920 sf/flr (street level retail, parking) 240' tower (approx. 24 floors @ approx. 15,000 sf/flr)	Same as Alt 3
Total FAR	23.8 FAR	23.8 FAR	16.9 FAR	16.9 FAR

Project 48: 5th Avenue at Lenora Street**Alternatives:** Alternative 4 only**Zone:** DMC 240**Lot Size:** 4 lot development site (25,920 sf)**Development Type:** Commercial office with street level retail; parking below grade.**Special Feature:** Small bonus parcel park

Project 48	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	NA	NA	NA	181,440 sf office (excludes exempt ground floor retail)
Height	NA	NA	NA	120' (9 stories)
Typical Floor sizes	NA	NA	NA	9 @ 22,000 sf/flr
Total FAR	NA	NA	NA	7.0 FAR

Project 49: 6th/7th Avenues and Lenora/Virginia Streets**Alternatives:** All Alternatives**Zone:** DOC 2**Lot Size:** full block development site (77,820 sf)**Development Type:**

Alternative 1, 2, and 3: Commercial only; two office towers

Alternative 4: Mixed use; one office tower and one mixed use tower with housing above office

All alternatives include street level retail; parking below grade.

Special features: All alternatives include bonus street level plaza

Project 49	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	1,089,480 sf	1,011,660 sf	Same as Alt 2	778,200 sf 314 housing units
Height	Tower 1: 400' (approx 32 stories) Tower 2: 185' (approx 15 stories)	Tower 1: 400' (approx 32 stories) Tower 2: 125' (approx 9 stories)	Same as Alt 2	Tower 1: 300' (approx 24 stories) Tower 2: 300' (approx 28 stories; 8 floors commercial with 20 floors of housing above)
Typical Floor sizes	Tower 1: 9 @ 28,800 sf/flr 23 @ 21,600 sf/flr Tower 2: 9 @ 27,300 sf/flr 5 @ 18,000 sf/flr	Tower 1: 9 @ 28,800 sf/flr 23 @ 21,600 sf/flr Tower 2: 9 @ 27,300 sf/flr	Same as Alt 2	Tower 1: 9 @ 32,500 sf/flr 10 @ 24,750 sf/flr 5 @ 95,750 sf/flr Tower 2 (mixed use): 7 @ 20,400 sf/flr 20 @ 13,345 sf/flr
Total FAR	14.0 FAR	13.0 FAR	13.0 FAR	13.2 FAR

Project 50: 6th/7th Avenues and Lenora/Blanchard Streets

Alternatives: All Alternatives

Zone: DOC 2

Lot Size: full block development site (83,520 sf)

Development Type: All Alternatives commercial only; two office towers with street level retail; parking below grade.

Special features: All alternatives include bonus street level plaza and green street improvements along Blanchard

Project 50	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	1,169,280 sf	1,085,760 sf	Same as Alt 2	835,200 sf
Height	Tower 1: 400' (approx 32 stories) Tower 2: 220' (approx. 17 stories)	Tower 1: 400' (approx 32 stories) Tower 2: 170' (approx 13 stories)	Same as Alt 2	Tower 1: 360' (approx 28 stories) Note: project meets conditions allowing 20% height increase. Tower 2: 115' (approx. 9 stories)
Typical Floor sizes	Tower 1: 9 @ 28,500 sf/flr 10 @ 22,100 sf/flr 13 @ 19,800 Tower 2: 9 @ 31,040 sf/flr 8 @ 19,500 sf/flr	Tower 1: 9 @ 28,500 sf/flr 10 @ 22,100 sf/flr 13 @ 19,800 Tower 2: 9 @ 31,040 sf/flr 4 @ 19,500 sf/flr	Same as Alt 2	Tower 1: 9 @ 32,000 10 @ 21,000 9 @ 15,600 Tower 2: 9 @ 27,500 sf/flr
Total FAR	14.0 FAR	13.0 FAR	13.0 FAR	10.6 FAR

Project 51:

Absorbed into project 50 as full block development

Project 52: 7th Ave between Lenora and Blanchard (east side)

Alternatives: Alternatives 3 and 4 only

Zone: DOC 2

Lot Size: 1/2 block development site (38,880 sf)

Development Type: Commercial office/street level retail/ below grade parking

Special Features: parcel park and green street improvements along Blanchard Street

Project 52	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	NA	NA	505,440 sf	388,800 sf
Height	NA	NA	240' (approx. 19 stories)	180' (approx. 14 stories)
Typical Floor sizes	NA	NA	9 @ 32,400 sf/flr 10 @ 21,400 sf/flr	9 @ 32,400 sf/flr 5 @ 21,400 sf/flr
Total FAR	NA	NA	13 FAR	10.0 FAR

Project 53: 8th Ave between Lenora and Blanchard (west side)

Alternatives: Alternative 4 only

Zone: DOC 2

Lot Size: 1/2 block development site (38,058 sf)

Development Type: Commercial office/street level retail/below grade parking

Special Features: parcel park and green street improvements along Blanchard Street

Project 53	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	NA	NA	NA	380,580 sf
Height	NA	NA	NA	205' (approx. 16 stories)
Typical Floor sizes	NA	NA	NA	9 @ 25,920 sf/flr 7 @ 21,050 sf/flr
Total FAR	NA	NA	NA	10.0 FAR

Project 54: Vance Properties

Alternatives: All

Zone: DOC 2

Lot Size: 3/4 block development site (38,176 sf)

Development Type: Mixed use development: 2 towers: hotel tower with residential above and residential tower; both towers above base structure; base structure includes some accessory residential parking above grade/street level retail, and hotel support uses; below grade parking

Project 54	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	Hotel tower: 534,464 sf (750 hotel rooms) with 25 units of housing above; Residential tower: 195 units	Hotel tower: 496,288 sf (700 rooms) with 70 units above; Residential tower: 200 units	Same as Alt 2	Hotel tower: 381,760 sf (500 rooms) with 160 units above; Residential tower: 234 units
Height	Hotel/residential tower: 400' (32 stories) Residential tower: 400'	Hotel/residential tower: 400' (32 stories) Residential tower: 400' (37 stories)	Same as Alt 2	Hotel/residential tower: 330' (meets conditions for 10% height increase above 300' limit) Residential tower: 390' (90' gained through TDC)
Typical Floor sizes	Hotel/residential tower: 9 @ 24,660 sf/flr 18 @ 18,000 sf/flr 5 @ 8,000 sf/flr (housing) Residential tower: 7 @ 15,300 sf/flr (parking/retail) 3 @ 12,150 sf/flr 27 @ 7,800 sf/flr	Hotel/residential tower: 9 @ 24,660 sf/flr 16 @ 18,000 sf/flr 7 @ 8,000 sf/flr (housing) Residential tower: 7 @ 15,300 sf/flr (parking/retail) 3 @ 12,150 sf/flr 27 @ 7,800 sf/flr	Same as Alt 2	Hotel/residential tower: 9 @ 24,660 sf/flr 14 @ 18,000 sf/flr 8 @ 8,000 sf/flr (housing) Residential tower: 7 @ 15,300 sf/flr (parking/retail) 3 @ 12,150 sf/flr 26 @ 7,800 sf/flr
Total FAR	24.8 FAR	24.1 FAR	24.1 FAR	23.2 FAR

Project 55: 8th and Olive site

Alternatives: All Alternatives

Zone: DOC 2

Lot Size: 4 lot development site (29,160 sf)

Development Type: Mixed use; commercial office with housing above/street level retail/below grade parking

Special Features: mid-block parcel park (as proposed for project in permit pipeline on this site)

Project 55	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	408,240 sf w/ 154 housing units above	379,080 sf w/ 187 housing units above	Same as Alt 2	291,600 sf w/ 205 housing units above
Height	400' (approx. 22 stories commercial w/ 11 stories of housing above)	400' (approx. 20 stories commercial w/ 14 floors of housing above)	Same as Alt 2	390' (approx. 16 stories commercial w/ 20 stories of housing above)
Typical Floor sizes	9 @ 24,000 sf/flr 13 @ 15,000 sf/flr 11 @ 11,600 sf/flr (residential)	9 @ 24,000 sf/flr 11 @ 15,000 sf/flr 14 @ 11,600 sf/flr (residential)	Same as Alt 2	9 @ 24,000 sf/flr 7 @ 15,000 sf/flr 15 @ 11,600 sf/flr (residential)
Total FAR	18.5 FAR	18.6 FAR	18.6 AFAR	17.0 FAR

Project 56A: Camlin Hotel Block-Olivian Tower site**Alternatives:** All Alternatives**Zone:** DOC 2**Lot Size:** 4 lots combined with alley vacation (27,320 sf)**Development Type:** Residential tower above base with street level retail/ above and below grade parking

Project 56A	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	594 units	Same as Alt 1	379 units	Same as Alt 3
Height	400' (approx 36 story residential tower above 3 story parking, retail base)	Same as Alt 1	300' (approx 24 story residential tower above 3 story parking, retail base)	Same as Alt 3
Typical Floor sizes	3 @ 27,320 sf/flr 35 @ 14,500 sf/flr	Same as Alt 1	3 @ 27,320 sf/flr 24 @ 14,500 sf/flr	Same as Alt 3
Total FAR	21.6 FAR	21.6 FAR	15.7 FAR	15.7 FAR

Project 56B: Camlin Hotel block--Pine Center site**Alternatives:** All Alternatives**Zone:** DOC 2**Lot Size:** 6 lots combined with alley vacation (42,800 sf)**Development Type:** Commercial office/street level retail/below grade parking

Project 56B	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	599,200 sf	556,400 sf	428,000 sf	428,000 sf
Height	350'	325'	300'	300'
Typical Floor sizes	2 @ 42,800 sf (base w/ retail) 6 @ 30,000 sf/flr 10 @ 22,000 sf/flr 9 @ 18,000 sf/flr	2 @ 42,800 sf (base w/ retail) 6 @ 30,000 sf/flr 10 @ 22,000 sf/flr 7 @ 18,000 sf/flr	2 @ 42,800 sf (base w/ retail) 16 @ 21,000 sf/flr 4 @ 14,500 sf/flr	Same as Alt 3
Total FAR	14 FAR	13.0 FAR	10.0 FAR	10.0 FAR

Project 57: Greyhound Bus Terminal Site**Alternatives:** All**Zone:** DOC 2**Lot Size:** 3/4 block development site (75,650 sf)**Development Type:** Mixed use development with 3 towers:

Alt 1: 2 office only towers and one residential tower

Alt 2, 3, 4: 1 office tower, 1 mixed office/residential tower, and 1 residential tower

Mixed use towers share base structure; base structure includes some accessory residential parking above grade/street level retail; most parking below grade.

Special Features: mid-block bonus parcel park, TDC used in Alternative 3

Project 57	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	Total 1,059,100 sf office & 398 housing units: Tower 1: 554,600 sf Tower 2: 504,900 sf Tower 3: 398 units	983,450 sf total office & 486 housing units: Tower 1: 554,600 sf Tower 2: 428,850 sf and 88 units Tower 3: 398 units	756,500 sf total office & 475 housing units: Tower 1: 429,600 sf Tower 2: 326,900 sf and 77 units Tower 3: 398 units	756,500 sf total office & 366 housing units: Tower 1: 554,600 sf Tower 2: 201,900 sf and 77 units Tower 3: 289 units
Height	Tower 1: 400' 32 floors office Tower 2: 350' 27 floors office Tower 3: 400' 34 floor housing and base	Tower 1: 400' 32 floors office Tower 2: 325' 22 floors office and 5 floors housing Tower 3: 400' 34 floor housing and base	Tower 1: 300' 23 floors office Tower 2: 300' 17 floors office and 7 floors housing Tower 3: 390' (TDC) 60' base structure with 33 story residential tower above	Tower 1: 300' 23 floors office Tower 2: 300' (TDC) 17 floors office and 7 floors housing Tower 3: 300' 24 floors housing and 60' base
Typical Floor sizes	Tower 1 (office): 9 @ 22,400 sf/flr 10 @ 16,800 sf/flr 13 @ 15,000 sf/flr Tower 2 (office): 9 @ 26,100 sf/flr 18 @ 15,000 sf/flr Tower 3 (residential): 60' base (retail, parking, etc.) 34 @ 10,250 sf/flr	Tower 1 (office): 9 @ 22,400 sf/flr 10 @ 16,800 sf/flr 13 @ 15,000 sf/flr Tower 2 (mixed use): 9 @ 26,100 sf/flr 13 @ 15,000 sf/flr commercial; 10 @ 7,600 sf/flr residential Tower 3: residential 60' base (retail, parking, etc.) 34 @ 10,250 sf/flr	Tower 1 (office): 9 @ 22,400 sf/flr 10 @ 16,800 sf/flr 4 @ 15,000 sf/flr Tower 2 (mixed use): 9 @ 25,000 sf/flr 8 @ 15,000 sf/flr commercial 7 @ 9,500 sf/flr Tower 3: residential 60' base (retail, parking, etc.) 33 @ 10,250 sf/flr	Tower 1 (office): 9 @ 22,400 sf/flr 10 @ 16,800 sf/flr 4 @ 15,000 sf/flr Tower 2 (mixed use): 9 @ 25,000 sf/flr 8 @ 15,000 sf/flr commercial 7 @ 9,500 sf/flr Tower 3: residential 60' base (retail, parking, etc.) 24 @ 10,250 sf/flr
Total FAR	19.6 FAR	18.6 FAR	16.6 FAR	15.4 FAR

Project 58: NW Corner of Howell and Terry Ave

Alternatives: Alternatives 3 and 4 only

Zone: DOC 2

Lot Size: 1/4 block site (21,600 sf)

Development Type: Commercial office/street level retail/below grade parking

Special Features: Green street improvement

Project 58	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	NA	NA	216,000 sf	Same as Alt 3
Height	NA	NA	125' (10 stories)	Same as Alt 3
Typical Floor sizes	NA	NA	10 @ 21,600 sf/flr	Same as Alt 3
Total FAR	NA	NA	10 FAR	10 FAR

Project 59A and 59B: Gethsemane Church site**Alternatives:** All Alternatives**Zone:** DOC 2**Lot Size:** 2 sites separated by alley; residential site A: (20,760 sf) and mixed use site B: (13,800 sf)**Development Type:** Mixed use with 2 structures; residential structure (low-income) and mixed use office tower with market rate housing above; street level retail/below grade parking for both structures**Special Features:** TDC project in alternatives 3 and 4; green street improvement on 9th and Terry

Project 59A	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	residential: 145 units	Same as Alt 1	Same as Alt 1	Same as Alt 1
Height	80' (approx. 7 stories)	Same as Alt 1	Same as Alt 1	Same as Alt 1
Typical Floor sizes	1 @ 20,760 sf 6 @ 16,600 sf/flr	Same as Alt 1	Same as Alt 1	Same as Alt 1
Total FAR	5.8 FAR	5.8 FAR	5.8 FAR	5.8 FAR
Project 59B	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	mixed use: 193,000 sf commercial w/ 72 housing units above	mixed use: 179,400 sf commercial w/ 89 housing units above	mixed use: 138,000 sf commercial w/ 130 units above	Same as Alt 3
Height	390' (approx. 30 stories; 14 stories commercial and 16 stories residential above)	390' (approx. 30 stories; (13 stories commercial and 17 stories residential above)	390' (TDC) (approx. 30 stories; 10 stories commercial and 20 stories residential above)	Same as Alt 3
Typical Floor sizes	14 @ 13,800 sf/flr 16 @ 7,200 sf/flr (residential)	13 @ 13,800 sf/flr (commercial) 17 @ 7,200 sf/flr (residential)	10 @ 13,800 sf/flr (commercial) 20 @ 7,200 sf/flr (residential)	Same as Alt 3
Total FAR	22.3 FAR	21.9 FAR	20.4 FAR	20.4 FAR

Project 60: 800 Stewart Street West (Bentall)**Alternatives:** All Alternatives**Zone:** DOC 2**Lot Size:** 4 parcel site (28,800 sf)**Development Type:** Residential tower above base structure w/street level retail and some above grade parking/parking also below grade.**Special Features:** Alternatives 3 and 4 use TDC to gain added height (300' limit to 390') through TDC program.

Project 60	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	494 housing units	Same as Alt 1	476 housing units	Same as Alt 3
Height	400' 85' base structure (retail/parking, etc.) 315' residential tower (approx. 31 stories)	Same as Alt 1	390' 85' base structure (retail/parking, etc.) 305' residential tower (approx. 30 stories)	Same as Alt 3
Typical Floor sizes	8 @ 28,800 sf/flr 31 @ 14,000 sf/flr	Same as Alt 1	8 @ 28,800 sf/flr 30 @ 14,000 sf/flr	Same as Alt 3
Total FAR	22.6 FAR	22.6 FAR	22.6 FAR	22.6 FAR

Project 61: 800 Stewart Street East (Bentall)

Alternatives: All Alternatives

Zone: DOC 2

Lot Size: 4 1/2 lot site (31,560) sf; full half block area (43,200 sf) used to calculate permitted FAR, assuming use on remaining lot area is exempted residential floor area.

Development Type: Mixed use commercial office with housing above/street level retail/below grade parking

Special Features: Alternatives 3 and 4 gain added height through TDC program (300' limit to 390').

Project 61	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	593,040 sf commercial; 146 residential units	550,680 sf commercial; 189 residential units	423,600 sf commercial; 325 residential units	Same as Alt 3
Height	400' 315' office (24 stories); 85' residential (approx. 8 stories)	400' 290' office (21 stories) 110' residential (approx. 11 stories)	390' 200' office (16 stories); 190' residential (19 stories)	Same as Alt 3
Typical Floor sizes	Office floors: 6 @ 31,560 sf/flr 3 @ 27,600 sf/flr 9 @ 24,600 sf/flr 6 @ 18,000 sf/flr Housing above: 8 @ 14,500	Office floors: 6 @ 31,560 sf/flr 3 @ 27,600 sf/flr 9 @ 24,600 sf/flr 3 @ 18,000 sf/flr Housing above: 11 @ 14,500 sf/flr	Office floors: 6 @ 31,560 sf/flr 3 @ 27,600 sf/flr 7 @ 24,600 sf/flr Housing above: 19 @ 14,500 sf/flr	Same as Alt 3
Total FAR	22.7 FAR	22.4 FAR	14.1 FAR	14.1 FAR

Project 62: 1900 9th Avenue (NE corner of 9th and Stewart)**Alternatives:** All alternatives**Zone:** DMC**Lot Size:** 4 lot site (27,960 sf)**Development Type:** Commercial office/street level retail/below grade parking**Special Features:** None

Project 62	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	279,600 sf	195,720 sf	Same as Alt 2	Same as Alt 2
Height	125' (10 stories)	90' (7 stories)	Same as Alt 2	Same as Alt 2
Typical Floor sizes	10 @ 27,960 sf/flr	7 @ 27,960 sf/flr	Same as Alt 2	Same as Alt 2
Total FAR	10 FAR	7 FAR	7 FAR	7 FAR

Project 63: Boren and Howell**Alternatives:** All Alternatives**Zone:** DMC**Lot Size:** 1/2 block site (42,360) sf**Development Type:**

Alternatives 1 and 2: Mixed use with separate commercial office building and residential tower; street level retail/below grade parking

Alternative 3 Mixed use with housing above commercial; parking below grade

Alternative 4; commercial only office building with street level retail and parking below grade.

Special Features: midblock parcel park Alternatives 1 and 2, corner plaza Alternative 4; Alternative 2 gains added height through TDC program (240' limit to 312'). Alternative 3 subject to more restrictive DMR bulk controls.

Project 63	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	423,600 sf commercial; 283 residential units	296,520 sf commercial; 368 residential units	211,800 sf commercial; 324 residential units	296,520 sf commercial
Height	Office tower: 270' (21 stories) Residential tower: 340' (approx. 30 residential stories above 4 story base structure)	Office tower: 185' (14 stories) Residential tower: 312' (approx. 31 residential stories)	Office base structure: 65' (5 stories) 2 residential towers above up to 240' (17 additional stories)	125' (10 stories)
Typical Floor sizes	Office tower: 9 @ 24,000 sf/flr 9 @ 18,500 sf/flr 3 @ 16,900 sf/flr Residential tower: 4 @ 13,200 sf/flr 30 @ 9,000 sf/flr	Office tower: 9 @ 24,000 sf/flr 5 @ 18,500 sf/flr Residential tower: 31 @ 10,000 sf/flr	Office base 5 @ 42,360 sf/flr 2 residential towers are 137,776 sf each; average floor size 8,105 sf/flr.	Office floors: 10 @ 30,000 sf (includes exempt street level uses)
Total FAR	17.8 FAR	14.6 FAR	11.5 FAR	7.0 FAR

Project 64: Boren and Minor**Alternatives:** All Alternatives**Zone:** DMC**Lot Size:** 1/2 block site (42,360) sf**Development Type:**

Alternatives 1: Mixed use with separate commercial office building and residential tower; street level retail/below grade parking

Alternative 2: Mixed use with one mixed use structure combining office and housing above and one residential tower

Alternative 3: primarily residential; limited commercial space in residential base structure; 2 residential towers above base; parking below grade.

Alternative 4; commercial only office building with street level retail and parking below grade.

Special Features: Alternatives 1 and 2 midblock parcel park, Alternative 4 corner plaza; Alternative 2 gains added height through TDC program (240' limit to 312'). Alternative 3 subject to more restrictive DMR bulk controls.

Project 64	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	423,600 sf commercial; residential tower (283 units)	Mixed use tower: 296,520 sf commercial; 89 residential units Residential tower: 294 units	8,500 sf commercial: 494 residential units	296,520 sf commercial
Height	Office tower: 270' (21 stories) Residential tower: 340' (approx. 30 residential stories above 4 story base structure)	Mixed use tower: tower: 260' with office up to 185' (14 stories) and 7 stories of housing above Residential tower: 312' (approx. 25 residential stories above 5 story base)	Base structure 65' (6 stories; 1 story commercial and 4 stories residential) 2 residential towers above up to 240' (17 additional stories)	125' (10 stories)
Typical Floor sizes	Office tower: 9 @ 24,000 sf/flr 9 @ 18,500 sf/flr 3 @ 16,900 sf/flr Residential tower: 4 @ 13,200 sf/flr 30 @ 9,000 sf/flr	Mixed use tower: Office: 9 @ 24,000 sf/flr 5 @ 18,500 sf/flr Residential: 7 @ 10,800 sf/flr Residential tower: 5 @ 14,400 sf/flr 25 @ 10,000 sf/flr	Residential base base 1 @ 42,360 sf/flr 5 @ 30,000 sf/flr 2 residential towers are 137,776 sf each; average floor size 8,105 sf/flr.	Office floors: 10 @ 30,000 sf (includes exempt street level uses)
Total FAR	17.8 FAR	16.7 FAR	11.0 FAR	7.0 FAR

Project 65: 7th Avenue between Blanchard and Bell Streets**Alternatives:** Alternative 4 only**Zone:** DMC**Lot Size:** 1/2 block site (38,880 sf)**Development Type:** Commercial office/street level retail/below grade parking**Special Features:** parcel park abutting Blanchard Green Street

Project 65	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	NA	NA	NA	272,160 sf
Height	NA	NA	NA	125' (9 stories)
Typical Floor sizes	NA	NA	NA	9 @ 30,500 sf/flr
Total FAR	NA	NA	NA	7.0 FAR

Project 66: (not used)**Project 67: Mid-block Terry Avenue between Lenora and Virginia Streets****Alternatives:** All alternatives (project currently in permit pipeline)**Zone:** DMC**Lot Size:** 2 and 1/2 lot site (18,000 sf)**Development Type:** Residential/base with retail and parking/below grade parking**Special Features:** improvements to abutting Terry Avenue Green Street

Project 67	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	54 residential units	Same as Alt 1	Same as Alt 1	Same as Alt 1
Height	70' (6 stories)	Same as Alt 1	Same as Alt 1	Same as Alt 1
Typical Floor sizes	Approx. 14,400 sf/flr	Same as Alt 1	Same as Alt 1	Same as Alt 1
Total FAR	4.8 FAR	4.8 FAR	4.8 FAR	4.8 FAR

Project 68: SW corner Terry Avenue and Lenora Street**Alternatives:** All alternatives**Zone:** DMC**Lot Size:** 1 and 1/2 lot site (10,800 sf)**Development Type:** Residential tower above base structure with street level retail/above and below grade parking**Special Features:** improvements to abutting Terry Avenue and Lenora Green Streets; Alternatives 2, 3 and 4 gain added height through TDC program (240' limit to 312').

Project 68	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	133 units	122 (low)	229	Same as Alt 3
Height	340' 0-70' base structure (7 stories) 270' residential tower above (27 stories)	312' 0-70' base structure (7 stories) 242' residential tower above (17 stories)	312' 0-70' base structure (7 stories) 242' residential tower above (24 stories)	Same as Alt 3
Typical Floor sizes	7 @ 10,800 sf/flr 27 @ 7,200 sf/flr	7 @ 10,800 sf/flr 24 @ 7,200 sf/flr	7 @ 10,800 sf/flr 24 @ 8,100 sf/flr	Same as Alt 3
Total FAR	25.0 FAR	23.0 FAR	25.0 FAR	25.0 FAR

Project 69: 6th Avenue at Blanchard Street (UA Cinemas site)**Alternatives:** All alternatives**Zone:** DMC**Lot Size:** 4 lot site (25,920 sf)**Development Type:** Commercial office/street level retail/below grade parking**Special Features:** bonus parcel park on Blanchard Street; Green street improvements to Blanchard Street

Project 69	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	259,200 sf	181,440	Same as Alt 2	Same as Alt 2
Height	240' (18 stories)	172'	Same as Alt 2	Same as Alt 2
Typical Floor sizes	8 @ 19,150 sf/flr 9 @ 11,250 sf/flr 1 @ 8,500 sf/flr	8 @ 19,150 sf/flr 2 @ 11,250 sf/flr 1 @ 8,500 sf/flr	Same as Alt 2	Same as Alt 2
Total FAR	10.1 FAR	7.4 FAR	7.4 FAR	7.4 FAR

Project 70: 8th Avenue at Westlake, between Lenora and Virginia Streets**Alternatives:** All Alternatives**Zone:** DOC-2**Site Size:** 1/2 block site (34,519 sf)**Development type:** Residential structure; 2 towers above base structure with some above grade parking and street level retail**Special Features:** Alternative 4 gains added height in towers through TDC program (300' limit to 390').

Project 70	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	750 residential units	Same as Alt 1	Same as Alt 1	592 residential units
Height	0 - 60' base structure with two 340' residential towers above	Same as Alt 1	Same as Alt 1	0 - 60' base structure with one 330' and one 240' residential tower above
Typical floor sizes	Base structure: 5 @ 34,519 sf/flr Tower 1: 34 stories @ 11,250 sf/flr (450 units) Tower 2: 34 stories @ 7,500 sf/flr (300 units)	Same as Alt 1	Same as Alt 1	Base structure: 5 @ 34,519 sf/flr Tower 1: 24 @ 11,250 sf/flr (318 units) Tower 2: 31 @ 7,500 sf/flr (274 units)
Total FAR	23.5 FAR	23.5 FAR	23.5 FAR	19.6 FAR

Project 71: 2nd Avenue between University and Seneca Streets (Galland and Seneca Buildings)**Alternatives:** Alternative 4 only**Zone:** DOC-1**Site Size:** 1/2 block site (25,920 sf)**Development type:** Commercial office tower with below grade parking**Special Features:** bonus hillside terrace along University Street; view corridor setbacks on University and Seneca Streets

Project 71	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	NA	NA	NA	362,880 sf
Height	NA	NA	NA	265' (21 stories)
Typical floor sizes	NA	NA	NA	2 @ 22,680 sf/flr 8 @ 19,440 sf/flr 9 @ 16,200 sf/flr 2 @ 10,800 sf/flr
Total FAR	NA	NA	NA	14 FAR

Project 72: SE corner of 8th Avenue and Lenora Street

Alternatives: Alternatives 3 and 4 only

Zone: DMC 240

Site Size: 2 lot site (14,400 sf)

Development type: Residential tower

Special Features:

Project 72	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	NA	NA	191 units	Same as Alt 3
Height	NA	NA	240' (23 stories)	Same as Alt 3
Typical floor sizes	NA	NA	5 @ 14,400 sf/flr 18 @ 9,000 sf/flr	Same as Alt 3
Total FAR	NA	NA		16.25 FAR

Project 73: Boren Avenue east side between Howell and Stewart Streets

Alternatives: Alternative 3 and 4 only

Zone: DMC

Lot Size: 1/2 block site (43,200 sf)

Development Type:

Alternative 3: Commercial office/street level retail/below grade parking

Alternative 4: Residential project; two towers above base structure

Special Features: Alternative 3 includes 6,000 sf bonus parcel park.

Project 73	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Density	NA	NA	216,000 sf	457 units
Height	NA	NA	80' (6 stories)	240' (6 story base structures with 2 18 story residential towers above)
Typical Floor sizes	NA	NA	6 @ 36,000 sf	5 @ 36,000 sf/flr 2 towers with 18 @ 10,800 sf/flr each
Total FAR	NA	NA	5 FAR	8.7 FAR

Appendix H

Relationship to Plans and Policies

APPENDIX H

RELATIONSHIP TO PLANS AND POLICIES

The following tables summarize the relationship of the proposed alternatives to the specific policies in the plans and policies affecting Population and Employment, Land Use, Housing and Urban Design in the City of Seattle.

POPULATION AND EMPLOYMENT PLANS AND POLICIES

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
PUGET SOUND REGIONAL COUNCIL: ADOPTED MULTICOUNTY FRAMEWORK GOALS AND POLICIES				
<i>Economics</i> RE-7 Foster economic opportunity and stability, promote economic well being, and encourage economic vitality and family wage jobs while managing growth. Support effective and efficient mobility for people, freight, and goods that are consistent with the region's growth and transportation strategy. Maintain region-wide information about past and present economic performance. Assess future economic conditions that could affect the central Puget Sound region.	L			<p>All alternatives would accommodate continued economic growth. Alternatives 1 and 2 would provide the greatest amount of additional commercial development capacity in the office core (DOC 1 and 2 zones), and Alternative 3 somewhat less of an increase in capacity in the DOC 2 zone. This increased capacity would accommodate future commercial activities that generate economic growth and jobs.</p> <p>The alternatives have differing transportation impact implications, but would be generally consistent with the region's growth and transportation strategies that emphasize growth in established urban centers and regional transit and road system improvements.</p>
KING COUNTY GROWTH MANAGEMENT PLANNING COUNCIL: COUNTYWIDE PLANNING POLICIES				
<i>Economic Development</i> FW-33 All jurisdictions shall contribute to the economic sustainability of the County in a manner that supports the Countywide land use pattern. This is to be accomplished by providing cost-efficient quality infrastructure and public services at an adopted level-of-service specific to the local situation, providing affordable housing, promoting excellence in education, and protecting the environment.	L			<p>All alternatives would generally contribute to the economic sustainability of King County in a manner consistent with preferred countywide land use patterns. Additional growth accommodated by the alternatives would generate additional public infrastructure and service needs, affordable housing and environmental impacts. In general, additional growth in the central Downtown area would aid in the efficiency of infrastructure, utilities, services and housing provision, and would have fewer environmental impact implications than an equivalent amount of development in suburban and suburban fringe areas.</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>FW-35 All jurisdictions shall support the development of a regional economic development strategy consistent with the Countywide land use pattern.</p> <p>Strengthen, Expand, and Diversify the Economy</p> <p>ED-6 Local jurisdictions' plans shall include policies that actively support the retention and expansion of the economic base of the multi-County region. Local jurisdictions and the County shall work cooperatively on a regional basis and invite private sector participation to evaluate the trends, opportunities and weaknesses of the existing economy and to analyze the economic needs of key industries.</p> <p>Local jurisdictions' comprehensive plans shall include policies intended to foster:</p> <ol style="list-style-type: none"> The development and retention of those businesses and industries which export their goods and services outside the region. These businesses and industries are critical to the economic strength and diversification of the economy; and A business climate which is supportive of business formation, expansion, and retention and recognizes the importance of small businesses in creating new jobs. 	<p>£</p> <p>£</p>			<p>All alternatives would fit within the overall regional economic development strategy. Alternatives 1 and 2 would provide the greatest additional capacity for growth, and Alternative 3 somewhat less capacity for economic growth, in a manner that is consistent with regional land use goals.</p> <p>As noted above, the alternatives would provide additional capacity in Downtown for more commercial activities that contribute to economic growth. The proposed capacity increases can be interpreted as a strategy to strengthen, expand and diversify the economy. The alternatives generally encourage a wide range of economic opportunities because zoning would accommodate a variety of different building types and arrangements serving a variety of activities from small-scale retail to larger-scale office and high-tech or research & development activities.</p>
SEATTLE'S COMPREHENSIVE PLAN: TOWARD A SUSTAINABLE SEATTLE				
<p>Land Use Element</p> <p>Distribution of Growth</p> <p>The Plan sets residential and employment growth targets for Urban Centers and Hub Urban Villages. The greatest share of employment growth and residential growth (65% and 45%, respectively) is to be accommodated within Urban Centers. This will help meet the minimum density criteria set by the King County Countywide Planning Policies, use available development capacity in these areas, and contribute to the achievement of the desired land use pattern.</p> <p>The Comprehensive Plan's growth targets for 1994-2014 are an additional 62,700 jobs and 14,700 households.</p> <p>Economic Development Element</p> <p>The Economic Development Element encourages growth of a broad mix of jobs, especially family-wage jobs, and supports the City's target of adding 131,000-146,600 jobs over 20 years. Also, it encourages</p>	<p>£</p> <p>£</p>			<p>The alternatives would provide additional capacity in the Downtown Urban Center for long-term employment and residential growth toward established targets. The pattern of growth under any alternative would be consistent with this policy.</p> <p>Increasing the capacity of Downtown for future employment growth would be consistent with economic development goals of maintaining a positive business</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
actions that support a positive business climate and ensure that the infrastructure needed to support the economy is in place.				climate and accommodating family-wage job growth. This EIS analyzes the potential infrastructure impacts of the alternatives (see the Transportation, Energy and Water and Sewer Utility sections for further discussion). The city's business climate and economic performance ultimately will be affected by how these issues are addressed.
<i>Downtown Urban Center Goals and Policies</i> <u>Economic Development Goals</u> Policy DT-EP1 Promote development consistent with [the Comprehensive Plan]. Consider the impact on economic development in the planning of major public projects and consider public actions to facilitate development. Where possible, encourage private sector cooperation in implementing actions such as training and employment for target population groups.	£	£		The alternatives would promote further economic development of the Downtown Urban Center, consistent with the Comprehensive Plan. The alternatives do not address special provisions for training or employment of target population groups.
<i>Bellevue Goals and Policies</i> Policy B-P3 Develop methods to integrate and stabilize the current population, respect neighborhood character and serve as a catalyst for the rest of the planning objective.		£		The alternatives contain different sets of changes that would accommodate existing population as well as additional growth, and act as a catalyst for other planning objectives. The alternatives would have varying degrees of impact on existing neighborhood character.

HOUSING PLANS AND POLICIES

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
PUGET SOUND REGIONAL COUNCIL, ADOPTED MULTICOUNTY FRAMEWORK GOALS AND POLICIES				
<i>Housing</i> RH-4 Provide a variety of choices in housing types to meet the needs of all segments of the population. Achieve and sustain an adequate supply of low-income, moderate-income and special needs housing located throughout the region.	£			The alternatives are intended to aid in achieving housing for all segments of the population. See the Housing section for further discussion.
KING COUNTY GROWTH MANAGEMENT PLANNING COUNCIL, COUNTYWIDE PLANNING POLICIES				
<i>Human and Community Services</i> CC-4 Human and community service planning activities shall support Countywide Planning Policies and the Countywide land development pattern.		£		Existing Downtown development regulations include methods of addressing human and community service demands generated by future development. The alternatives only peripherally relate to this policy in that additional development capacity would be created by Alternatives 1, 2 and 3.

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>CC-5 All jurisdictions shall identify essential community and human services and include them in land use, capital improvement, and transportation plans.</p> <p>Affordable Housing</p> <p>FW-28 All jurisdictions shall provide for a diversity of housing types to meet a variety of needs and provide for housing opportunities for all economic segments of the population. All jurisdictions shall cooperatively establish a process to ensure an equitable and rational distribution of low-income and affordable housing throughout the County in accordance with land use policies, transportation, and employment locations.</p> <p>AH-1 All jurisdictions shall plan for housing to meet the needs of all economic segments of the population. Each jurisdiction shall specify, based on the projected number of net new housing units anticipated in its comprehensive plan, the estimated number of units which will be affordable for the following income segments: Zero to 50% of the Countywide median household income, 50 to 80% of median, 80 to 120% of median, and above 120% of median. The estimates for housing affordable to households below 80% of median-income shall be consistent with Countywide objectives for low and moderate income housing in policy AH-2. The estimated number of units for each income segment shall be reported to the Growth Management Planning Council following adoption of the comprehensive plan, for the purpose of Countywide monitoring of capacity for housing development.</p> <p>Within the Urban Growth Area, each jurisdiction shall demonstrate its ability to accommodate sufficient, affordable housing for all economic segments of the population. Local actions may include zoning land for development of sufficient densities, revising development standards and permitting procedures as needed to encourage affordable housing, reviewing codes for redundancies and inconsistencies, and providing opportunities for a range of housing types, such as accessory dwelling units, manufactured homes, group homes and foster care facilities, apartments, townhouses and attached single family housing.</p> <p>AH-2 All jurisdictions shall share the responsibility for achieving a rational and equitable distribution of affordable housing to meet the housing needs of low and moderate-income residents in King County. The distribution of housing affordable to low and moderate-income households shall take into consideration the need for proximity to lower wage employment, access to transportation and human</p>	<p></p> <p>£</p> <p>£</p> <p>£</p>	<p>£</p>	<p></p>	<p>Same response as above.</p> <p>All alternatives would assist with the creation of new housing for a range of income groups within Downtown Seattle, consistent with land use and transportation policies and in close proximity to employment.</p> <p>See the Housing section for discussion of the number of new units that could be built in Downtown Seattle at income levels below 80% of median income. This EIS will contribute to the City's understanding of its ability to accommodate sufficient affordable housing for all economic segments of the population.</p> <p>All alternatives would create opportunities for additional affordable housing in close proximity to employment, transportation networks and human services. See the Transportation, Energy, Sewer and Water sections of this EIS for discussion of the adequacy of infrastructure to accommodate housing.</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>services, and the adequacy of infrastructure to support housing development; recognize each jurisdiction's past and current efforts to provide housing affordable to low and moderate-income households; avoid over-concentration of assisted housing; and increase housing opportunities and choices for low and moderate-income households in communities throughout King County. Each jurisdiction shall give equal consideration to local and Countywide housing needs.</p> <p><u>A. Existing Needs for Affordable Housing</u> Each jurisdiction shall participate in developing Countywide housing resources and programs to assist the large number of low and moderate-income households who currently do not have affordable, appropriate housing. These Countywide efforts will help reverse current trends which concentrate low-income housing opportunities in certain communities, and achieve a more equitable participation by local jurisdictions in low income housing development and services. Countywide efforts should give priority to assisting households below 50% of median-income that are in greatest need and communities with high proportions of low and moderate income residents.</p> <p>...Countywide programs should provide the following types of housing and related services:</p> <ol style="list-style-type: none"> 1. Low-income housing development, including new construction, acquisition, and rehabilitation; 2. Housing assistance, such as rental vouchers and supportive services; 3. Assistance to expand the capacity of nonprofit organizations to develop housing and provide housing related services; 4. Programs to assist homeless individuals and families; 5. Programs to prevent homelessness; and 6. Assistance to low and moderate-income home buyers. <p><u>B. Future Needs for Affordable Housing</u> Each jurisdiction shall specify the range and amount of housing affordable to low and moderate-income households to be accommodated in its comprehensive plan. Each jurisdiction shall plan for a number of housing units affordable to households with incomes between 50 and 80% of the County median household income that is equal to 17 percent of its projected net household growth. In addition, each jurisdiction shall plan for a number of housing units affordable to households with incomes below 50% of median income that is either 20% or 24% of its projected net household growth. For this housing, the target percentage shall be determined using the</p>				<p>All alternatives would assist in developing housing to assist low-income housing opportunities. Both the programs studied under this EIS and other City programs assist in providing the services described.</p> <p>All alternatives would support existing incentive programs for the creation of low-income housing.</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>Affordable Housing Job/Housing Index developed using Census-based information, which is contained in Appendix 3. Each jurisdiction shall show in its comprehensive plan how it will use policies, incentives, regulations and programs to provide its share of housing affordable to low and moderate-income households. Each jurisdiction should apply strategies which it determines to be most appropriate to the local housing market. For example, units affordable to low and moderate income households may be developed through new construction, projects that assure long-term affordability of existing housing, or accessory housing units added to existing structures.</p> <p>Local actions may include:</p> <ol style="list-style-type: none"> 1. Identifying the costs to develop and preserve subsidized housing and other low-cost housing not provided by private development in the local housing market, and identifying sources of funding; 2. Revising land use regulations as needed to remove any unreasonable requirements that may create barriers to siting and operating housing for special needs groups. Special needs housing serves persons, who, by virtue of disability or other circumstances, face difficulty living independently and require supportive services on a transitional or long-term basis; and 3. Adopting land use incentives programs or other regulatory measures to encourage private and nonprofit development 4. Small, fully built cities and towns that are not planned to grow substantially under Growth Management Act may work cooperatively with other jurisdictions and/or subregional housing agencies to meet their housing targets. In areas identified as city expansion areas, King County and cities should plan cooperatively for affordable housing development and preservation. <p>AH-3 Each jurisdiction shall evaluate its existing resources of subsidized and low-cost non-subsidized housing and identify housing that may be lost due to redevelopment, deteriorating housing conditions, or public policies or actions. Where feasible, each jurisdiction shall develop strategies to preserve existing low-income housing and provide relocation assistance to low-income residents who may be displaced.</p> <p><i>Regional Finance and Governance</i> <u>Finance and Governance Plans</u></p> <p>RF-3 All jurisdictions shall adopt policies to stimulate construction or preservation of affordable housing in Centers, infill and redevelopment areas.</p>	<p>£</p> <p>£</p>			<p>See the Housing section of this EIS. Under all alternatives, some existing housing may be lost to redevelopment. The amount of housing that could be lost would not change by alternative. The City currently has programs in place to preserve existing housing and provide relocation assistance to low-income tenants.</p> <p>See responses above.</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
SEATTLE'S COMPREHENSIVE PLAN				
<p><i>Housing Element</i></p> <p>The Housing Element of Seattle's Comprehensive Plan has 17 goals and 48 policies addressing the following topics:</p> <ul style="list-style-type: none"> Accommodating growth and maintaining affordability; Encouraging housing diversity and quality; and Providing housing affordable to low-income households. <p>The goals and policies most pertinent to the proposal are discussed below.</p>	£			The alternatives appear to be consistent with the overall direction of housing policies in the City's Comprehensive Plan.
<p>Goal HG4 Achieve a mix of housing types attractive and affordable to a diversity of ages, incomes, household types, household sizes, and cultural backgrounds.</p>	£			See the response to FW-28, above.
<p>Goal HG14 Preserve existing low-income housing, particularly in urban centers and urban villages where most redevelopment pressure will occur.</p>	£			See the response to FW-28, above.
<p>Policy H2 Maintain sufficient zoned development capacity to accommodate Seattle's projected share of King County household growth over the next 20 years as provided for and described in the Land Use Element.</p>	£			The alternatives would provide additional development capacity that would aid in accommodating future residential growth for more than 20 years.
<p>Policy H8 Consider using zoning, land use regulations and policies, and infrastructure requirements for, among other objectives, providing incentives that encourage public agencies, private property owners and developers to build housing that helps fulfill City policy objectives for housing. [Examples of development incentives: height and density bonuses, minimum densities and transferable development rights.]</p>	£			The alternatives are examples of zoning and regulatory changes intended to further encourage private owners, developers and public agencies to build additional housing and help fulfill City policy objectives for housing. This EIS analyzes the varying degrees of impacts that the alternatives would have on land use and housing.
<p>Policy H30 Promote the continued production and preservation of low-income housing through existing incentive zoning mechanisms, which include density and height bonuses and the transfer of development rights...Allow for new or different incentive zoning provisions designed to produce or preserve low-income housing in Downtown if they are adopted as part of neighborhood or subarea plans or where needed to achieve housing development goals.</p>	£			All alternatives would continue to promote the production and preservation of low-income housing through existing incentive zoning mechanisms.
<p>Policy H33 Encourage affordable housing citywide... C) Encourage the production of housing affordable to households of all incomes, with particular emphasis on households with incomes from 0-50% of median income in centers and villages with high land values and/or relatively little existing rental housing</p>	£			All alternatives would continue to support the production of housing affordable to households with incomes from 0%-50% of median income in the Downtown Urban Center, a center with high land values. The Downtown neighborhood would continue to

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>affordable to households with incomes from 0-50% of median income.</p> <p>D) Encourage all neighborhoods and urban villages to participate in the City's commitment to affordable housing, whether through neighborhood planning, station area planning, or other local planning and development activities.</p> <p><i>Downtown Urban Center Goals and Policies</i></p> <p><u>Downtown Housing Affordability Goals</u></p> <p>Policy DT-HP1 Address the desired balance of housing affordable to the full range of household income levels through a collaborative effort between the City and Downtown neighborhoods. Seek to achieve the Downtown Urban Center housing growth target and goals for the number and affordability of Downtown housing units in the adopted policies of the Downtown neighborhood plans.</p> <p>Balance adopted neighborhood plan goals to achieve overall housing goals for Downtown. Consider these goals as the City develops and implements housing programs and as City funds and other public resources are distributed. Promote the maintenance and preservation of housing affordable to low- and low-moderate income households.</p> <p><u>Housing Development</u></p> <p>Policy DT-HP2 To strive to achieve an adequate balance in employment and housing activity and to meet Downtown housing goals, promote public and private actions for developing a significant supply of affordable Downtown housing to help meet demand generated by Downtown employment growth.</p> <p><i>Public/Private Partnerships</i></p> <p>Work with Downtown neighborhoods, businesses, and public and non-profit organizations to meet Downtown housing goals, especially with regard to implementing programs to develop and maintain affordable housing units.</p> <p><i>Light Rail Station Area Development</i></p> <p>Review all light rail station area development plans to identify opportunities for high-density transportation efficient housing in these areas and to address potential impacts on existing housing resources.</p> <p>Policies DT-HP3 through 7 address other housing-related topics including:</p> <p>Use of housing bonuses to encourage provision of housing for households with incomes 0 to 80 percent of the regional median income.</p>	<p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p>			<p>participate in the City's commitment to affordable housing.</p> <p>This EIS responds to neighborhood interest in achieving the desired balance of housing affordable to the full range of income levels. The housing growth target for Downtown Seattle could be achieved under any of the alternatives.</p> <p>All alternatives would continue to support public and private actions for developing affordable housing to meet demand generated by employment growth.</p> <p>The alternatives would promote future development (largely by the private sector) of additional housing Downtown, including in affordable categories.</p> <p>Alternatives 1, 2 and 3 would increase allowable height and density in areas near the Convention Center bus/light rail station, generally supporting the concept of denser development at and near high-capacity transportation stations.</p> <p>All alternatives would support these policies. Housing bonuses would continue to encourage the provision of housing for households in the 0% to 80% income range. New development using the housing</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>Promotion of new development serving households of mixed incomes.</p> <p>Maintaining existing housing resources through use of housing TDR, preservation of federally-assisted housing units, anti-neglect measures, and publicly-supported housing programs.</p> <p>Commercial Core Goals and Policies</p> <p>Policy COM-P4 Seek to provide housing affordable to households with a range of income levels.</p> <p>Denny Triangle Goals and Policies</p> <p>Housing</p> <p>Goal DEN-G1 A diverse residential neighborhood with an even distribution of income levels.</p> <p>Policy DEN-P1 Seek an even distribution of household income levels.</p> <p>Policy DEN-P2 Explore the use of bonuses, zoning, TDRs and City investment to encourage housing throughout the Denny Triangle neighborhood.</p> <p>Policy DEN-P3 Maintain a supply of low-income units in the Denny Triangle neighborhood throughout the life of the plan.</p> <p>Belltown Goals and Policies</p> <p>Goal B-G1 A neighborhood where growth provides a varied housing stock and a wide range of affordability</p> <p>Policy B-P4 Support the neighborhood's goals for housing affordability.</p> <p>Policy B-P7 Strive to preserve the existing housing stock, including older buildings, subsidized units, and affordable, unsubsidized units.</p>	<p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p>			<p>bonus program would be encouraged to serve a range of incomes, and resources would remain to preserve existing housing.</p> <p>This policy is similar to policies in the City's Comprehensive Plan. See the responses to policies in the Housing Element, above.</p> <p>All alternatives will promote, to some extent, a residential neighborhood with housing for a range of incomes.</p> <p>An even distribution of household income ranges may be achieved in the neighborhood as additional market-rate housing is built in this neighborhood that currently has a high percentage of subsidized units.</p> <p>The alternatives would all continue to support the use bonuses, zoning and TDRs to encourage housing in the Denny Triangle. Alternative 3 would use zoning most effectively to encourage housing, whereas Alternative 1 would eliminate the TDC program that currently encourages housing in the neighborhood.</p> <p>All alternatives will support the retention of existing low-income units in the neighborhood.</p> <p>All alternatives will promote the development of additional housing at a wide range of housing types.</p> <p>All alternatives will support the development of additional affordable housing Downtown.</p> <p>All alternatives would support existing tools to preserve the existing housing stock.</p>

LAND USE PLANS AND POLICIES

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
PUGET SOUND REGIONAL COUNCIL: ADOPTED MULTICOUNTY FRAMEWORK GOALS AND POLICIES				
<i>Urban Growth Areas</i> RG-1 Locate development in urban growth areas to conserve natural resources and enable efficient provision of services and facilities. Within urban growth areas, focus growth in compact communities and centers in a manner that uses land efficiently, provides parks and recreation areas, is pedestrian-oriented, and helps strengthen communities. Connect and serve urban communities with an efficient, transit-oriented, multimodal transportation system.	£			All alternatives are consistent. Alternatives with more development capacity would contribute to greater efficiencies and would also generate additional transit and park/recreation demands.
<i>Contiguous and Orderly Development</i> RC-2 Coordinate provision of necessary public facilities and service to support development and to implement local and regional growth planning objectives. Provide public facilities and services in a manner that is efficient, cost-effective, and conserves resources. Emphasize interjurisdictional planning to coordinate plans and implementation activities and to achieve consistency.	£			All alternatives are consistent. Alternatives with more development capacity in the established Downtown Urban Center would contribute to greater efficiencies, facilities demands and resource conservation.
<i>Open Space, Resource Protection and Critical Areas</i> RO-6 Use rural and urban open space to separate and delineate urban areas and to create a permanent regional greenspace network. Protect critical areas, conserve natural resources, and preserve lands and resources of regional significance.	£		£	Alternative 1 would compromise the usefulness of the Transfer of Development Credits (TDC) program meant to help preserve rural lands by transferring density to Denny Triangle area projects. Alternative 2 would significantly reduce the area usable for TDC. Alternative 3 would have less impact on TDC than Alternatives 1 or 2. Alternative 4 (No Action) would maintain the current status of the TDC program.
<i>Additional Adopted Multicounty Policies Related to Regional Guidelines and Principles</i>				
<u>Concentration of economic activity</u> RE-7.6 Promote economic opportunity by encouraging employment growth in all centers, and foster strength and sustainability by supporting centers-based economic strategies identified in local comprehensive plans and countywide planning policies.	£			All alternatives are consistent. The proposal emphasizes the economic prominence of the Downtown Urban Center.
<u>Residential density</u> RG-1.9 Encourage growth in compact, well-defined urban centers which: 1. enable residents to live near jobs and urban	£			All alternatives are consistent. The alternatives promote additional residential development within the Downtown Urban

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>activities;</p> <p>2. help strengthen existing communities; and</p> <p>3. promote bicycling, walking and transit use through sufficient density and mix of land uses.</p> <p>Connect and serve urban centers by a fast and convenient regional transit system. Provide service between centers and nearby areas by an efficient, transit-oriented, multi-modal transportation system.</p> <p>RG-1.10 Provide opportunities for creation of town centers in urban areas that:</p> <p>1. serve as focal points for neighborhoods and major activity areas;</p> <p>2. include a mix of land uses, such as pedestrian-oriented commercial, transit stops, recreation and housing; and</p> <p>3. encourage transit use, biking and walking through design and land use density.</p>	<p>Ⓛ</p>			<p>Center. Alternative 3 suggests a somewhat different zoning approach than the other alternatives, by promoting zoning that would encourage residential uses in some peripheral areas of Downtown.</p> <p>All alternatives are consistent. The alternatives include various zoning changes meant to encourage positive forms and patterns of urban development in the neighborhoods of Downtown.</p>
KING COUNTY GROWTH MANAGEMENT PLANNING COUNCIL: COUNTYWIDE PLANNING POLICIES				
<p><u>Land Use Pattern</u></p> <p><u>Rural Areas</u></p> <p>LU-14 King County may allow transfer of density from Rural Area properties to other Rural or Urban Area properties in order to</p> <p>1. secure a substantial dedication of significant land to the King County Open Space System;</p> <p>2. provide a permanent protection which is greater than that available through existing regulation to a significant natural resource; or</p> <p>3. encourage retention of resource-based uses in the Rural Area.</p> <p>The County shall develop a mechanism to accomplish these objectives and provide that:</p> <p>1. Lands dedicated are first determined to be suitable for inclusion within the King County Open Space System;</p> <p>2. The protected natural resource is first determined to be of significance to King County citizens and the protection afforded is materially superior to that provided by existing regulations;</p> <p>3. The resulting development is located in proximity to the lands to be dedicated to public ownership or where it can otherwise be shown that the residents of this development will share in an overriding public benefit to be derived from the preservation of the dedicated lands or the protection of the natural resource;</p> <p>4. The resulting development within the Rural Area maintains rural character; and</p> <p>5. There shall be no net increase in density within the Rural Area as a result of this density transfer.</p>	<p>Ⓛ</p>		<p>Ⓛ</p>	<p>As noted above in the response to RO-6, each of the alternatives except Alternative 4 (No Action) would negatively affect the usefulness of the TDC program that encourages preservation of rural lands in King County through transfers of density to the Denny Triangle vicinity. Alternative 3 would have less overall impact on TDC than Alternatives 1 and 2.</p>

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Urban Areas				
FW-11 The land use pattern for King County shall protect the natural environment by reducing the consumption of land and concentrating development. An Urban Growth Area, Rural Areas, and resource lands shall be designated and the necessary implementing regulations adopted. This includes Countywide establishment of a boundary for the Urban Growth Area. Local jurisdictions shall make land use decisions based on the Countywide Planning Policies.	£			All alternatives are consistent. Providing additional development capacity within the Downtown Urban Center would conceptually reduce pressure for suburban-fringe growth that consumes more land and has greater environmental impacts.
FW-12 The Urban Growth Area shall provide enough land to accommodate future urban development. Policies to phase the provision of urban services and to ensure efficient use of the growth capacity within the Urban Growth Area shall be instituted.	£			All alternatives are consistent. Providing additional development capacity within the Downtown Urban Center would help assure enough capacity for future growth, and contribute to more efficient use of urban services.
Phasing Development within the Urban Growth Area				
LU-28 Within the Urban Growth Area, growth should be directed as follows: first, to Centers and urbanized areas with existing infrastructure capacity; second, to areas which are already urbanized such that infrastructure improvements can be easily extended; and last, to areas requiring major infrastructure improvements.	£			All alternatives are consistent. Providing additional development capacity within Downtown would be consistent with the urban center emphasis in this policy.
Urban and Manufacturing/Industrial Centers				
FW-14 Within the Urban Growth Area, a limited number of Urban Centers which meet specific criteria established in the Countywide Planning Policies shall be locally designated. Urban Centers shall be characterized by all of the following: 1. Clearly defined geographic boundaries; 2. Intensity/density of land uses sufficient to support effective rapid transit; 3. Pedestrian emphasis within the Center; 4. Emphasis on superior urban design which reflects the local community; 5. Limitations on single-occupancy vehicle usage during peak hours or commute purposes; 6. A broad array of land uses and choices within those uses for employees and residents; 7. Sufficient public open spaces and recreational opportunities; and 8. Uses which provide both daytime and nighttime activities in the Center.	£			All alternatives are consistent. Providing additional development capacity within the Downtown Urban Center would be consistent with the emphases in this policy.
FW-16 Urban and Manufacturing/Industrial Centers shall be complemented by the land use pattern outside the Centers but within the Urban Area. This area shall include: urban residential neighborhoods; Activity Areas, business/office parks, and an urban open space network. Within these areas, future		£		The City's Comprehensive Plan and zoning are consistent with this policy. The alternatives would not significantly affect the land use patterns outside the Downtown Urban Center.

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<p>development shall be limited in scale and intensity to support the Countywide land use and regional transportation plan.</p> <p>Urban Centers Designation Process</p> <p>LU-39 The location and number of Urban Centers in King County were determined through the joint local and Countywide adoption process, based on the following steps:</p> <ol style="list-style-type: none"> The Countywide Planning Policies include specific criteria for Urban Centers; Jurisdictions electing to contain an Urban Center provided the Growth Management Planning Council with a statement of commitment describing the city's intent and commitment to meet the Centers' criteria defined in these policies and a timetable for the required Centers Programmatic Environmental Impact Statement or identification of existing environmental documentation to be used; and The Growth Management Planning Council reviewed the Centers nominated by local jurisdictions consistent with policy FW-1, and the following criteria: <ol style="list-style-type: none"> The Center's location in the region and its potential for promoting a Countywide system of Urban Centers; The total number of Centers in the County that can be realized over the next 20 years, based on 20 years projected growth; The type and level of commitments that each jurisdiction has identified for achieving Center goals; and Review of other jurisdictional plans to ensure that growth focused to Centers is assured. [The Growth Management Planning Council confirmed the Downtown Seattle Urban Center.] <p>Urban Centers Criteria</p> <p>LU-40 Each jurisdiction which has designated an Urban Center shall adopt in its comprehensive plan a definition of the Urban Center which specifies the exact geographic boundaries of the Center. All Centers shall be up to one and a half square miles of land. Infrastructure and services shall be planned and financed consistent with the expected rate of growth. For the purposes of achieving long-range development pattern that will provide a successful mix of uses and densities that will efficiently support high-capacity transit, each Center shall have planned land uses to accommodate:</p> <ol style="list-style-type: none"> A minimum of 15,000 jobs within one-half mile of a transit center; At a minimum, an average of 50 employees per gross acre; and At a minimum, an average of 50 households per 	<p>£</p> <p>£</p>			<p>All alternatives are consistent. Providing additional development capacity within the Downtown Urban Center would help support the Urban Centers strategy in this policy.</p> <p>All alternatives are consistent. Providing additional development capacity within the Downtown Urban Center would help support the Urban Centers strategy.</p>

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gross acre.				
<p>LU-45 Jurisdictions' comprehensive plans for Urban Centers shall demonstrate compliance with the Urban Centers criteria. In order to promote urban growth within Centers, the Urban Center plan shall establish strategies which:</p> <ul style="list-style-type: none"> a. Support pedestrian mobility, bicycle use and transit use; b. Achieve a target housing density and mix of use; c. Provide a wide range of capital improvement projects, such as street improvements, schools, parks and open space, public art and community facilities; d. Emphasize superior urban design; e. Emphasize historic preservation & adaptive reuse of historic places; f. Include other local characteristics necessary to achieve a vital Urban Center; and g. Include facilities to meet human service needs. 	£			All alternatives are consistent. Providing additional development capacity within the Downtown Urban Center would help support the Urban Centers strategy.
<p>Incentives for Urban Centers</p> <p>LU-47 and LU-48 Set requirements for the development of: regional funding strategies for Urban Centers and Programmatic Environmental Impact Statements for the Urban Centers, respectively.</p>	£			All alternatives are consistent. This programmatic EIS may contribute to streamlining SEPA obligations for future development, and assist in determining funding strategies for needed improvements.
<p>LU-49 In support of Centers, additional local action should include:</p> <ul style="list-style-type: none"> a. Strategies for land assembly within the Center, if applicable; b. Infrastructure and service financing strategies and economic development strategies for the Centers; c. Establishing expected permit processing flow commitments consistent with the PEIS; and d. Establishing a streamlined and simplified administrative appeal process with fixed and certain timelines. 	£			All alternatives are consistent. Providing additional development capacity within the Downtown Urban Center would help support the Urban Centers strategy.
<p>LU-50 Jurisdictions should consider additional incentives for development within Urban Centers such as :</p> <ul style="list-style-type: none"> a. Setting goals for maximum permit review time and give priority to permits in Urban Centers; b. Policies to reduce or eliminate impact fees; c. Simplifying and streamlining of the administrative appeal processes; d. Eliminating project-specific requirements for parking and open space by providing those facilities for the Urban Center as a whole; and e. Establishing a bonus zoning program for the provision of urban amenities. 	£	£		Alternatives 1, 2 and 3 would conceptually provide additional incentive for development within the Downtown Urban Center. This area has bonus-oriented zoning already. However, the alternatives have little relationship to the other strategies listed in this policy.
<p>Community Character and Open Space</p> <p>FW-24 All jurisdictions shall support the County's existing diversity of places to live, work and recreate</p>	£			All alternatives are consistent. Providing additional development capacity within the

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<p>and the ethnic diversity of our communities. The Countywide development pattern shall include sufficient supply of quality places for housing, employment, education, recreation, and open space and the provision of community and social services.</p> <p>FW-25 Each Urban Area shall be characterized by superior urban design as locally defined.</p> <p>Urban Design CC-3 All jurisdictions shall promote a high quality of design and site planning in publicly-funded construction (such as civic buildings, parks, bridges, transit stops), and in private development.</p> <p>Open Space FW-27 All jurisdictions shall cooperatively identify, establish, protect and steward urban and rural open space corridors of regional significance.</p> <p>CC-6 A regional open space system shall be established to include lands which: a. Provide physical and/or visual buffers such as open spaces which help to separate incompatible uses, distinguish the Urban and Rural Areas, define Urban Growth Boundaries, or establish the character of a neighborhood, community, city or region; b. Provide active and passive outdoor recreational opportunities which are compatible with the environmental and ecological values of the site; and/or c. Contain natural areas, habitat lands, natural drainage features, and/or other environmental, cultural, and scenic resources.</p> <p>CC-7 All jurisdictions shall work cooperatively to identify and protect open space corridors of regional significance. This process shall include: a. Identification of regional open space lands and corridors which form a functionally and physically connected system with environmental, ecological, recreational and aesthetic significance and which is readily accessible to our urban populations; b. Identification of implementation strategies and regulatory and non-regulatory techniques to protect the lands and corridors, including collaboration and</p>	<p>ⓧ</p>	<p>ⓧ</p> <p>ⓧ</p> <p>ⓧ</p> <p>ⓧ</p>		<p>Downtown Urban Center would generally support the housing, employment and community/social service aims of this policy. See the Land Use and Housing sections for additional discussion.</p> <p>All alternatives are consistent. See the urban design/aesthetic analyses in this EIS for further discussion of the relative impacts of the alternatives.</p> <p>The alternatives have only a limited relationship to the quality of design and site planning for individual projects. However, the alternatives would allow different scales of development in various portions of Downtown. See the Land Use, urban design and aesthetic analyses in this EIS for further discussion of the relative impacts of the alternatives.</p> <p>The alternatives have little if any direct relationship to urban or rural open space corridors of regional significance. However, the alternatives (except No Action) would have varying impacts on the viability of the TDC program that aids in rural land preservation.</p> <p>Same response as above.</p> <p>Same response as above.</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>coordination with land trusts and other land preservation organizations; and</p> <p>c. Development of management plans and strategies to sustain the corridors' open space benefits and functions of the preserved lands and corridors.</p> <p>CC-8 Water bodies and rivers of the Puget Sound region form an important element of the open space system. Jurisdictions shall work to protect visual access to water bodies and rivers, and provide for physical access where appropriate.</p> <p>CC-10 The conceptual map of open space systems contained in the 1988 King County Open Space Plan shall be used as the planning basis for regional open space lands and corridors. All jurisdictions will work cooperatively to revise and supplement this map to direct the protection of these valuable resources throughout the County.</p> <p>CC-11 All jurisdictions shall work cooperatively to ensure parks and open spaces are provided as development and redevelopment occur.</p> <p>CC-12 All jurisdictions shall use the full range of regulatory and land preservation tools available to create, maintain and steward the regional open space system which has been cooperatively identified.</p> <p>CC-13 All jurisdictions shall develop coordinated level-of-service standards for the provision of parks and open spaces.</p>		<p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p>		<p>The alternatives would have varying aesthetic/ view impacts related to building bulk, but would not prevent reasonable visual and physical access to water bodies and rivers, as addressed in this policy.</p> <p>See the response to FW-27 above.</p> <p>The alternatives do not explicitly address parks and open spaces, but neighborhood plans and code requirements address envisioned park/open space improvements. See the Pedestrian Amenities/Open Space section for further discussion.</p> <p>See the response to FW-27 above.</p> <p>See the response to FW-27 above.</p>
SEATTLE'S COMPREHENSIVE PLAN: TOWARD A SUSTAINABLE SEATTLE				
<p>Land Use Element</p> <p>Preferred Development Pattern - Urban Village strategy</p> <p>The "Urban Village strategy" is the main organizing theme of the City's land use planning in the Comprehensive Plan. Rather than dispersed growth along arterials or spread throughout the single-family residential areas of the city, this strategy favors concentration of a majority of growth in the few larger urban centers and the more widespread urban villages. The intent is to accommodate growth by building on successful aspects of the city's existing urban character, continuing the development of concentrated, pedestrian friendly mixed-use urban villages of varied intensities at appropriate locations throughout the city. The urban village strategy is intended to aid in delivery of infrastructure and services, foster a development pattern that is more</p>	Ⓔ			<p>All alternatives are consistent. The intent to encourage compact mixed-use growth in Urban Centers, and emphasis on a strong Downtown Urban Center are well-established. Many of the objectives and benefits of this strategy will be achieved over a long period of time, probably beyond even 2020. This EIS contributes to an understanding of the relationship of the alternatives to the City's Comprehensive Plan and other goals and policies.</p>

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<p>pedestrians and transit users, to support urban villages.</p> <p>Land Use Regulations—Land Use Map—Downtown Area</p> <p>Goal LG 51 indicates, “Accommodate within Downtown areas the broadest mix of activities and greatest intensity of development in the region.”</p> <p>Goal LG 77 echoes this except it advises “promoting” this land use pattern.</p> <p>Policy L61 associated with this goal indicates, “Promote the continued economic vitality of the Downtown, with particular attention to the retail core, and encouragement of hospitality uses.”</p> <p>Policies L 258-260 define Downtown zones, the primary land use functions, and call for inclusion of an open space requirement. The land use functions include office, retail, mixed-use commercial, mixed-use residential, harborfront and industrial.</p> <p>Open Space Network</p> <p>This section of the Land Use Element describes the City’s overall goals and policies for provision of open space throughout the city. It supports availability of open space for passive and active recreational uses, as an amenity in denser populated areas, to protect the environment, for shoreline access, and to facilitate bicycling and walking.</p> <p>Policy L296 indicates, “Maximize the potential of the street system for public use through the reclamation of portions of public right-of-way, where appropriate, for open space, waterfront access, tree planting and substantial landscaping, pedestrian amenities, recreation space, view corridors and boulevards.”</p> <p>Policy L299 states, “Consider open space provisions identified in adopted neighborhood plans, including specific open space sites and features, in guiding the expansion of the open space network.</p> <p>Policy L300 states, in part, expansion of the open space network should consider locations for new facilities in “urban villages targeted for largest share of residential growth; especially those existing high density residential areas presently not served according to the population-based or distribution goals</p>	<p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p>	<p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p>	<p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p>	<p>other regulations and policies, help preserve historically significant elements of Downtown. Given these protections, no significant adverse impacts on these resources are anticipated.</p> <p>The proposed provision of additional height and density would contribute to the continued economic vitality of Downtown by accommodating a greater amount of long-term commercial and residential growth than under current zoning.</p> <p>These alternatives would not directly affect the retail core; it may aid in accommodating growth in hospitality uses, given the proximity of some affected areas to the retail core and convention center areas that attract many visitors.</p> <p>These alternatives would affect the Downtown Office Core and Downtown Mixed Commercial zones. Dominant uses in these areas will include office, retail and other commercial uses, as well as mixed-use structures including residences.</p> <p>The alternatives do not explicitly address parks and open spaces, but neighborhood plans and code requirements address required and envisioned park/open space improvements. See the Open Space discussion in Chapter 3.</p> <p>Encouraging future development would encourage the achievement of pedestrian/ open space improvements (such as Green Streets) in the affected areas, consistent with neighborhood plans. See the Land Use section for further discussion.</p>

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<p>for urban village open space.”</p> <p><i>Downtown Urban Center Goals and Policies</i></p> <p>This section, beginning on page NP-55 of the Comprehensive Plan, is the current version of Downtown Land Use Policies. Prior versions of these policies were included by reference in the Land Use Code, and were based on the prior 1984 <i>Downtown Land Use and Transportation Plan</i>.</p> <p>The text defines 13 goals, addressing these themes:</p> <ul style="list-style-type: none"> X <u>Pre-eminent Regional Center</u> – Maintaining Downtown Seattle as the pre-eminent regional urban center, compactly developed and supporting a diversity of uses. X <u>Economic Development</u> – Encouraging economic development. X <u>Culture and Entertainment</u> – Reinforcing Downtown as a cultural and entertainment center. X <u>Urban Form</u> – Seeking to enhance the physical form of Downtown. X <u>Land Use Patterns</u> – Accommodating future office, retail, residential and commercial mixed-use areas in ways that build upon the existing urban form, according to concept maps on pages NP-58 and 59 of the Comprehensive Plan. X <u>Shorelines</u> – Revitalizing the Harborfront areas. X <u>Transportation</u> - Supporting transportation improvements that complement and reinforce desired land use patterns, and encourage transit and pedestrian travel. X <u>Housing</u> – Seeking to expand housing opportunities in Downtown for people of all income levels, including affordable housing opportunities. X <u>Child Care and Human Services</u> – Addressing the increased demand for child care and other human services generated by increased employment growth Downtown. X <u>Public Safety</u> – Promoting public safety by encouraging well-designed streets and active public places. X <u>Neighborhood</u> – Seeking to enhance the varied character of Downtown neighborhoods. <p>Following the goals, the text contains numerous policies that are the fundamental policy basis for the regulations in the Land Use Code and other codes. The policy topics most relevant to this proposal are summarized below.</p> <p><u>Land Use District Function</u></p> <p>Policy DT-LUP4</p> <p><u>DOC1</u> – Area of most concentrated activity. The DOC-1 land use district is intended to:</p>	<p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p>	<p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p>	<p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p> <p>Ⓔ</p>	<p>All alternatives are consistent.</p> <p>These goals are consistent with the goals of the citywide urban village strategy, and provide somewhat more specific goals for the Downtown Urban Center. The goals support continuing and improving vitality, urban character, mixing of uses, housing opportunities for all income levels, safe conditions, a good transportation system, and better delivery of human services in the Downtown area.</p> <p>See the Land Use section for further discussion of impacts and relationship to plans and policies.</p> <p>The alternatives would continue the role of the DOC 1 zone as the area of most</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>a. Allow the highest density of commercial development Downtown, with development standards regulating building design to reduce adverse impacts, including impacts on sidewalks and other public areas;</p> <p>b. Accommodate a large share of Downtown's future employment growth within this district where the existing and planned infrastructure can accommodate growth; and</p> <p>c. Accommodate other uses, including housing, retail, hotels and cultural and entertainment facilities, that complement the primary office function while adding diversity and activity beyond the working day.</p> <p><u>DOC 2</u>—Areas adjacent to the office core appropriate for office expansion and where a transition in density to mixed use areas is desirable. The DOC 2 land use district is intended to:</p> <p>a. Accommodate major office development to reduce pressures for such development in the retail core and adjacent mixed use and residential areas.</p> <p>b. Accommodate a mix of other activities, in addition to primary office use, to add diversity, particularly beyond the hours of the normal working day, while providing for scale and density transitions to adjacent areas.</p> <p><u>DMC</u>—Areas adjacent to the office core, office expansion areas and retail core that provide a transition in the level of activity and scale of development. Areas designated DMC are characterized by a diversity of uses. The DMC land use district is intended to:</p> <p>a. Permit office and commercial use, but at lower densities than in the office areas;</p> <p>b. Encourage housing and other uses generating activity without substantially contributing to peak hour traffic; and</p> <p>c. Promote development diversity and compatibility with adjacent areas through a range of height limits.</p> <p>Locational Criteria</p> <p>Policy DT-LUP5 Apply district designations, as appropriate, to create or reinforce areas with distinctive functions and to provide desirable transitions between areas with different functions and levels of activity. Use the following locational criteria to guide establishing the district boundaries that define areas according to intended function:</p> <p><i>Scale and Character of Development.</i> ...Employ development standards that respect established patterns, both in physical scale and in nature of activity; or provide direction for the scale and character of future development to create the desired physical environment in some parts of Downtown where it is</p>	<p>£</p> <p>£</p> <p>£</p>		<p>£</p> <p>£</p> <p>£</p>	<p>concentrated activity with the highest permitted commercial densities. All of the alternatives support continued emphasis of DOC 1 as the highest density commercial core of Downtown. Building design would continue to be regulated in order to reduce impacts on sidewalks and other public areas. Other uses would continue to be accommodated in this area.</p> <p>The alternatives would be generally consistent with the purposes of the DOC 2 zone, as described in this section. The alternatives would accommodate and likely encourage major office development in the DOC 2 zone, and would accommodate the intent for a mix of other diverse uses. The Land Use, Height/Bulk/Scale and Housing sections further discuss the potential for impacts from future development patterns.</p> <p>The alternatives address DMC zones in different ways. Alternative 1 seeks relatively large proportional increases in allowable height and density, compared to the existing allowable height and density. Alternatives 2 and 4 propose no changes to DMC zones. Alternative 3 would encourage housing and development diversity in a way generally consistent with this policy. See the Land Use, Height/Bulk/ Scale and Housing sections for further discussion of potential impacts.</p> <p>The alternatives propose different levels of changes, primarily to provide direction for the scale and character of future development to create the physical environment desired for portions of Downtown such as the Denny Triangle.</p> <p>Alternative 1 would create the greatest difference between the existing development and zoned capacity. This would generate more potential for height, bulk and scale impacts and transportation impacts than the other alternatives. Alternatives 2 and 3 limit the proposed changes to fewer areas and/or</p>

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<p>appropriate to accommodate significant change.</p> <p><i>Transportation and Infrastructure Capacity.</i> Consider locations where the existing and planned transportation network can support additional trips generated by new development.</p> <p><i>Relationship to Surrounding Activity.</i> Consider relationships among major areas as a major factor in establishing land use district boundaries, including both well defined edges, such as I-5 or significant topographic changes, that clearly distinguish one area from another, as well as more subtle transitions resulting from a gradual change in use or development intensity.</p> <p>Land Use District Density</p> <p>Policy DT LUP8 Generally limit the density of uses that generate employment through a floor area ratio (FAR), and the density of residential uses generally through the combination of height and bulk regulations.</p> <p>Apply a base and maximum limit on permitted density, as expressed by a floor area ratio (FAR), in areas able to accommodate more intensive development provided that impacts associated with the added density are addressed. Reflect in the base FAR limit the City will accommodate without additional mitigation measures.</p> <p>Reflect in the maximum FAR limit the additional density above the base that may be allowed through bonuses or TDR, or both, as appropriate for the zone or district, if appropriate measures are taken to mitigate specified impacts.</p> <p>Consider density incentives to encourage development on smaller lots to add diversity to the scale of development in high density office core areas.</p> <p><i>Floor Area Limit Exemptions.</i> Allow exemptions from floor area ratio limits to recognize the lower impacts of certain uses and encourage certain uses that generate minimal peak period commute trips, support pedestrian activity and transit use, and contribute to the overall diversity of activity Downtown, increasing its attractiveness as a place to live, work, and recreate.</p> <p>Building Height</p> <p>Policy DT-UDP4 Regulate the height of new development generally to:</p> <ol style="list-style-type: none"> Accommodate desired densities of uses and communicate the intensity and character of development in different parts of Downtown; Protect the light, air and human scale qualities of the street environment, particularly in areas of 	<p>Ⓛ</p> <p>Ⓛ</p>			<p>lesser levels of change. Alternative 4 is the No Action alternative.</p> <p>See the Land Use, Height/Bulk/Scale and Transportation sections for further discussion of impacts.</p> <p>Same response as above.</p> <p>The alternatives differ in the relative intensity of use and transitions that are communicated by the proposed height limits, particularly in the Denny Triangle vicinity. Alternative 1 proposes the greatest increase in height (100 feet) in DMC zoned areas of the Denny Triangle, while Alternative 2 omits these</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>distinctive physical and/or historic character; and</p> <p>c. Provide transition to the edges of Downtown to complement the physical form, features and landmarks of the areas surrounding Downtown.</p> <p>Height Limits</p> <p>Policy DT-UDP5 Prescribe for all areas of Downtown specific height limits that reflect topographic conditions and a strong relation to the street pattern and the overall urban form of Downtown and adjacent areas. Use the following criteria in determining appropriate height limits and provisions for limited additions or exceptions:</p> <p>a. Transition. Generally taper height limits from an apex in the office core toward the perimeter of Downtown, to provide transitions to the waterfront and neighborhoods adjacent to Downtown.</p> <p>b. Existing Character. Through height limits, recognize and enhance the existing scale and unique character of areas within Downtown including the retail core, office core, the Pike Place Market, Belltown, the waterfront, Pioneer Square and the Chinatown/International District.</p> <p>c. Development Regulations. Coordinate development regulations with height limits.</p> <p>d. Boundaries. Coordinate height limits & land use district boundaries.</p> <p>e. Height Above Specified Limits. Increased height beyond the limits specified for Downtown zones may be considered only when the public purpose served by the additional height justifies higher buildings, and the height increase is generally consistent with the criteria above.</p> <p>Building Scale</p> <p>Policy DT UDP6 Employ development standards that guide the form and arrangement of large buildings to reduce shadow and wind impacts at the street level, promote a human scale, and maintain a strong physical relationship with the pedestrian environment. In areas where consistency of building form is important to maintaining an identifiable character and function, regulate building bulk to integrate new and existing development.</p> <p>Limit the bulk of tall buildings in residential areas to provide for light, air and views at street level and reduce the perceived scale of the buildings</p> <p>Vary development standards to reduce impacts of large-scale buildings by district consistent with the</p>	<p>£</p> <p>£</p>		<p>£</p> <p>£</p>	<p>increases, and Alternative 3 calls for different, lower height limits. Alternative 1 thus represents a greater extension of the taller, bulkier urban character of buildings in the core of Downtown to the northern edge of Downtown, and therefore less transition than proposed in Alternatives 2 and 3.</p> <p>Same response as above.</p> <p>Similar to the responses above, Alternative 1 proposes the greatest extension of a taller, bulkier character away from the Downtown core. Alternatives 2 and 4 propose no change in the DMC zones in Denny Triangle. Alternative 3 proposes more modest zoning changes intended to provide a greater residential emphasis in portions of the Denny Triangle.</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
desired scale and development pattern in the area.				
<u>Major New Downtown Open Spaces</u> Policy DT-OSP2 Support the addition of major new public open spaces to the Downtown open space network to meet the needs of Downtown's growing employment and residential populations...Open space projects to be considered for potential development in the future include the following: <u>Westlake Circle.</u> To provide a formal Downtown terminus of West-lake Avenue and complement the special character desire for this potential boulevard; and to better integrate the retail core with the Denny Triangle neighborhood, by locating public open space in the area bounded by Stewart Street, Olive Way, 5 th and 6 th Aves.		£		<p>The alternatives include different zoning for the Westlake Circle site, but do not include proposals for open space at this site. Alternative 1 proposes an increase in FAR from 10 to 14; Alternative 2 proposes an increase to 13 FAR; and Alternatives 3 and 4 would not change the allowable density at the Westlake Circle site.</p>
<u>Green Streets</u> Policy DT-OSP4 Accommodate active and passive pedestrian space on portions of existing street rights-of-way designated as Green Streets...In residential areas, generally develop Green Streets to reinforce neighborhood character...In office and mixed use areas, improve Green Streets to provide a focus for new development and add open space for the enjoyment of workers, residents, and shoppers. Encourage interesting street level uses and pedestrian amenities to enliven the Green Street space and lend a special identity to the surrounding area.	£			<p>Encouraging future development would encourage the achievement of pedestrian/open space improvements (such as Green Streets) in the affected areas, consistent with neighborhood plans. See the Land Use section for further discussion of open space impacts.</p>
<u>Neighborhood Livability</u> Policy DT-HP7 In addition to providing for housing, pursue strategies to enhance the livability of Downtown for existing residents and to provide a high quality neighborhood environment to attract future residents, including encouraging, as appropriate, the location of public school facilities within or easily accessible to Downtown.	£	£		<p>The alternatives were defined as regulatory changes that would support neighborhood plan goals for achieving additional housing in the Denny Triangle and Commercial Core neighborhoods. The alternatives are generally consistent with the objective of achieving livable high-quality neighborhoods.</p>
<u>Commercial Core Goals and Policies</u> These goals and policies represent the Commercial Core's Neighborhood Plan, as expressed in the City's Comprehensive Plan beginning on Page NP-99.				
Goal COM-G1 Maintain the Commercial Core as a major employment center, tourist and convention attraction, shopping magnet, residential neighborhood, and regional hub of cultural and entertainment activities.	£			<p>The alternatives generally reinforce the designation of the Commercial Core as the central employment center, tourist/convention attraction, cultural/entertainment center, with retail and residential uses. Alternatives 1-3 would accommodate future development to a higher height and density, which may encourage redevelopment of some sites in this area.</p>
Goal COM-G2 Promote a unique neighborhood identity for the Commercial Core.	£			
Policy COM-P1 Explore revising public benefit bonuses and incentive programs regulated by the Land Use Code to stimulate desirable development	£			<p>Bonuses and TDR programs were altered by code changes in 2001. The proposed changes in zoning would represent an</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
and support neighborhood goals.				additional incentive for future development.
Policy COM-P2 Encourage variety in architectural character and building scale.	£			The proposed zoning changes would tend to encourage variety in building scale and architectural character, as would Design Review processes for future development.
Policy COM-P5 Guide development and capital projects throughout the entire Downtown area through development of a unified urban design strategy that provides a vision for new public facilities, waterfront connections, pedestrian environments, transit linkages and open space.		£		The alternatives to increase allowable height and density are only peripherally related to the objectives of this policy.
Policy COM-P6 Strive to take advantage of opportunities to develop new public open space and encourage development of a system of connected green spaces and open public areas.		£		The alternatives do not explicitly address parks and open spaces, but neighborhood plans and code requirements address required and envisioned park/open space improvements. See the Pedestrian Amenities/Open Space discussion in this EIS
Policy COM-P7 Use Green Streets and open space as a means to improve urban design character and provide amenities that support growth.		£		Same response as above.
Denny Triangle Goals and Policies				
Goal DEN-G2 A mixed-use neighborhood that combines commercial office space, retail sales and services, social and public services, and a residential population.	£			The alternatives are generally consistent with this goal.
Policy DEN-P4 Consider a variety of land use tools, including increased height limits and floor area ratios, design review processes, bonuses for public benefit features and exempting housing and retail space from floor area ratio to stimulate both residential and commercial development.	£			The alternatives directly respond to this goal and policy of the Denny Triangle Neighborhood Plan. The proposed height and density increases are intended to aid in stimulating future residential and commercial development. Other recent proposals have included changes to Downtown-related bonus and TDR provisions of the Land Use Code.
Policy DEN-P5 Encourage a mix of low, moderate and market rate affordable housing throughout the neighborhood, incorporated into projects that mix commercial and residential development within the same projects.	£			The proposed Land Use Code changes are intended to stimulate provision of mixed-use housing serving several household income levels. See the Housing section of this EIS for further discussion of impacts.
Policy DEN-P6 Support creation of "residential enclaves" of predominantly residential development along key green street couplets at 9 th and Terry Avenues and Bell and Blanchard Streets identifiable as residential neighborhoods by small parks, improved streetscapes, retail functions and transportation improvements that support neighborhood residents and employees alike.	£			The alternatives relate to this policy in different ways. Alternatives 2 and 4 propose no changes in the DMC zones at 9 th and Terry Avenues. Alternative 1 proposes the largest increase in height and density at this location, and Alternative 3 suggests rezoning this vicinity as a way to more directly support the residential enclave concept of the Denny Triangle neighborhood plan.
Goal DEN-G3 A diverse, mixed use character that	£			The alternatives are generally consistent

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
provides a transit and pedestrian-friendly atmosphere.				with this goal. Alternative 1 proposes the greatest increase in allowable height and density to promote this goal.
Policy DEN-P9 Encourage the creation of new open spaces, including at Westlake Circle and at the Olive/Howell wedge.		£		The alternatives do not explicitly address parks and open spaces. See the Open Space section for further discussion.
Policy DEN-P10 Encourage the creation of open space as part of new public projects.		£		This policy has little relationship to the alternatives.
Policy DEN-P11 Support redevelopment of Westlake Boulevard as a boulevard.		£		Future development under any of the alternatives may help encourage improvements to Westlake Boulevard.
Policy DEN-P12 Designate and support the development of green streets in the neighborhood.	£	£ ?		Encouraging future development would encourage the achievement of pedestrian/open space improvements (such as Green Streets) in the affected areas, consistent with neighborhood plans.
Policy DEN-P13 Strive to accomplish goals for open space as defined for urban center villages, such as: 1 acre of Village Open Space per 1,000 households All locations in the village must be within approximately 1/8 mile of Village Open Space; Dedicated open space must be at least 10,000 square feet in size, publicly accessible and usable for recreation and social activities; There should be at least one usable open space of at least one acre in size where the existing and target households total 2,500 or more; One indoor, multiple use recreation facility; One dedicated community garden for each 2,500 households in the Village, with at least one dedicated garden site.		£		The alternatives to increase allowable height and density are only peripherally related to the objectives of this policy. See the Open Space section for further discussion.
Belltown Goals and Policies				
Goal B-G4 A neighborhood with a mixed-use character with an emphasis on residential and small business activity.	£		£	The alternatives propose different height and density changes for an edge of Belltown. Alternative 1 proposes the greatest level of change (3 FAR and an additional 100 feet); Alternatives 2 and 4 propose no changes from existing zoning; and Alternative 3 suggests zoning that would better support provision of housing (with ground-floor retail uses).
Policy B-P1 Seek to preserve the existing neighborhood scale and character by developing tools that both encourage the retention of existing buildings and encourage the creation of a variety of new small scale buildings.	£		£	Same response as above.
Policy B-P16 Promote human-scaled architecture, particularly ground level retail uses.	£		£	Same response as above.

HISTORIC PRESERVATION PLANS AND POLICIES

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
KING COUNTY GROWTH MANAGEMENT PLANNING COUNCIL: COUNTYWIDE PLANNING POLICIES				
<p><i>Community Character and Open Space</i></p> <p>FW-26 Significant historic, archaeological, cultural, architectural and environmental features shall be respected and preserved.</p>	£			Current City regulations protect significant historic, archaeological, cultural, architectural and environmental features. See the Land Use and Urban Design sections of this EIS for further discussion.
<p><u>Historic Resources</u></p> <p>CC-2 All jurisdictions shall encourage land use patterns and implement regulations that protect and enhance historic resources, and sustain historic community character.</p>	£			The alternatives would generally encourage the preservation of existing historic districts by directing new Downtown development to the study area. However, some historic resources within the study area could be affected by redevelopment. Regulations are in place to protect designated landmarks. See the Land Use and Urban Design sections of this EIS for further discussion.
SEATTLE'S COMPREHENSIVE PLAN: TOWARDS A SUSTAINABLE SEATTLE				
<p><i>Cultural Resources Element</i></p> <p>CR11 – Identify and protect landmarks and historic districts that define Seattle's identity and represent its history, and strive to remove barriers to preservation. As appropriate, offer incentives for rehabilitating and adapting historic buildings for new uses.</p>	£			The City has identified landmarks and historic districts within the study area. Incentives are available to preserve landmarks and districts. See the Land Use section for more information.
<p><i>Downtown Urban Center Goals and Policies</i></p> <p>Goal DT-UPD1 Encourage the preservation, restoration, and re-use of individual historic buildings and groupings of buildings threatened by development pressure through development regulations and incentives.</p>	£			See the response to CC-2, above.
<p><i>Commercial Core Goals and Policies</i></p> <p>Policy COM-P3 Strive to maintain the neighborhood's historic, cultural and visual resources.</p>	£			See the response to CC-2, above

PUBLIC VIEW PROTECTION PLANS AND POLICIES

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
CITY OF SEATTLE'S COMPREHENSIVE PLAN: TOWARD A SUSTAINABLE SEATTLE				
<p><i>Downtown Urban Center Goals and Policies</i></p> <p><u>View Corridor Setbacks</u></p> <p>Policy DT-UDP9 Require setbacks on specified segments of designated view corridors where there is potential for maintaining a scope of view wider than the street right-of-way from uphill areas as redevelopment occurs. On sites abutting these street segments, require setbacks of the upper portions of buildings to allow for a wider view corridor than would occur if development extended to the street property line. Adjust the height and depth of these setbacks in relation to topography to balance multiple objectives of providing a pedestrian-oriented building base integrated with the established development pattern, maintaining a wide scope of view, and minimizing impacts on the development potential of abutting properties where setbacks are required.</p>		£		<p>This policy requests view corridors along more streets and greater lengths of streets than locations currently defined in the Land Use Code for view corridor setbacks. The policy relates to views down the existing street corridors, also referring to setback concepts for buildings. All of the defined corridors in this Plan are Streets oriented toward Elliott Bay, not Avenues. In the study area for this EIS, the additional requested view corridors include all streets from Pike Street south to S. King Street, extending essentially to I-5. Existing view corridors in the Commercial Core extend westward from 3rd Avenue.</p> <p>Alternatives 1, 2 and 3 relate to this policy in the same fashion because the proposed changes in the DOC 1 zone are the same. None of the alternatives inherently make an extended view corridor more, or less, feasible to implement.</p>
<p><i>Belltown Goals and Policies</i></p> <p>Policy B-P19 Maintain designated view corridors.</p>		£		<p>This policy has a similar motivation to the Downtown Urban Center policy above, but in relation to the Belltown area. The EIS alternatives generally have little overlap with the intended view corridors in Belltown, or Belltown's existing view corridors in the Land Use Code. For the affected area at the southern Belltown edge, Alternative 1 would have the greatest effect in increasing allowable height and density, and Alternatives 2, 3 and 4 would essentially not increase height or bulk allowances. None of the alternatives would inherently impact the preservation of view corridors along streets in the Belltown vicinity.</p>

Appendix I

Height, Bulk and Scale

APPENDIX I

URBAN DESIGN: HEIGHT, BULK AND SCALE

Description of Existing Conditions

The existing height, bulk and scale characteristics of development in the Downtown zones covered by this analysis have emerged over the course of Downtown's development history as each new generation of buildings responded to changing functional and economic demands, development regulations, building technologies, and architectural design. To address height, bulk and scale issues associated with new development, Downtown policies seek to promote a development pattern that balances retention of existing character with the need to accommodate additional growth and a higher density of development. This balance varies within Downtown in response to the special conditions and development objectives of different areas.

Height limits and density limits are the principal tools for achieving the desired outcomes. The general concept guiding the application of these limits calls for containing the most intensive (tallest and bulkiest) development in an office core area that roughly extends from Yesler Way to Lenora Street between I-5 and Second Avenue, omitting the retail core. Permitted height and density generally tapers down along the edges of this core area, and the downward tapering continues outward to the perimeter of Downtown to provide a transition with the lower scale of development in the waterfront and neighborhoods adjacent to Downtown.

The study area includes the zones that comprise the office core and the abutting zones (except the retail core) that provide a transition. The following describes the height, bulk and scale characteristics of these areas in more detail.

Downtown Office Core 1 (DOC 1). The DOC 1 zone accommodates the greatest concentration of office use and highest employment density within Downtown and the region, while encouraging other uses to add diversity and extend activity beyond the workday. The DOC 1 zone currently has a maximum height limit of 450 feet and a maximum density limit of 14 FAR—allowing the tallest and most dense development within Downtown. Additional height, up to 20% above the 450-foot limit (to 540 feet), may be allowed for projects that meet special development standards, including a reduction in the size of upper floors and special treatment at the building base to promote a more pedestrian-scaled project at street level. The height and density limits in DOC 1 reinforce a development pattern that concentrates the greatest mass of buildings in a corridor served by I-5 and the transit tunnel. The characteristic scale of development in the area has already been established by numerous large projects; many of these are built on full-block sites created through past alley vacations.

The typical block in the DOC 1 zone is roughly square, measuring 240 feet by between 238 to 256 feet. However, along the northern edge of the zone, seven blocks are long rectangular blocks measuring 360 feet by roughly 250 feet. Of the 33 blocks and 4 half-blocks in the zone, 23 either were platted without alleys or the alleys have been vacated over time, including six of the long rectangular blocks. Nine of the blocks with vacated alleys are occupied by public buildings, including the Federal Courthouse, Post Office, Municipal Building, Justice Center, King County Jail, Gateway Tower, Benaroya Hall, Seattle Art Museum and Seattle Public Library.

Existing development in DOC 1 is an accumulation of buildings produced over several periods. While the city's first generation of "skyscrapers," including the Smith Tower, Alaska Building and Hoge

Building, are located outside of DOC 1 adjacent to Pioneer Square, the DOC 1 zone has accommodated the greatest share of Downtown highrise commercial development since then. Most remaining older development built before World War II is scattered along Second, Third and Fourth Avenues, with some concentration around the Metropolitan Tract. Typically, these buildings occupy quarter- or half-block sites, and the tallest, the Seattle Tower, is 26 stories.

Following almost three decades of inactivity after the Great Depression, new buildings appeared in DOC 1 over several development cycles. In the early 1960s, Puget Sound Plaza (Washington Building), the Logan Building and the IBM Building were built. By today's standards, these buildings are modest in scale, occupying sites of a quarter to a half block in size and ranging in height from 8 to 21 stories. Another wave of construction in the late 1960s and early 1970s introduced a significantly larger scale of development to DOC 1, with several full-block projects, including 1001 4th Avenue (Seafirst Tower), Bank of California Center, and Rainier Square. The heights of these structures range from 30 to 50 stories. Another construction boom from the late 1970s through the 1980s resulted in even larger structures, including the Washington Mutual Tower, One Union Square, Fifth Avenue Plaza, 1000 Second Avenue, Two Union Square, Gateway Tower and Bank of America (Columbia) Center. These are the densest and tallest structures Downtown, with FARs as high as 27.8 and heights ranging between 35 and 76 stories. Nearly all of these projects occupy full-block sites.

More recent projects built under the adopted 1985 Downtown Plan (as amended by the 1989 CAP initiative) are more modest in scale, including the W Hotel, the Second and Seneca Building, and One Convention Place. These projects occupy sites of a half-block or less, with heights ranging between 22 and 28 stories. A larger-scale development, the IDX Tower, now covers most of a full block and rises about 40 stories (450 feet). Other significant development in DOC 1 includes public projects that are less dense and lower-rising than private commercial projects, including the Seattle Art Museum, Benaroya Symphony Hall, and the City Hall, Central Library and Justice Center projects now under construction. However, most of these projects do occupy full-block sites. The only significant public open space in the zone is the lawn in front of the old Federal Courthouse, which is about a half-block in size. Smaller plazas associated with private developments are scattered throughout the zone, particularly along Second Avenue and University Street.

Downtown Office Core 2 (DOC 2). The DOC 2 zone is intended to accommodate the expansion of concentrated office development from DOC 1 into adjacent areas, while providing a transition in density between DOC 1 and less-intensive mixed-use areas. The DOC 2 zone is primarily for commercial office uses with a mix of other activities encouraged to add diversity, particularly beyond the hours of the workday. By accommodating a relatively high density of office use, this zone helps to reduce pressure for major office development in the retail core and adjacent mixed-use and residential areas, while also providing a transition in scale and density between adjacent areas and the denser development of the DOC 1 zone.

The DOC 2 zone currently has two height districts: a maximum height limit of 300 feet north of DOC 1 and 240 feet south of DOC 1. The zone has a maximum density limit of 10 FAR for commercial uses. The occupied floors of a structure are allowed to exceed the 240-foot and 300-foot height limits by 10% for projects that reduce the size of upper floors. In the 240-foot height district and in some areas of the 300 foot height district, an additional 10% height increase, for a total height increase of 20%, may be allowed when the reduced bulk is combined with special treatment at the building base to promote a more pedestrian-scaled project at street level. In the Denny Triangle, mixed-use and residential development can exceed the 300-foot height limit up to 30% (390 feet) through participation in the TDC (transfer of development credits) program.

DOC 2 300'. The typical block in the northern DOC 2 300' zone is rectangular, measuring roughly 360 feet by 238 to 256 feet. There are about 20 full blocks in the zone and several half-blocks along the zone's edges, as well as numerous irregularly-sized blocks created by the shifting street grid pattern. Almost half of the full blocks in the DOC 2 300' zone are either platted without alleys, or the alleys have been vacated over time. Five of these blocks are occupied by public projects, including three of four blocks of the Washington State Convention Center site (three alley vacations and aerial street vacations involving portions of four blocks), the two-block Convention Place Station site (two alley vacations and one pending street vacation), and the new Federal Courthouse site located 7th and 8th Avenues between Stewart and Virginia Streets.

Much of the DOC 2 300' zone is "underdeveloped" relative to what the zoning allows. A substantial area is occupied by surface parking lots, automobile dealership lots, and transportation facilities such as the Greyhound Bus Terminal and Convention Place Transit Station. These uses are at a scale of development essentially equivalent to vacant parcels. Other small-scale development, including walk-up apartment buildings, lowrise motels, movie theaters and other small commercial buildings further contribute to the current low-intensity development pattern.

However, throughout Downtown's various development cycles, more intensive development has crept into this area, primarily adjacent to the retail core. In the late 1920s, relatively large commercial projects like the Paramount Theater, Camlin and Vance Hotels, and Tower Building appeared. In the late 1960s, the first Westin Hotel Tower, Plaza 600 Building, Tower 801 apartments, and United Airlines Building were constructed. The 1970s brought the largest building in the vicinity, the 466-foot tall, 18 FAR Bell Plaza (Qwest) Building; and in the early 1980s the Marsh & McLennan Building, Sheraton Hotel, second Westin Hotel Tower, and Westin Office Building were added. Most of these buildings exceed the current 300-foot height limit. More recent development includes the relatively low, bulky retail structures of the Meridian East and West and Pacific Place projects located on blocks abutting the eastern edge of the retail core, with the Paramount Hotel built on a small site nearby. Current additions to the area include the massive convention center expansion, which extends the low bulky mass of the existing facility over another two blocks, the 30-story Elliott Hotel, the 31-story Metropolitan Tower Apartments, and the 24-story 1700 7th Avenue (Nordstrom Office Tower). Other projects under construction or in the permit and planning stages include the new Federal Courthouse, a 33-story condominium tower at 9th and Virginia, and mixed residential and office developments on both the Camlin Hotel block and the block east of the Federal Courthouse site. A major mixed-use development is also being considered by Metro-King County for the two-block area above the Convention Place transit tunnel station.

The emerging scale of development in this zone appears to be a combination of lower bulky structures like the convention center exhibition halls and Pacific Place retail galleria occupying sites of a block or more on the edge of the retail core, and towers built on smaller sites of a half-block or less. Given the substantial number of underdeveloped parcels in the area and the potential for assembling large half- and full-block sites, it is reasonable to expect significant changes in the overall scale of development in the future. There is no public open space located in the DOC 2 300' zone, with the exception of landscaped triangles at the southern end of Westlake Avenue. Open space on private development sites is also limited, the largest being the landscaped sunken plaza of the Bell Plaza (Qwest) Building.

In addition to the longer, rectangular blocks, the platting characteristics of the DOC 2 300' zone differ from those of the DOC 1 zone in that most of the north/south avenues are narrower. The longer, rectangular blocks, with the narrower avenue widths and greater distance between intersections, are likely to be perceived as a more enclosed, "canyon-like" street environment as the area becomes more intensely developed. A sense of this condition can be observed along 7th Avenue between Olive Way and Westlake Avenue, where recent high-rise projects line the street.

DOC 2 240’. In the DOC 2 240’ zone south of DOC 1, the typical block is roughly square, measuring 240 feet by between 238 to 256 feet. Of the nine full blocks and three half-blocks in the DOC 2 240’ zone, six either were platted without alleys, or the alleys have been vacated over time. At least two blocks (the King County property on “Goat Hill”) have platted but unimproved street and alley rights-of-way. Four full-block sites are occupied by public projects, including the King County Administration Building, King County Courthouse, Henry M. Jackson Federal Office Building, and City of Seattle Public Safety Building. The western portion of the DOC 2 240’ zone includes several of Downtown's earliest large office towers, including the Hoge, Exchange and Dexter Horton Buildings, all of which exceed the current 10 FAR density limit that now applies in the zone. At 37 stories (487 feet), the Federal Office Building also exceeds the current 240-foot height limit. While much of the development in this western portion was built in the early decades of the Twentieth Century, this area also includes the zone's most recent project, the mixed-use Millennium Tower that was built to the maximum height and density limits allowed.

Relatively modest-scale City and County government buildings occupy most of the blocks in the area east of Third Avenue, although the two blocks along the hillside near I-5 are currently vacant. In general, existing development in the zone provides a transition between the high-rise, high-density commercial development in the DOC 1 zone to the north and older, lower-scale development in the Pioneer Square and International District Special Review Districts to the south.

Downtown Mixed Commercial (DMC). The DMC zone provides for a transition in the scale and intensity of development between the DOC 2 office core zone and adjacent neighborhoods north of Downtown, as well as the Denny Regrade/Belltown area to the west. The DMC zone also wraps around the western edge of the retail core (DRC) and DOC 1 zones to provide transition between the retail and office cores, the Pike Place Market and harborfront. The DMC zone is intended to: 1) permit office and commercial use, but at lower densities than in office areas; 2) support a mix of uses and accommodate a varied scale of development; 3) encourage housing and other uses generating activity without substantially contributing to peak hour traffic; and 4) promote development diversity and compatibility with adjacent areas, primarily through a range of height limits. The portions of the DMC zone included in this analysis have height limits of 125 feet, 160 feet and 240 feet. Generally, the mapping of these height districts establishes the transition in scale desired between the taller structures in the Downtown office core and the lower scale of development in adjacent neighborhoods.

There are about 60 blocks and portions of blocks in the DMC zone. Most of the alley network remains intact throughout the zone; only eight blocks are without alleys. The DMC zone extending north of Virginia Street and along the northern edge of the Denny Triangle separates the DOC 2 300' office core zone from Belltown and the South Lake Union/Cascade neighborhoods. This portion of the zone is platted with long rectangular blocks 360 feet in length, with widths varying between 232 and 256 feet. This area today could be characterized as “underdeveloped,” with many blocks occupied by surface parking lots, car dealerships, motels and other more automobile-oriented activities. However, several commercial and mixed-use projects are proposed in the area, many on full-block sites, which will introduce a much greater intensity and scale of development. Recent development in the area includes the City of Seattle's West Police Precinct, a congregate care facility, and the Metropolitan North Office Building; all built substantially below the maximum height and density allowed. Projects with permits received or pending include the Touchstone project at 1000 Stewart Street and a redevelopment of the Frederick Cadillac site at 2300 Fifth Avenue. Both of these projects are large floor-plate commercial structures occupying full-block sites and about 14 stories in height--lower than the current height limit allows. A mixed use, residential, retail and office project comprised of three towers is also proposed for the Quinton Instruments site at Westlake and Denny Way.

The portion of the DMC zone west of the DOC 1 office core zone and the retail core is platted with long, rectangular blocks north of University Street, and smaller square blocks (240-foot lengths) to the south. Blocks between Western Avenue and Alaskan Way are essentially the size of half-blocks platted without alleys. The old Federal Office Building occupies a full block interrupting the continuity of Post Alley. This area has a much more established development character, with bulky, relatively low height turn-of-the-century warehouse structures occupying blocks along Western Avenue, and a mix of commercial structures occupying smaller sites stretching the length of First Avenue between Pioneer Square and the Pike Place Market. This area also includes the greatest concentration of designated landmark structures Downtown outside the special review districts and retail core. More recent developments in the area include the high-rise residential towers of the Newmark and Harbor Steps projects, the Seattle Art Museum, and Cornerstone mixed-use developments. While the height of much of the existing development is well below the permitted 160-foot and 240-foot limits, the high-rise residential towers reflect the maximum height current zoning allows.

Height, Bulk and Scale Characteristics of Recent Downtown Development

General height, bulk and scale characteristics of projects recently developed under current zoning are described in this section. Included are 17 projects either completed, under construction, or permitted in the study area since 2000 (see Table I-1). Some projects are comprised of more than one building, like the Washington State Convention and Trade Center expansion, which includes the Elliott Hotel, One Convention Place office tower, and the expanded exhibition hall north of Pike Street. Altogether, these 17 known projects include 21 buildings.

The greatest number of projects—six—are residential, compared to four commercial projects, four “other” projects, and three mixed use projects. Altogether, these projects account for approximately 1,856,500 square feet of commercial floor area (primarily office space), 634 hotel rooms, 1,449 residential units, and 1,562,000 square feet of other uses, including civic buildings, convention center exhibition space, and a public library.

**Table I-1
Location of Known Projects by Zone and Neighborhood**

DOC 1 450 Commercial Core	DOC 2 240 Commercial Core	DOC 2 300 Denny Triangle	DMC 240 Commercial Core	DMC 125, 240 Denny Triangle	DMC 240 Belltown
Washington St. Convention and Trade Center: One Convention Place (MU-C) IDX Tower (C) Seattle Central Library (O) City Hall (O) Justice Center (O)	Millennium Tower (MU-C/R)	700 Olive Way (MU-C)/Stewart House (MU-R) Metropolitan Tower (R) Fed. Courthouse(O) Century Tower (R) WSC&T Center: Elliott Hotel (MU-C) and exhibition hall (MU-O) 9 th & Stewart Life Sciences Ctr (C)	Harbor Steps North 2 towers (R)	Metropolitan Park III (C) Marriott Spring Hill Suites (C) 2015 Terry Ave Apts (R)	Cristilla residential tower (R) YWCA Opportunity Place (R)

C = commercial; MU = mixed use; R = residential; O = other

Source: SPO, 2002

Factors influencing the height, bulk and scale of structures are size of the lot the project is located on and the amount of floor area in the project relative to its height and the site size. These characteristics are discussed in more detail below.

Height. Table I-2 below shows the heights of recent projects. While these heights range widely, a third of the buildings are above 250 feet. Thirteen of the 21 projects extend to the maximum height limit of the zone where they are located. The majority of projects built below height limits are public projects, including the new City Hall, Justice Center and Central Library, all of which are located in the DOC 1 450' zone and built considerably below the maximum height limits allowed. Other projects often built below height limits are residential buildings (2015 Terry Avenue, Stewart House, and YWCA Opportunity Place), which frequently are of a construction type that limits the height of structures to five or six stories, regardless of the zoned height limit. The 9th and Stewart Life Sciences Center, a private development on a relatively small site in the DMC 240' zone, will be substantially below the 240 foot height limit.

**Table I-2
Heights of Buildings in Known Projects***

Height Range	Commercial Buildings**	Mixed Use Buildings (different uses in the same structure)	Residential Buildings	Other***
0 – 150 feet	3		3	2
151 – 200 feet			1	1
201 – 250 feet		1	2	1
251 – 300 feet	3		2	
301 – 400 feet				1
401 – 500 feet	1			
Greater than 500 feet				
TOTAL	7	1	8	5

*Known projects include projects completed since 2000 or currently under construction

**Includes office, hotel, and convention center

*** Includes government office (City Hall, Justice Center, Federal Courthouse), exhibition hall, and public library
Source: SPO, 2002

Bulk and Scale. A major determinant of bulk and scale characteristics of a project is the relationship between the project's site size and total floor area, expressed as the floor area ratio. The size of buildings in relation to the size of their sites is a key factor influencing the perceived scale of development in an area.

Downtown's original platting of blocks bisected by alleys and further subdivided into individual parcels has significantly influenced the scale of development. Blocks originally were developed with several buildings occupying sites generally of one or two parcels in size. Over time, parcels were consolidated and larger developments replaced the smaller structures. More recently, the vacation of alleys has permitted single structures to occupy entire blocks.

Table I-3 below identifies the size of recently developed sites in the study area. The size of most recent development sites is in the 15,000 to 30,000 square foot range, and while all types of development are located on sites of this size, most are residential projects. Residential development also occurs on the smallest site size (less than 15,000 square feet), and in mixed use projects on larger sites. The largest development sites (over 65,000 square feet) are occupied by the Washington State Convention Center mixed-use development and the Federal Courthouse.

**Table I-3
Size of Known Project Sites***

Lot Area (square feet)	Commercial Projects**	Mixed Use Projects	Residential	Other***
Less than 15,000			1	
15,000 to 30,000	2	1	5	1
30,000 to 45,000	1			
45,000 to 65,000	1	1		2
Greater than 65,000		1		1
TOTAL	4	3	6	4

*known projects includes projects completed since 2000, currently under construction, or permitted

**includes office, hotel, convention center, government office (City Hall, Justice Center, Federal Courthouse)

***Public library

Source: SPO 2002

The range of densities in recent development is presented on Table I-4 below. In comparing the size of project sites with the amount of floor area built on them, the densest projects—or projects with the greatest FAR—are residential developments built on the smaller sites. In the DOC 1 and DOC 2 office core zones where the greatest commercial density (FAR) is permitted, most recent development has been sponsored by the public sector, including the City Hall, Justice Center, Central Library, and Federal Courthouse. These projects are all built below the maximum density limits. While some of these projects like the Federal Courthouse are quite large, their development densities in terms of the relationship between project floor area and site size are below the maximum allowed. Two of the denser, large projects built in the office core zones—700 Olive Way and Millennium Tower—are technically mixed-use projects, but office space occupies most of the total project floor area. The largest and densest commercial project is the IDX tower, a skyscraper sharing a full-block site with the old YMCA building.

**Table I-4
FARs of Known Projects***

	Commercial Projects	Mixed Use Projects	Residential	Other**
0 - 5 FAR	1		1	1
5.1 - 7 FAR	2		1	2
7.1 - 10 FAR				1
10.1 – 14 FAR		3	1***	
14.1 – 17 FAR	1			
17.1 – 20 FAR			1	
20.1 – 25 FAR			2	
TOTAL	4	3	6	4

*Known projects includes projects completed since 2000 or currently under construction

**Includes convention center exhibition hall, government office (City Hall, Justice Center, Federal Courthouse), and public library

***Estimate for Harbor Steps North

Summary. Recent development over the last few years represents a diversity of uses in projects of varying scale. Residential projects are achieving the highest densities and typically occupy smaller sites; a combination that can result in structures with a bulky appearance. Public projects tend to be developed with densities at the lower end of the spectrum and at heights below the allowed limits. However, projects on large sites that are lower in height but cover a significant portion of the site area may also appear bulky. While development typically extends to the allowed height limits, several projects have been built below height limits; most frequently, these are residential and civic projects.

Summary of Impacts of Alternatives on Sensitive Transition Areas

A variety of zones with a range of height and density limits are currently employed to provide for transitions in the scale and intensity of development between the high-density office core and less-intensive Downtown areas and adjacent neighborhoods. The DMC zones and DOC 2 240' zones in particular were created to promote desired conditions in sensitive transition areas. The following is a more detailed discussion of the impacts of the four alternatives analyzed in this EIS on these transition areas, which are mapped on Figure 20 in the document and also shown on Figure I-1 below.

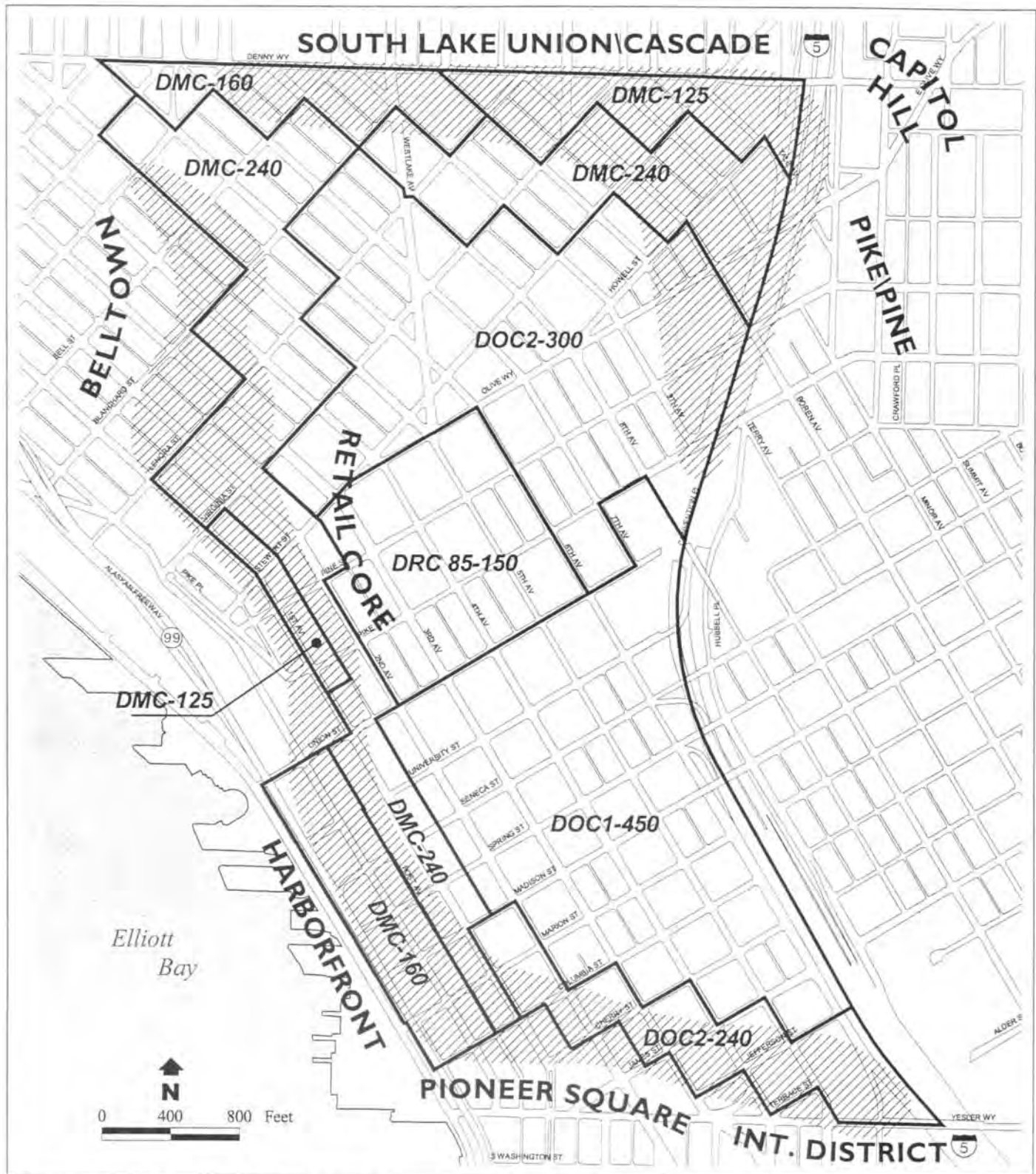
Alternative 1

Alternative 1 would introduce several changes to the scale relationship established by Downtown zoning in 1985 to implement the original Downtown Plan. This alternative would result in the most abrupt changes in height, bulk and scale along edges where the study area abuts less-intensive Downtown zones and adjacent neighborhoods, as described below:

Pike/Pine edge. With the proposed increases, a maximum height limit of 400 feet and commercial density limit of 14 FAR would apply in the current DOC 2 300' zone adjacent to the Pike/Pine area. Height and commercial density limits in the DMC 240' zone would also be increased to 340 feet and 10 FAR. Development built to these limits would contrast with the intensity of development allowed in adjacent Pike/Pine zones. Pike/Pine is a commercial area with a residential overlay and height limits of 85 and 65 feet, with a maximum density limit of 2 FAR for commercial use. The higher elevation of Capitol Hill and the I-5 right-of-way do, however, help provide some separation between the two areas. Also, most of the area of the DMC 240' zone facing Pike/Pine is already occupied by the Metropolitan Park towers, which are in the 240-foot height range.

South Lake Union (Denny Way) edge. Maximum heights ranging from 225 feet to 260 feet and a density limit of 10 FAR for commercial use would apply to properties in the DMC zones along Denny Way. In the commercial zones of South Lake Union north of Denny Way, maximum height limits are 125 feet and the maximum commercial density limit is 5 FAR.

Belltown edges. A maximum height of 312 feet and a commercial density limit of 10 FAR would apply in the DMC zone along the eastern and southern edges of the Belltown residential zone, where height limits range from 125 feet to 240 feet for residential projects and 65 feet to 125 feet for commercial projects, and commercial density limits range from 1 FAR to 5 FAR. Existing Belltown development that is larger than current height/density limits would offset to some degree the potential contrasts in development scale along the edge of the DMC zone. Allowing higher-density commercial development, however, could make the transition in activity between the two areas more abrupt.



SENSITIVE TRANSITION AREAS

FIGURE I-1

Areas separating more intensive downtown zones from less intensive neighborhoods

Strategic Planning Office
City of Seattle
May 20, 2002

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Pioneer Square/International District Special Review District edge. The DOC 2 zone immediately north of the Pioneer Square and International District Special Review Districts would have a height limit of 312 feet and maximum commercial density limit of 13 FAR. Height limits in the abutting districts range from 100 to 150 feet, with the exception of the Smith Tower parcel, which has a height limit of 245 feet. In Pioneer Square, the 100-foot height limit represents a maximum; the height of new development on a specific site is actually determined in relation to the height of existing, adjacent buildings. Existing development in the districts, often in the four to six-story range, is generally lower than the maximum height limit, although taller structures, like the Frye Apartments and the Smith Tower, are located on the northern edge. Permitted commercial densities range from 2 FAR to the maximum floor area that can be accommodated within the building envelopes prescribed by the Districts' regulations. While Alternative 1 would allow larger, more intensive development along this edge, few development sites remain, so significant adverse transition impacts are not expected.

Western edge of Commercial Core. The area west of 2nd Avenue from the Pike Place Market on the north to Pioneer Square on the south provides for a "stepping down" of development height and density from the office core to the harborfront. The current height limits of 125, 160, and 240 feet would be increased to 165, 208 and 312 feet, respectively, and the commercial density limit of 7 FAR would be increased to 10 FAR. Even with the increased height limits, the "stepping down" pattern from the core westward would be retained. However, increasing heights from 160 feet to 208 feet would create a more abrupt edge in the area abutting the harborfront, including the Historic Character Area, where the height limit is 45 feet. For most of the area, the high density limits relative to height limits would result in bulky structures. However, the required upper-level setbacks along view corridors that would apply to most potential redevelopment sites may help offset the perception of increased height and bulk.

Retail Core. Heights in the DOC 2 zone along the northern and eastern edges of the retail core would be increased from 300 feet to 400 feet, and the maximum density limit would be raised from 10 FAR to 14 FAR. Sites on the edges of the retail core for the most part have been developed in the recent past and conditions are not likely to change significantly under proposed changes. In the DMC zones along the western edge, increasing density from 7 FAR to 10 FAR and increasing height in the DMC 240' zone to 312 feet and the DMC 125' zone to 165 feet would allow more intensive development in the area separating the retail core from the Pike Place Market, where a more gradual transition may be appropriate.

Alternative 2

Alternative 2 would for the most part retain the current height, bulk and scale relationship established by existing zoning along the following edges of the study area:

Pike/Pine edge. Conditions would be the same as those described under Alternative 1 for the height and density increases in the DOC 2 zone adjacent to Pike/Pine. Also, due to no proposed changes in the DMC zone adjacent to Pike/Pine under Alternative 2, transition conditions would remain the same.

South Lake Union (Denny Way) edge. Due to no proposed changes in the DMC zone adjacent to Denny Way under Alternative 2, there would be no change in transitions. Height increases would still be possible using the TDC program.

Belltown edges. Due to no proposed changes in the Belltown DMC zones under Alternative 2, there would be no change in transitions to other Belltown zones.

Pioneer Square/International District Special Review District edge. In this area, transitions under Alternative 2 would be the same as under Alternative 1.

Western edge of Commercial Core. Due to no proposed changes in the DMC zones in this vicinity, there would be no change in transitions, and the same “stepping down” of height and density from the office core to the harborfront would occur.

Retail Core. Transitions along the northern and eastern edges of the retail core would be slightly less changed under Alternative 2, due to a slightly lower density change (3 FAR increase rather than 4). Transitions along the southern edge would be the same as under Alternative 1. Due to no proposed changes along the western edge, there would be no change in transitions between the retail core and Pike Place Market.

Alternative 3

Alternative 3 would for the most part retain the height, bulk and scale relationship established by current zoning along the following edges abutting less-intensive Downtown zones and neighborhoods adjacent to Downtown:

Pike/Pine edge. Transitions would be comparable to conditions allowed by current zoning. Height increases would still be possible through the TDC program. While less abrupt than under Alternative 1, there would still be a significant contrast with the development intensity allowed in adjacent Pike/Pine zones. Additional bulk controls proposed for DMC zones further west along Denny Way may help enhance the transition with Downtown from Pike/Pine and Capitol Hill.

South Lake Union (Denny Way) edge. Current height limits ranging from 125 feet to 160 feet would be retained in the zones along Denny Way proposed for a more residential-oriented classification. However, the maximum commercial density limit would be reduced from 7 FAR to 5 FAR, and taller structures would be subject to additional bulk limits. Height increases would still be possible through the TDC program. These changes are likely to promote a more gradual transition with the abutting commercial zones of South Lake Union north of Denny Way, where maximum height limits are 125 feet and the maximum commercial density limit is also 5 FAR.

Belltown edges. The residential-oriented zoning that applies in Belltown would be extended one to two blocks south into the study area where the current zoning is DMC 240. The maximum height limit of 240 feet would be retained, but additional bulk limits would apply to tower structures, and the commercial density limit would be reduced from 7 FAR to 5 FAR. Much of the eastern and southern edges of this new zone would directly abut the DOC 2 zone, removing the transition the existing DMC zone provides between the office core and the less intensive residential zones of Belltown. The additional controls on bulk should enhance the transition in the physical scale of development moving west from the high-density areas of the Denny Triangle toward the shoreline.

Pioneer Square/International District Special Review District edge. In this area, transitions under Alternative 3 would be the same as under Alternative 1.

Western edge of Commercial Core. Even with proposed changes to the DMC zone that could encourage denser mixed-use projects under Alternative 3, the area west of 2nd Avenue stretching from the Pike Place Market on the north to Pioneer Square on the south would continue to accommodate the “stepping down” of development height and density from the office core to the harborfront. Requiring a minimum amount of residential use in projects fully developed to the maximum commercial density of 7 FAR could promote bulkier development than might otherwise occur in Alternatives 2 or 4, where the maximum density limit for commercial-only development is the same, but there is no additional requirement to include housing in projects exceeding the commercial base FAR.

Retail Core. Heights in the DOC 2 zone along the eastern edge of the retail core would be increased from 300 feet to 400 feet, and the maximum density limit would be raised from 10 FAR to 13 FAR. These changes aren't expected to have any significant impact on transition conditions because of limited opportunities for redevelopment, at least in the near future. The existing 300-foot height limit

and 10 FAR commercial density limit would be retained in the DOC 2 zone along the northern edge of the retail core. Along the southern edge, the increase in the DOC 1 zone would be the same as under Alternatives 1 and 2. On the western edge, there would be no change to the height and density limits of the DMC 240' and DMC 125' zones, which would retain the existing zoning transition between the retail core and Pike Place Market.

Alternative 4

Alternative 4 reflects the existing transition relationship established under current zoning. The overall pattern of building heights stepping down from the core and the desired gradation in the intensity of development reflected in the zoning implementing current Downtown policies would be maintained. Alternatives 2, 3 and 4 would result in lower development height and density than Alternative 1 along most edges separating Downtown from abutting neighborhoods.

Appendix J

Parks and Open Space

APPENDIX J

URBAN DESIGN: PARKS AND OPEN SPACE

Existing Open Space Resources

Downtown's existing inventory of open space resources is varied and includes features that are either publicly or privately owned, but accessible to the public. While available open spaces range in size, there are only a few large public open spaces. The largest include Freeway Park and Waterfront Park/Seattle Aquarium, which are located on the extreme edges of the Commercial Core, and to some degree lack visibility and easy accessibility to much of Downtown's working and residential population. Smaller spaces are scattered throughout the study area, usually connected to government buildings or private commercial developments and serving the daytime workers. The inventory of existing open space resources located within the study area and over 10,000 square feet in size is provided below in Table J-1.

Known additions to Public Open Space Resources

Table J-2 lists publicly accessible open spaces included in projects now under construction, in the permit pipeline, or in the preliminary planning stages. The locations of these projects are shown on Figure J-1. Projects that provide public open space for a floor area bonus were subject to provisions in effect prior to the revisions of the bonus program in July 2001. The most significant contribution to the supply of public open space in the study area is from public projects; open space on the Federal Courthouse, City Hall, Public Safety Building, and Convention Place TOD sites accounts for almost 60 percent of the additional space (2.6 acres). The open spaces listed in Table J-2 are assumed to be part of the future supply of open space in all of the Alternatives analyzed in this EIS.

Potential Public Open Space Added Through Development Incentives (Floor Area Bonuses and TDR)

The densities for Downtown development can be increased through incentives for creating public open space. In Alternative 1 (and other three alternatives), developers can increase project floor area through bonuses for providing open space amenities on the development site, or under recently adopted transfer of development rights (TDR) provisions, transferring floor area to the development site from new public open space locations. The Downtown Land Use Code limits the amount of floor area that can be gained through these options in relation to bonus and TDR options for housing and childcare.

The same amount of floor area can be gained above the base FAR using either open space floor area bonuses or open space TDR, or a combination of the two. It should be noted that these amounts, shown on Tables J-3 and J-6 below, are not additive; if open space TDR were used up to the maximum allowed, there would be no additional floor area that could be gained through the open space floor area bonus option. In reality, future projects will likely use some combination of open space bonuses and open space TDR to gain the additional floor area these options allow above the base FAR, as well as other "non-open space" options, including within-block TDR, landmark TDR, and bonuses for human services, street level retail use, short-term parking and other public benefit amenities.

Table J-1
Existing Open Space Resources in Study Area
 (Open spaces 10,000 sq. ft. or greater)

Commercial Core	
Name/Location	Size
Public Properties	
Freeway Park	218,000 sf
Westlake Park	28,000 sf
City Hall Park	36,000 sf
Henry M. Jackson Federal Office Building	30,000 sf
Old Federal Courthouse Lawn	30,000 sf
New City Hall Plaza*	20,000 sf
Pier 62/63	60,000 sf
Victor Steinbrueck Park	35,000 sf
Waterfront Park and Seattle Aquarium	170,000 sf
Benaroya Hall 2 nd Ave./University St. plazas	17,000 sf
Public Spaces on Private Properties	
Westlake Plaza at Westlake Center	10,000 sf
1001 4 th Avenue Plaza	10,000 sf
Rainier Square Rooftop Park	10,000 sf
Bank of America 5 th Avenue Plaza	10,000 sf
IBM Building 5 th and University plaza	10,000 sf
One Union Square	12,000 sf
Two Union Square	22,000 sf
Wells Fargo Center 2 nd Avenue Plaza	12,000 sf
Harbor Steps	15,000 sf
Washington Mutual Tower 2 nd Avenue, plaza and roof terraces	10,000 sf
Subtotal	765,000 sq. ft. (17.5 acres)
Denny Triangle (& portions of DMC 240' zone on south, east edges of Belltown)	
Public Properties	
Convention Place Station Plaza	10,000 sf
New Federal Courthouse Plaza*	42,000 sf
Public Spaces on Private Properties	
Metropolitan Park Plaza North	20,000 sf
Metropolitan Park Plaza South	18,000 sf
1600 Bell Plaza	10,000 sf
Subtotal	100,000 sq. ft. (2.3 acres)
Total for study area	865,000 sq. ft. (19.8 acres)

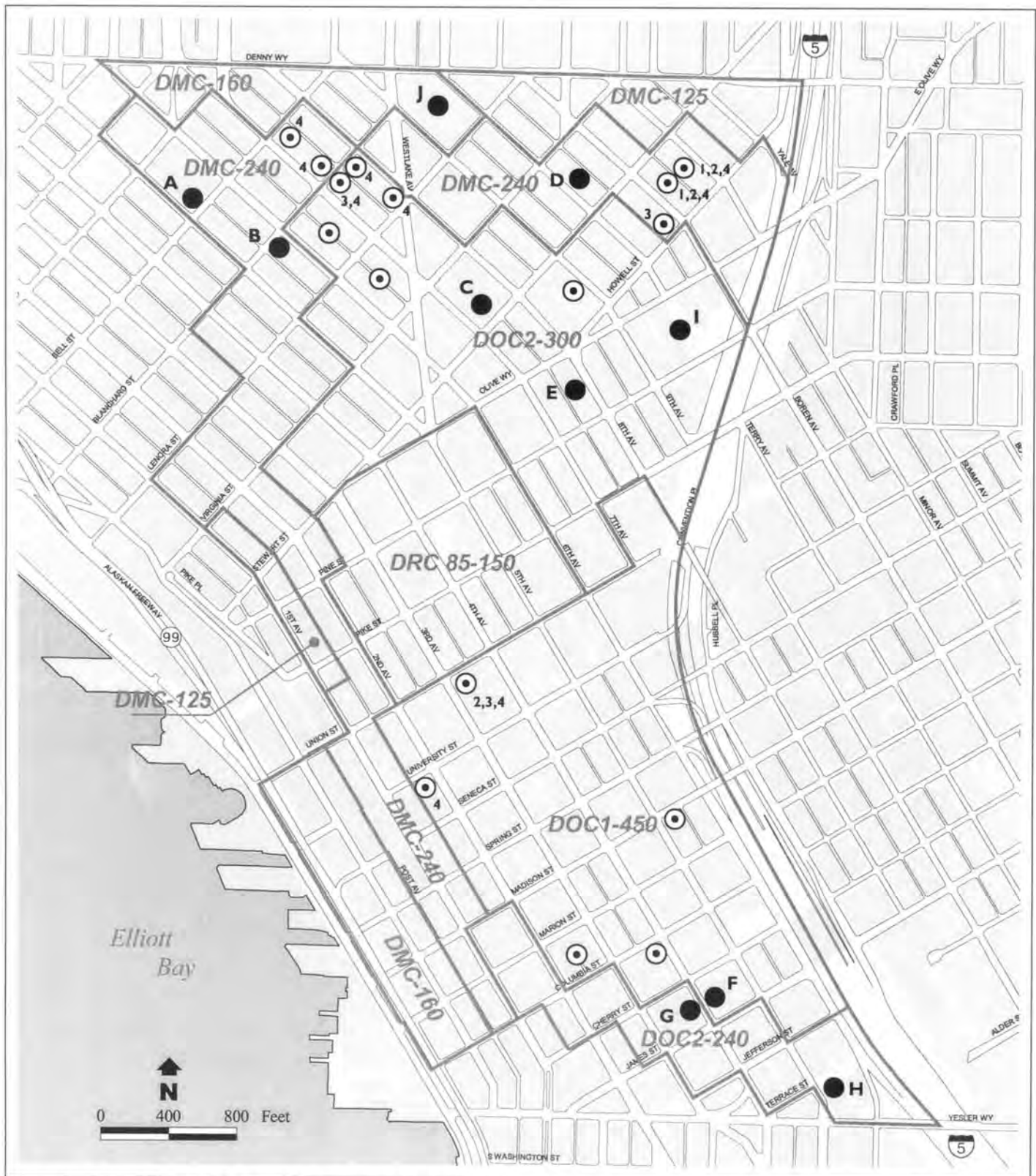
*Public projects under construction or committed

Table J-2
Proposed Open Space Improvements in Known Projects - All Alternatives

Project	Zone and Locations	Type of open space	Size (approximate)
2300 5 th Avenue	DMC 240 Denny Triangle	Plaza	20,000 sf
2119 6 th Avenue	DMC 240 Denny Triangle	Parcel park	3,117 sf
Convention Place TOD site	DOC 2 300 Denny Triangle	Plaza	20,000 sf (estimate; net gain accounting for loss of existing plaza)
Stewart Place	DMC 240 Denny Triangle	2 plazas	15,000 sf
2200 Westlake (Quinton Instruments site)	DMC 160 Denny Triangle	Project open space (not bonused)	18,000 sf
8 th and Olive 1635 Olive Way	DOC 2 300 Denny Triangle	Parcel park	6,000 sf
Public Safety Building site*	DOC 2 240 Commercial Core	Potential joint development of private commercial building and public plaza	30,000 sf
5 th and Yesler (Project 33) and King County "Goat Hill" development	DOC 2 240 Commercial Core	North Hillclimb (Hillside terrace on Terrace Street right-of-way extending from 5 th to 6 th Aves.	7,235 sf
		South Hillclimb (vacated right-of- way at corner of 5 th Ave and Yesler Way)	4,990 sf
		Public open space area located in vacated alley right-of-way	5,550 sf
TOTAL			129,892 sf (3.0 acres)

* Plans have not been finalized for redevelopment of the Public Safety Building site. One possible redevelopment scheme under consideration would allow private development on a portion of the site, while retaining a large share of the site for use as public open space complementing the plaza on the redeveloped City Hall block across the street.

Open Space Floor Area Bonuses. Under current zoning, commercial projects in the DOC 1, DOC 2, and DMC zones in the affected area can increase permitted floor area up to specified amounts through bonuses for providing certain open space features, including plazas, parcel parks, and hillside terraces. Projects making improvements to Green Streets can also gain additional floor area. To estimate the amount of public open space that might be provided through floor area bonuses, the amount of floor area that could be gained through such bonuses was estimated for the redevelopment sites identified in each of the alternatives and added to the amount of open space provided in known projects, shown on Table J-2 above. The estimates, shown on Table J-3 below, assume that except for the required use of landmark TDR, the amount of floor area allowed to be gained through non-housing bonuses and other TDR is gained through bonuses for open space amenities provided on-site at a 5:1 bonus ratio. In Alternatives 3 and 4, it was assumed that all development in the DMC zone gained all floor area above the base FAR using the option to provide open space for a bonus.



PROJECTED ADDITIONS TO OPEN SPACE SUPPLY

FIGURE J-1

- Open space included in current projects
- A 2300 5th Avenue
- B 2121 6th Avenue
- C Federal Courthouse
- D Stewart Place
- E 8th and Olive
- F New City Hall
- G Public Safety Building Site
- H 5th and Yesler
- I County Convention Place TOD Site
- J 2200 Westlake

- Potential open spaces related to potential projects on redevelopment sites

(unless a specific alternative is indicated by number, potential projects are included in all alternatives)

**Strategic Planning Office
City of Seattle
May 21, 2002**

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Table J-3
Potential Supply of Public Open Space Added Through Use of Floor Area Bonuses

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Estimated amount of open space that could be added if all projects used floor area bonus for on-site open space*	229,924 sf (5.3 acres)	275,005 sf (6.3 acres)	421,277 sf (9.7 acres)	489,351 sf (11.2 acres)

*Excludes floor area required to be gained through landmark TDR, where applicable

Table J-4 provides a more detailed assessment of the additional public open space that might be achieved through future development on redevelopment sites, based on the prototypes of potential project configurations. Assumptions about whether open space would be included in a project were based on a number of factors, including: 1) site size--larger sites have sufficient room to accommodate open space features more easily; 2) development requirements, such as required setbacks that create opportunities for siting open space; 3) direct incentives to include open space on a site, such as the requirement to provide open space in order to increase the height of a project or providing public open space to meet the open space requirement and receive a floor area bonus; and 4) typical treatment of open space in actual projects with site and development program characteristics similar to those of projected projects. Under this more detailed assessment, fewer sites included open space, and on several sites where open space was provided, it was smaller than the maximum bonusable amount allowed. The locations of these projects are also shown on Figure J-1 above.

Conditions under Alternative 1 suggest that less open space would be provided on development sites than the other alternatives -- 1.7 acres in Alternative 1 compared to 1.9 acres in Alternatives 2 and 3 and 2.9 acres in Alternative 4. This would occur partly because the higher allowable development densities would require fewer development sites to accommodate the projected growth, thereby reducing opportunities for siting open space on private development sites.

On sites that do accommodate open space, the higher densities allowed may require more site coverage to accommodate permitted development floor area, which reduces the likelihood that open space will be provided on the site, or results in smaller open spaces. Furthermore, there are no provisions *requiring* open space in order to build to the highest height allowed, as is the case in Alternative 4, and to a lesser extent, Alternative 3. While Alternatives 2 and 3 show slightly more open space than Alternative 1, the difference is not significant.

**Table J-4
Publicly Accessible Open Space in Projected Projects**

Project	Zone and Locations	Type of open space	Alternative	Size (approximate)
Project 34 4 th Ave btwn Columbia and Cherry Streets	DOC 1 450 Commercial Core	Hillside terrace along Columbia Street	1, 2, 3, 4	3,360 sf
Project 35 Seattle Trust Court site	DOC 1 450 Commercial Core	Hillside terrace in view corridor setback area along Marion St Plaza/hillside terrace on corner of Columbia St and 3rd Ave	1, 2, 3, 4	5120 sf 7,000 sf
Project 37 College Club site	DOC 1 450 Commercial Core	Hillside terrace along Madison Street	1, 2, 3, 4	2,400 sf
Project 39 Post Office site	DOC 1 450 Commercial Core	Plaza/transit tunnel access at corner of 3 rd Ave and Unions St	2, 3, 4	7,120 sf
Project 48 5 th Ave and Lenora St	DMC 240 Belltown	Parcel park midblock	4	3,920sf
Project 49 6 th /7 th Aves and Lenora/Virginia	DOC 2 300 Denny Triangle	Plaza midblock	1, 2, 3, 4	20,000 sf
Project 50 6 th /7 th Aves and Lenora/Blanchard	DOC 2 300 Denny Triangle	Plaza midblock	1, 2, 3, 4	20,000 sf
Project 52 7th Ave btwn Lenora and Blanchard	DOC 2 300 Denny Triangle	Parcel park	3, 4	6,480 sf
Project 53 8 th Ave btwn Lenora and Blanchard	DOC 2 300 Denny Triangle	2 parcel parks	4	12,000 sf
Project 57 Greyhound Bus Terminal site	DOC 2 300 Denny Triangle	Parcel park mid-block	1, 2, 3, 4	6,000 sf
Project 63 Boren between Howell and Stewart	DMC 240 Denny Triangle	Corner plaza/parcel park in Alternative 4 Mid-block parcel parks in Alternatives 1, 2	1, 2, 4	12,000 sf (Alt 4) 5,000 sf (Alts. 1, 2)
Project 65 7 th Ave between Blanchard and Bell	DMC 240 Denny Triangle	Parcel park abutting Blanchard Green Street	4	12,000 sf (Alt 4) 5,000 sf (Alts. 1, 2)
Project 71 2nd Ave btwn University and Seneca	DOC 1 Commercial Core	Hillside terrace along University Street in view corridor setback	4	7,000 sf
Project 73 Boren Ave, btwn Howell and Stewart	DMC Denny Triangle	Corner plaza or parcel park	3	3,240 sf
TOTAL	Alternative 1	Alternative 2	Alternative 3	Alternative 4
	73,880 sf (1.7 acres)	81,000 sf (1.9 acres)	83,480 sf (1.9 acres)	127,640 sf (2.9 acres)

Use of Open Space Transfer of Development Rights (TDR). Another incentive for increasing the supply of public open space Downtown is open space TDR. Under this approach, developers do not provide the open space on their project site, but instead acquire development rights from public open space sites at another location and "transfer" them to their site to increase floor area. The advantage of this incentive is that its use is not limited to larger sites or constrained by other physical limitations that may make it impractical to provide open space on the project site for a bonus. However, it does require that a supply of open space TDRs be available for purchase. Table J-5 provides estimates of the available supply of open space TDR from potential sending sites.

Table J-5
Potential Supply of TDR from Potential Open Space Sending Sites

Likely Open Space TDR sending sites	Site Area	Open Space Area	Available TDR
Olympic Sculpture Park	271,390 SF (includes 10 Broad St. site)	271,390 SF	1 FAR = 271,390 SF
Seattle Civic Center City Hall Site	59,538 SF	18,821 SF to 24,019 SF (depending on how "roof top" open space is considered)	Alternatives 2,3 and 4: 6 FAR = 357,228 SF – building floor area (210,000 SF) = 147,228 SF Alternative 1: 7 FAR = 206,766 SF
Seattle Civic Center Public Safety Building Site	57,310 SF	Approximately 30,000 SF	Alternative 4: 96,550 SF Alternatives 1, 2, 3: 204,617 SF
<i>Sub-total</i>			<i>515,168 SF to 682,773 SF</i>
Possible additional TDR sending sites (identified in neighborhood plan, and/or preliminary interest expressed in open space development)			
Westlake Circle*	21,457 SF	21,457 SF	Alternatives 2, 3 and 4: 5 FAR = 107,285 SF Alternative 1: 7 FAR = 150,199 SF
Olive/Howell Triangle*	East of Terry: 47,811 SF West of Terry: 24,037 SF	East of Terry: 47,811 SF West of Terry: 24,037 SF	Alternative 2,3, 4: 5 FAR = 239,055 SF east of Terry 120,185 SF west of Terry Alternative 1: 7 FAR = 334,677 SF east of Terry 168,259 SF west of Terry
<i>Sub-total</i>			<i>466,525 SF to 653,135 SF</i>
TOTAL			981,693 SF to 1,335,908 SF

*Proposed open space sites identified in Denny Triangle Neighborhood Plan

Since the amount of development rights available to transfer is determined by the base FAR of the open space sending site, increases to the base FAR proposed in Alternative 1 results in the greatest supply of open space TDR—over 1.3 million square feet.

The potential supply of open space TDR under the various alternatives is estimated to range from 981,693 square feet to 1,335,908 square feet. The amount of open space TDR that could potentially be used by projected development over the next 20 years is shown under the various alternatives on Table J-6 below.

The estimates are based on the assumption that, except for the required use of landmark TDR, the amount of floor area allowed to be gained through non-housing bonuses and other TDR is gained through open space TDR.

Table J-6
Maximum Amount of Open Space TDR That Potential Receiving Sites Can Acquire

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Amount of development rights from public open space sites that could be accommodated on "receiving sites" in study area if all projects use maximum amount of open space TDR allowed*	1,149,619 sf	1,375,026**	2,106,384**	2,446,753 sf***

*Assumes total amount of floor area that can be gained through non-housing bonuses and TDR is used for open space TDR (excluding amount required for use of landmark TDR)

**Includes use of open space TDR to gain first FAR above the base in DOC 1 and DOC 2, as well as 25% of additional floor area in DOC 1, DOC 2, and DMC zones.

***Includes use of open space TDR to gain first FAR above the base, as well as 25% of additional floor area in DOC 1 and DOC 2; assumes all floor area above the base in DMC is gained through open space TDR.

While increasing the base FAR under Alternative 1 increases the supply of TDR to transfer, it also reduces the overall amount of floor area that can be received on development sites relative to the other Alternatives. However, in all cases, given the range of bonus and TDR options available to gain floor area above the base FAR, the potential supply of TDR is likely to exceed demand in all alternatives.

Contributions to Amenity Credit Fund under Denny Triangle TDC Program

Within the Denny Triangle, residential or mixed-use projects participating in the transfer of development credits (TDC) program to gain additional height are required to provide public amenities like open space or Green Street improvements, or contribute to a fund to be used to provide such amenities in the neighborhood. The contribution to the amenity credit fund is currently established at five dollars per square foot for each square foot of floor area added above the mapped height limit. Table J-7 below provides an estimate of the contribution by alternative based on the amount of floor area projected to be gained through this incentive. Under Alternative 1, the TDC program is assumed to be terminated because of the greater height increases proposed throughout the Denny Triangle. In Alternatives 2 and 3, the program would be retained in some areas of the Denny Triangle where additional height increases are not proposed.

Table J-7
Contributions to Amenity Credit Fund through Participation in TDC Program

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Total square feet of residential floor area gained through TDC	NA	232,900 sf (274 units)	701,250 sf (825 units)	850,850 sf sf (1,001 units)
Contribution to amenity credit fund at current rate of \$5 per square foot	NA	\$1,164,500	\$3,506,250	\$4,254,250

Open Space Requirements

Downtown development is subject to requirements for open space or common recreation area according to use. Hotel and retail uses are not subject to any type of open space requirement.

Office Open Space Requirement. Under the office development requirement, 20 square feet of open space is required for every 1,000 square feet of office space in a project. Table J-8 below indicates the total amount of open space that projected office development over the next 20 years would be required to provide under the four alternatives.

Table J-8
Required Open Space for Projected Office Development - 2000 and 2020*

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Total square feet of office space	17,175,036	16,864,155	16,923,900	17,002,603
Total amount of open space required	343,501 sf (7.9 acres)	337,283 (7.7 acres)	338,478 sf (7.8 acres)	340,052 sf (7.8 acres)

*This estimate includes projects recently completed, permitted and projects, since all would be subject to the same requirement.

Since the projected amount of office development is essentially the same for all alternatives, there is no significant difference between the alternatives in terms of the amount of open space required. Furthermore, the requirement applies to total project floor area and therefore is not affected by any differences among the alternatives in the base FAR limits.

Open space provided to meet the requirement is intended for the use of building occupants, and does not need to be accessible to the general public. However, if publicly accessible open space is provided, it may be eligible for a floor area bonus, creating an incentive for developers to accommodate public access. Consequently, there is likely to be some overlap between the amount of open space required and the amount of public open space assumed to be provided in projected projects.

Common recreation area requirement for residential use. In projects with over 20 dwelling units, residential use is subject to a common recreation area requirement. The amount of area required is calculated as 5 percent of the project's total gross floor area in residential use. Up to 50 percent of the required common recreation area may be provided as enclosed space, and on sites abutting a Green Street, up to 50 percent of the common recreation requirement may be met through participation in Green Street improvements.

Within the Denny Triangle, residential floor area gained through the transfer of development credit (TDC) program is exempt from the common recreation area requirement. Developers can contribute instead to an amenity credit fund used to provide public open space and Green Street improvements in that neighborhood.

Table J-9 below indicates the total amount of common recreation area that projected residential development over the next 20 years would be required to provide under the four alternatives.

Table J-9
Required Common Recreation Area for Residential Use

	Alternative 1	Alternative 2*	Alternative 3*	Alternative 4*
Total square feet of residential floor area	6,271,300 sf (7,378 units)	6,490,600 sf (7,636 units)	6,335,900 sf (7,454 units)	6,481,250 sf (7,625 units)
Total amount of common recreation area required	313,565 sf (7.2 acres)	312,885 sf (7.2 acres)	281,732 sf (6.5 acres)	281,520 sf (6.5 acres)

*Floor area gained through TDC exempt from common recreation area requirement

Comprehensive Plan Open Space Goals for Downtown

Within the 419 acres of the Commercial Core and Denny Triangle neighborhoods and 38 acre portion of the Belltown neighborhood comprising the study area, there are currently 4,204 housing units and 134,226 jobs. This translates into a gross housing density of 9.2 dwelling units per acre and a gross employment density of 294 jobs per acre. The addition of approximately 7,500 dwelling units and 64,188 jobs projected for the area over the next 20 years will increase these densities to 25.6 dwelling units per acre and 434 jobs per acre.

The Comprehensive Plan includes open space goals for Downtown neighborhoods that include goals for the overall amount of space desired for both the residential and employment populations, as well as the desired proximity of the open space to the populations served.

Open Space Goals for the Employment Population. The Comprehensive Plan establishes an open space goal for the downtown core of one acre of “Village Open Space” per 10,000 jobs (4.35 sq. ft./job). For the purposes of this analysis, the downtown core is defined as the study area zoned DOC 1, DOC 2, and DMC, as well as the retail core (DRC).

Residential open space goal. The goal for residents calls for 1 acre of village open space for each 1,000 households.

Open space distribution goal. The open space goals for both the residential and employment populations include distribution goals. Regardless of the overall amount of open space, all locations need to be within 1/8 mile of Village Open Space.

“Village Open Space” is generally described as public open space in the ¼ acre to ½ acre range (approximately 10,000 to 21,000 square feet). The Plan is not specific about the characteristics of village open space. It is possible that some non-City public space and some privately developed, bonused public spaces would qualify. However, the goals do call for at least one usable open space of at least one acre in size, a "Village Commons," for each urban center village with a growth target exceeding 2,500 households.

The Comprehensive Plan is not clear about whether the same open space can be counted towards meeting both the residential and employment open space goals. While the open space/recreational needs are likely to be different, it is reasonable to assume that there will be some overlap in the use of space by both populations. However, the extent to which this overlap can successfully meet the needs of both residents and workers will largely be a factor of design, location, and programmed use.

Table J-10 below shows the current status of the study area in terms of meeting open space goals.

Table J-10
Existing Open Space Conditions within the Study Area

Existing Conditions				
	Commercial Core Area: 276 acres	Edge of Belltown Area: 38 acres	Denny Triangle Area: 143 acres	Total Area: 457 acres
Amount of open space*	17.5 acres	0 acres	2.3 acres**	19.8 acres
Employment	107,705 jobs	7,221 jobs	19,340 jobs	134,226 jobs
Jobs/acre of open space	6,155 jobs/acre of open space	0 open space	8,409 jobs/acre of open space	6,779 jobs/acre of open space
Housing Units	2,280 units	997 units	927 units	4,204 units
Housing units/ acre of open space	126 units/acre of open space	0 open space	403 units/acre of open space	212 units/acre of open space

*includes committed projects like City Hall Plaza and Federal Courthouse Plaza

** does not include Denny Park, a 4.6 acre open space abutting the northwest corner of the neighborhood.

While the ratios of acres of open space relative to the employment and residential populations are well within the goals, the information on the chart does not address the distribution goal. Because of the distribution of projected growth under the four alternatives, it is most instructive to discuss potential impacts by Downtown neighborhood.

Denny Triangle. The Denny Triangle Urban Center Village is expected to receive over 60 percent of total employment growth and over 70 percent of total residential growth projected for the study area. Table J-11 below describes the amount of open space potentially added to the area through future development. Acreage of additional open space is based upon open space included in projects currently proposed, and estimates of open space that could be included in future developments. The open space projection is a conservative approximation and does not account for future public investments that may be made in the area. While the amount was derived primarily from anticipated use of bonuses for on-site amenities in future projects, the use of open space TDR could also be a factor. Under Alternatives 2, 3 and 4, funds potentially raised through the TDC program for investment in Denny Triangle open space amenities were not considered, under the assumption that this potential resource would likely be invested in Green Street improvements.

Table J-11
Projected Open Space Conditions for Denny Triangle

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Projected increase in amount of open space	2.3 + 2.7 = 5.0 acres	2.3 + 2.75 = 5.0 acres	2.3 + 2.2 = 4.5 acres	2.3 + 3.0 = 5.3 acres
Projected Employment	19,340 + 40,775 = 60,115 jobs	19,340 + 37,589 = 56,929 jobs	19,340 + 38,048 = 57,388 jobs	19,340 + 38,318 = 57,658 jobs
Jobs/acre of open space	12,023 job/acre	11,386 jobs/acre	12,753 jobs/acre	10,879 jobs/acre
Projected Housing Units	927 + 5,071 = 5,998 units	927 + 5,475 = 6,402 units	927 + 5,555 = 6,482 units	927 + 5,603 = 6,530 units
Housing units/acre of open space	1,200 units/acre	1,280 units/acre	1,440 units/acre	1,232 units/acre

Employment Goal. If projected employment growth occurred without any increase in open space, the resulting condition would be one acre of open space per every 25,000 jobs or more, falling far short of the goal of one acre for every 10,000 jobs. Added open space under all of the alternatives would result in conditions more consistent with the goals, with Alternative 4 performing the best.

Residential Goal. Existing open space in the Denny Triangle will provide less than half the amount desired to meet the goal with the projected residential growth. Under all alternatives, the amount of open space potentially be provided in future projects would bring the area closer to meeting the goal; however, all four alternatives fall short of achieving it. Furthermore, most projected open space is associated with private commercial development, and not likely to be well adapted to residential use.

In all the alternatives, the mixing of high density housing with employment activity in the same area may make it difficult to provide large open spaces usable to residents. With the greatest concentration of future housing likely in the portion of the neighborhood east of Westlake Avenue, the Green Street improvements in this area, improved access to Denny Park, and potential open space on the Convention Place Transit Station site may help serve the future residential population. Alternative 3 proposes zoning changes to concentrate residential development in the northeast corner of this area. This could provide the opportunity to site an open space in an area intended to function primarily as a residential neighborhood where the greatest concentration of housing would be expected.

Distribution Goal. A large portion of the Denny Triangle is currently not served by an open space within a 1/8-mile radius. The distribution of future development that might include usable public spaces will likely accomplish the desired distribution, with Alternative 4 performing slightly better than the others because of the greater number and wider distribution of projects including open space. However, on all alternatives, the type of open spaces provided through private development will be more oriented to the needs of the employment population.

Village Commons. At approximately one acre, the plaza of the new Federal Courthouse is the largest open space currently planned in the area, but its use is likely to be restricted. An open space as large as one acre is unlikely to occur as part of a private development, so unless there is significant public investment, the area is not likely to acquire an open space serving this function.

Commercial Core

Table J-12 describes projected open space conditions with future development in the Commercial Core.

Table J-12: Projected Conditions: Commercial Core

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Amount of open space with projected increases	17.5 + 1.1 = 18.6 acres	17.5 + 1.1 = 18.6 acres	17.5 + 1.1 = 18.6 acres	17.5 + 1.1 = 18.6 acres
Projected Employment	107,705 + 22,632 = 130,337 jobs	107,705 + 25,238 = 132,943 jobs	107,705 + 24,918 = 132,623 jobs	107,705 + 24,095 = 131,800 jobs
Jobs/acre of open space	7,007 jobs/acre	7,147 jobs/acre	7,130 jobs/acre	7,086 jobs/acre
Projected Housing Units	2,280 + 423 = 2,703 units	2,280 + 414 = 2,694 units	2,280 + 446 = 2,726 units	2,280 + 414 = 2,694 units
Housing units per acre of open space	145 units/acre	145 units/acre	147 units/acre	145 units/acre

Employment Goal. In terms of the overall amount of open space, the Commercial Core exceeds the goal of providing at least one acre of open space for every 10,000 employees. Freeway Park and Waterfront Park, large spaces on the extreme eastern and western edges of the neighborhood, account for the relatively high acreage of open space.

Residential Goal. As with the employment goal, the amount of open space relative to housing units is well within the goal of one acre per 1,000 households.

Distribution Goal. Most of the Commercial Core between Union and James Streets and 1st and 5th Avenues currently lacks open space and would likely need about three sites (3/4-acre minimum) of space to meet the distribution goal. Planned open space on the City Hall and Public Safety Building sites and additional spaces on private development sites will likely accomplish the desired distribution.

Housing in the Commercial Core is concentrated along the southern edge adjacent to Pioneer Square and along the western edge, primarily in and around the Pike Place Market, along 1st Avenue, and along 2nd Avenue adjacent to the retail core. Future residential development is likely to continue to locate in these areas, which have reasonably good access to the open space resources along the harborfront. Since tourists and the Downtown working population also heavily use these open spaces, additional spaces that more directly serve the needs of the residential population may also be desirable.

Village Commons. Although not quite one acre in size, Westlake Park and Plaza already serve as the Commercial Core's "Village Commons."

Green Street Improvements Associated with Future Development

The substantial amount of development expected in the Commercial Core and Denny Triangle provides opportunities for carrying out Green Street improvements on development sites abutting designated Green Streets. The following is a list of proposed Green Street projects either being undertaken by the City or expected to occur as a result of private development on an abutting site:

Terry Avenue TDC Green Street demonstration project: Terry Avenue between Lenora and Virginia Streets (Denny Triangle);
2119 6th Avenue (UA Cinema site): portions of Blanchard between 5th and 6th Aves (Denny Triangle);
2300 5th Avenue: Bell Street between 5th and 6th Avenues (Denny Triangle).

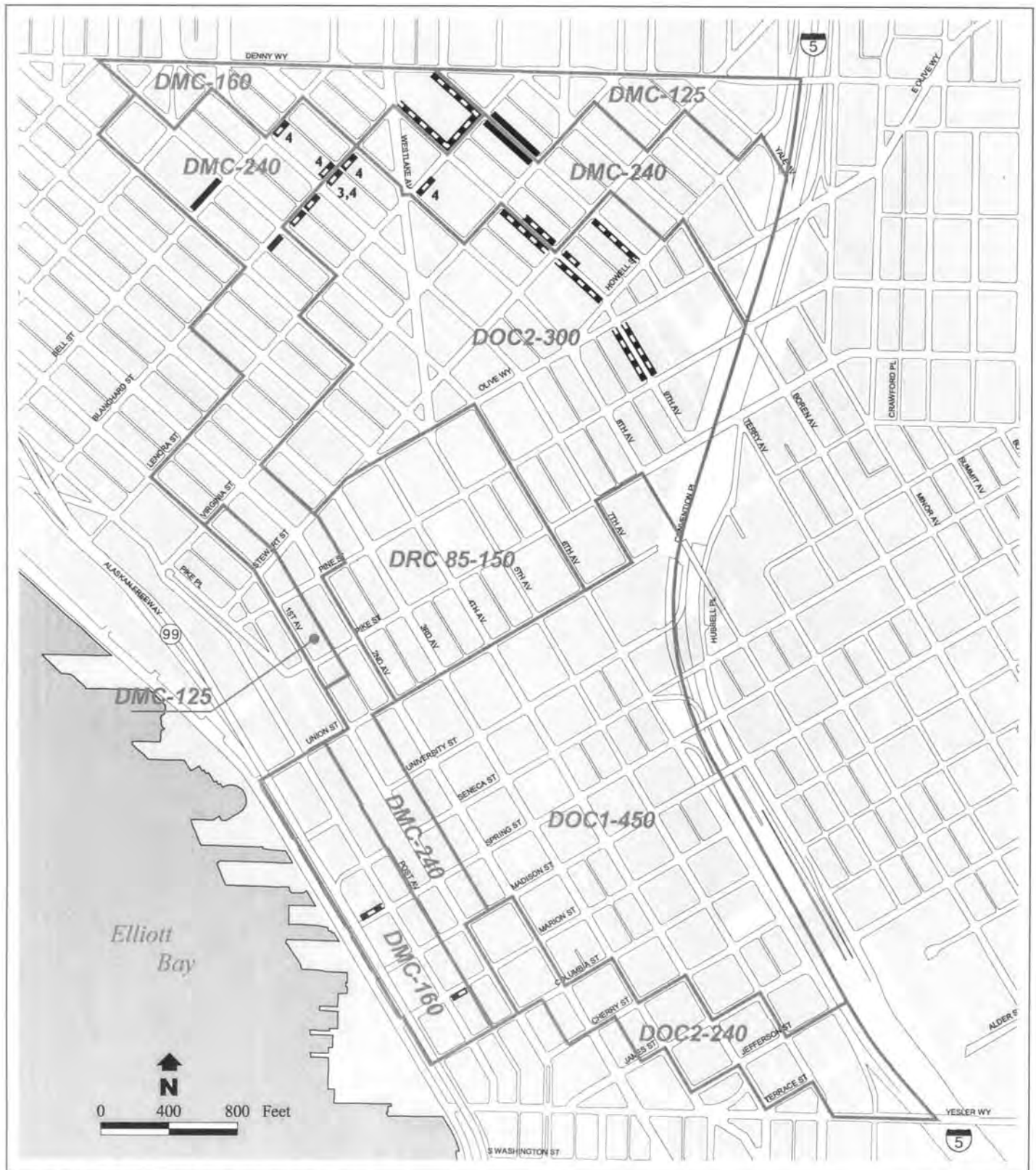
The locations of these Green Street projects are shown on Figure J-2 below.

Potential Green Street Improvements. Table J-13 below identifies projected development sites that abut designated Green Streets under the four alternatives. The locations of these projects are also shown on Figure J-2 below. The expectation is that these projects are most likely to take advantage of available development incentives for Green Street improvements, including floor area bonuses and contributions to TDC amenity credit funds for sites in the Denny Triangle under Alternatives 2, 3 and 4.

Table J-13
Potential Projects Abutting Green Streets

Project	Location	Abutting Green Street block	Alternative
Project 50 6 th /7 th Aves and Lenora/Blanchard Sts	DOC 2 300 Denny Triangle	Blanchard Street between 6 th and 7 th Avenues	1,2,3,4
Project 52 7 th Ave btwn Lenora and Blanchard Sts	DOC 2 300 Denny Triangle	Blanchard between 7 th Ave and mid- block	3, 4
Project 53 8 th Ave btwn Lenora and Blanchard Sts	DOC 2 300 Denny Triangle	Blanchard between 8 th Ave and mid- block	4
Project 65 7 th Ave btwn Blanchard and Bell Streets	DMC 240 Denny Triangle	Blanchard between 7 th Ave and mid- block Bell between 7 th Ave and mid-block	4
Project 57 Greyhound Bus Terminal site	DOC 2 300 Denny Triangle	9 th Avenue between Howell and Stewart Streets	1,2,3,4
Project 59 Gethesmane site	DOC 2 300 Denny Triangle	9 th Avenue between Stewart Street and mid-block	1,2,3,4
Project 61 800 Stewart St Bentall	DOC 2 300 Denny Triangle	9 th Avenue between Stewart and Virginia Streets	1,2,3,4
Project 62 1900 9 th Ave	DMC 240 Denny Triangle	9 th Avenue between Stewart and mid- block	1,2,3,4
Projects 58/59 Terry Ave btwn Howell and Stewart St	DOC 2 300 Denny Triangle	Terry Avenue between Howell and Stewart Streets	1,2,3,4
Projects 67/68 Terry Ave btwn Lenora and Virginia Sts	DMC 240	Terry Avenue between Lenora and mid- block	1,2,3,4
Project 24 2200 Westlake (Quinton Instruments site)	DMC 160 Denny Triangle	Terry Avenue btwn Denny Way and Lenora Street; 9 th Avenue btwn Westlake and Lenora Street Lenora Street between 9 th and Terry	1,2,3,4
Project 41	DMC 160 Commercial Core	Marion Street between Western Avenue and Post Alley	1,2,3,4
Project 42	DMC 160 Commercial Core	Spring Street between Alaskan Way and Western Avenue	1,2,3,4
Project 72	DMC 240 Denny Triangle	Lenora Street from 8 th Avenue to mid- block	4

Source: SPO, 2002



GREEN STREET IMPROVEMENTS

FIGURE J-2

- Green street improvements included in current projects
 - Potential green street improvements related to potential projects on redevelopment sites
- (unless a specific alternative is indicated by number, potential green street improvements are included in all alternatives)

Strategic Planning Office
City of Seattle
May 21, 2002

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Appendix K

Seattle Urban Design Impact Analysis

Introduction

The purpose of this report is to describe Otak's input regarding potential urban design impacts of changes in Seattle Downtown Neighborhoods (Downtown) density and height regulations. The objectives of our work effort included:

- Reviewing and confirming policy assumptions for the alternatives included in the soon to be released Environmental Impact Statement (EIS).
- Creating graphics that provide a relative comparison of the EIS alternatives, including "birdseye view" perspectives, skyline viewpoints, and pedestrian-oriented views that depict potential urban relationships between existing and future development.
- Evaluating potential impacts of future development on the public environment, including relative impacts on: wind and shadows, pedestrian/street environment, open spaces, historic landmarks, and the overall Downtown urban form.

This report addresses the urban design impacts and potential mitigation strategies associated with changes in Downtown building height/density regulations that impact the quality and physical character of the Downtown environment. The areas being evaluated in this report are shown in Figure 1 and include portions of Downtown generally bounded by Denny Way, Interstate 5, Yesler Way, Alaskan Way, Lenora Street, and 5th Avenue. The areas most affected by potential changes to land use regulations are in the following zones: Downtown Office Core (DOC-1 and DOC-2), Downtown Mixed Commercial (DMC), and edges of the Belltown neighborhood zoned DMC 240 and DOC-2 300.

Downtown Districts	
DOC-1	Office Core-1
DOC-2	Office Core-2
DRC	Retail Core
DMC	Mixed Commercial

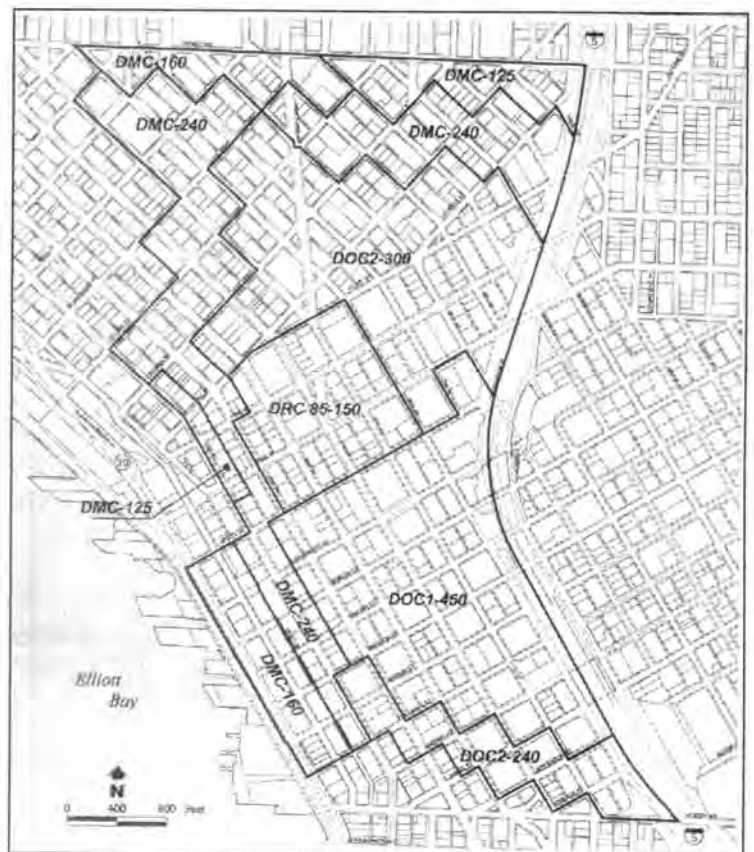


Figure 1 Downtown Districts

EIS Alternatives

The four alternatives being evaluated as part of the environmental review process, are illustrated in Figure 2 and described below.

Alternative 1 – High End Height and Density Increase represents the higher-end of possible changes to height and density. It is intended to reflect general preference for development concepts that emerged during the development of the Denny Triangle and Commercial Core neighborhood plans and the Downtown Urban Center Planning Group (DUCPG) *Downtown Urban Center Plan*. Alternative 1 also includes recommendations made by the TDR/Bonus Program Review Advisory Committee to consider other changes (not from neighborhood plans) on the edges of the Commercial Core area and Belltown neighborhood. Alternative 1 proposes the greatest magnitude of changes in height and density studied in this EIS.

Alternative 2 – Concentrated Office Core is intended to focus height and density for office/commercial development in the central core area. Within the office core zones of the Commercial Core, the proposed changes in height and maximum density are the same as for Alternative 1. In the Denny Triangle, the maximum density floor area ratio (FAR) in the DOC-2 zone would increase by 3 FAR rather than 4 FAR as proposed in Alternative 1.

Alternative 3 – Residential Emphasis focuses on regulatory changes to encourage provision of housing in strategic areas surrounding the Downtown office core. This alternative supports increased height and densities in the office core zones, but with transitions in development intensity in the DOC-2 zones of Belltown and the Denny Triangle. In Downtown areas surrounding the office and retail core, maximum commercial densities would not increase, and would be reduced through rezoning to zone designations that promote residential development.

Alternative 4 – No Action assumes existing zoning and land use code regulations remain constant. The general development pattern of a concentrated Commercial Core surrounded by less intensive mixed-use areas promoted under existing zoning would continue. The maximum allowable densities and height limits would apply, with the existing Transfer of Development Rights (TDR) opportunities to gain additional height above these limits. These include: 10 percent additional height in DOC-1 and DOC-2 zones when design measures control the overall bulk of a project; 20 percent additional height in DOC-1 and some DOC-2 areas with bulk controls and open space provision, landmark preservation, or small-scale structures onsite; and up to 30 percent additional height for residential and mixed-use development through participation in the Transfer of Development Credit (TDC) program in the Denny Triangle.

Please refer to Appendix A, Table 1 for a comparison of existing and proposed zoning alternatives.

Work Completed

This report marks the culmination of a four-month urban design analysis by Otak and our subcontractors, Centrifugal Maps and Environmental Science Associates. Our work to date builds upon recent City of Seattle Strategic Planning Office (City) and consultant input and assumptions for the Downtown Urban Design EIS. The conceptual graphics, created by Otak, utilize the land use assumptions provided by the City for each EIS alternative. Several meetings were conducted with City staff to provide Otak with the inputs and direction needed to complete our work.

Existing and future land use and development assumptions were provided by the City in an electronic Geographic Information System (GIS) format. Those assumptions, which varied for each of the four EIS alternatives, included information regarding zoning, building height and density assumptions, street locations, alley locations/vacations, existing parks/open spaces, building setbacks, view corridors, Green Streets, historic resources, and topography. Our work is intended to evaluate the urban design impacts associated with the redevelopment that is likely to occur under the specific alternatives.

Otak and City staff worked together to confirm key viewing locations for graphic representation. The viewing locations are intended to represent a variety of perspectives (e.g., birdseye view, skyline view, pedestrian/streetlevel view) and indicate relative impacts among the alternatives. Otak and the City agreed to a limited number of graphic images, which in some instances are intended to depict the extremes of the EIS alternatives rather than a separate depiction of each alternative.

Urban Environment

Seattle's modern urban form reflects its unique, natural, environmental features as well as man-made infrastructure, land use regulations, and market forces. Located on a narrow, three-mile wide peninsula, the city is virtually surrounded by bodies of water—Elliott Bay, Lake Union, Lake Washington, and the Duwamish River. The sharp peaks of the Cascade and Olympic mountain ranges, east and west of the city, provide splendid panoramic contrasts to Seattle's urban environment.

Seattle evolved fairly rapidly over the past 150 years, since its founder Arthur Denny anchored off what is now West Seattle and dubbed their new home New York-Alki (Chinook for "New York By-and-By"). Within a century of Denny's prophetic declaration, the city's skyline had grown in size and density in a manner that triggered local height-restrictive building codes. Now home to more than 533,000 residents and 468,000 jobs, Seattle is the largest city in the Pacific Northwest. Downtown Seattle is planned to function as the urban hub of the expanding Puget Sound Region—with the *Comprehensive Plan* setting 20-year (1994-2014) growth targets of 14,700 additional households and 62,700 new jobs.

The shape of a city's skyline matters to its inhabitants. In the words of the late Spiro Kostof, the skyline "is the familiar, fond icon of the cityform, a vision to cherish and come home to; it is also their urban advertisement to the world, the front they present to visitors, and a disseminative shorthand for a broader audience still."¹

Seattle's existing downtown urban skyline (shown in Figure 3) is bounded by civic structures, including the 600-foot-high Space Needle on the north and the newly developed Safeco Field and Seahawks football stadium on the south. Modern skyscrapers such as the 76-story Bank of America (Columbia) Center, U.S. Bank Center, Two Union Square, Washington Mutual Tower, Seafirst Fifth Avenue Plaza, Wells Fargo Building, and Key Tower rise from its well defined street grid. These buildings were constructed within the Downtown Office Core on full-block sites between 1980 and 1990, prior to the adoption of current height and density limitations.



¹ Spiro Kostof, *The City Shaped, Urban Patterns and Meanings Through History*, Bulfinch Press, 1991.

Figure 3. Existing Skyline

Defining Elements

As with the case of most large cities, the Downtown urban environment in Seattle now reflects a wide diversity of development technologies, building styles, heights, density patterns, and land use regulations. While those development factors have varied with time, one factor that has held constant over-time is the urban street grid. The Downtown street grid with its rectangular block patterns continues to influence general building orientation, size, and massing. The origin of the street grid was dictated by the natural relationship of land and water. North-south avenues are generally the widest and flattest routes and run parallel to Elliot Bay. East-west streets are typically narrower and rise up steeply toward the Capitol Hill and First Hill neighborhoods. Most blocks were platted with service alleys running parallel to the avenues.

As Seattle developed and new streets were platted, the street grid shifted to follow the shoreline of Elliot Bay, creating diagonal blocks that cut across the network of streets. The uniformity of the street grid became interrupted by diagonal streets forming “folds” in the urban fabric. These folds create complex intersections, and triangular sites at the confluence of routes such as Yesler Way, Stewart Street/Olive Way, and Westlake Avenue. The pedestrian-related implications of the Downtown street grid are further discussed in the next section.

Other defining elements of the Downtown skyline include the low-density water-related uses along Elliott Bay and the freeway separations created by the Alaskan Way Viaduct and Interstate 5.

Birdseye View Perspectives

Urban areas evolve over time. What was once remote trading post later becomes a mill site, then a railroad hub, and eventually an international seaport. Seattle’s industrial base expanded accordingly from basic agricultural, fishing, and forest-based industries to warehousing, imports/exports, aerospace, high-tech, healthcare, biotech, and tourism. Today, the Downtown urban fabric includes a tapestry of old and new building forms, with building heights that generally follow the topography of the land and context of the street grid system.

The following birdseye view perspectives (Figures 4,5,6 and 7) of future development massing in Downtown were created using a combination of aerial photography and three dimensional GIS. Potential future buildings are indicated in dark or color tones, using development assumptions derived from the *Height and Density Study Report* by Craig Kinzer & Company, The Seneca Real Estate Group, and Cushman & Wakefield, dated December 14, 2001. For purpose of this urban design analysis, the future development conditions are intended to illustrate the potential maximum building height and massing that can be constructed under the EIS alternatives. The redevelopment projects shown represent the amount of floor area ratio required to meet 20-years growth forecasts (2000-2020).

The four birdseye view perspectives denote little relative change between the rezoning alternatives (1, 2, and 3) and the existing conditions (Alternative 4). All of the EIS alternatives generally accommodate similar overall development massing, with the tallest future buildings concentrated in the Downtown Office Core (DOC-1 and DOC-2 300 zones) and transitional buildings located in DOG2 240 and DMC zones. All of the Alternatives support the visual stair-stepped gradation of buildings—with the lowest building heights along the Elliott Bay waterfront (1 to 6 stories), stepping up to mid-rise structures east of the Alaskan Way Viaduct and transition areas to the Downtown core (4 to 20 stories), culminating with a mix of historic and modern skyscrapers in the Downtown Office Core (20 to 76 stories).

The incremental increase in building heights allowable by relatively higher height and density regulations under Alternatives 1, 2, and 3 (assuming a change in building heights as much as 135 feet in the DOC-1 zone), are virtually unnoticeable from the birdseye view perspective in comparison to Alternative 4 (Existing Zoning). Existing Downtown landmarks such as the Space Needle, Smith Tower, and Safeco Field would likely continue to provide strong reference points within the Downtown skyline in all of the EIS alternatives being evaluated.

It is important to note that for all of the alternatives, the birdseye view perspectives reveal Downtown development issues regarding:

- The potential for relatively bulky building structures to be developed under all of the alternatives, and
- Downtown development density will expand northward over time with significant redevelopment occurring north of Pine Street in the DOG2 and DMC zones within the Denny Triangle and Belltown neighborhoods.

These issues are further evaluated in the following section.

Skyline Impacts

Most of us experience the Downtown skyline daily from various streetlevel perspectives. As part of Otak's evaluation of the EIS alternatives, three different skyline perspectives were created from popular viewing locations—including Belvedere Viewpoint (West Seattle), Kerry Park (Queen Anne), and Capitol Hill (across I5).

View from Belvedere Viewpoint (West Seattle)

Figure 8 indicates existing and future development massing conditions as viewed across Elliott Bay from Belvedere Viewpoint. From this perspective, it is evident from analyzing the two alternatives that depict the extreme differences in potential changes to building height/density regulations (Alternative 1– High End Height and Density Increases and Alternative 4 – No Action) that there is little noticeable difference between the alternatives. None of the alternatives are expected to significantly interrupt the view of important landmarks and features such as the Space Needle, Smith Tower, and the Cascade Range.

View from Kerry Park

One of the most picturesque views of the Downtown skyline is from Kerry Park. As shown in Figure 9, this perspective is dominated by the Space Needle in the foreground, with Elliot Bay, the Cascade Range and Mt. Rainier in the background. Once again, none of the alternatives are expected to alter the foreground nor background elements of the skyline in a significant adverse manner. The graphic depiction of the Downtown skyline under Alternatives 1 and 4 shows little relative difference between the alternatives. In all of the alternatives, it is evident however, that the concentration of redevelopment within the Denny Triangle will significantly change the skyline within that area of the city compared to today.

View from Capitol Hill

This perspective of the Downtown skyline, as viewed from Capitol Hill (near the confluence of Melrose Avenue and John Street), depicts the amount of redevelopment anticipated to occur in the Denny Triangle. As shown in Figure 10, none of the alternatives are expected to impact views of background features such as Elliott Bay or the Space Needle. However, there is a significant amount of new development in the foreground. Wide streets such as Blanchard, Lenora, and Bell provide some potential opportunities for building spacing and corridor views toward Elliott Bay. However, it is evident that the Downtown skyline perspective from Capitol Hill towards the Commercial Core would be dominated by the mass, density, and height of new development within the Denny Triangle under all of the alternatives.

It is evident from the skyline impact analysis, that all of the EIS Alternatives could result in relatively similar impacts on the downtown skyline. While the existing stair stepped pattern of graduated building heights would continue, the vast concentration of redevelopment in the Denny Triangle could result in a uniform wall or mesa of building structures that impede views of downtown from the north and northeast. Given the potential for development of large and bulk structures with uniform building heights, there will likely be adverse urban design impacts under any of the EIS Alternatives with the Denny Triangle and Denny Regrade areas.

Skyline Impacts

Continued

Potential mitigation of these adverse impacts requires land use and building design measures that support greater variation in building heights and encourage proper upper-level setbacks, tower spacing and pedestrian oriented design of groundlevel uses and open spaces. Such mitigation measures, if applied consistently, overtime could result in an improved building skyline, as envisioned by the illustration below in Figure 11.

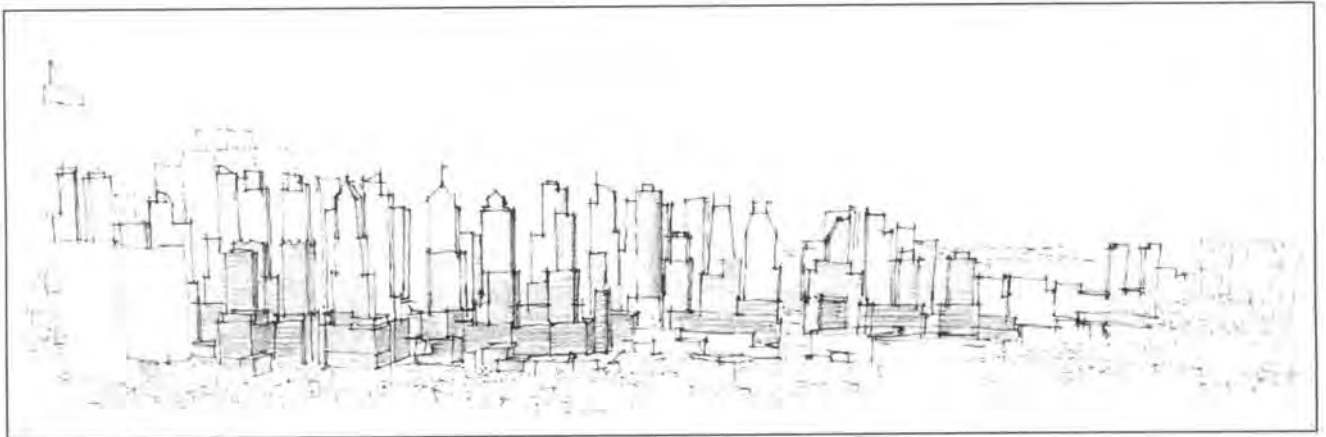


Figure 11. Potential future skyline view from Capital Hill (with proper design mitigation measures)

Aesthetic Impacts on Landmarks

Seattle's historic landmarks provide a sense of history and tradition that should be honored and preserved. This section addresses potential urban design impacts of new development on the context of selected historic landmarks.

None of the alternatives are anticipated to have a significant variation in their relative urban design impacts on landmark buildings. The use of TDRs for preservation of landmark buildings should help to equalize the impacts among the alternatives. The addition of new buildings in the context of historic structures creates potential urban design impacts, especially when new development contrasts drastically with the scale, height, facade, materials, and orientation of historic buildings.

To illustrate the relative impacts of new development in context with historic structures, Otak and the City selected three historic landmark buildings in locations that are expected to redevelop overtime. The selected locations include development nearby or adjacent to the Pacific Hotel and Rainier Club in the Commercial Core area (DOC-1), the Terminal Sales Building in the Belltown area (DMC), and the historic Camlin Hotel and Paramount Theatre in the Denny Triangle (DOG2).

The photos and conceptual renderings of each of these areas are intended to illustrate existing conditions and future development massing, in context with the historic landmark. In all renderings, future development is shown in white building facades to provide a visual contrast with existing development, and to focus the interpretation on relative changes in building heights, not building/site design.

Pacific Hotel Visual Impacts (DOC-1 Zone)

Looking south down 4th Avenue at Marion Street, the existing urban environment in the Commercial Core is already comprised of interesting contrasts between old and new. The low density Pacific Hotel and the Rainier Club (a view-protected landmark) provide an enclave of pedestrian-oriented building scale among the surrounding skyscrapers, such as the Bank of America Center. The historic low-density structures with the generous setback of the Rainier Club provide a feeling of airiness and welcome sunlight into the Commercial Core.

The future condition renderings, shown in Figure 12, depict new development on the half-block site fronting 4th Avenue between Columbia and Cherry streets. The assumptions for future development are intended to reflect the extreme variations in potential building heights and massing. The Alternative 1 computer rendering illustrates the high-end height and density increases and assumes development of a 22-floor office/commercial building with approximately 485,530 square feet on the 28,560 square-foot site. Alternatives 2 and 3 would also result in similar commercial development density and height for this site. The Alternative 4 rendering assumes a slightly smaller commercial structure with 399,840 square feet building in an 18-story structure.

The one-quarter block separation between the Pacific Hotel and the future commercial building shown in the background (between Columbia and Cherry streets) provides

spacing to help mitigate the urban design impact of the new structure on surrounding historic landmarks. The building height and density massing for the 22-story structure supported by Alternatives 1, 2, and 3 (compared to the 18-story structure supported by Alternative 4) has similar urban design impacts on the surrounding landmarks. Hence, we do not expect the higher allowable building density/height supported in Alternatives 1, 2, and 3 to have a negative urban design impact with regards to bulk and massing in the DOC-1 zone district.

Camlin Hotel Visual Impacts (DOC-2 Zone)

The Camlin Hotel and nearby Paramount Theatre building are two historic landmark structures located in the DOC-2 zone of the Denny Triangle (view-protected landmark). The existing conditions photo and future conditions renderings are provided in the following illustrations. The future conditions renderings, shown in Figure 13, are intended to reflect the extreme urban design variations between Alternatives 1 and 4. The visual impact of Alternatives 2 and 3 are likely to be in between these extreme variations.

As previously mentioned, the Denny Triangle area is expected to receive the majority of new development in Downtown over the next 20 years. Redevelopment opportunities were identified for several sites surrounding the Camlin Hotel. The assumptions for this area include office/hotel, commercial, housing, and mixed-use development on parcels surrounding the Camlin, as well as the one-quarter block parcel on the corner of Olive Way and 8th Avenue. At least six new building structures are anticipated in this area. Both renderings for Alternative 1 and 2 assume construction of a residential tower located to the north of the Camlin along Olive Way, and construction of a commercial structure adjacent to the Camlin along Pine Street. Other commercial and mixed-use structures surrounding the Camlin are assumed to vary in height by approximately 10 to 15 stories.

Given the close proximity of these new building structures to the Camlin, there is the potential for all of the alternatives to have similar urban design impacts. The urban design impacts that could occur in this area relate less to building height and density than to the relationship of building facades, orientation, and setbacks relative to the Camlin. In other words, all of the alternatives are likely to result in similar urban design impact, which are best mitigated through adequate and responsible site/building design treatments. Figure 14 depicts an example of future development that attempts to relate the new structure with the historic building lines of the Camlin Hotel.



Figure 14. Camlin Hotel and potential adjacent development

Terminal Sales Building Visual Impacts (DMC Zone)

Figure 15 depicts future development in the DMC zone district of Belltown with the Terminal Sales building in the right foreground of photo/rendering. The existing conditions photograph depicts the view up Virginia Street from 1st Avenue. The north Westin Hotel tower is shown in the background.

The future conditions renderings are intended to illustrate the relative extreme variations in building height/densities allowed by the EIS alternatives. As indicated in the renderings labeled as Alternative 1 and 2, future development conditions depict new development on the present site of the Terminal Sales Annex building (located behind the Terminal Sales building). Also shown is a future residential tower with ground-floor retail in the DOC-2 zone on a four-lot site at Virginia and 4th Avenue. The second phase of Pacific Plaza is illustrated on the north side of Virginia Avenue.

The amount of development on the one-quarter block (19,440 square feet) behind the Terminal Sales building is assumed to vary from 24 stories in Alternatives 2, 3, and 4 to 31 stories in Alternative 1. On the north side of Virginia, given the relatively small site size (12,960 square feet), the amount of development assumed to occur ranges from: approximately 220 dwellings in 31 stories in Alternative 1, 169 dwellings in 24 stories in Alternative 2 and 4, and 84 units in 12 stories in Alternative 3.

Impact on Landmarks

Continued

With the exception of future development blocking views of the Weston Hotel, there is relatively little difference between the EIS Alternatives in regards to their impacts upon the Terminal Sales building. Figure 16 illustrates possible urban design treatments that attempt to relate new development with the Terminal Sales building by providing ground-level commercial and upper-level setbacks that are consistent with ground-level uses of the Terminal Sales building.



Figure 16. Terminal Sales Building and adjacent development (view up Virginia Avenue)

Impact on the Pedestrian Environment

Over the next 20 years, the greatest change in Downtown development will be concentrated in the transition areas of the Denny Triangle and Belltown. As former/existing surface parking lots, low-rise structures, and functionally obsolete buildings are replaced with high-rise commercial, housing, and mixed-use projects, the urban environment will change, and population density will increase. This section discusses potential impacts of the EIS alternatives on the pedestrian environment, with specific focus on wind and shadows, open space, and pedestrian access.

Wind and Shadows

Tall buildings and structures can strongly influence the wind and shadow patterns. In urban areas, groups of tall structures can slow down winds near ground level, because of the friction and drag of the structures themselves. Buildings that are much taller than surrounding structures intercept and redirect winds that might otherwise flow overhead. The redirected wind, traveling down the face of tall structures, is called "downwash." Downwash wind conditions can generate groundlevel turbulence, which is incompatible with a safe and secure pedestrian environment.

Generally, the taller the buildings are relative to surrounding structures, the stronger the downwash conditions. These intercepted winds can be especially strong if the upwind buildings are much shorter than the taller buildings, and can be diminished when the height of upwind buildings is similar to the height of the subject building. If the building provides a wide face to the wind, more air will flow down the face of the building toward the ground level. In summary, both height and bulk can affect wind conditions at the street level.

Potential wind impacts on the pedestrian environment can be controlled by building design features that redirect wind away from pedestrian areas. Typically, it is sufficient to provide substantial horizontal structures near the base of tall buildings and upper level setbacks to help intercept and redirect the downwash. This design strategy is usually effective at mitigating wind impacts for both taller towers as well as lower, bulkier buildings.

All of the alternatives are expected to result in relatively similar cumulative wind impacts on the pedestrian environment, which can be mitigated fairly equally using appropriate architectural design features such as upper level setbacks. Within the DOC-1 office core area, Alternative 4 (with its lower building heights/densities) would likely generate somewhat lower wind impacts than Alternatives 1, 2, and 3. Due to somewhat less height and bulk of future buildings in the Denny Triangle and peripheral areas, potential wind effects created by Alternatives 3 and 4 would be less than Alternatives 1 and 2. Appendix B includes a more detailed discussion of potential wind and shadow impacts of the EIS alternatives.

Sunlight is a rare yet highly appreciated weather feature of Seattle. Sun exposure and shading affects pedestrian comfort in Downtown. On a clear day, pedestrians expect to encounter both shade and sunshine on sidewalks and open spaces, and may or may not adjust their routes to favor one or another, according to temperature. Shade usually does not result in safety issues, except for rare icy conditions in the winter.

Impact on the Pedestrian Environment

Continued

The City's existing Statewide Environmental Policy Act (SEPA) regulations already protect against shadowing effects of new development on specific public open spaces and parks in Downtown, including Freeway Park, Westlake Park, Steinbrueck Park, Convention Center Park, and Kobe Terrace/I.D. Community Garden. Only two of these open spaces (Freeway Park and Convention Center Park) are within the study area, located on the far eastern edge of the office core. No significant shadow impact on these parks is expected to result from any of the EIS alternatives since there are limited development opportunities identified near them, and the impact of existing tall buildings will likely be greater than the impact from new development.

Shadows cast by new development not only impact public open space and street environments, but also affect overall livability and the work environment. Studies have shown that work spaces with access to natural light can contribute to increased productivity of employees, increased retail sales, and reduced use of overhead lighting, which conserves energy. Bulky buildings, which cast shadows on adjacent areas, tend to have a greater impact on the production of shading than taller more slender high rise structures.

The EIS alternatives are expected to result in similar wind and shadow impacts in the Downtown office core, but potentially different shade impacts in the Denny Triangle. In Alternative 3, residential emphasis may produce more favorable wind and shadow impacts in the Denny Triangle, relative to the other alternatives. However, Alternative 3, like the other alternatives, could also result in construction of bulky buildings that have some negative impacts. The City's existing development ordinances, design guidelines, and design review process can result in architectural design that mitigates or avoids wind and shadow impacts for all alternatives.

Open Space, Alleys and Streetscapes

The ability for the City to designate and improve future public open spaces and Green Streets, particularly within the Denny Triangle, can establish a foundation on which the urban fabric can be recreated. Opportunities to link existing parks such as Denny Park with new public open spaces and plazas should coincide with the Downtown street grid and "folds" in the urban fabric. Strategic small, triangular or irregular sites, such as the area at the confluence of Olive Way and Howell Street and the area bounded by Olive Way, Stewart Street, and 8th Avenue can become important "pocket parks" with gateway design features that help serve and define the emerging Denny Triangle area.

The slightly larger block grid patterns within the Denny Triangle are important considerations when defining pedestrian-oriented linkage connections. New Green Street design treatments can enhance designated Green Streets such as Terry and 9th avenues. Extension of Green Streets to strategic park, transit, and commercial center locations can define and enhance critical pedestrian linkages as the area redevelops.

Alleys also play an important role in the urban environment. Alleys help remove service traffic and parking accesses away from major vehicular and pedestrian routes, which enhances the streetscape and pedestrian environment. Alleys, such as Post Alley

Impact on the Pedestrian Environment

Continued

shown in Figure 17, can function as alternative routes for pedestrians or emergency routes in the event of public emergencies. The block separations created by alleys help mitigate the potential effects of large “superblock” developments and reduce the potential for very large bulky structures. The taller, more slender structures constructed around alleys may help mitigate wind and shadow impacts on the pedestrian environment. Alley vacations should only be considered if new development can compensate for the loss of the advantages afforded by alleys—with provision of pedestrian promenades, service entrances, taller slender structures, public open spaces, and wind/shadow mitigation.



Figure 17. Alleys, such as Post Alley (above), provide important pedestrian and service access.

Downtown Office Core and Transition Areas

Within the DOC-1 and DOC-2 zones (Downtown Office Core and office expansion areas in Denny Triangle and South Commercial Core), the additional allowable building height and density proposed with Alternatives 1, 2, and 3 appear to have no adverse aesthetic urban design impacts, relative to the No Action alternative (Alternative 4). While the net change in building height and density is relatively limited, the additional building height and density supported by Alternatives 1, 2, and 3, may result in greater variation in building heights and massing than would occur with Alternative 4. This could be interpreted as a potential improvement over Alternative 4 in the Downtown core area and Denny Triangle transition area.

In light of the City's existing development regulations, Alternatives 1, 2, and 3 could provide for the greatest visual diversity in building height for the skyline in the Downtown core area and transition areas (DOC-1 and DOC-2 zones).² However, it is important to note that under all of the alternatives, there would likely be significant changes in building bulk and density levels, particularly in the DOC2 and DMC zones that can impact the street/pedestrian level urban environment. These issues and potential mitigation measures are further discussed below.

Denny Triangle and Belltown

It is apparent that the most significant change in urban design conditions over the next 20 years will occur in the Denny Triangle and Belltown areas. In these areas, the street blocks are typically longer (360 feet) than in the Commercial Core area (240 feet) and the street width in some areas is slightly narrower. The larger blocks, narrower streets, and lack of major physical or man made separation between lower density development patterns in the South Lake Union area, could lead to a dense urban environment that forms a "wall" between Downtown and adjacent areas such as South Lake Union and Pike Place. The potential to maximize building density and height would exacerbate this urban condition, and lead to taller and bulkier, uniform buildings that would allow less sunlight and building variation than exists today.

Alternative 3, Residential Emphasis, is similar to Alternatives 1 and 2 in the DOC1 zone, but could result in relative improvements in urban design conditions within the DOC-2 and DMR/C zones of the Denny Triangle. Relative to the other alternatives, Alternative 3 would likely result in greater variation in building height within the Denny Triangle and portions of Belltown because the height limits would step down from 400 feet to 300 feet along the eastern and western edges of the zone. Given lower allowable commercial densities, new projects in areas designated as DMR/C would likely result in either bulkier mid-rise commercial buildings (such as the Touchstone project under construction at 2301 5th Avenue in Belltown) or taller more slender buildings with greater amounts of potential daylight between structures.

² The maximum height in the DOC-1 zone is 585 feet for Alternatives 1, 2 and 3, compared to 540 feet in Alternative 4. In DOC-2, the maximum allowable height is 390 to 520 feet under Alternatives 1, 2 and 3, compared to 360 feet under Alternative 4.

Subarea Impacts

Continued

One of the main urban design advantages of Alternative 3 is that it is assumed to include standards to address building bulk in the DMR/C zone that are not included in the other EIS alternatives. This is expected to result in more slender highrise towers and more tower separations which would provide a better transition of development scale on the edges of abutting neighborhoods. Structures in the DMR/C zone are allowed to cover 100 percent of the site area below the height of 65 feet. Above 65 feet, the total building coverage is limited to 65 percent of the site until a height of 85 feet. From 86 feet to 125 feet, site coverage drops to 55 feet; and from 126 to 240 feet, site coverage drops again to 45 percent. Also, there is a minimum site size of 8,000 square feet for structures that exceed 125 feet in building height.



Figure 18. Denny Triangle Subarea – Future view down Westlake

As the Denny Triangle redevelops, thousands of new Downtown residents and employees will be added to an area that encompasses 39 city blocks or approximately 145 acres (including streets). Residential population density in this area would likely increase to nearly 80 people per acre by year 2020. Daytime employment livability within the emerging live/work environment in the Denny Triangle area can be optimized if the following factors are integrated into the pedestrian environment:

- Encourage uses at ground floor levels that provide services to residents and visitors during the day and night.
- Provide adequate lighting and landscaping that makes residents, employees and visitors feel safe and secure.

- Create diverse market-rate and affordable housing opportunities.
- Provide welcoming public open spaces and streets where residents need them. New green streets, parks and open spaces should be created or enhanced with attention toward passive and active recreational settings, and preservation of sunlit areas. Streets such as Westlake (see Figure 18) must become welcoming to pedestrians as well as vehicles. Sunlit locations will increase in importance overtime as more people move into the area, and new development reduces existing levels of sunlight and open space.
- Pedestrian and bicycle pathways and routes are convenient, safe, and well maintained.
- Transit facilities and service levels are convenient for pedestrians.
- Architectural treatment of buildings, urban design of sites, public art displays, plazas, and parks are integrated—yet provide an interesting and unique urban experience.

These and other urban design mitigation recommendations are further discussed in the next section.

Mitigation Measures

This urban design analysis indicates that the future development that is supported by any of the alternatives would not significantly adversely impact the Downtown office skyline (heights) within the office core, but would have a substantial impact on urban conditions within the Denny Triangle and the Denny Regrade areas. Given the relative similarity between the EIS alternatives, and the potential for any of the EIS Alternatives to result in relatively bulky, more uniform building structures, especially in the Denny Triangle and Denny Regrade areas, new land use and building design mitigation measures should be considered regardless of the chosen EIS Alternative.

From a long-term urban design perspective, there may be an advantage associated with the alternative(s) that provides the greatest potential variation/mix of development, reinforces the “stair-stepped cone” of downtown development patterns, and enhances the pedestrian environment. This may stem from the combination of proposed regulatory changes supported by Alternative 1 for the DOG1 and DOC-2 zones, and the upper-level setback requirements included in Alternative 3 for the DMC and DMR zones. It should be noted that all of the EIS Alternatives could have more beneficial urban design impacts, in the DMC and DMR zones, if they included better guidance on upper level setbacks and tower spacing.

While all of the alternatives could result in construction of bulky buildings that impact the urban feel of Downtown from a pedestrian perspective, the massing and density of future buildings may be mitigated to some extent by the City’s existing *Design Review Guidelines for Downtown Development* which helps control site development through considering design treatment of:

- roof height
- structure width/depth
- setback requirements
- street-level use standards
- facade articulations, materials, and scale variations
- upper-level development standards
- site coverage and floor size requirements
- wall/facade dimensions
- parking design, location, and access
- open space/plazas
- landscaping

In addition to these guidelines, the design review process takes into account potential impacts on the surrounding physical environment, including—the street grid; patterns of urban form and massing compositions; alley vacations; access to direct sunlight; views from specific structures or natural features (i.e., the Space Needle, Smith Tower, Puget Sound, Mount Rainier, and the Olympic Mountains); views of the site from other parts of the city; and proximity to regional transportation and transit facilities.

While Seattle’s existing design review guidelines provide an opportunity to improve upon building and site design as projects move from concept to reality, they are considered to be somewhat flexible and cannot always result in the construction of optimal development projects. This is due to several reasons including:

Mitigation Measures

Continued

- Guidelines are not as stringent as design standards;
- Design recommendations may be misinterpreted by the developer/architect;
- Cost and timing issues may lead to substantial refinements to design details after the design-review process occurs.

Application of more specific design standards, through land use code regulations that address details such as requirements for building setbacks (ground and upperlevels), ground-level uses, facade articulation, building density, height, streetscape treatment, and parking is needed to foster an urban environment that is consistent with city livability and development objectives.

Figure 19 helps illustrate the importance of design details, including building setback, pedestrian orientation, and facade treatment. The image attempts to illustrate the relative advantage of design that honors existing landmarks—within matching setbacks, wider sidewalks, enhanced streetscape/landscaping, and a more sensitive building facade treatment.



Figure 19. Camlin Hotel and potential adjacent development

In all of the alternatives (with the exception of Alternative 3 in the DMR/C zone), there is relatively little restriction on high-rise residential development when size of the building floor area is less than 15,000 square feet.³ As mentioned previously, the typical quarter-block development in these zones ranges from approximately 14,400 to 19,440 square feet. Hence, a 15,000 square-foot floor plate above the base structure is likely for housing developments.

Figure 20 illustrates two massing alternatives of providing the same amount of building floor-area onto a one-half block site. The image on the right depicts the likely result

³ On larger lots, coverage limits above ground are generally limited to about 78% of lot size.

Mitigation Measures

Continued

from existing regulations that control height limits more than building densities. The left image depicts higher building heights with more attention towards tower separation.

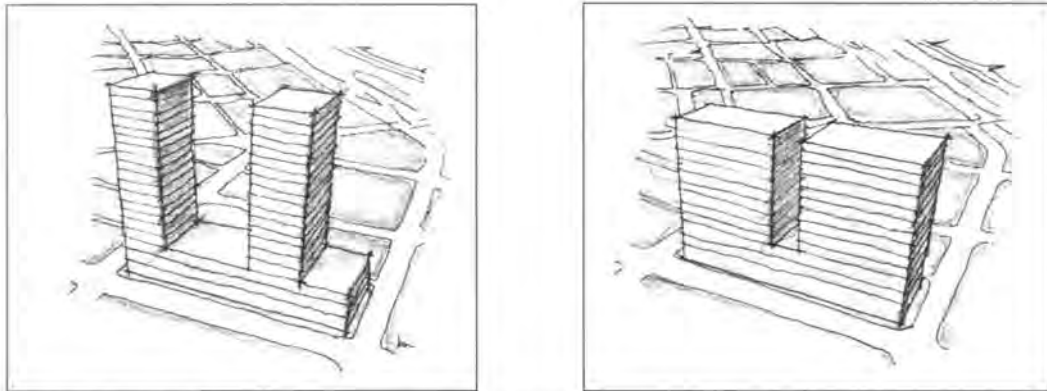


Figure 20. Density Alternatives – Two concepts for attaining equivalent amounts of development floor area.

While fairly loose development incentives could foster Downtown housing development, such incentives can result in relatively bulky structures with minimal spacing between building floor plates. As such, the City may consider additional design measures that result in buildings that are more consistent with local sunlight, wind mitigation, and open space objectives. Changes in design regulations should be crafted in a manner that does not result in adverse market/financial impacts on a developer's ability to provide housing and mixed-use development.

Recommendations

Seattle is a city of neighborhoods in an extraordinary urban environment that contributes to our sense of place. Future development in the Denny Regrade and Denny Triangle as illustrated in this report represent significant changes in these neighborhoods in terms of architectural scale and character.

This urban design analysis indicates that future development supported by any of the alternatives would not significantly alter the downtown office skyline within the office core, but would have a substantial impact on the urban conditions within the Denny Triangle and the Denny Regrade neighborhoods. All of the EIS alternatives could result in the construction of bulky massive buildings that would impact the urban feel of downtown and create a wall or mesa of buildings of similar height and scale.

Future development projects will most likely be designed by different architects, each with their own styles and approaches to design. While this is true of the existing buildings that shape downtown, the majority of buildings tend to have similar texture and color when viewed from a distance. Creativity should be encouraged to explore design ideas that will discourage similarity in the overall form of the city and enhance the variety of the character of the skyline.

Mitigation Measures

Continued

Design is not just about architectural styles, it's about scale, proportion and arrangement of building components to enhance and define the character of the city. The following mitigation measures are suggestions to help define a new neighborhood character in the Denny Triangle. The ability of the City and its architects to follow these guidelines will help result in a much more livable and appealing urban environment than would occur otherwise, irregardless of the chosen EIS alternative.

Reinforce the overall shape of the skyline

Tower articulation and spacing between adjacent developments will help to articulate the skyline shape. Large bulky blocks should be discouraged in bigger block development by creating smaller towers with openspaces between the towers. Encourage slender towers with open space between buildings to provide light, air and view potential through blocks. Vary the heights of buildings to create interest along the tops of buildings.

Rooftop shapes and heights

Articulation of upper level floors and rooftop penthouses will create a variety in building shapes. Create rooftop features that are distinctive with penthouse structures with interesting shapes.

Building setbacks

Building setbacks should be encouraged to sculpt and shape the building massing based upon aesthetics and proportions. Setbacks should make sense in terms of the building's form and proportions, not zoning requirements. Upperlevel setbacks help relate new development to the scale of adjacent smaller buildings and historic landmark structures.

Open spaces, alleys and streetscapes

Providing open spaces, maintaining alleys and creating pedestrian friendly streetscapes support an active street life and encourages smaller massing of the buildings above. Successful public open spaces are places where people want to be in an urban outdoor setting. When integrated well into a city, successful public open spaces strengthen economic development, civic activity, social interaction and a citizen's sense of pride.

Open spaces should be encouraged at ground level to provide relief along the street front for pedestrians. Open spaces should be located in such a way as to compliment adjacent historic or landmark buildings. Open spaces give breathing room for new development at the street level and at the skyline level above.

Alleys divide blocks into smaller sizes and increase the building frontages. If alley vacations are allowed then the development should be encouraged to respect the alley on the upper levels by breaking the massing into smaller buildings providing open spaces above that encourage light and air.

Pedestrian friendly streetscapes should be considered as places not just travel routes. Streets become places through creative designs that meet basic functional and operational needs while providing a greater sense of place that can be achieved by relating the streets to developments.

Providing wider sidewalks, landscaping, public art and street furniture add to the character of the development. The integration of public art with urban streetscapes, as shown along University Street in Figure 21, would help to personalize our neighborhoods. It would allow the neighborhoods to project their unique image through art that has been created specifically for the built environment.

Residential and commercial development

Encourage uses at ground floor levels that provide services to residents and office workers day and night. Studies have also shown that urban housing with porches, entrances and windows near the street help foster a safer, more secure environment by placing “eyes on the street”.

Residential high-rise towers should be more slender and varied in exterior articulation. Buildings should be designed with finer grained exterior elements such as windows and balconies to distinguish the buildings from commercial towers by creating shadow lines and texture on the facades.

Commercial buildings require larger floor plates thus increasing the overall mass and bulk of the building. In some cases, due to economic constraints, commercial buildings require less articulation of the facade materials and architectural elements. Using building materials that contrast with adjacent developments will help to minimize the overall massing of new development.

Building articulation scale and architectural character

Layering of architectural materials such as glass, steel concrete and stone on the facades of buildings can help to break up bulky massing and help to emphasize setbacks and building features, making them distinctive from surrounding development.



Figure 21. Green Street improvements along University St.

Mitigation Measures

Continued

Adjacent existing buildings and historic structures

New development should respect existing adjacent building by articulating heights and facades with setbacks, facade treatment, scale and proportions of building elements, change in materials and entrance locations. New development should relate in scale to existing building's cornice lines, streetwall heights and facades with scale elements, material textures and color to help preserve the pedestrian scale of the street.

All of the EIS zoning alternatives can result in urban conditions that either enhance or detract from the urban environment. Hence, it is of paramount importance for the City of Seattle and future developers to supplement design review procedures with appropriate design standards that result in development projects that are market supportable, aesthetically appealing and consistent with a healthy urban environment for residents, employees and visitors.

Appendix L

View Analyses

APPENDIX L

VIEW ANALYSES

SEPA-DESIGNATED VIEWPOINTS

Inventory of existing conditions. Table L-1 provides an inventory of existing conditions at SEPA-designated viewpoints, identified because views from these locations could potentially be affected by proposed changes to height and density limits analyzed in the EIS. All 87 locations identified in SEPA as public viewpoints were surveyed to identify those with views that included the Downtown skyline. In addition, 10 locations specified in a recent amendment to SEPA for protection of Space Needle views were also considered. Locations lacking views of Downtown, or where the view was considered insignificant because of distance, obstruction by other development or natural features in the vicinity, or other factors, were eliminated from further consideration. The result of this initial screening is the list of viewpoints presented on the following chart, with locations indicated on Figure L-1 below. To better understand the nature of the view from each location, and the relationship to potential changes in the Downtown study area, each location was surveyed to determine what view features identified by SEPA for protection were visible. These views were further distinguished according to whether they were prominent or not; based primarily on assumptions about what views were likely to have provided the basis for the initial designation of each location as a SEPA viewpoint. Other available views are considered incidental or secondary to the prominent view(s) identified.

Table L-1
Summary of View Features from Relevant SEPA-Designated Viewpoints

SEPA Designated Viewpoint	Significant natural or human-made features visible from viewpoint and within viewshed aligned with affected Downtown zones			
	Mountains	Bodies of Water	Downtown Skyline	View Protected Landmarks
1. Magnolia Elementary School Playground	Prominent. Mount Rainier view to the southwest	Elliott Bay; view to the west of Downtown skyline	Prominent. Distant Downtown skyline view to southeast; Queen Anne Hill blocks view of much of affected area of Downtown (Denny Triangle DMC and DOC 2 300' zones)	
2. Smith Cove Park	Prominent. Mount Rainier; view to the west	Prominent. Elliott Bay in foreground	Downtown skyline; view to south east	
3. Bhy Kracke Park*	Cascades; view to east--not in viewshed aligned with Downtown area	Lake Union; view to east--not in viewshed aligned with Downtown area	Prominent. View to south of Downtown skyline, includes Denny Triangle area	Camlin Hotel in Downtown view to south; Space Needle view to southwest not affected by conditions in study area
4. Kerry Park*	Cascades; view to east and further east of affected area. Mt Rainier view west of affected area	View to southwest of Elliott Bay and Puget Sound	Prominent. View to south of Downtown skyline, includes Denny Triangle area	Prominent. Space Needle view to south; Downtown skyline in background

SEPA Designated Viewpoint	Significant natural or human-made features visible from viewpoint and within viewshed aligned with affected Downtown zones			
	Mountains	Bodies of Water	Downtown Skyline	View Protected Landmarks
5. Colman Playground			View to northwest of Downtown skyline (DOC 1 and DOC 2 240' zones)	View to northwest of Pacific Medical Center
6. Alki Beach Park*	Views of Mt. Rainier and Olympic Mountains from different locations- -not in alignment with Downtown areas	Prominent. View east of Elliott Bay in foreground of Downtown skyline view; Puget Sound views to west	Prominent. View to east of Downtown skyline,	Space Needle visible as northward extension of Downtown skyline; Pacific Medical Center visible
7. Belvedere Viewpoint	Cascade Mountains visible to the southeast	Prominent. Elliott Bay in foreground of view east of Downtown skyline	Prominent. View to northeast of Downtown skyline,	Pacific Medical Center visible
8. Hamilton Viewpoint*		Prominent. Elliott Bay in foreground of view east of Downtown skyline; Puget Sound views to northwest	Prominent. View to northeast of Downtown skyline,	Space Needle visible as northward extension of Downtown skyline; Pacific Medical Center visible
9. Harbor Vista Park		Prominent. Elliott Bay in foreground of view east of Downtown skyline	Prominent. View to east of Downtown skyline,	Pacific Medical Center visible
10. Myrtle Street Reservoir			Distant northeast view of Downtown skyline	
11. West Crest Park	Mt. Rainier visible to southeast		Distant north view of Downtown skyline	
12. West Seattle Community Golf Course	Mt. Rainier visible to southeast	View of Elliott Bay obscured by trees	Prominent. View to northeast of Downtown skyline	
13. West Seattle Recreation Area	Mt. Rainier visible to southeast	View of Elliott Bay obscured by trees and development	View to northeast of Downtown skyline	Pacific Medical Center visible
14. West Seattle Rotary Viewpoint	Cascades visible to east	View of Elliott Bay obscured by trees and development	View to northeast of Downtown skyline between trees	Space Needle and Pacific Medical Center visible
15. Jose Rizal Park	Olympic Mountains visible to west and northwest	Elliott Bay/Puget Sound visible to west and northwest	Prominent. Downtown skyline to northwest (DOC 1 and DOC 2 240' area)	
16. 12 th Avenue South Viewpoint	Olympics visible to northwest	Elliott Bay visible to northwest above trees	View to north of Downtown skyline above trees	
17. U.S. Public Health Service Hospital (Pacific Medical Center)			Prominent. Downtown skyline to north (DOC 1 and DOC 2 240' area)	
18. Volunteer Park Water Tower			Distant view of Downtown skyline to southwest	

SEPA Designated Viewpoint	Significant natural or human-made features visible from viewpoint and within viewshed aligned with affected Downtown zones			
	Mountains	Bodies of Water	Downtown Skyline	View Protected Landmarks
19. Four Columns Park	Limited view of Olympic Mountains to northwest		Prominent. Downtown skyline to west and northwest in immediate foreground	Views to west and northwest of Camlin Hotel and Queen Anne High School
20. Harborview Hospital Viewpoint	Olympics visible to west; Mt. Rainier visible to south	Sliver of Elliott Bay visible to west	Prominent. Downtown skyline to west and northwest in immediate foreground	Pacific Medical Center visible to south and Trinity Church visible to northeast
21. Kobe Terrace/ International District Community Garden	Olympics visible to west	Sliver of Elliott Bay visible to west	Downtown skyline visible to north through park	Pacific Medical Center visible to southeast
22. Myrtle Edwards Park*	Olympics visible to northwest; Mt. Rainier visible to south	Prominent. Views of Elliott Bay to west and southwest	View west of Belltown development; Prominent view southwest of Downtown core skyline	Space Needle visible above development to east
23. Victor Steinbrueck (Market) Park	Mt Rainier visible to south; Olympics visible to northwest	Prominent. Views of Elliott Bay/Puget Sound to west, northwest and southwest	Prominent view southeast of Downtown core skyline	Terminal Sales Building visible to east
24. Waterfront Park	Olympics visible to west and northwest	Prominent. Views of Elliott Bay/Puget Sound to west, northwest	Prominent view southeast of Downtown core skyline	
25. Newton Street-end Park		Prominent. View to west of Lake Union in foreground	Downtown skyline view to south over pier structure	
26. Gasworks Park*		Prominent. View to south of Lake Union in foreground	Prominent view south of Downtown skyline	Space Needle visible at west end of Downtown skyline panorama
27. Banner Place	Olympics and Green Lake visible to west		Distant Downtown skyline view to south aligned with I-5 corridor	
28. Olympic Sculpture Park*	NA	NA	NA	Space Needle visible
29. Seattle Center*	NA	NA	NA	Space Needle visible
30. Volunteer Park*	NA	NA	NA	Space Needle visible
31. Seacrest Park*	NA	NA	NA	Space Needle visible

*public places specified for public view protection of Space Needle

Summary of potential impacts. Table L-2 summarizes potential impacts of the four alternatives analyzed in the EIS on views from the selected SEPA viewpoints. In large part, this assessment was based on 3-D studies of development on sites likely to be available within the next 20, with projected development reflecting the proposed zoning changes for each alternative. Various panoramic “birdseye” views and selected ground views were used to assess how new development would generally alter existing viewing conditions. For each location studied, the focus of the analysis was on impacts to the prominent views identified in the initial survey presented above. Table L-2 below summarizes the results of this analysis.

Table L-2
Summary of View Impacts from Relevant SEPA-Designated Viewpoints

SEPA Designated Viewpoint	Specific View Elements Affected by Alternative			
	Alternative 1	Alternative 2	Alternative 3	Alternative 4
1. Magnolia Elementary School Playground	New buildings fill in Downtown core skyline and extend west towards water, although "stepping down" profile to the water will be maintained.	Similar to Alt 1, although lower heights closest to Elliott Bay.	Similar to Alt 1, although lower heights closest to Elliott Bay.	Similar to Alt 1, although lower heights closest to Elliott Bay.
2. Smith Cove Park	Minimal impact on skyline view.	Similar to Alt 1	Similar to Alt 1	Similar to Alt 1
3. Bhy Kracke Park*	No impact on Cascades or Lake Union view to east; No impact on Space Needle view; View of Camlin Hotel** likely to be obstructed; New highrise development in foreground of existing skyline view.	Similar to Alt 1, except lower building heights in Denny Way vicinity.	Similar to Alt 1, except lower building heights in Denny Way vicinity.	No regulatory changes, but view impacts from future development similar to Alt 1.
4. Kerry Park*	Additional obscuring of Cascade Mt foothills behind Denny Triangle growth; new highrise development in foreground of existing skyline view. Mt. Rainier view not affected.	Similar to Alt 1, except lower building height in Denny Way and 1 st /Western Ave. vicinity.	Similar to Alt 1, except lower building height in Denny Way vicinity.	No regulatory changes, but view impacts from future development similar to Alt 1.
5. Colman Playground	Additional "filling in" of Downtown core skyline likely.	Similar to Alt 1	Similar to Alt 1	Similar to Alt 1
6. Alki Beach Park*	No impact on Mt. Rainier, Olympic Mountains or Space Needle views; New buildings added to Downtown core skyline and extending and filling in skyline silhouette further north.	Similar to Alt 1, except lower building height in Denny Way vicinity.	Similar to Alt 1, except lower building height in Denny Way vicinity.	Similar to Alt 1, except lower building height in most of Downtown.
7. Belvedere Viewpoint	New buildings extend and fill in skyline silhouette north of office core; Additional obscuring of Cascade Mts behind Denny Triangle growth; No impact on Pac.Med Center view.**	Similar to Alt 1, except lower building height in Denny Way and the 1 st /Western Ave. vicinity.	Similar to Alt 1, except lower building height in Denny Way vicinity.	Similar to Alt 1, except lower building height in most of Downtown.
8. Hamilton Viewpoint*	No impact on Space Needle views or on view of Pacific Medical Center;** New buildings extend and fill in skyline silhouette further north	Similar to Alt 1, except lower building height in Denny Way vicinity.	Similar to Alt 1, except lower building height in Denny Way vicinity.	Similar to Alt 1, except lower building height in most of Downtown.
9. Harbor Vista Park	No impact on Pac.Med Center view** New buildings extend and fill in skyline silhouette further north.	Similar to Alt 1, except lower building heights in Denny Way vicinity.	Similar to Alt 1, except lower building height in Denny Way vicinity.	Similar to Alt 1, except lower building height in most of Downtown.
10. Myrtle Street Reservoir	Distant skyline view—minimal impact.	Similar to Alt 1	Similar to Alt 1	Similar to Alt 1
11. West Crest Park	Distant skyline view--minimal impact.	Similar to Alt 1	Similar to Alt 1	Similar to Alt 1

Table L-2 (continued)

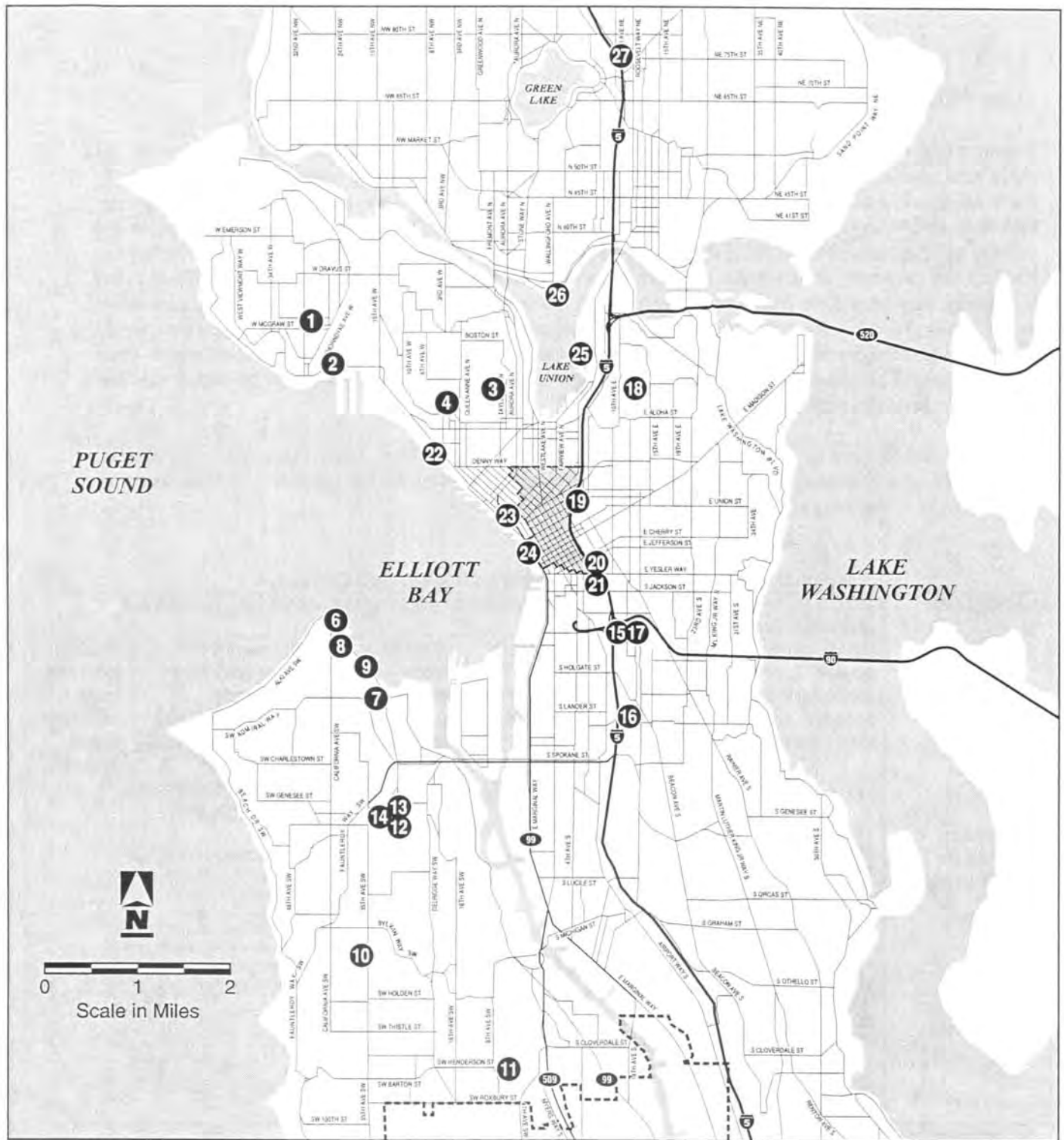
SEPA Designated Viewpoint	Specific View Elements Affected by Alternative			
	Alternative 1	Alternative 2	Alternative 3	Alternative 4
12. West Seattle Community Golf Course	Additional filling in of skyline silhouette with new buildings.	Similar to Alt 1	Similar to Alt 1	Similar to Alt 1
13. West Seattle Recreation Area	Additional filling in of skyline silhouette with new buildings; No impact on view of Pac.Med Center.**	Similar to Alt 1	Similar to Alt 1	Similar to Alt 1
14. West Seattle Rotary Viewpoint	Additional filling in of skyline silhouette with new buildings; No impact on Pac.Med Center view.**	Similar to Alt 1	Similar to Alt 1	Similar to Alt 1
15. Jose Rizal Park	Buildings added to Downtown office core skyline; No impact on Olympic Mts. or Elliott Bay/Sound views to west/northwest, although slightly taller buildings could extend closer to the waterfront in Western Avenue vicinity.	Similar to Alt 1 except no change to height limits in Western Avenue vicinity.	Similar to Alt 1 except no change to height limits in Western Ave. vicinity.	Similar to Alt 1 except no change to height limits in Western Ave. vicinity.
16. 12th Avenue South Viewpoint	Minimal impact on skyline view.	Similar to Alt 1	Similar to Alt 1	Similar to Alt 1
17. U.S. Public Health Service Hospital (Pac. Med Center)	Minimal impact on skyline view.	Similar to Alt 1	Similar to Alt 1	Similar to Alt 1
18. Volunteer Park Water Tower	Additional buildings added to Downtown core skyline view, extending the skyline silhouette northward.	Similar to Alt 1	Similar to Alt 1	Similar to Alt 1
19. Four Columns Park	Additional obscuring of Olympic Mt. views to northwest; probable obscuring of views to Camlin Hotel** & Queen Anne High School** ; New highrise development in foreground of existing skyline view.	Similar to Alt 1, except no change to height and density limits in DMC zones should result in slightly less impact	Similar to Alt 1, except maintaining current height and density limits in DOC 2 zone east of 8 th Avenue and DMC zones, and additional limits on bulk in area proposed for residential-oriented designation should result in slightly less impact	Similar to Alt 1, except maintaining current height and density limits in DOC 2 and DMC zones should result in slightly less impact
20. Harborview Hospital Viewpoint	Possible partial impairment of Elliott Bay views; future highrise buildings on a couple of lots would extend building masses further south.	Similar to Alt 1, changes to DOC 1 and DOC 2 240 zone the same in both alternatives	Similar to Alt 1, except maintaining existing height and density limits in DOC 2 240 zone should result in slightly less impact.	Similar to Alt 1, except maintaining current height and density limits in DOC 1 and DOC 2 240 zones should result in slightly less impact
21. Kobe Terrace/ Internat. District Commun. Garden	No impact.	Same as Alt 1	Same as Alt 1	Same as Alt 1

Table L-2 (continued)

SEPA Designated Viewpoint	Specific View Elements Affected by Alternative			
	Alternative 1	Alternative 2	Alternative 3	Alternative 4
22. Myrtle Edwards Park*	No impact on Elliott Bay views; no impact on Olympic Mt. views to northwest or Mt. Rainier views south; no impact on Space Needle views; new buildings added to Downtown core skyline view.	Same as Alt 1	Same as Alt 1	Same as Alt 1
23. Victor Steinbrueck (Market) Park	No impact on views of Mt. Rainier to south or Olympic Mts. to northwest; potential for taller structure behind Terminal Sales Building**; new buildings added to Downtown core skyline view.	Similar to Alt 1, except no increases to height and density limits in area around Terminal Sales Building, which would result in somewhat less impact	Similar to Alt 2, except with no increases to height and density limits; additional bulk controls for development north of Virginia Street may further reduce impacts	Similar to Alt 2
24. Waterfront Park	No impact on Elliott Bay/Puget Sound views to west; new buildings added to Downtown core skyline view.	Similar to Alt 1	Similar to Alt 1	Similar to Alt 1
25. Newton Street-end Park	New highrise development in the foreground of existing skyline view.	Similar to Alt 1, except lower building heights in Denny Way vicinity.	Similar to Alt 1, except lower building heights in Denny Way vicinity.	Similar to Alt 1, except lower building heights in most of Downtown.
26. Gasworks Park*	No impacts on Space Needle view; new highrise development in the foreground of existing skyline.	Similar to Alt 1, except lower building heights in Denny Way vicinity.	Similar to Alt 1, except lower building heights in Denny Way vicinity.	Similar to Alt 1, except lower building heights in most of Downtown.
27. Olympic Sculpture Park*	No impact on Space Needle view.	Same as Alt 1	Same as Alt 1	Same as Alt 1
28. Seattle Center*	No impact on Space Needle view.	Same as Alt 1	Same as Alt 1	Same as Alt 1
29. Volunteer Park*	No impact on Space Needle view.	Same as Alt 1	Same as Alt 1	Same as Alt 1
30. Seacrest Park*	No impact on Space Needle view.	Same as Alt 1	Same as Alt 1	Same as Alt 1

*Public places specified for public view protection of Space Needle.

** Designated landmark structures specified for view protection.



Public Viewpoints of Downtown Seattle

FIGURE L-1

Affected Area

1. Magnolia Elementary School Playground
2. Smith Cove Park
3. Bhy Kracke Park
4. Kerry Park
5. Colman Playground
6. Alki Beach Park
7. Beveledere Viewpoint
8. Hamilton Viewpoint

9. Harbor Vista Park
10. Myrtle Street Reservoir
11. West Crest Park
12. West Seattle Community Golf Course
13. West Seattle Recreation Area
14. West Seattle Rotary Viewpoint
15. Jose Rizal Park
16. 12th Avenue South Viewpoint

17. U.S. Public Health Service Hospital (Pacifi Medical Center)
18. Volunteer Park Water Tower
19. Four Columns Park
20. Harborview Hospital Viewpoint
21. Kobe Terrace/International District Community Garden
22. Myrtle Edwards Park

23. Victor Steinbrueck (Market) Park
24. Waterfront Park
25. Newton Street-end Park
26. Gasworks Park
27. Banner Place

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VIEW PROTECTED LANDMARKS

Inventory of existing conditions. Twenty-three Seattle designated landmarks located in and around the study area meet the criteria provided in SEPA for identifying view protected landmarks (see Figure L-2). Each landmark was surveyed to determine the degree of visibility from a range of public locations, including SEPA designated public viewpoints, scenic routes, public parks, and public streets in the vicinity of the landmark. Views from public streets are further distinguished according to whether the view of the landmark is limited to the immediate area or extends over a greater distance. While many landmarks may be visible from some locations on designated scenic routes, or for some distance down public streets, it is unlikely that view protection was intended to extend to all of these locations for all view protected landmarks. It would be more reasonable to assume that protection extending to these locations would be reserved for especially prominent structures, consciously sited to be highly visible--such as Pac Med Hospital atop Beacon Hill.

Table L-3 below records whether or not the landmark is visible from these locations. The overall prominence of a particular landmark can then be deduced according to the number of public locations from which it is visible, and relative importance of these locations.

Table L-3
Summary of View-Protected Landmark Visibility and Context

LANDMARK	LOCATION (location in study area where landmark is located and/or visible)	Extent of landmark's visibility and context defining prominence				
		Visible from SEPA viewpoint or park	Visible at some location on SEPA Scenic Route	Visible from public park not identified in SEPA	Prominent from right-of-way and visible from beyond immediate area due to special conditions of alignment, street grid change, etc.	Visible primarily from adjacent rights-of-way
1. Trinity Parish Church	Located outside affected area; visible from eastern edge DOC 2 240 and DOC 1 450	X Harborview Viewpoint	X I-5, 5 th Ave		X Though located outside study area, the steeples are visible along some portions of downtown streets (James St, 5 th , 6 th Aves.). However, not a prominent object of view from these locations.	
2. Coliseum Theater	Located in retail core outside affected area; Visible from north edge of DOC 1 450 and DOC 2 300		X 5 th Ave			
3. Immanuel Lutheran Church	Located outside affected area in Cascade; visible from DMC zones on northern edge of Denny Triangle	X Bhy Kracke Park,	X I-5, Westlake Ave, Fairview Ave	X Cascade Playground (outside study area)	X Steeple is visible from portions of Denny Triangle, primarily because of open surface parking lots and low structures that currently occupy the area	

Table L-3 (continued)

LANDMARK	LOCATION (location in study area where landmark is located and/or visible)	Extent of landmark's visibility and context defining prominence				
		Visible from SEPA viewpoint or park	Visible at some locations on SEPA Scenic Route	Visible from public park not identified in SEPA	Prominent from right-of-way and visible from beyond immediate area due to special conditions of alignment, street grid change, etc.	Visible primarily from adjacent rights-of-way
4. Seattle First Baptist Church	Located outside affected area on First Hill, limited visibility from north central Denny Triangle				X Steeple is visible from portions of some streets in Denny Triangle	
5. 1st Avenue Group/ Waterfront Center	Located in DMC 240 zone; visible from this zone and western edge of DOC 1 450		X Alaskan Way Viaduct			
6. Times Square Building	Located in DOC 2 300 zone; visible from DOC 2 300		X 5 th Ave, Westlake	X McGraw Square, Westlake Square	X The structure is visually prominent because it is surrounded by streets and located at a shift in the street grid near the downtown terminus of Westlake Ave.	
7. Hoge Building	Located in DOC 2 240 zone		X Alaskan Way Viaduct			
8. McGraw Square	Located in DOC 2 300; visible from DOC 2 300		X 5 th Ave, Westlake Ave		X McGraw Square, though small (.01 acres), is visually prominent because it is surrounded by streets and located at a shift in the street grid near the downtown terminus of Westlake Ave.	
9. Queen Anne High School	Located outside affected area on Queen Anne Hill; visible from DOC 2 300 and DMC zones in Denny Triangle	X Four Columns Park	X 5 th Ave, Westlake Ave, I-5		X Visible from First Hill along Boren Ave alignment passing through Denny Triangle	
10. Guiry Hotel	Located outside affected area in Belltown, visible from edge of DMC 240 zone					X
11. Olympic Tower/ United Shopping Tower	Located outside affected area in retail core; visible from DMC 240 zone		X 5 th Ave	X Westlake Park	X Visible for several blocks because of relative size and corner location	
12. Rainier Club	Located in DOC 1 450; visible from DOC 1 450		X 5 th Ave			X

Table L-3 (continued)

LANDMARK	LOCATION (location in study area where landmark is located and/or visible)	Extent of landmark's visibility and context defining prominence				
		Visible from SEPA viewpoint or park	Visible at some location on a SEPA Scenic Route	Visible from public park not identified in SEPA	Prominent from right-of-way and visible from beyond immediate area due to special conditions of alignment, street grid change, etc.	Visible primarily from adjacent rights-of-way
13. Northern Bank and Trust/ Seaboard Bldg	Located outside affected area in retail core; visible from DOC 1 450 and DOC 2 300		X 5 th Ave		X Visible for several blocks because of corner location and relation to Westlake Park	
14. Bon Marche	Located outside affected area in retail core; visible from DOC 1 450, DOC 2 300, and DMC 240		X 5 th Ave	X Westlake Park	X Visible for several blocks because of relative size, full block site, and relation to Westlake Park	
15. Terminal Sales Bldg	Located in DMC 240 zone; visible from DMC 240	X Victor Steinbrueck (Market) Park	X Alaskan Way Viaduct		X Visible for several blocks because of relative size, corner location, and location at shift in street grid	
16. Summit School/ Northwest School	Located outside affected area in Pike/Pine					X Located in area adjacent to downtown; not visible from study area
17. Mann Building	Located outside affected area in retail core; visible from DOC 1 450,					X
18. Pacific Medical Center	Located outside affected area on Beacon Hill; visible from DOC 1 450 and DOC 2 240	X Harborview Viewpoint, Alki Beach Park,	X I-5, Yesler Way, 5 th Ave,		X Highly visible from prominent location on top of Beacon Hill. Within study area, visible from 3 rd Avenue adjacent to City Hall Park and Prefontaine Place.	
19. Wintonia Hotel	Located outside affected area in Pike/Pine; visible from DOC 2 300 and DMC zones in Denny Triangle	X Four Columns Park	X I-5		X Visible from portions of some streets in Denny Triangle	
20. Lyon Building	Located in DOC 2 240 zone; visible form DOC 2 240 and DOC 1 450			X City Hall Park		
21. Space Needle	Located outside affected area in Seattle Center;	X SEPA specifies	X I-5, Olive	X Denny Park	X Visible along portions of	

LANDMARK	LOCATION (location in study area where landmark is located and/or visible)	Extent of landmark's visibility and context defining prominence				
		Visible from SEPA viewpoint or park	Visible at some location on a SEPA Scenic Route	Visible from public park not identified in SEPA	Prominent from right-of-way and visible from beyond immediate area due to special conditions of alignment, street grid change, etc.	Visible primarily from adjacent rights-of-way
	visible from locations in all zones	10 locations for protecting public views of the Space Needle, including: Alki Beach Park, Bhy Kracke Park, Gasworks Park, Hamilton Viewpoint, Kerry Park, Myrtle Edwards Park, Olympic Sculpture Park, Seacrest Park, Seattle Center and Volunteer Park.	Way, Elliott Ave, routes on Queen Anne, Alaskan Way Viaduct, 5 th Ave, Denny Way, Westlake Ave, Broad St, etc.		many downtown streets in both the Commercial Core and Denny Triangle	
22. Camlin Hotel	Located in DOC 2 300 zone; visible from DOC 2 300 and DMC zones in Denny Triangle	X Four Columns Park, Bhy Kracke Park, Gasworks Park	X I-5, Olive Way		X Current high visibility because of relative size and isolated location on block primarily occupied by surface parking	
23. Frederick & Nelson Building	Located outside affected area in retail core; visible from DOC 1 450 and DOC 2 300		X 5 th Ave, Westlake	X Westlake Park		

Summary of potential impacts. The same assumptions and 3-D modeling illustrating potential future development under the four alternatives were used to identify the potential for impacts on view-protected landmarks. Also, a general survey was performed for conditions that would influence the visibility of a particular structure, such as topographic conditions, locations in relation to the study area, placement on streets, etc. Potential impacts of future development were considered and noted under each type of public location surveyed, with a general assessment of overall conditions provided in the far right column. At this stage of analysis, development under all alternatives was expected to have similar impacts. Three landmark structures were identified as having the greatest potential for impacts. Shaded on Table L-4, these include Queen Anne High School, the Camlin Hotel and the Terminal Sales Building. Because these structures were expected to experience the greatest level of impact, further analysis was conducted and included in the text of the EIS, providing a more detailed assessment of impacts under each alternative.

Table L-4
Impact Assessment of Alternatives of Views of Protected Landmarks

Landmark	Views from SEPA Viewpoints or Public Parks	Views from SEPA Scenic Route	Views from public park not identified in SEPA	Views from public street rights-of-way	General Assessment
Trinity Parish Church 609 8 th Ave	No impact on views from Harborview Viewpoint from development under any alternative	No impact from development under any alternative on views from I-5 or 5 th Ave scenic routes	NA	Steeple visible from portions of James Street; no impact from Downtown development under any alternatives.	No significant impact under any alternative
Coliseum Theater 5 th Ave and Pike St	NA	No significant impact from development under any alternative on views from 5 th Ave Scenic Route	NA	Visibility from streets in vicinity not affected under any alternative	No significant impact under any alternative
Immanuel Lutheran Church 1215 Thomas St	No impact from development under any alternative on views from Bhy Kracke Viewpoint	NA	NA	Under all alternatives, development may block views from portions of some streets in the Denny Triangle where church is currently visible.	View likely to be lost under all alternatives. However, views within Cascade neighborhood likely to be of primary significance and would not be affected by actions in study area.
Seattle First Baptist Church 1121 Harvard Ave	NA	NA	NA	Under all alternatives, development may block views from portions of some streets in the Denny Triangle where steeple is now partially visible	View likely to be lost, but not a significant view because of distance and steeple only partially visible

Table L-4 (continued)

Landmark	Views from SEPA Viewpoints or Public Parks	Views from SEPA Scenic Route	Views from public park not identified in SEPA	Views from public street rights-of-way	General Assessment
1st Ave Group/ Waterfront Center 1 st Ave and Western Ave btwn Madison and Seneca Sts	NA	Potential view blockage under all alternatives of rear of some structures and front of National Building on portions of Alaskan Way scenic route	NA	Existing views of facades from portions of some streets in vicinity potentially blocked by development under all alternatives	Potential minor impact under all alternatives
Times Square Building 414 Olive Way	NA	No significant impact from development under any alternative on views from 5 th Ave and Westlake Scenic Routes	No impact from development under any alternative on Views from McGraw Square or Westlake Square	Under all alternatives, potential development on sites to the east will diminish existing views from Olive Way, Stewart Street and 6 th Ave.	Potential minor impact under all alternatives on limited views from portions of some streets.
Hoge Building 705 2 nd Ave	NA	No view blockage under any alternative from Alaskan Way scenic route	NA	No significant impacts from development under any alternative on views from streets in the vicinity	No significant impact under any alternative
McGraw Square 5 th Ave, Westlake Ave, and Stewart St	NA	No significant impact from development under any alternative on views from 5 th Ave and Westlake Scenic Routes	No impact under any alternative on Views from Westlake Square	Under all alternatives, potential development on sites to the east will diminish existing views from Olive Way, Stewart Street and 6 th Ave.	Potential minor impact under all alternatives on limited views from portions of some streets.
Queen Anne High School 215 Galer St	Development under all alternatives likely to obstruct views from Four Columns Park	Potential additional view blockage from portions of Westlake Avenue.	Views from Pike/Pine/Boren Park likely to be diminished or lost by development under all alternatives.	Under all alternatives, development may block views from portions of some streets where school is currently visible. Shifts in street grid prevent continuous views aligned with street rights-of-way.	Potential impact under all alternatives
Guiry Hotel 2101-2105 1/2 1 st Ave	NA	NA	NA	No impact from development under any alternative on views from streets in vicinity	No significant impact under any alternative
Olympic Tower 217 Pine Street	NA	No impact from development under any alternative on views from 5 th Ave Scenic Route	No impact from development under any alternative on views from Westlake Park	No impact from development under any alternative on views from streets in vicinity	No significant impact under any alternative

Table L-4 (continued)

Landmark	Views from SEPA Viewpoints or Public Parks	Views from SEPA Scenic Route	Views from public park not identified in SEPA	Views from public street rights-of-way	General Assessment
Rainier Club 810 4 th Ave	NA	Limited, incidental views of side and rear facades from 5 th Ave Scenic Route may be diminished from development under any alternative	NA	Existing views of structure from portions of some streets may be diminished by development under any alternative	No significant impact under any alternative. The structure's visual prominence will continue to diminish as larger buildings are built on adjacent sites. However, the contrast in scale will likely increase the impact of remaining views.
Northern Bank and Trust/Seaboard Bldg. 1506 Westlake Ave	NA	No impact from development under any alternative on views from 5 th Ave Scenic Route	No impact from development under any alternative on views from abutting Westlake Park	No impact from development under any alternative on views from streets in vicinity	No significant impact under any alternative
Bon Marche 300 Pine St	NA	No impact from development under any alternative on views from 5 th Ave Scenic Route	No impact from development under any alternative on views from Westlake Park	No impact from development under any alternative on views from streets in vicinity	No significant impact under any alternative
Terminal Sales Building 1932 1 st Ave	Views of structure from Victor Steinbrueck Park remain under all alternatives; prominence of structure may diminish as larger development occurs on nearby sites.	Views of structure from Alaskan Way Viaduct Scenic Route remain under all alternatives; prominence of structure may diminish as larger development occurs on nearby sites.	NA	Existing views of structure from portions of some streets (primarily Virginia St. and 2 nd Ave) may be diminished by future development under any alternative	Prominence of structure may diminish as future development occupies adjacent sites.
Summit School/ Northwest School 1415 Summit Ave	NA	NA	NA		No significant impact under any alternative; not visible from study area
Mann Building 1411 3 rd Ave	NA	NA	NA	No impact from development under any alternative on views from streets in vicinity	No significant impact under any alternative

Table L-4 (continued)

Landmark	Views from SEPA Viewpoints or Public Parks	Views from SEPA Scenic Route	Views from public park not identified in SEPA	Views from public street rights-of-way	General Assessment
Pacific Medical Center 1200 12 th Ave S	No impact from development under any alternative on views from Harbor-view Viewpoint or Alki Beach Park	NA	Not visible from City Hall Park	No blockage of views from 3 rd Avenue due to changes in study area; view alignment passes through Pioneer Square and ID outside the study area.	No significant impact under any alternative
Wintonia Hotel 1431 Minor Ave	NA	NA	NA	Views of structure from some streets in Denny Triangle likely to be lost or diminished by future development under any alternative	Views of this structure from downtown likely to be lost under all alternatives. However, views of primary significance are likely to be those from locations in Pike/Pine neighborhood outside the study area.
Lyon Building 607 3 rd Ave	NA	NA	No impact on views from City Hall Park under any alternative	No impact from development under any alternative on views from streets in vicinity	No significant impact under any alternative
Space Needle Seattle Center, 219 4 th Ave N	No impact under any alternative from locations specified in SEPA for protection of Space Needle views.	NA Protection of Space Needle views limited to specified public viewpoints.	NA Protection of Space Needle views limited to specified public viewpoints.	NA Protection of Space Needle views limited to specified public viewpoints.	No significant impact on views from locations specified in SEPA for protection of Space Needle views.
Camlin Hotel 1619 9 th Ave	Development under all alternatives likely to obstruct views from Four Columns Park, Bhy Kracke Park and Gasworks Park	Structure visible along some portions of I-5 and Olive Way Scenic Routes. These views likely to be lost or diminished under any alternative	Views from Pike/Pine/Boren Park likely to be diminished or lost by development under all alternatives.	Development under any alternative likely to obstruct or diminish views from portions of nearby streets where structure is currently visible.	Potential impact under all alternatives
Frederick and Nelson Building 500-524 Pine St	NA	No impact from development under any alternative on views from 5 th Ave Scenic Route	No impact from development under any alternative on views from Westlake Park	No impact from development under any alternative on views from streets in vicinity	No significant impact under any alternative

Source: SPO, 2001



SEPA View Protected Landmarks (SMC 25.05.675 P.2.b.)

FIGURE L-2

Affected Area

1. Trinity Parish Church
2. Coliseum Theater
3. Immanuel Lutheran Church
4. Seattle First Baptist Church
5. 1st Avenue Group/Waterfront Center

6. Times Square Building
7. Hoge Building
8. McGraw Square
9. Queen Anne High School
10. Guiry Hotel
11. Olympic Tower
12. Rainier Club
13. Seaboard Building

14. Bon Marche
15. Terminal Sales Building
16. Summit School
17. Mann Building
18. Pacific Medical Center
19. Wintonia Hotel
20. Lyon Building
21. Space Needle

22. Camlin Hotel
23. Frederick and Nelson Building

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Appendix M

Wind & Shadow memos

TECHNICAL MEMORANDUM

TO: Todd Chase
OTAK -- Planners Engineers and Architects
17355 SW Boones Ferry Road
Lake Oswego, OR 97035-5217

FROM: Charles Bennett
Environmental Science Associates
225 Bush Street, Suite 1700
San Francisco, CA 94104

DATE: February 6, 2002

SUBJECT: Evaluation of Shadow and Wind Effects
Downtown Height and Bulk Alternatives
Seattle, Washington
ESA 201358

This memorandum provides an overview of the general shadow and wind effects that would occur in downtown Seattle due to four proposed City of Seattle development alternatives. In summary, the overall differences between the Alternatives are relatively minor. The overall shadow and wind consequences of any development alternative will depend strongly upon the specific designs for each of the individual structures erected in accordance with the general height and bulk regulations.

Discussion of General Shadow and Wind Effects

Shadows: Very generally, increased building height will extend the length of the shadow cast by the building and increased bulk (or cross-section width) will widen the shadow cast by the building. While the increased reach of the shadow may mean that the effects are noticed farther from the building, the shadow effects far from the building are more transitory, because the shadow moves with the angle of the sun, and that angular motion is translated into faster travel over the ground. Buildings with increasing amounts of bulk will generally result in wider shadows and an increased amount of shadowed area. The amount and impact of shadows cast by a group of buildings depends upon the spacing, orientation and relative locations of those buildings (e.g., some building arrangements may result in overlapping shadows, or cast shadows in patterns that are not detrimental to public areas where solar access is desirable).

Aside from altering the height or the bulk (or cross-section width) of the building, little can be done to change the shadow effects that will result from a single building. Altering the spacing, orientation and relative locations of new buildings within a group of buildings can sometimes result in benefits, such as lesser area in shadow, or retention of good solar access in favored areas. Conceptually, taller and narrower towers with wide spacing may result in shadow impacts and light conditions that are more transitory and less objectionable than conditions resulting from lower and more bulky buildings set close together.

Wind: Tall buildings and structures can strongly affect the wind environment for pedestrians. In cities, groups of structures tend to slow the winds near ground level, due to the friction and drag of the structures themselves. Buildings that are much taller than the surrounding buildings intercept and redirect winds that might otherwise flow overhead, and bring them down the vertical faces of the building to ground level, where they can create ground-level wind and turbulence. These redirected winds can be relatively strong and also relatively turbulent. Furthermore, they can be incompatible with the intended uses of nearby ground-level spaces and even can be hazardous.

Generally, the higher that a building rises above its surroundings, the stronger the wind that it encounters. These intercepted winds can be especially strong when the upwind buildings are very much shorter than the subject, and can be diminished when the upwind buildings' heights are similar to the height of the subject building. If, in addition, the building provides a wide face to the wind, more air will flow down that face of the building toward ground level. Thus, both height and bulk can affect the winds directed toward the ground. However, these flows can be controlled by building design features that redirect them away from pedestrian areas. Typically, it is sufficient to provide substantial horizontal structures near the base of a building to intercept winds flowing down the face of the building and to redirect those winds horizontally, well above ground level. Usually, this design strategy is effective for both taller towers and lower, bulkier buildings.

Public Comfort and Public Safety

Different conditions of sun exposure, temperature, clothing, and wind speed are known to influence the comfort and safety of people engaged in various outdoor activities. Over the years, many studies have been performed to establish criteria that relate wind speed to the ability of a person to carry out certain activities, such as sitting in the park and reading a newspaper, walking comfortably or walking safely along a sidewalk. The relationship of pedestrian comfort and safety to local wind speeds is discussed in the 1985 Downtown Seattle Draft EIS.

Sun exposure and shading also affects pedestrian comfort in the Downtown. Pedestrians expect to encounter both shade and sunshine along the sidewalks of Downtown on a clear day, and may or may not adjust their routes to favor one or the other, according to the temperature. Shade usually does not result in safety hazards, except for potential icy conditions during winter.

Public safety and comfort concerns are potential reasons to establish quantitative criteria for determining hazardous wind conditions and unacceptable shadowing of essential open spaces and walkways. The City's SEPA regulations do address shadowing of specified public open spaces in Downtown, including Freeway Park, Westlake Park, Steinbrueck Park, Convention Center Park, and Kobe Terrace/I.D. Community Garden. Only two of these open spaces, Freeway Park and Convention Center Park, are within the study area, and they are located on the far eastern edge of the office core. Furthermore, significant increases in the shadow on any of these open spaces are not expected from development in the study area because, in the portion of the study area where shadows cast by tall development could reach them, there are only very limited development opportunities.

A number of design requirements and guidelines also attempt to avoid or mitigate wind effects. This provides the City the opportunity to regulate and influence future development to avoid potential shadow and wind impacts. However, the City does not have quantitative wind or shadow criteria in its regulations.

which makes it difficult to apply rational methodologies to determine the performance of a project relative to shadow and wind abatement.

Access to Natural Light in Adjacent Development

Shadows cast by new development not only have impacts on the public street and open space environment, but also affect conditions in adjacent development. Studies have shown that workspaces with access to natural light can contribute to increased productivity of office employees, increased retail sales in retail stores, and reduced use of overhead lighting, which conserves energy. Bulky buildings casting shadows on adjacent sites will likely reduce the amount of natural light that developments on these sites receive, thereby reducing the benefits associated with access to natural light. However, due to the reflection of sunlight from other buildings, a substantial amount of natural light will remain even in a cluster of high-rise buildings in the Downtown office core.

ANALYSIS OF ALTERNATIVES

In the downtown among many tall buildings, people do not usually expect that sunshine will be available on all sidewalks; however, they do expect that most public open spaces will provide open areas where direct sun can be experienced, even downtown. The City has ordinances and design controls that seek to mitigate shadow impacts and improve sunlight availability. For example, the City's SEPA ordinance allows for the assessment of shadow impacts on any of five downtown parks: Freeway Park, Westlake Park and Plaza, Market (Steinbrueck) Park, Convention Center Park, and Kobe Terrace Park/I.D. Community Garden. Based on such impacts, the decision maker may deny a project or require mitigation measures (SMC 25.05.675-Q). The following table is a qualitative comparison of the potential wind and shadow effects that may result from future development under the four Alternatives. Overall, the differences among the potential impacts of the alternatives are relatively subtle.

Comparative Shadow and Wind Effects of the Alternatives

	Description of Alternative	Potential Shadow Effects	Potential Wind Effects
Alt. 1: High End Height and Density Increase	<p>--135 ft. maximum height increase in DOC 1 office core.</p> <p>--100 ft. increase and 40% density increase in Denny Triangle.</p> <p>--30% height increase in other peripheral DMC zoned areas.</p> <p>--Density increases in all areas.</p>	<p>--New tall buildings in the DOC 1 office core will add to the already considerable shading of city streets.</p> <p>--Taller buildings in all of Denny Triangle will add to the shading of those city streets.</p> <p>--Taller buildings in 1st/Western Ave. vicinity and edge of Belltown will add to the shading of those city streets.</p> <p>--Significant added shading of Downtown SEPA-identified parks is not likely.</p> <p>--Additional building heights near Denny Park at Denny Way have the potential to add to the shading of the park.</p>	<p>--New tall buildings in the office core and some peripheral areas would create potential for additional wind effects near street level. New buildings interspersed with existing buildings in the core may have less exposure to strong winds.</p> <p>--Taller buildings in the Denny Triangle, 1st/Western Ave. vicinity and edge of Belltown may help slow certain winds reaching the office core. However, those new tall buildings at the periphery of the clusters also would be exposed to winds.</p> <p>--Substantive site design and architectural features can reduce potential adverse wind effects at street level.</p>
Alt. 2: Concentrated Office Core	<p>--Height increases only in office core and central Denny Triangle office core zone.</p> <p>--Density increases similar or slightly less than Alt. 1.</p>	<p>--Potential shadow effects in the DOC 1 office core and the central Denny Triangle would be nearly the same as for Alternatives 1 and 3.</p> <p>--No zone changes in peripheral areas of Denny Triangle means no changes in shading of city streets.</p> <p>--No zone changes in 1st Ave./Western Ave. vicinity or edge of Belltown would avoid additional shading effects.</p> <p>--Similar to Alternatives 1 and 3, significant added shading of Downtown SEPA-identified parks is not likely.</p> <p>--No zone changes near Denny Way would avoid additional shading effects on Denny Park.</p>	<p>--Potential wind effects in the office core would be nearly the same as for Alternatives 1 and 3.</p> <p>--Due to somewhat less height and bulk of future buildings in the Denny Triangle and peripheral areas, potential wind effects would be somewhat less than for Alternative 1.</p> <p>--As with all other alternatives, substantive site design and architectural features can reduce potential adverse wind effects at street level.</p>

<p>Alt. 3: Resid. Emphasis</p>	<p>--Height increases in office core, portion of Denny Triangle DOC 2 zone.</p> <p>--Portions of Denny Triangle and peripheral areas zoned for intensive use to provide incentives to include housing in mixed use development.</p>	<p>--Potential shadow effects in DOC 1 office core would be roughly the same as for Alternatives 1 and 2.</p> <p>--Less intensive zoning in some peripheral areas of Denny Triangle and edge of Belltown would result in less bulky buildings, reducing potential for shading of city streets. Shading would be less than for Alternatives 1 and 2 and more than for Alternative 4.</p> <p>--Similar to Alternatives 1 and 2, significant added shading of Downtown SEPA-identified parks is not likely.</p> <p>--No zone changes near Denny Way would limit additional shading of Denny Park.</p>	<p>--Potential wind effects in the DOC 1 office core would be nearly the same as for Alternatives 1 and 2.</p> <p>--Due to somewhat less height and bulk of the future buildings in the Denny Triangle and peripheral areas, potential wind effects would be somewhat less than for Alternatives 1 or 2, but more than for Alternative 4.</p> <p>--As with all other alternatives, substantial site design and architectural features can reduce potential adverse wind effects at street level.</p>
<p>Alt. 4: No Action</p>	<p>--No change from existing height and density regulations.</p>	<p>--Future developments in the DOC1 office core under existing height/density limits could add to the already considerable shading of city streets. This increment could be slightly less than for the other alternatives.</p> <p>--Future developments under existing height/density limits could add to shading of city streets in Denny Triangle and other peripheral areas of Downtown. Existing bulk and site coverage regulations reduce upper level bulk, and shading.</p> <p>--Although future development closer to protected parks could possibly trigger the need to use SEPA protections, significant added shading of Downtown SEPA-identified parks might not occur.</p>	<p>--Due to less potential for height and bulk in future development, potential wind effects in the office core could be the same or slightly less than for the other alternatives.</p> <p>--Due to somewhat less height and bulk of future buildings in the Denny Triangle and peripheral areas, potential wind effects there would be less than for the other alternatives.</p> <p>--Existing bulk and site coverage regulations provide some benefits in avoiding wind effects.</p> <p>--As with all other alternatives, substantial site design and architectural features can reduce potential adverse wind effects at street level.</p>

Potential Mitigation Strategies

Given the current regulations, including the City's SEPA Ordinance, none of the alternatives can be said to generate significant adverse shadowing or wind impacts, per se. Adverse wind impacts resulting from new high-rise developments can usually be controlled by project-specific measures, especially site design and architectural elements, which prevent adverse winds from reaching pedestrian areas. Therefore, no SEPA mitigation measures are required to be implemented.

However, the City may wish to explore a few strategies over the long term to improve overall consideration of shadowing and wind effects of future development.

- The City could review existing regulations and guidelines pertaining to control of wind effects. Additional quantitative criteria on acceptable wind speeds and/or design criteria for avoiding adverse wind conditions at the street level of structures could be developed and provided to potential developers. If identified, inconsistencies in Code requirements and guidelines could be remedied. This could aid City reviewers in evaluating the performance of proposals by providing consistent review criteria with regard to acceptable wind conditions and the effectiveness of wind abatement measures.
 - The City could consider additional design guidelines or regulatory requirements to assure that important public open spaces continue to have sufficient solar access. To do this effectively, it is likely that some quantifiable measure of adverse effect would have to be developed, so as to reflect the correct level of community concern for the issue. Among the actions that could be taken are: 1) to develop general criteria for the daytime hours or daily duration of solar access (over certain days or seasons) for parks or open spaces, 2) to develop specific criteria for each identified critical park or open space, and/or 3) to develop measurable standards for the amount of new shadow that a project could add to certain parks. This also could mean considering additional locations for SEPA protection against possible shadow impacts, and/or other measures.
-

Memorandum



117 S Main Street
Seattle, WA 98104
Phone (206) 222-7221
Fax (206) 224-9230

To: Chuck Bennett, ESA

From: Joseph Gellings and Todd Chase

Copies: Dennis Meier, City of Seattle,
Strategic Planning Office

Date: December 14, 2001 – Revision of
December 6, 2001 memorandum

Subject: *Existing Regulations Affecting Wind
and Shadow Impacts*

This memorandum provides an overview of existing City of Seattle development regulations that address wind and shadow impacts in downtown Seattle. In summary, there are very few controls that are aimed exclusively at these impacts; however, there are many design criteria that can mitigate potential wind and shadow impacts. In searching for these controls, Otak reviewed the Seattle Land Use Code (Title 23 of Seattle Municipal Code), the Guidelines for Downtown Development (design review), the Seattle SEPA program (Title 25 of Seattle Municipal Code) and the City of Seattle Street Vacation Policies. The section number for each regulation is cited below. "Revised code" refers to code provisions not yet published but adopted through Ordinance #120443 in July 2001.

Regulations Addressing Wind Impacts

1. The fine grain of zones with different heights across downtown minimizes the length of continuous multi-block tall facades, which increase wind velocities.
2. Placement of street trees is required for all new development in the DOC-1, DOC-2, DRC, and DMC zones (SMC 23.49.56-F, 23.49.76-F, 23.49.106-F, 23.49.134-F).
3. The downtown zones of DOC-1, DOC-2 and DMC have upper level coverage limits. These are narrow zones lying close to the property line over which only a percentage of each floor plate may occupy. A narrow zone starts at a height of 125 feet and increases in size (more restrictive area) at a height of 240 feet. The percent of the zone that may be occupied by floor plate depends on the size of the site. This regulation mitigates wind impacts by controlling the size of sheer facades and it tends to result in interruptions that slow downwash wind patterns (SMC 23.49.058-A, 23.49.78-A, and 23.49.136-A).
4. The downtown zones of DOC-1, DOC-2 and DMC have upper-level maximum façade lengths. Above a height of 125 feet, this control specifies a maximum length of any single façade permitted within 15 feet of the street property line – measured parallel to the property line. This mitigates wind impacts similar to the upper level coverage limits described above (SMC 23.49.058-B, 23.49.78-B, and 23.49.136-B). The general intent of controls #3 and #4 is to encourage designs that push portions of towers away from the street, without mandating continuous upper level setbacks across the entire frontage.

5. The FAR bonus program rewards provision of parcel parks and plazas, which break-up wind patterns in a high-rise environment (revised code 23.49.013).
6. Overhead weather protection¹ is required with street level retail to qualify for the street level retail FAR exemption (revised code 23.49.011-B-1-b-3). Overhead weather protection is required outright wherever street-level retail is required by street designation (revised code 23.49.025-B-5). The streets for which street level retail/ weather protection is required are within a one-block buffer of the DRC and extending approximately seven blocks outward along the armatures of 1st and 3rd Avenues and Westlake Avenue. There are also some shorter armatures consisting of Pike and Pine to I-5; Stewart Street to Boren Ave, and 7th and 8th avenues from Westlake to Convention Center (Pike and Union Streets)
7. Design for wind protection is a design criterion for open space that is to serve as a TDR sending site (revised code 23.49.027-E-2).
8. Overhead weather protection can qualify as a bonus on DMC streets with a Pedestrian Class I designation (SMC 23.49.126).
9. The Downtown Design Guidelines publication contains the guidelines used to evaluate new projects in the Design Review process. There are four relevant guidelines that encourage the wind mitigation: façade articulation; provision of overhead weather protection; open space; and landscaping (Guidelines C2, C5, D1, and D2).

Regulations Addressing Shadow Impacts

1. The north-south orientation of the zones that allow tall buildings as well as the downtown block spacing generally have the effect of minimizing downtown shadows at midday. There is also a difference in platting between the commercial core and the Denny Triangle — the smaller square blocks of the commercial core create more interruptions in the potential massing of development because there is a street occurring every 240 feet as opposed to every 360 feet on the longer blocks in the Denny Triangle. Consequently, there is a more open feeling due to the higher ratio of street right-of-way area to development parcel area. Furthermore, the Avenues in Denny Triangle are narrower (66 feet as opposed to 80 to 90 feet) — so the longest dimension of the block is along the narrower right-of-way, which may further reduce the amount of light that penetrates into the area.
2. The upper level coverage limits described in item 3 above also relate to shadows. Because the sun usually strikes a building at some angle, (rather than perpendicular to a façade) scaling-back the corners of a building is particularly critical to maximizing sunlight. The narrow zone over which each floor plate is restricted (see description in item 3 above) has a shape that flares-out at block corners. Since the zone is larger in this area, a builder's floor area allowance is consumed more quickly when the floor plate is focused in this area.
3. In each of the zoning code regulations concerning overhead weather protection above, encouragement or extra bonus is given for the use of transparent materials.
4. Design for maximum sun exposure is a design criterion for open space that is to serve as a TDR sending site (revised code 23.49.027-E-2).
5. Four of the guidelines in the Downtown Design Guidelines document address shadow issues. Under Guideline A1 "Respond To the Physical Environment" sunlight access is listed as a consideration. Under Guideline B4 "Design a Well-Proportioned and Unified

¹ Overhead weather protection is considered to mitigate wind impacts since high-rise buildings often create a downwash wind pattern.

Building" shadow patterns are listed as a consideration. Under Guideline C5 "Encourage Overhead Weather Protection" material transparency is strongly suggested. Under Guideline D1 "Provide Inviting and Usable Open Space" maximizing sun exposure is listed as a consideration.

6. The City's SEPA program allows for the assessment of shadow impacts on any of five downtown parks: Freeway Park, Westlake Park and Plaza, Market (Steinbrueck) Park, Convention Center Park, and Kobe Terrace Park. Based on such impacts, the decision maker may deny a project or require one of the following mitigation measures: limiting the height of the development, limiting the bulk of the development, redesigning the profile of the development, limiting or rearranging walls, fences, or plant material, limiting or rearranging accessory structures, and relocating the project on the site (SMC 25.05.675-Q).
7. While future street vacations in Downtown are not likely, the City's street vacation policy document contains a guideline stating that proposed alley vacations should be analyzed to determine if there are sunlight impacts on surrounding parks and open spaces. Where such impacts are found, another guideline provides for alley vacation approval conditioned on mitigation requirements (City of Seattle Street Vacation Policy, Guidelines 3.1 and 3.6).
8. A recently adopted amendment to DOC 1 and DOC 2 height provisions allows for a 10% or 20% height increase above the current mapped height limits if projects meet certain conditions. There is no density increase — so the added height allows for the same floor area density to be stretched out in a taller, presumably less bulky appearing structure. For the 10% increase, the building must reduce the bulk of upper floors to achieve a narrower structure over all, which may have some benefit for solar access. For the 20% increase, in addition to the reduction in bulk, a specified percentage of the development site must either be in open space or occupied by low base structures, or some combination, to create more open conditions at the pedestrian level.

Appendix N

Transportation Technical Report

Transportation Technical Report

Prepared for:

City of Seattle Strategic Planning Office

as part of

*Downtown Height & Density
Environmental Impact Statement*

Parsons Brinckerhoff

March 2002

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EXECUTIVE SUMMARY

Purpose and Objective

The purpose of this EIS is to study four alternatives for possible changes to height and density regulations within portions of Seattle's Downtown Urban Center. These changes, if adopted, would influence the maximum height and size of future building projects allowed in the Commercial Core, the Denny Triangle, and an edge of Belltown. None of the alternatives have been chosen as a preferred alternative. Rather, this EIS is intended to analyze the impacts of alternative courses of action, for the benefit of decision makers, agencies and interested citizens.

The following are general objectives of the alternatives studied in this EIS:

Designate adequate zoned development capacity in the Downtown Urban Center to encourage long-term residential and commercial growth and economic development, in a manner consistent with Downtown's position as the largest urban center in the metropolitan area.

Define regulatory requirements that will encourage development that is consistent with the City's Comprehensive Plan and neighborhood plans, and will support Downtown's vibrant urban character. Make changes that will aid in realizing a mix of low, moderate and market rate affordable housing throughout Downtown, particularly in areas intended to be "residential enclaves."

Study possible changes to height and density regulations in the Commercial Core (particularly Office Core zones) and Denny Triangle portions of Downtown.

Determine how to best accommodate growth while maintaining a functional transportation system, including the street network, transit, and non-motorized modes of travel. Similarly, determine how to best accommodate growth while maintaining the function and capacity of utility systems, including but not limited to electrical energy, water, sewer and stormdrain systems.

- Achieve a high quality urban environment that can accommodate high-density development while ensuring livability and enhancing Downtown's positive existing characteristics.

Comparison of Alternatives

The chart below provides a brief summary of the alternatives considered in the Downtown Height & Density EIS. For further detail, please refer to Chapter 2 of the EIS.

Table 1: Summary of Alternatives

Alternative 1 High End Height and Density Increases	Alternative 2 Concentrated Office Core
<p>135-ft. height increase in DOC 1 and 100-ft. increases in all Denny Triangle zones</p> <p>30% height increase in zones at edge of office and retail cores</p> <p>4 FAR maximum density increase in Denny Triangle DOC 2 zone and 3 FAR maximum density increase in other zones</p> <p>1 FAR increase in base FAR in DOC 1 zone and DOC 2 zones outside Denny Triangle; 2 FAR increase in base FAR in DMC zones and DOC 2 zone in Denny Triangle.</p> <p>No TDC in Denny Triangle zones</p>	<p>100 and 135-ft. height increases to the DOC 1 and DOC 2 zones</p> <p>30% height increase only at southern edge of office core</p> <p>3 FAR maximum density increases in DOC 1 and DOC 2 zones</p> <p>No increase in base FAR</p> <p>No height or density changes in western or northern DMC zones at periphery of the office/retail core</p> <p>TDC limited to DMC zones in Denny Triangle</p>
Alternative 3 Residential Emphasis	Alternative 4 No Action
<p>135-ft. height increase in DOC 1 and 100-ft. increase in Denny Triangle DOC 2 between 5th/6th and 8th Avenues, west to Blanchard St.</p> <p>No other height increases</p> <p>3 FAR maximum density increase in DOC 1 and same DOC 2 area described above</p> <p>No increases in base FAR</p> <p>Rezone Denny Triangle mixed-use area between Westlake, Howell and Minor Ave. from DMC to DMR/C, lowering density from 7 FAR to 5 and 4. This re-orientes the zoning to mixed residential development.</p> <p>Rezone Belltown southern edge from DMC to DMR/C, lowering density from 7 FAR to 5.</p> <p>In other Denny Triangle and Commercial Core DMC zones, require the use of non-residential density (above the base) to be contingent upon including on-site housing.</p> <p>TDC remains in all Denny Triangle zones except portion of DOC 2 with height and density increases.</p>	<p>No changes in allowable height or density</p> <p>Existing optional height increases would be available, through use of bulk limitations, use of TDC program, preservation of landmarks or small structures on-site, or provision of on-site open-space usable to public.</p> <p>Optional height increases range from 10% to 30% above mapped height limits.</p>

Source: SPO, 2002

Summary of Findings

Travel Characteristics and Traffic Circulation

Impacts

Significant changes in travel conditions are projected to occur with or without zoning changes due to the amount of Downtown growth projected between current conditions and the 2020 baseline condition (Alternative 4 – No Action). The ability for traffic to circulate on the street network will significantly change by 2020, with or without zoning changes. However, there are relatively limited differences in year 2020 peak-hour traffic impacts among the land use zoning alternatives. The biggest impacts are projected to occur along Stewart Street in the PM peak hour, Olive Way in the AM peak hour, and Denny Way in both directions during both peak hours.

Specific findings include the following:

For the most affected study area location (the Denny triangle neighborhood), traffic volume growth is predicted to range from 15 to 150 percent greater in the 2020 baseline condition than under existing conditions.

In most cases, the projected traffic volumes for the three land use zoning alternatives are within five percent of the volumes projected for the 2020 baseline condition. The biggest exception is Screenline 8 at the northeast corner of the Denny Triangle near the Denny Way/Stewart Street intersection, where Alternative 1, the “High End” alternative, would result in approximately 8 percent more traffic in the PM peak hour than the 2020 baseline condition.

Data from Screenlines 2, 6 and 7 indicate that PM peak-hour traffic in 2020 will use a large portion of the available road capacity in the Downtown commercial core and the Denny Triangle neighborhood. This information illustrates that regardless of potential zoning changes, growth over 20 years will generate additional traffic volumes and additional strain on the existing street network.

Mitigation

Possible mitigation strategies discussed fall into two basic categories – those that focus on ways to reduce traffic demand, and those that are aimed at better accommodating anticipated traffic demands.

Regarding traffic demand reduction strategies, it is noted that the future baseline condition, assuming implementation of LINK light rail from Northgate to South 200th Street, already assumes a dramatic increase in transit ridership (160 percent increase over existing ridership) and transit mode share (33 percent in 2020 versus 20 percent currently) of Downtown oriented trips. With respect to additional mitigation, greater implementation of transportation demand management (TDM) strategies coordinated through worksites is recommended, such as:

- Greatly reduced price transit passes (e.g., Flex Pass)
- Subsidization of other alternative modes (walking, biking)
- Increased telecommuting
- Business use of vans
- Carsharing
- Preferential parking for carpools/vanpools
- Guaranteed ride home
- Computerized ridematching database and mapping services

Mitigation measures aimed at better accommodating projected traffic levels are generally limited to strategies such as the optimization of traffic signal timings, and alternate uses of street pavement (e.g., utilizing parking lanes for travel during peak periods). This is because of right-of-way constraints and the overwhelming cost of significant expansion of Downtown streets. However, for one location (the intersection of Stewart Street and Denny Way), a grade-separated intersection is presented as an option. Also, the potential benefits of Alaskan Way Viaduct Project improvements to the east-west grid network across Aurora Avenue are qualitatively addressed. Specific mitigation strategies presented include the following:

Restriping Stewart Street between Yale and Sixth Avenue to allow for four ten-foot travel lanes and (along most segments) an eight-foot parking lane during the AM and PM peak periods

Analysis indicates that strategy could decrease average travel times through the corridor by 1.2 minutes (or about 10 percent) in the PM peak hour. However, in the AM peak hour, it appears to result in a slight increase in delay through the corridor.

A second restriping option for Stewart Street between Yale and Sixth Avenue

A second restriping option was also considered, which allowed for four 12-foot travel lanes and no on-street parking during the AM or PM peak periods. On-street parking would be allowed on the right side during the off-peak hours and three lanes would be used for off-peak travel. An assessment of this strategy indicates that it could decrease travel times through the corridor by close to a minute, resulting in a six percent improvement in the PM peak hour. In the AM peak hour, the net change in delay would be negligible.

Retiming traffic signals along Stewart Street

Retiming these traffic signals would help optimize corridor traffic flow. This strategy is expected to have the most significant effect on PM peak-hour operations, because the signals are already timed to facilitate traffic progression in the AM peak hour, but not necessarily in the PM peak, since this is currently the “off-peak” direction.

Constructing a grade-separated intersection of Stewart Street with Denny Way

This intersection is currently operating at LOS F, and is an important crossroads adjacent to the Denny Triangle neighborhood, which is projected to receive a large amount of growth over 20 years. Traffic operations at this location are anticipated to degrade significantly. Grade-separating this intersection could provide significant relief to both the Denny Way and Stewart Street corridors.

Potential Mitigation Strategies for Olive Way

Restriping Olive Way between Fourth and Eighth Avenues

This restriping would allow for four travel lanes during both the AM and PM peak periods. Parking would be allowed in the off-peak period where it exists today. An assessment of this strategy indicates that it could decrease travel times through the corridor by two minutes (31 percent) in the AM peak hour, and by 1.7 minutes (32 percent) in the PM peak hour.

Retiming traffic signals along Olive Way to optimize corridor traffic flow

This strategy is expected to have the most significant effect on AM peak-hour operations, because the signals are already timed to facilitate traffic progression in the PM peak hour, but not necessarily in the AM peak hour, since this is currently the “off-peak” direction.

Potential Mitigation Strategies for Denny Way

Constructing a Grade Separated Intersection of Stewart Street with Denny Way

See previous discussion.

Placing Aurora Avenue in a tunnel from the downtown area to north of Broad Street

This is an improvement in the South Lake Union area that is being considered as part of the Alaskan Way Viaduct Project. This would allow the reconnection of several east/west arterial streets currently severed by Aurora Avenue north of Denny Way. This would allow for more east/west traffic capacity, and potentially reduce the amount of traffic using Denny Way (particularly in the western portion of the corridor). Although assessment of these impacts to Denny Way are beyond the scope of this study, separate studies analyzing the overall impacts of these improvements are currently underway.

Transit Service

Impacts

As with general-purpose traffic, significant changes in transit operating conditions are projected to occur with or without zoning changes between now and the 2020 baseline condition (Alternative 4 – No Action). This is largely due to the influence of general traffic conditions.

Mitigation

As with traffic-oriented strategies, appropriate mitigation strategies for transit include those aimed at reducing the overall number of trips on these streets and/or enhancing traffic flow. In most cases, traffic circulation mitigation will have corresponding benefits for transit. However, the following transit-specific mitigation measures may also have merit:

- *Restriping Stewart St. from Yale Avenue to Sixth Avenue & Olive Way from Fourth Avenue to Eighth Avenue to accommodate a right-side peak-period transit-only lane*

Restriping would allow for up to three twelve-foot travel lanes and a twelve-foot transit-only lane on Stewart Street, with narrower lanes along Olive Way. The transit-only lane could be available for parking during off-peak hours. An assessment of this strategy indicates that it could improve average bus travel times along Stewart Street by 1.2 minutes (27 percent) in the AM peak hour, and 8.3 minutes (70 percent) in the PM peak hour. Note that a significant portion of the travel-time savings (nearly 5 minutes) in the PM peak hour is projected to occur at Yale Avenue. If the transit lane started downstream of this intersection, or not far enough upstream of the intersection to provide an adequate queue bypass, the improvement would be much less. Along Olive Way, the transit lane would be expected to reduce AM peak-hour travel times by approximately one minute in both the AM and PM peak hours, which is equivalent to a 15 and 19 percent improvement, respectively.

Regarding cumulative bus travel time delay for the two corridors combined, implementing these transit lanes is estimated to result in an overall decrease of 161 minutes in peak-hour bus-minutes of travel (25 percent improvement) in the AM peak hour, and a decrease of 484 minutes (106 percent improvement) in the PM peak hour.

With this configuration, operations along Stewart Street for general-purpose traffic are estimated to improve slightly in the AM peak hour, with average travel time through the corridor reduced by 0.5 minutes (11 percent) in the general-purpose lanes, compared to Alternative 4 – No Action. PM peak-hour results along Stewart Street are more pronounced, with travel times projected to decrease by 2.4 minutes (roughly a 20 percent improvement). Along Olive Way, AM peak-hour results show a travel time improvement for general-purpose traffic of 1.8 minutes (27 percent) over Alternative 4 – No Action. PM peak-hour results showed no noticeable change in travel times for general-purpose traffic with this measure.

In the Denny Way corridor, target transit queue jumps at intersections with significant queues

Under all of the alternatives, Fairview Avenue North would experience the longest queues and would likely benefit from a queue jump. Other intersections with significant delays that could also benefit from a signal queue jump include Fifth Avenue North, the Aurora Avenue North ramps, and Dexter Avenue North.

Conclusions

Without mitigation, future development through the year 2020 is projected to generate additional traffic volumes and increase congestion in portions of Downtown, most notably in the Denny Triangle neighborhood. Much of this impact would occur with or without zoning changes. However if the higher-density zoning changes (Alternatives 1 and 2) considered in this study are implemented, congestion in the most affected areas could be approximately 5-10 percent worse than for other alternatives, including the 2020 baseline condition (Alternative 4 - No Action). Under all the alternatives considered, additional congestion will likely increase overall travel times on Denny Way, Stewart Street and Olive Way, including transit travel time. Implementation of mitigation strategies, at the City's discretion, would likely improve overall transportation conditions, so that a portion of the impacts of traffic congestion could be avoided.

I. AFFECTED ENVIRONMENT

A. Travel Characteristics

According to the City of Seattle's travel demand forecasting model, Seattle's downtown area currently serves as the origin and/or destination for about 26 percent of daily person trips in the City of Seattle. On an average weekday, over 815,000 person trips are estimated to have an origin and/or destination within the Downtown area. Information from the Puget Sound Regional Council's travel demand model indicates that about 20 percent of these Downtown-oriented trips are made by transit. The average weekday vehicle trips with an origin and/or destination in the Downtown area number about 519,400, carrying approximately 655,000 persons, which equates to an average auto occupancy of 1.26 persons per vehicle.

A view of travel patterns (including both through and local trips) within and through the Downtown area can be seen by examining travel volumes across imaginary lines called screenlines. Screenline volumes provide an indicator of general traffic flow from one area to another. In examining screenline volumes, it is more useful to look at peak-period patterns than daily totals. Figure 1 shows the location of nine screenlines in the Downtown area: three of these measure north-south traffic and six measure east-west traffic. The screenline locations were chosen in an attempt to capture all traffic entering and leaving the study area. Streets included in each of the screenlines are listed in Appendix A.

When reporting screenline volume results, it is also useful to look at volume-to-capacity (v/c) ratios. These ratios are an indicator of whether the screenline volumes are close to the carrying capacity of the streets crossing them. In calculating this value, typical capacities for streets are used, but because the capacity of a roadway is not a hard and fast value, typical capacities can be exceeded. For this reason, a value of 1.20 for a given screenline in this study indicates that the streets crossing the screenline are likely to be at their ultimate capacity. A value exceeding 1.20 indicates that there is more volume desiring to use the streets crossing the screenline than could typically be physically accommodated. Values of 0.80 to 1.00 indicate that the screenline is moderately congested, and values ranging from 1.00 to 1.20 indicate more congested conditions. For the purposes of this study, a capacity of 600 vehicles per lane per hour was assumed.

Of the nine total screenlines chosen for this transportation study, three are consistent with screenlines used by the City of Seattle's Comprehensive Plan's level-of-service (LOS) system, and three others resemble three that were defined for a forecast analysis in the Comprehensive Plan's Transportation Appendix C. The correspondence between the screenlines used here and the Comprehensive Plan screenlines, along with pertinent LOS standards, are shown in Table 2.

Table 2: EIS and Comprehensive Plan Screenline Correspondence

EIS Screenline	Comprehensive Plan Screenline
7,9	12.12 (LOS Standard: v/c > 1.20)
1	10.11 (LOS Standard: v/c > 1.00)
2	A1
3	A2
6	A3
4,5,8	No corresponding screenline

Table 3 shows peak-hour traffic volumes across these screenlines for the AM and PM peak hours. The volumes shown are the summation of volumes on all individual streets crossing the screenline in both directions. Table 3 also shows the corresponding screenline volume-to-capacity (v/c) ratios. Figures 2 and 3 also show screenline volumes and v/c ratios for the AM and PM peak hours respectively. Note that the City's maximum arterial level of service standard for the Comprehensive Plan Screenline 12.12 (identified above) is a v/c of 1.20.

Several patterns can be discerned from looking at screenline volumes and v/c ratios. The screenline with the heaviest crossing volume is number 7, east of Sixth Avenue. This indicates that a large percentage of traffic oriented to downtown Seattle arrives and departs via I-5 (i.e., across Screenline 7, which captures traffic heading to and from the I-5 ramps). Screenline 2 (north of Seneca Street) and Screenline 3 (south of Blanchard Street) also show relatively high volumes. Screenline 2 captures traffic traveling north and south through the heart of downtown Seattle, and heavy volumes are consistent with observations on these streets. Screenline 3 captures north-oriented traffic that arrives/departs Downtown via surface streets. Note that Screenline 3 does not include Aurora Avenue (SR 99), or Elliot or Western Avenues. Traffic from Downtown that accesses these facilities is captured either in Screenline 3 or Screenlines 4 and 5. The predominant access to Downtown from southbound Aurora Avenue is via Battery Street westbound, and via Fifth, Third, Second or First Avenues southbound. Seventh Avenue and Denny way provide a few other options.

Other notable patterns include the fact that for most screenlines, volumes in the inbound direction were higher in the AM than in the PM, and vice-versa for volumes in the outbound direction. As a whole, in the AM peak hour approximately 57 percent of the traffic crossing the screenlines is traveling into the study area, and 43 percent is outbound. In the PM peak hour, 59 percent is outbound and 41 percent is inbound. Another observation is that when summing up volumes across all screenlines, PM peak-hour traffic is roughly 12 percent higher than AM peak-hour traffic.

With respect to v/c ratios, only the following two screenlines have ratios of 0.80 or higher, which indicates potentially congested operations:

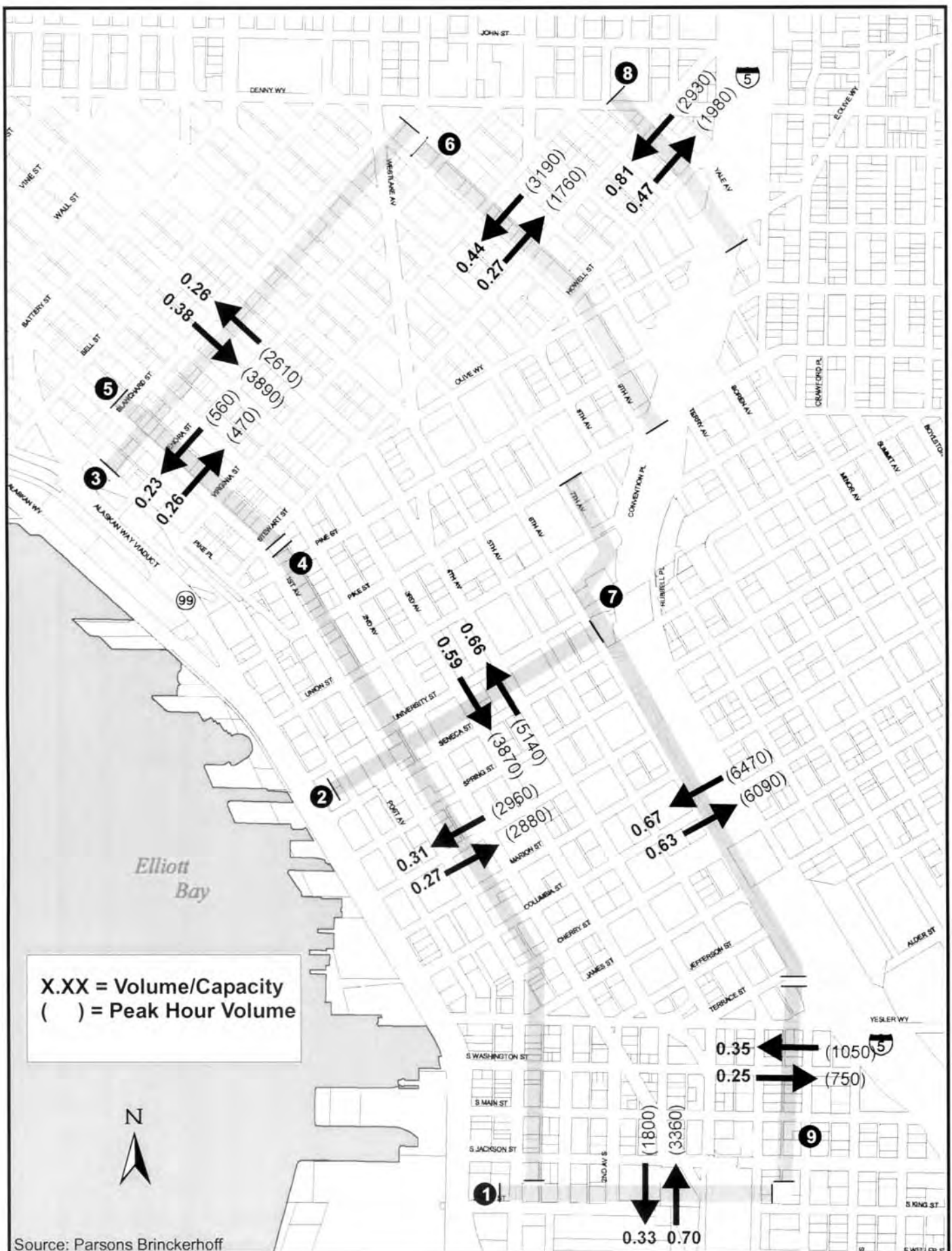
Screenline 7, east of Sixth Avenue - eastbound in the PM peak hour
Screenline 8, east of Minor Avenue - westbound in the AM peak hour

These results are consistent with observed conditions and with findings that show that a large portion of traffic destined for the study area is oriented either to or from the east (i.e., I-5), or the north via surface streets. Note that much of the traffic across Screenline 8 east of Minor Avenue is from the I-5 southbound mainline off-ramp to Stewart Street, and the I-5 express lanes reversible ramp to Stewart Street. None of the screenlines analyzed exceed the City of Seattle's maximum arterial level-of-service (LOS) standard, which is a v/c ratio of 1.2 or less across an entire screenline.



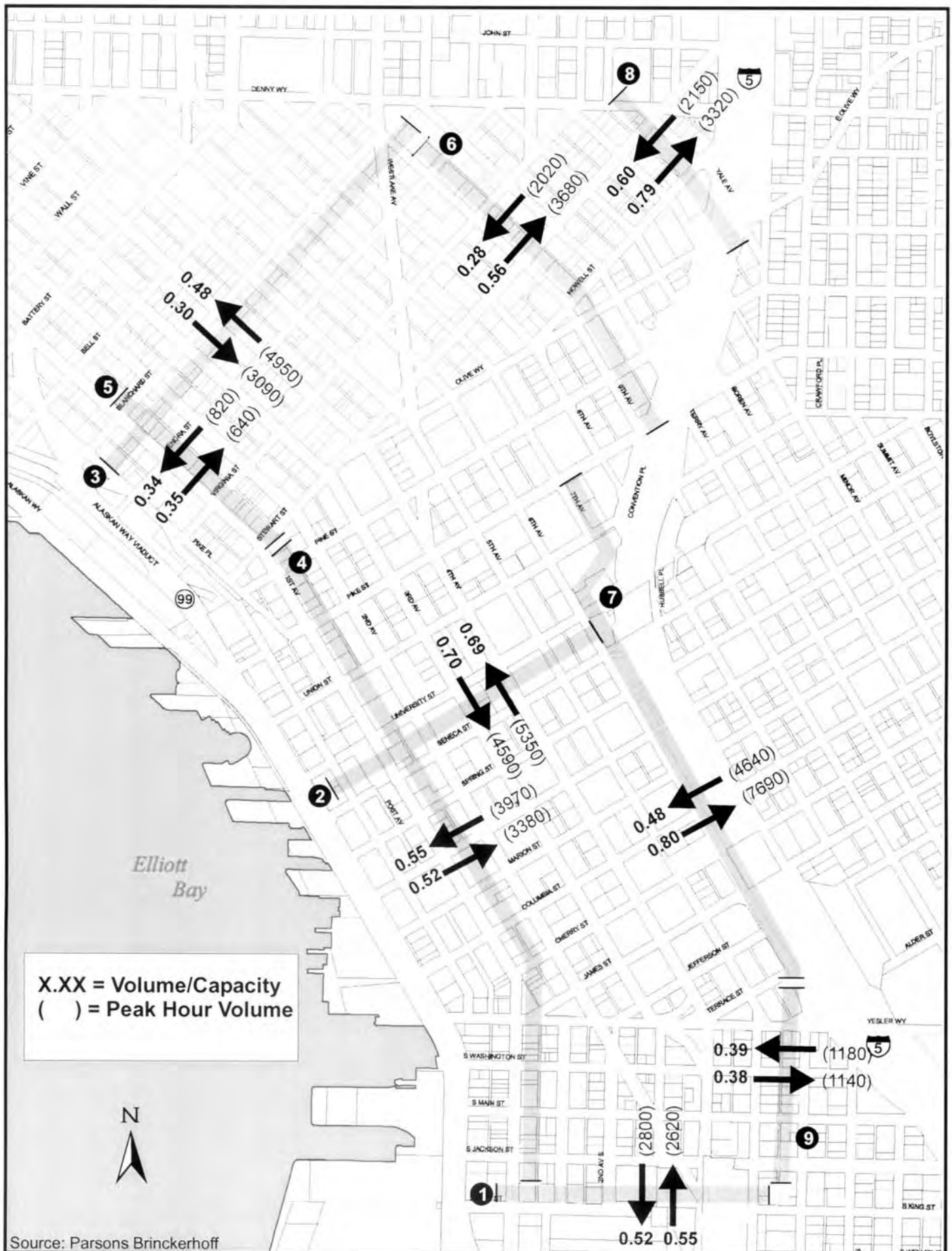
Table 3
Existing Peak Hour Traffic Volumes and V/C Ratios
Across Screenlines

Screenline	Map Key	AM Peak Hour		PM Peak Hour	
		Volume	V/C Ratio	Volume	V/C Ratio
South Screenline: North of S. King St., First Ave. S. to Sixth Ave. S.	1				
Northbound Total		3,360	0.70	2,620	0.55
Southbound Total		1,800	0.33	2,800	0.52
Central Screenline: North of Seneca St., Western Ave. to Sixth Ave.	2				
Northbound Total		5,140	0.66	5,350	0.69
Southbound Total		3,870	0.59	4,590	0.70
North Screenline: South of Blanchard St., Elliott Ave. to Ninth Ave.	3				
Northbound Total		2,610	0.26	4,950	0.48
Southbound Total		3,890	0.38	3,090	0.30
West Screenline 1: East of First Ave., S. Jackson St. to Pine St.	4				
Westbound Total		2,960	0.31	3,970	0.55
Eastbound Total		2,880	0.27	3,380	0.52
West Screenline 2: East of First Ave., Stewart St. to Blanchard St.	5				
Westbound Total		560	0.23	820	0.34
Eastbound Total		470	0.26	640	0.35
East Screenline 1: East of Ninth Ave., Lenora St. to Pike St.	6				
Westbound Total		3,190	0.44	2,020	0.28
Eastbound Total		1,760	0.27	3,680	0.56
East Screenline 2: East of Sixth Ave., Union St. to S. Jackson St.	7				
Westbound Total		6,470	0.67	4,640	0.48
Eastbound Total		6,090	0.63	7,690	0.80
East Screenline 3: East of Minor St., Denny Way to Olive St.	8				
Westbound Total		2,930	0.81	2,150	0.60
Eastbound Total		1,980	0.47	3,320	0.79
East Screenline 4: West of Sixth Ave.	9				
Westbound Total		1,050	0.35	1,180	0.39
Eastbound Total		750	0.25	1,140	0.38



Downtown Height & Density EIS

Figure 2
Existing Screenline Volumes and V/C Ratios
AM Peak Hour



Downtown Height & Density EIS

Figure 3
 Existing Screenline Volumes and V/C Ratios
 PM Peak Hour

B. Traffic Circulation

The quality of traffic circulation on an arterial street system is generally a result of operating conditions at signalized intersections, since these are the locations where roadway capacity is shared by vehicles moving in conflicting directions. For this transportation study, operating conditions at key intersections along critical corridors serving the Downtown area were examined. The results of these analyses can be expressed in terms of level of service (LOS), a measure that is used to describe traffic flow conditions, ranging from excellent (LOS A) to overloaded (LOS F). The most recent version of the Transportation Research Board Highway Capacity Manual (HCM 2000) categorizes intersection LOS in terms of average delay per vehicle processed by the given intersection. LOS criteria for signalized intersections is described as follows:

LOS A: Average vehicle delay is less than or equal to 10 seconds. Generally, no vehicle waits longer than one signal cycle (red light), and no approach phase is fully used.

LOS B: Average vehicle delay is between 10 and 20 seconds. An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within groups of vehicles.

LOS C: Average vehicle delay is between 20 and 35 seconds. Typically, between 11 and 30 percent of the signal cycles have one or more vehicles that wait through more than one cycle. Backups may develop behind turning vehicles.

LOS D: Average vehicle delay is between 35 and 55 seconds. Delays may be substantial during portions of the peak period, but enough lower volume periods occur to permit clearing of developing queues, preventing excessive backups.

LOS E: Average vehicle delay is between 55 and 80 seconds. This generally represents the most vehicles that the intersection approaches can accommodate.

LOS F: Average vehicle delay is greater than 80 seconds. This is typically known as oversaturation, when arrival flow rates exceed the intersection's capacity.

These level-of-service measures describe operating conditions at signalized intersections. They are not directly related to the City's Arterial Level of Service Standard required by the Growth Management Act. The Arterial Level of Service Standard designated by the City is an area-wide volume- to-capacity ratio measured against all the arterials crossing a screenline or cordon line.

Current Operating Conditions

To assess current and future operating conditions in the study area, this study focuses on two arterial corridors: the Stewart/Howell/Olive Way corridor and the Denny Way corridor. Within these corridors, a total of 38 intersections were analyzed: 26 in the Stewart/Howell/Olive corridor, and 12 along Denny Way. The analysis was conducted using the micro-simulation model Synchro. This model simulates traffic operations at both a corridor and intersection level. The advantage of using the simulation model is that it can indicate how operations at one intersection can impact those at adjacent intersections (e.g., due to queue back-ups or signal phasings and/or timings). This type of analysis provides a more comprehensive picture of operations in the corridor, as opposed to analyzing intersection operations in isolation.

Table 4 lists the calculated AM and PM peak-hour levels of service (LOS) and queuing impacts for each of the 38 intersections analyzed. Figure 4 graphically shows existing AM and PM peak-hour LOS results by intersection location.

AM Peak Hour

The analysis indicates that in the AM peak hour, for the corridors analyzed, only two intersections experienced operating conditions of LOS E or worse. These were at Stewart Street and Denny Way, and Stewart Street and Fifth Avenue. Both of these intersections are operating at LOS F. Note that while other intersections were operating at LOS D or better, many of them still experience queuing problems on one or more approaches, so that queues are backed up enough to affect operations at upstream intersections. This was particularly evident along Stewart Street in the westbound (or inbound) direction, and along Denny Way in both the eastbound and westbound directions between Stewart Street and Sixth Avenue.

PM Peak Hour

Operations in the PM peak hour are generally more congested than in the AM peak, with five intersections experiencing operating conditions of LOS E or worse. These are the intersections of Stewart and Yale, Howell and Minor, Olive and Boren, Denny and Stewart, and Denny and Sixth Avenue. The queuing analysis for the PM peak hour shows queuing problems along Howell between Boren and Yale Avenues, and along Denny Way in both directions between Stewart Street and Sixth Avenue. These are consistent with field observations that indicate congested PM peak-hour operations along these corridors in these locations. An overall general observation is that congestion on these key corridors is heavier in the AM peak hour for routes serving traffic inbound from I-5 to the downtown area, and in the PM peak hour for routes serving outbound traffic from the downtown accessing I-5.

Table 4
Current Peak Hour Intersection Levels of Service
and Queuing Impacts

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Queuing Impacts*	LOS	Queuing Impacts*
Stewart & 3rd Ave	B	---	B	---
Stewart & 4th Ave	A	WB	A	---
Stewart & 5th Ave	F	SB/WB	B	---
Stewart & Westlake	B	WB	A	---
Stewart & 6th Ave	C	WB	B	---
Stewart & 7th Ave	B	---	A	---
Stewart & 8th Ave	A	---	B	---
Stewart & 9th Ave	A	---	A	---
Stewart & Terry	A	WB	A	---
Stewart & Boren	B	SB	B	SB
Stewart & Minor	B	---	D	SB/WB
Stewart & Yale	B	SB/WB	F	SB/WB
Howell & Yale	C	SB/EB/WB	D	SB/EB
Howell & Minor	C	WB	F	SB
Howell & Boren	D	NB/WB	D	NB/EB
Howell & Terry	A	---	A	---
Howell & 9th Ave	C	---	C	---
Howell & 8th/Olive	B	---	A	---
Olive & Melrose	B	EB	C	EB
Olive & Boren	D	NB	F	EB/NB/SB
Olive & Terry	A	---	A	---
Olive & 9th Ave	A	---	B	---
Olive & 7th Ave	B	---	A	---
Olive & 6th Ave	B	---	B	---
Olive & 5th/Westlake	D	SB	C	---
Olive & 4th Ave	B	---	B	---
Denny & Stewart	F	EB/WB/SW	F	EB/SW
Denny & Fairview	D	EB/WB/NB	C	EB/WB/NB
Denny & Westlake	A	---	C	EB/NB
Denny & 9th Ave	A	EB/SB	B	EB/SB
Denny & Dexter	D	EB/WB	D	EB/WB
Denny & Aurora NB	B	EB/WB	C	EB/WB/NB
Denny & Aurora SB	B	EB/WB/SB	B	EB/WB/SB
Denny & 6th Ave	B	WB	E	EB/WB/NB
Denny & Taylor	B	WB	B	---
Denny & 5th Ave	B	---	B	---
Denny & 4th Ave	A	---	B	---
Denny & Broad	B	---	B	WB

* Direction(s) indicated are for approaches where queues from the specified intersection are calculated to back up and affect operations at adjacent intersections.



Figure 4
 Existing AM & PM Peak Hour Intersection
 Levels of Service

Corridor Travel Time Summaries

Table 5 shows current average AM and PM peak-hour travel time summaries for the corridors studied. Travel time over a particular route is frequently used as a measure of effectiveness for comparing transportation alternatives. These figures were developed based on output from the Synchro micro-simulation model, and will serve as a baseline from which to compare future year travel time results for the same corridors. It is interesting to note that travel times along Stewart Street in the PM peak hour are considerably longer than in the AM peak hour. This may be due to the fact that Stewart Street serves a higher volume of traffic in the AM peak hour, and signal timings are set to better facilitate these heavier volumes. The same is true (though to a lesser degree) on Olive Way, where PM peak-hour volumes (the heavier movement as compared to AM volumes) experience slightly shorter travel times through the corridor.

Table 5
Current Average Peak Hour Corridor Travel Time Summaries

Corridor	AM Peak Hour (minutes)	PM Peak Hour (minutes)
Denny Way Eastbound	5.5	5.9
Denny Way Westbound	5.9	6.3
Olive Way Eastbound	3.8	3.4
Stewart Street Westbound	4.0	8.5

Assumptions:

- * Stewart Street corridor evaluated from Yale Ave to 3rd Ave.
- * Olive Way corridor evaluated from 3rd Ave to Boren Ave.
- * Denny Corridor (both directions) evaluated from Broad St to Stewart St.
- * Average travel speed of 20 mph is assumed from all arterial segments

C. Transit Service

Transit Operations

This section identifies existing conditions related to transit travel time and delay. Transit travel time and delay is typically similar to general-purpose vehicle operations. In the Alternative 4 – No Action and Impacts sections of this report, these travel time and delay values are used to assess the amount of change from existing conditions to Alternative 4 – No Action and the other three land-use zoning alternatives. Because transit service does not vary among the alternatives, the traffic operations section addresses many of the issues that each alternative raises. To distinguish the transit-specific impacts of each alternative, this analysis applies transit volumes on given streets to the identified delay or travel time on the streets (as developed for the traffic operations analysis). This approach has the effect of “weighting” traffic delay by transit volumes across a screenline. Therefore, alternatives with higher levels of delay on high transit volume streets will show a higher corresponding impact for transit.

This analysis considers two corridors and two screenlines. The two corridors—Stewart Street from Yale to Third Avenue, and Olive Way from Third Avenue to Boren Street—were chosen for the following reasons:

- They each carry relatively high transit volumes
- Peak-hour travel time summaries were available from the traffic circulation micro-simulation analysis to apply to them

For these two corridors, the analysis applies transit volumes to the respective travel times, to develop a combined aggregate bus travel time value for the two corridors. The two screenlines chosen were Screenline 2 (north of Seneca Street) and a screenline (considered specifically for the transit analysis) at Denny Way between Broad Street and Stewart Street. The north of Seneca Street screenline was chosen because it captures a high portion of north/south bus routes through the heart of Downtown. The analysis of transit service across this screenline assesses potential operational impacts, as indicated by the screenline v/c ratio identified in the preceding Travel Characteristics section. Regarding Denny Way, although travel time summaries are available from the traffic circulation analysis for this corridor, very few buses travel the corridor, and corridor travel time impacts therefore have little bearing on transit service. However, a relatively high volume of buses cross Denny Way at a variety of locations. Therefore, assessing operational impacts to buses across this screenline was deemed useful.

This analysis considers both AM and PM peak-hour conditions. Peak hours correspond respectively to 7:30 to 8:30 AM and 5:00 to 6:00 PM. Bus volumes are based on year 2002 schedules and are held as constant for the evaluation period (2000 and 2020).

North of Seneca Street Screenline

The North of Seneca Street Screenline intersects the major transit spine through the downtown Seattle core. Approximately 421 buses move through the corridor in the AM peak hour and 414 in the PM peak hour, representing approximately 5 percent of the traffic stream. Note that this does not include the transit tunnel buses. Transit volumes are roughly equivalent northbound and southbound over the AM and PM peak hours. There is a moderate northbound emphasis in the AM and a southbound emphasis in the PM peak hour. As shown in Table 6, Fourth Avenue and Second Avenue carry the highest transit volumes. These streets serve as the northbound/southbound couplet for transit service through Downtown. Third Avenue also carries a significant number of buses, but lower volumes in both directions. Community Transit and Sound Transit bus service focuses exclusively on Fourth Avenue and Second Avenue.

Table 6
Existing AM and PM Peak Hour Transit Volumes
NB/SB Across the Seneca Street Screenline

Agency	Number of Routes	Northbound Volumes						Southbound Volumes							
		1st Ave		3rd Ave		4th Ave		1st Ave		2nd Ave		3rd Ave		5th Ave	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Metro	43	30	33	68	78	76	51	22	24	48	85	60	62	30	9
CT	15	0	0	0	0	20	21	0	0	27	15	0	0	0	0
ST	11	0	0	0	0	27	11	0	0	13	25	0	0	0	0
Total		30	33	68	78	123	83	22	24	88	125	60	62	30	9

Stewart/Olive Corridors

The transit analysis for the Stewart/Olive corridors builds on traffic travel-time estimates developed for Stewart Street between Yale and Third Avenues, and Olive Way between Third Avenue and Boren Street (see Table 5). The analysis captures some of the impacts that the alternatives may have on regional service and regional transit providers.

Stewart Street and Olive Way serve as the principal transit access points to I-5 in the study area. A total of 149 buses use the corridor in the AM peak hour and 115 in the PM peak hour. As shown in Table 7, Stewart Street and Olive Way experience significant volumes of transit vehicles entering the Downtown in the AM peak hour. The AM emphasis that exists on Stewart Street can be attributed to a directional peak that is supported by a large number of Community Transit buses. Service on Olive Way does not show a directional peak and has fairly balanced volumes in both the AM and PM peak hours, due to a large number of Sound Transit buses returning to I-5 at the end of their Tacoma to Seattle AM service. As shown in Table 8, the overall cumulative peak-hour travel times weighted by bus volumes for the combined Stewart/Olive corridors is 572 bus-minutes in the AM peak hour and 651 bus-minutes in the PM peak hour.

Table 7
Existing AM and PM Peak Hour Transit Volumes
Stewart/Olive Between 7th Avenue and 8th Avenue

Agency	Routes	Eastbound - Olive		Westbound -Stewart	
		AM	PM	AM	PM
Metro	31	27	33	43	31
CT	14	16	21	30	12
ST	6	24	10	9	8
Total		67	64	82	51

Table 8
Existing AM and PM Peak Hour Cumulative Transit Travel Time
Stewart/Olive Corridors

Peak Hour	Total Bus-Minutes
AM	572
PM	651
AM and PM	1223

Denny Way Screenline

The Denny Way Screenline captures more local-bound service than the Stewart Street and Olive Way corridors, with buses generally servicing the north and northwest areas of the city. Approximately 169 buses total in both directions cross the Denny Way screenline at the analysis intersections during the AM and PM peak hours. This includes 81 buses in the AM peak hour, and 88 in the PM peak hour, as shown in Table 9. The cumulative peak-hour delay for buses crossing Denny Way (shown in Table 10) is estimated at 29 bus-minutes in the AM peak hour and 40 bus-minutes in the PM peak hour.

Of the streets crossing Denny Way, Dexter Avenue experiences the highest total delays due to the high numbers of buses using the street and the high average delay at the intersection. A large numbers of buses also use Aurora Avenue and Fifth Avenue North, but fairly modest delays result in moderate levels of aggregate delay. Fourth Avenue, Ninth Avenue and Westlake Avenue carry relatively few buses compared to the other streets in the screenline, and hence have low levels of aggregate delay.

Table 9
Existing AM and PM Peak Hour Transit Volumes
NB/SB Across Denny Way

Agency	Number of Routes	Northbound															
		4th		5th		Aurora		Dexter		9th		Westlake		Fairview		Total	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Metro	16	3	10	11	12	5	11	6	16	0	0	4	6	4	4	33	59
Agency	Number of Routes	Southbound															
		4th		5th		Aurora		Dexter		9th		Westlake		Fairview		Total	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Metro	10	0	0	9	11	25	10	3	0	6	3	0	0	5	5	48	29
Total		3	10	20	23	30	21	9	16	6	3	4	6	9	9	81	88

Table 10
Existing Cumulative Peak Hour Bus Delay
Denny Way Screenline

Peak Hour	Total Bus-Minutes
AM	29
PM	40
AM and PM	70

Layover

The Transportation Research Board defines a layover zone or space as a designated stopover location for a transit vehicle, at or near the end of the route or line or at a turnback point.

Layover is a critical element in service planning and has direct implications on operating costs and levels of service provided. Metro has a total of 25 existing layover spaces in the study area and has identified an additional 17 potential layover spaces. Community Transit has four layover spaces in the study area. Layover space in the study area is confined to the northern part of the area in the vicinity of Denny Way and Westlake Avenue (Figure 5). This layover area serves coaches with service that originates in the northern area of Downtown and moves south through Downtown and ultimately the Eastside. The layover spots are located in close proximity to route origin points. As shown in Figure 5, these include Second Avenue and Bell Street, Second Avenue and Lenora Street, Third Avenue and Bell Street, and Eighth Avenue and Stewart Street.

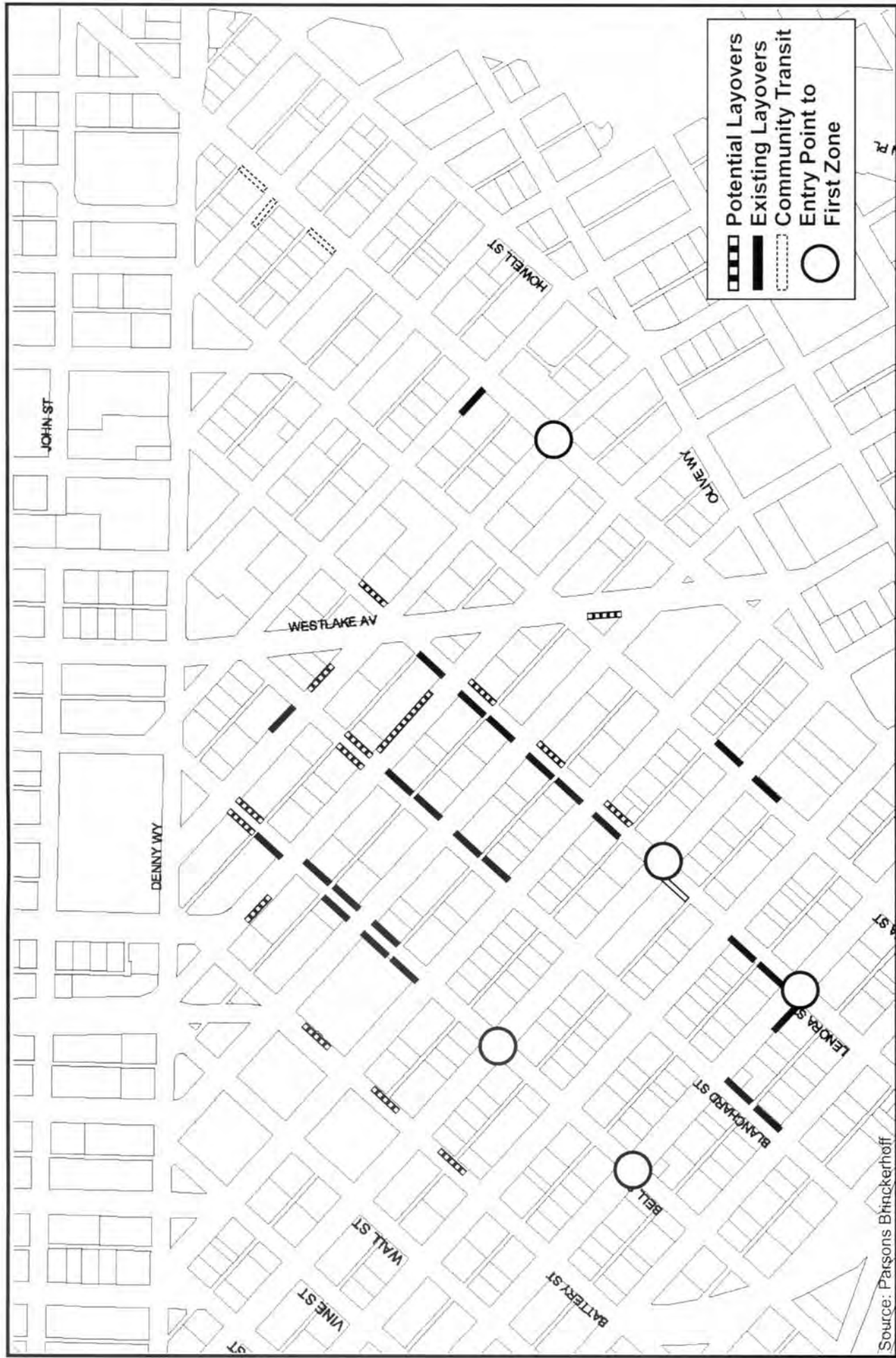
Potential layover spaces are spaces that Metro considers feasible based on their proximity to route origin points and having compatible land uses adjacent to them. Potential layover spaces have been identified to provide alternative sites as development displaces existing spaces, and to accommodate projected growth in service and the resulting increased need for layover spaces.

Traditionally, layover space has been located adjacent to vacant lots, parking lots, or buildings with blank walls. This is due to compatibility with adjacent uses and the use of curb space. It is generally considered undesirable to have coaches parked next to residential or commercial uses. For example, a restaurant use is unlikely to tolerate the visual impact, noise and diesel

fumes associated with parked coaches. Vacant lots have the further benefit that they reduce the demand for competing curb uses, such as short-term parking or loading zones.

As development occurs, Metro coordinates with the City's Department of Construction and Land Use (DCLU) and the Seattle Department of Transportation to address any impacts that development may have on layover space. Seattle Transportation's starting point for examining layover issues is to assume that any displaced layover site will be accommodated somewhere on the same block. However, given the competing priorities associated with developing a land parcel, this is not always feasible. As a result, Metro must routinely evaluate its layover sites and search for new potential sites.

The designation of Green Streets in the study area will likely reduce the number of potential layover sites in the study area. The City's code defines a Green Street as a street right-of-way that is part of the street circulation pattern, and through a variety of treatments (e.g., sidewalk widening, landscaping, traffic calming, and pedestrian-oriented features) is enhanced for pedestrian circulation and open space use. Though not explicitly stated in the code, a designated Green Street may be considered incompatible with layover sites. In anticipation of this, Metro has not identified any new potential layover spaces on designated Green Streets in the study area. However, many of Metro's existing layover sites (as indicated in Figure 5) are located on the Blanchard and Bell Green Streets. At this time, the likely impact that this will have on these existing layover sites is not clear.



Source: Parsons Brinckerhoff

Downtown Height & Density EIS

Figure 5
Potential Future On-Street Layovers

II. ALTERNATIVE 4 – NO ACTION CONDITIONS

A. Travel Characteristics

The City of Seattle's travel demand forecasting model projects that by 2020 the Downtown area will serve as an origin and/or a destination for about 28 percent of daily person trips in the City of Seattle, which is slightly higher than the 26 percent estimated today. As shown in Table 11, on an average weekday, roughly 1,285,000 person trips are expected to have an origin and/or a destination within the Downtown area. This is 58 percent greater than today's estimate.

Mode share information from the Puget Sound Regional Council's (PSRC) travel demand model projects that of the Downtown-oriented trips, about 33 percent will be made by transit in 2020 (an increase from the 20 percent estimated today). In absolute numbers of daily transit trips to and from downtown Seattle, this represents a 160 percent increase. Assumed transit services in 2020 include Link Light Rail in its Locally Preferred Alternative alignment from Northgate to S. 200th Street in SeaTac.

Average weekday vehicle trips with an origin and/or destination within the Downtown area are expected to number about 645,900 in 2020, which is a 24 percent increase over current estimates. These vehicles are expected to be carrying approximately 861,000 persons, for an average auto occupancy of 1.33 persons per vehicle (approximately a six percent increase over today's estimate of 1.26).

To summarize, PSRC projections indicate a significant increase in overall daily trips to and from the Downtown area (58 percent), a substantial increase in transit ridership (160 percent), a small increase (6 percent) in average automobile occupancy (reflecting an increase in carpooling), a moderate increase in automobile vehicle trips (24 percent), and a decrease in the automobile mode share of (i.e., percentage of total) trips being made to downtown Seattle.

Table 11
Comparison of Travel Characteristics

	Existing Condition	2020 Condition	% Change to Year 2020
Average person-trips/weekday to/from Downtown	815,000	1,285,000	58%
Average vehicle trips/weekday to/from Downtown	519,400	645,900	24%
Percent of total daily person-trips made by transit	20%	33%	--
Daily person-trips made by transit	163,000	424,000	160%
Percent of total daily person-trips made by automobile	80%	67%	--
Daily person-trips made by automobile	652,000	861,000	32%
Average auto occupancy	1.26 persons	1.33 persons	6%

A view of travel patterns, including both through and local trips within and through the Downtown area, can be seen by examining travel volumes across imaginary lines called screenlines. In examining screenline volumes, it is more useful to look at peak-period patterns than daily totals. Screenline volumes and volume-to-capacity (v/c) ratios were calculated for the year 2020 Alternative 4 – No Action conditions for the same nine screenlines for which existing volumes were developed. Year 2020 AM and PM peak-hour traffic forecasts were developed based on forecasts from the City of Seattle's travel demand forecasting model. Traffic growth rates were obtained from the model and applied to actual ground counts in order to develop the future volumes used for analysis.

Table 12 shows year 2020 peak-hour traffic volumes and v/c ratios across these screenlines, for the AM and PM peak hour. The volumes shown are the summation of volumes on all individual streets crossing the screenline, and are shown in comparison to existing volumes and v/c ratios. Figures 6 and 7 portray these results graphically on a study area map.

Several patterns can be discerned from looking at the comparison of screenline volumes. As is the existing case, Screenline 7 east of Sixth Avenue has the highest volume. This indicates that the larger share of traffic oriented to downtown Seattle is expected to continue to arrive and depart via I-5 (i.e., across Screenline 7, which captures traffic heading to and from the I-5 ramps). Screenline 2, north of Seneca, capturing traffic using the main north/south arterials through the heart of Downtown, also shows a relatively high volume, particularly in the PM peak hour. Additionally, although Screenline 3 south of Blanchard Street continues to register a high volume, Screenline 6 east of Ninth is projected to grow considerably by the year 2020, to capture a proportionately larger share of the traffic entering/exiting Downtown to/from the north.

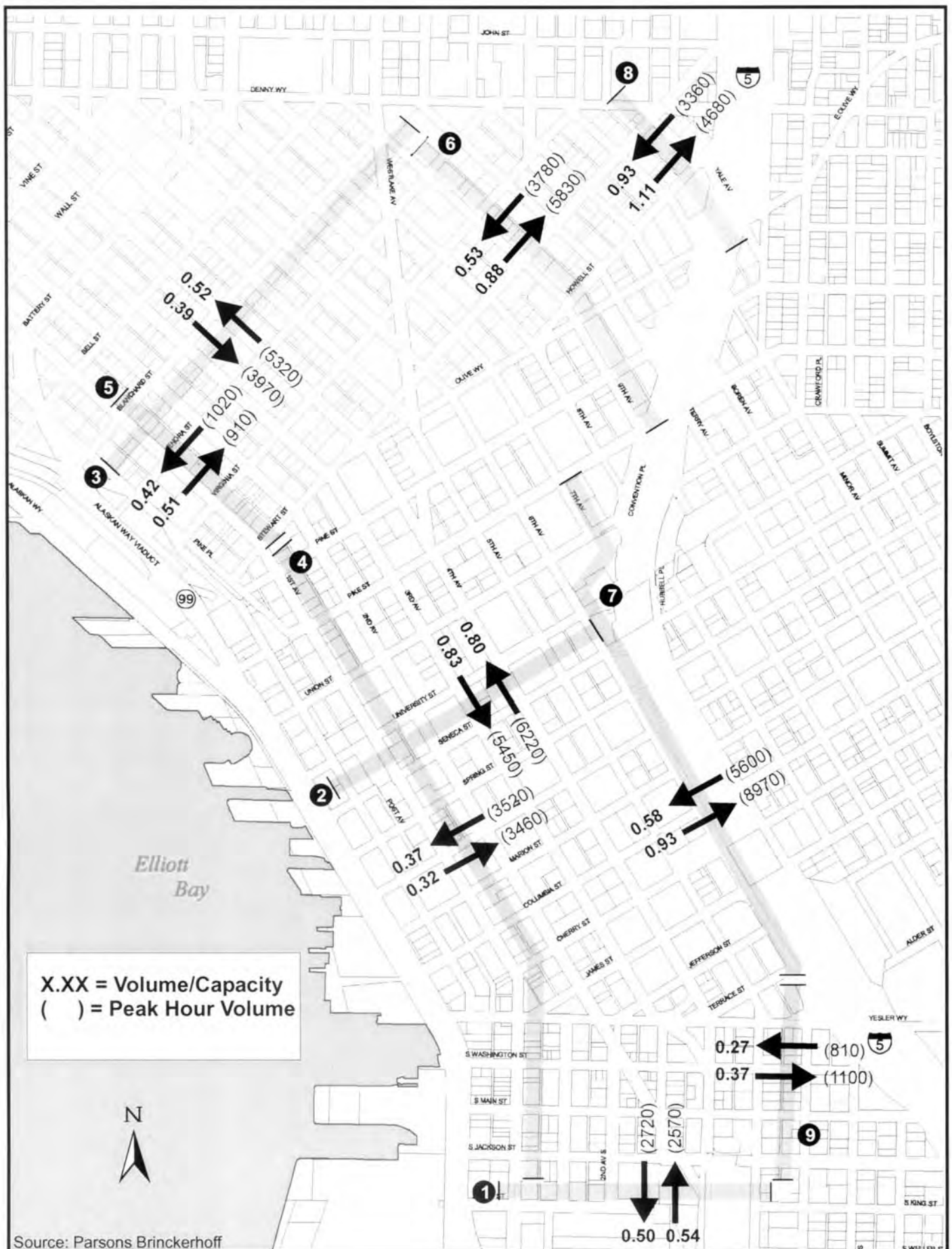
Table 12
Existing and 2020 No Action Peak Hour Traffic Volumes
and Volume/Capacity Ratios Across Screenlines

Screenline	Map Key	AM Peak Hour					PM Peak Hour				
		Existing		2020 No Action		% Vol Change	Existing		2020 No Action		% Vol Change
		Volume	V/C Ratio	Volume	V/C Ratio		Volume	V/C Ratio	Volume	V/C Ratio	
South Screenline: North of S. King St., First Ave. S. to Sixth Ave. S. Northbound Total Southbound Total	1	3,360	0.70	2,920	0.61	-13.1	2,620	0.55	2,570	0.54	-1.9
		1,800	0.33	1,340	0.25	-25.6	2,800	0.52	2,720	0.50	-2.9
Central Screenline: North of Seneca St., Western Ave. to 6 th Ave. Northbound Total Southbound Total	2	5,140	0.66	4,950	0.63	-3.7	5,350	0.69	6,220	0.80	16.3
		3,870	0.59	3,760	0.57	-2.8	4,590	0.70	5,450	0.83	18.7
North Screenline: South of Blanchard St., Elliott Ave. to 9 th Ave. Northbound Total Southbound Total	3	2,610	0.26	2,490	0.24	-4.6	4,950	0.48	5,320	0.52	7.5
		3,890	0.38	4,100	0.40	5.4	3,090	0.30	3,970	0.39	28.5
West Screenline 1: East of First Ave., S. Jackson St. to Pine St. Westbound Total Eastbound Total	4	2,960	0.31	2,560	0.27	-13.5	3,970	0.55	3,520	0.37	-11.3
		2,880	0.27	2,820	0.26	-2.1	3,380	0.52	3,460	0.32	2.4
West Screenline 2: East of First Ave., Stewart St. to Blanchard St. Westbound Total Eastbound Total	5	560	0.23	900	0.38	60.7	820	0.34	1,020	0.42	24.4
		470	0.26	610	0.34	29.8	640	0.35	910	0.51	42.2

Table 12 (continued)
Existing and 2020 No Action Peak Hour Traffic Volumes
and Volume/Capacity Ratios Across Screenlines

Screenline	Map Key	AM Peak Hour				PM Peak Hour			
		Existing		2020 No Action		Existing		2020 No Action	
		Volume	V/C Ratio	Volume	V/C Ratio	Volume	V/C Ratio	Volume	V/C Ratio
			% Vol Change						% Vol Change
East Screenline 1: East of Ninth Ave., Lenora St. to Pike St. Westbound Total Eastbound Total	6	3,190	0.44	3,640	0.51	2,020	0.28	3,780	0.53
		1,760	0.27	4,380	0.66	3,680	0.56	5,830	0.88
					14.1				87.1
			148.9						58.4
East Screenline 2: East of Sixth Ave., Union St. to Jefferson St. Westbound Total Eastbound Total	7	6,470	0.67	6,740	0.70	4,640	0.48	5,600	0.58
		6,090	0.63	6,250	0.65	7,690	0.80	8,970	0.93
					4.2				20.7
			2.6						16.6
East Screenline 3: East of Minor Ave., Denny Way to Olive St. Westbound Total Eastbound Total	8	2,930	0.81	3,380	0.94	2,150	0.60	3,360	0.93
		1,980	0.47	4,280	1.02	3,320	0.79	4,680	1.11
					15.4				56.3
			116.2						41.0
East Screenline 4: West of 6 th Ave. Yesler Way to S. Jackson St. Westbound Total Eastbound Total	9	1,050	0.35	860	0.29	1,180	0.39	810	0.27
		750	0.25	650	0.22	1,140	0.38	1,100	0.37
					-18.1				-31.4
			-13.3						-3.5
Grand Totals		57,700		65,470		63,370		76,580	20.8





On an aggregate basis, volumes across all screenlines are projected to increase by 9.4 percent in the AM peak hour, and by more than twice that amount (19.4 percent) in the PM peak hour. This overall increase is generally consistent with overall regional growth. However, some individual screenlines are shown to experience much more significant growth, while others are actually projected to decrease between current conditions and the year 2020. Those showing large projected increases are Screenline 6, east of 9th Avenue (+62.0 percent AM, +68.9 percent PM), Screenline 8, east of Minor Avenue (+56.2 percent AM, +47.0 percent PM), and Screenline 5, east of First Avenue – north segment (+46.6 percent AM, 33.1 percent PM). Screenlines for which the travel demand model is forecasting a decrease in peak-hour volumes of five percent or greater include Screenline 1, north of King Street (-17.4 percent AM), Screenline 4, east of First Avenue – south segment (-7.9 percent AM, -5.0 percent PM), and Screenline 9, west of Sixth Avenue (-16.1 percent AM, -18.0 percent PM). The decreases across these screenlines may be attributable to the addition of the SR 519 connection between I-5 and the Alaskan Way viaduct by the year 2020. This facility may divert future traffic around the study area screenlines in the south part of Downtown.

Other notable patterns in the year 2020 include the fact that for the majority of screenlines, volumes in the inbound direction are projected to continue to be higher in the AM than in the PM, and vice-versa for volumes in the outbound direction. However, the AM peak-hour directional split is anticipated to even out in the future, with only 52 percent of the total AM peak-hour screenline volume oriented inbound in the year 2020 (compared to the 56 percent observed today). This is likely due to the increase in residential units in the study area and an associated disproportionate increase in AM outbound traffic as compared to inbound traffic. More specifically, the two screenlines in the northeast portion of the study area, Screenline 6, east of Ninth Avenue, and Screenline 8, east of Minor Avenue, show a dramatic increase in outbound traffic in the AM peak hour at 148.9 percent and 116.2 percent respectively. The inbound/outbound directional split across all screenlines (shown in Table 13) is expected to stay about the same as is observed today in the PM peak hour, with 58 percent outbound and 42 percent inbound. Another observation is that when summing up volumes across all screenlines, PM peak-hour traffic is projected to be over 22 percent higher than AM peak-hour traffic, which is significantly greater than the 12 percent difference seen today. This is consistent with the fact that from today to the year 2020, PM peak-hour traffic is expected to grow by a larger amount (20.8 percent) than AM peak-hour traffic (13.5 percent).

Table 13
Percent of Inbound/Outbound Traffic
Across Study Area Screenlines

	Existing		Year 2020	
	AM	PM	AM	PM
Inbound	57%	41%	52%	42%
Outbound	43%	59%	48%	58%

With respect to v/c ratios, although only two screenlines had ratios of 0.80 or higher currently (indicating potentially congested operations), four screenlines are anticipated to experience these levels by the year 2020. These include:

- Screenline 2, north of Seneca Street – northbound and southbound in the PM peak hour
- Screenline 6, east of Ninth Avenue – eastbound in the PM peak hour
- Screenline 7, east of Sixth Avenue – eastbound in the PM peak hour
- Screenline 8, north of Minor Avenue – westbound and eastbound in both the AM and PM peak hours

These results are consistent with the expected growth in traffic, as shown by the screenline volumes and are consistent with the findings that show that a large portion of traffic destined for the study area is oriented either to and from the east (i.e., I-5), or the north via surface streets, and the Stewart/Olive/Howell Street corridors in particular. None of the screenlines analyzed are projected to exceed a v/c ratio of 1.2. Volumes across Screenline 8, east of Minor Avenue, however, are expected to result in a relatively high level of congestion in the eastbound direction in both the AM and PM peak hours, with a projected v/c ratio of 1.01 in the AM and 1.11 in the PM peak hour.

B. Traffic Circulation

Current Operating Conditions

To assess future operating conditions in the study area, this study focuses on two arterial corridors—the Stewart/Howell/Olive Way corridor, and the Denny Way corridor. Within those corridors, a total of 38 intersections were analyzed—26 in the Stewart/Howell/Olive corridor, and 12 along Denny Way. Year 2020 AM and PM peak-hour traffic forecasts were based on forecasts from the City of Seattle’s travel demand forecasting model. Traffic growth rates were obtained from the model and applied to actual ground counts in order to develop the future volumes used for analysis. The intersection analysis was conducted using the micro-simulation model Synchro. This model simulates traffic operations both at a corridor and intersection level. The advantage of using the simulation model is that it can indicate how operations at one intersection can impact those at adjacent intersections (e.g., due to queue back-ups or signal phasings and/or timings). Such an analysis provides a more comprehensive picture of operations in the corridor as opposed to analyzing intersection operations in isolation. In analyzing the simulation model results it is important to keep in mind that signal phasings and timings were held constant between the existing condition and year 2020 on the Stewart/Howell/Olive corridors. This was done because intersection operations in these corridors proved to be highly sensitive to optimization and it proved difficult to determine if the change in operations was due to the land use alternative impacts, or signal timing manipulations. Hence, in order to have a consistent base upon which to compare the impacts of the alternatives in these corridors, the signal timings were held constant across all alternatives. Note however, that it is likely that corridor levels of service shown here could be improved upon through optimizing the signal network.

Table 14 shows projected year 2020 peak-hour levels of service (LOS) and queuing impacts, compared to existing LOS and queuing impacts for intersections in the study area corridors. Year 2020 AM and PM peak-hour intersection LOS results for Alternative 4 – No Action are also shown graphically on Figure 8.

AM Peak Hour

The analysis indicates that in the AM peak hour for the corridors analyzed, operations are expected to significantly worsen by the year 2020. Eleven of the 38 intersections analyzed are projected to experience operating conditions of LOS E or worse, as compared to only two under current condition. These include two intersections along Stewart Street, two on Howell Street, three on Olive Way, and four along Denny Way. All but two of these 11 intersections are projected to be operating at LOS F by 2020.

Note that although other intersections are expected to operate at LOS D or better by 2020, many of them are still projected to experience queuing problems on one or more approaches such that queues back up to affect operations at upstream intersections. This is particularly evident along Stewart Street in the westbound, or inbound, direction, where 8 of the 12 intersections analyzed are expected to experience these conditions, and along Denny Way in the eastbound direction where all 12 intersections are projected to experience significant queuing problems. These results indicate that these directions for these two corridors in particular will experience significant congestion by the year 2020. Another notable observation is that along Howell Street and Olive Way, nearly half of the intersections in the AM peak hour are projected to experience queuing problems in the eastbound (outbound) direction. This is a noticeable increase from existing conditions and indicates that by 2020, outbound traffic from Downtown is expected to increase significantly.

PM Peak Hour

As is the case with existing operations, PM peak-hour conditions are projected to be generally worse than AM peak conditions in the year 2020. Additionally, year 2020 PM peak-hour conditions as compared to existing PM peak-hour conditions are projected to be much worse. Along Stewart Street, of the 12 intersections analyzed, five are projected to be operating at LOS E or F in the year 2020 PM peak hour, as compared to only one in the existing PM peak.

Similarly for the Olive/Howell corridors, of the 14 intersections analyzed, only two were LOS E or worse under existing conditions, while five are projected to be operating at these levels by the year 2020. The Denny Street corridor shows an even larger change, with seven intersections forecasted to be operating at LOS E or worse in 2020 (up from two today). Other observations include that fact that the biggest change in operating conditions is projected to be at the northeastern ends of the Stewart/Howell/Olive corridors. The Denny Way corridor sees significant increases in congestion throughout, with a slightly higher predominance toward the western end (between Dexter Avenue and Broad Street all but two intersections are projected to be operating at LOS E or F). Overall, 17 of the 38 intersections analyzed (45 percent) are projected to be operating at LOS E or worse in the PM peak hour by the year 2020 (up from only five today); and all but two of these intersections are expected to be operating at LOS F.

The queuing analysis for the PM peak hour indicates that by the year 2020 most of the corridors analyzed are expected to experience corridor-wide congestion. Eight of the 12 intersections analyzed along Stewart Street are expected to experience queues in the westbound direction that back up into adjacent intersections. This is a dramatic increase over existing PM peak-hour conditions, in which only two intersections are calculated to be westbound queuing problems. Also significant is that along Denny Way, every intersection in the eastbound direction, and over half of them in the westbound direction are expected to experience queuing problems. While this is not dramatically different from today's conditions, it does indicate that current congested conditions will be exacerbated in the future.

Table 14
Existing and 2020 No Action
Peak Hour Intersection Levels of Service and Queuing Impacts

Intersection	AM Peak Hour				PM Peak Hour			
	Existing Conditions		2020 No-Action		Existing Conditions		2020 No-Action	
	LOS	Queuing Impacts	LOS	Queuing Impacts	LOS	Queuing Impacts	LOS	Queuing Impacts
Stewart & 3rd Ave	B	---	B	---	B	---	B	---
Stewart & 4th Ave	A	WB	B	NB/WB	A	---	A	NB/WB
Stewart & 5th Ave	F	SB/WB	F	SB/WB	B	---	C	SB/WB
Stewart & Westlake	B	WB	B	WB	A	---	B	---
Stewart & 6th Ave	C	WB	C	WB	B	---	C	WB
Stewart & 7th Ave	B	---	B	SB/WB	A	---	F	SB/WB
Stewart & 8th Ave	A	---	A	---	B	---	B	---
Stewart & 9th Ave	A	---	A	---	A	---	F	SB/WB
Stewart & Terry	A	WB	B	WB	A	---	A	---
Stewart & Boren	B	SB	D	SB/WB	B	SB	F	SB/WB
Stewart & Minor	B	---	B	---	D	SB/WB	F	SB/WB
Stewart & Yale	B	SB/WB	F	SB/WB	F	SB/WB	F	SB/WB
Howell & Yale	C	SB/EB/WB	F	SB/EB/WB	D	SB/EB	C	SB/EB
Howell & Minor	C	WB	C	WB	F	SB	F	SB/WB
Howell & Boren	D	NB/WB	E	NB/EB/WB	D	NB/EB	E	---
Howell & Terry	A	---	B	---	A	---	A	---
Howell & 9th Ave	C	---	D	---	C	---	F	SB
Howell & 8th/Olive	B	---	C	EB	A	---	B	EB
Olive & Melrose	B	EB	F	EB/NB	C	EB	F	EB/NB
Olive & Boren	D	NB	F	EB/NB	F	EB/NB/SB	F	EB/NB/SB
Olive & Terry	A	---	E	EB	A	---	D	EB
Olive & 9th Ave	A	---	D	EB	B	---	C	EB/SB
Olive & 7th Ave	B	---	C	---	A	---	D	SB
Olive & 6th Ave	B	---	B	---	B	---	B	NB
Olive & 5th/Westlake	D	SB	C	SB	C	---	D	EB/SB
Olive & 4th Ave	B	---	B	---	B	---	B	---

* Direction(s) indicated are for those approaches where queues from the specified intersection are expected to back up and affect operations at adjacent intersections.

Table 14 (continued)
Existing and 2020 No Action
Peak Hour Intersection Levels of Service and Queuing Impacts

Intersection	AM Peak Hour				PM Peak Hour			
	Existing Conditions		2020 No-Action		Existing Conditions		2020 No-Action	
	LOS	Queuing Impacts*	LOS	Queuing Impacts*	LOS	Queuing Impacts*	LOS	Queuing Impacts*
Denny & Stewart	F	EB/WB/SW	F	EB/WB/SW	F	EB/SW	F	EB/WB/SW
Denny & Fairview	D	EB/WB/NB	F	EB/WB/NB	C	EB/WB/NB	D	EB/WB/NB
Denny & Westlake	A	---	D	EB	C	EB/NB	B	EB/NB
Denny & 9th Ave	A	EB/SB	F	EB/SB	B	EB/SB	B	EB/SB
Denny & Dexter	D	EB/WB	F	EB	D	EB/WB	F	EB/WB/NB
Denny & Aurora NB	B	EB/WB	C	EB/WB	C	EB/WB/NB	F	EB/WB/NB
Denny & Aurora SB	B	EB/WB/SB	B	EB/WB/SB	B	EB/WB/SB	B	EB/WB/SB
Denny & 6th Ave	B	WB	C	EB/WB/NB	E	EB/WB/NB	F	EB/NB
Denny & Taylor	B	WB	C	EB	B	---	D	EB
Denny & 5th Ave	B	---	C	EB	B	---	E	EB/WB
Denny & 4th Ave	A	---	B	EB	B	---	F	EB
Denny & Broad	B	---	C	EB	B	WB	F	EB/WB/NE

* Direction(s) indicated are for those approaches where queues from the specified intersection are expected to back up and affect operations at adjacent intersections.



Source: Parsons Brinckerhoff

Seattle Height & Density EIS

Figure 8
Year 2020 No Action
AM & PM Peak Hour Intersection Levels of Service

Corridor Travel Time Summaries

Table 15 shows projected year 2020 average AM and PM peak-hour travel time summaries for the corridors studied, compared to those tabulated for existing conditions. Travel time over a particular route is frequently used as a measure of effectiveness for comparing transportation alternatives. These figures were developed based on output from the Synchro micro-simulation model.

Table 15
Existing and 2020 No Action Peak Hour Corridor Travel Time Summaries

Corridor	AM Peak Hour (minutes)			PM Peak Hour (minutes)		
	Existing	2020	% Change	Existing	2020	% Change
Denny Way Eastbound	5.5	12.7	133%	5.9	19.7	232%
Denny Way Westbound	5.9	14.7	147%	6.3	10.6	68%
Olive Way Eastbound	3.8	6.6	75%	3.4	5.3	55%
Stewart Street Westbound	4.0	4.4	11%	8.5	11.9	40%

Assumptions:

- * Stewart Street corridor evaluated from Yale Ave to 3rd Ave
- * Olive Way corridor evaluated from 3rd Ave to Boren Ave
- * Denny Corridor (both directions) evaluated from Broad St to Stewart St
- * Average travel speed of 20 mph is assumed from all arterial segments

The results indicate that all corridors are expected to experience a significant increase in travel time by the 2020. Of particular note is the Denny Way corridor, which is anticipated to experience travel time increases of between 68 and 232 percent, depending on direction and time of day. This represents from four to fourteen minutes of additional delay through the corridor. Stewart Street in the westbound direction in the PM peak hour is expected to experience a travel time increase of 40 percent, as compared to only 11 percent in the AM peak hour. This is likely due to a combination of a relatively high projected increase in traffic on Stewart Street in the PM peak hour (it nearly doubles), and the fact that signal phasings and timings along the corridor were held constant (see note above) and were not optimized for future conditions. However, even with optimized signal operations, the increased congestion along Stewart Street by the year 2020 is anticipated to be considerable and will significantly affect corridor travel times. Travel times along Olive Way eastbound in both the AM and PM peak hours are anticipated to increase at slightly higher rates than along Stewart Street in the PM peak hour.

C. Transit Service

As noted in the preceding Travel Characteristics section, daily transit trips to and from downtown Seattle are forecast to increase by 160 percent compared to today, with transit's share of total Downtown oriented trips increasing from 20 percent to 33 percent. Assumed transit facilities in 2020 include Link Light Rail in its Locally Preferred Alternative alignment from Northgate to S. 200th Street in SeaTac. Light Rail stations in Downtown would include Westlake, University Street, Pioneer Square and International District. In addition, some bus routes would use the Downtown Seattle transit tunnel jointly with light rail, and would provide service at the Convention Place station. With joint bus/rail operations in the tunnel, bus volumes on surface streets would remain at or below current levels.

North of Seneca Street Screenline

In the 2020 No Action Alternative (Alternative 4), AM traffic conditions can be categorized as similar or slightly improved over existing conditions, as the northbound v/c ratio decreases from 0.66 to 0.63 and the southbound v/c ratio from 0.59 to 0.57 (see Table 12). However, PM peak-hour traffic conditions are projected to worsen, as indicated from a v/c ratio change of 0.69 to 0.80 in the northbound direction and 0.70 to 0.83 southbound (also shown in Table 12). In the PM peak hour, Second Avenue, Third Avenue, and Fourth Avenue carry high volumes of buses in the PM peak hour and are expected to experience the largest increases in cumulative transit delay.

Stewart/Olive Corridors

By 2020, significant changes are projected to occur in traffic operations, which will impact transit operations through the Stewart Street and Olive Way corridors and increase cumulative transit times by 43 percent (see Table 16). AM and PM peak-hour travel times are expected to increase by about the same amount (40 percent and 45 percent respectively) and will have similar cumulative impacts on the corridors as a whole.

Table 16
Comparison of Existing and 2020 No Action
Cumulative Transit Travel Time - Stewart/Olive Corridors

Peak Hour	Total Bus-Minutes		% Change
	Existing	2020 No-Action	
AM	572	801	40%
PM	651	942	45%
AM and PM	1223	1743	43%

Denny Way Screenline

Assuming current levels of transit service in the year 2020, Alternative 4 – No Action is projected to experience significant increases in peak-hour delay for transit service crossing Denny Way. As shown in Table 17, the total minutes of delay for buses increases from 29 minutes to 63 minutes in the AM peak hours, and from 40 minutes to 108 minutes in the PM peak hour, for an overall increase in cumulative bus delay of 146 percent. Under Alternative 4 – No Action, Dexter Avenue and Aurora Avenue are expected to experience increasingly high levels of delay, particularly in the PM peak hour. Fairview Avenue is projected to experience a large increase in delay in the AM peak hour, and Fifth Avenue in the PM peak hour as compared to existing conditions.

Table 17
Comparison of Existing and 2020 No Action
Cumulative Bus Delay in Minutes Crossing Denny Way

Crossing	Bus-Minutes of Delay				% Change	
	Existing		2020 No-Action			
	AM	PM	AM	PM	AM	PM
Fourth Avenue	0.5	2.9	0.9	13.6	91%	368%
Fifth Avenue	6.0	6.1	8.8	27.4	46%	348%
Aurora Avenue	9.1	11.9	11.0	31.0	22%	161%
Dexter Avenue	6.4	11.7	15.0	26.7	134%	129%
Ninth Avenue	0.9	0.5	8.4	0.7	809%	24%
Westlake Avenue	0.6	2.1	3.5	1.6	496%	-25%
Fairview Avenue	5.7	5.2	15.0	7.4	165%	42%
Totals	29	40	63	108	115%	168%
AM and PM Totals	70		171		146%	

Layover

By the year 2020, some changes in the availability of existing and potential layover spaces may occur under Alternative 4 – No Action. The forecasted redevelopment of the area identifies specific blocks that may be redeveloped, as illustrated in Figure 5. For the purposes of this analysis, it is assumed that any site indicated for redevelopment will displace the existing or potential layover location and that no adjustment will be made to reflect situations in which layover space could be retained. This approach is conservative, because it reflects the condition of highest potential impact. Under Alternative 4 – No Action, development on eight blocks within the study area could potentially displace layover spaces, for a total displacement of ten existing Metro locations and seven potential Metro locations. No Community Transit layover spaces are lost under Alternative 4 – No Action. The number of existing and potential spaces lost is roughly equal under Alternative 4 – No Action, suggesting that the most desirable alternative sites have already been displaced under this scenario and that identifying additional replacement sites will be challenging. The need to be in proximity to the zone entry points and the designation of Green Streets in the study area may limit the number of potential layover spaces.

III. IMPACTS

A. Travel Characteristics

Year 2020 AM and PM peak-hour traffic forecasts were developed for the three land-use zoning alternatives using the City of Seattle's EMME/2 travel demand forecasting model. The general process involved inputting the changed land use conditions for each alternative into the trip generation module of the model, in order to obtain the change in number and type of overall trips as compared to Alternative 4 – No Action. These trips were then distributed and assigned to the model street network for each alternative. Peak-hour analysis volumes were then developed using growth rates from the model runs for each alternative and applying them to existing traffic counts.

Table 18 shows projected year 2020 screenline volumes for all alternatives as compared to Alternative 4 – No Action for the AM and PM peak hours. Note that while the No Action Alternative showed substantial changes from existing conditions, results for the three land-use zoning alternatives showed very little difference from Alternative 4 – No Action. Given the nature of travel demand forecasting, differences of five percent or less are generally considered to be insignificant, since most models cannot forecast beyond this level of accuracy. Hence, most of the differences indicated between the three land-use zoning alternatives and the No Action Alternative can be considered insignificant. There are a few screenlines that exhibit changes of greater than five percent for some alternatives. These are discussed in the following assessment of screenline impacts by alternative.

Table 19 shows projected year 2020 screenline volume-to-capacity (v/c) ratios for all alternatives as compared to Alternative 4 – No Action for the AM and PM peak hours. Since the capacities of the streets are identical for all alternatives, including the No Action, the relative differences between v/c ratios are the same as between alternative screenline volumes. Of particular note is whether any of the alternatives are projected to cause a change resulting in a screenline v/c ratio exceeding 1.20, which is the City's maximum arterial level of service standard for some areas of Downtown. Observations on v/c ratios are included below in the travel characteristic discussion by alternative. Figures 9 through 14 graphically show screenline volumes and v/c ratios for the three alternatives for the AM and PM peak hours.

Alternative 1

Projected screenline volume totals for Alternative 1 show very minor differences from Alternative 4 – No Action for all screenlines except the following:

Screenline 8, east of Minor Avenue, eastbound in the PM peak hour shows a 7.9 percent increase in volumes compared to the 2020 No Action condition.

Screenline 9, west of Sixth Avenue (between Yesler and S. Jackson St), westbound in the AM peak hour shows an 8.1 percent decrease in volumes.

The increase across Screenline 8 is in the outbound direction in the PM peak hour, and reflects an increase in commercial development in the northeast section of the Downtown area for Alternative 1 as compared to Alternative 4 – No Action. The decrease indicated across Screenline 9 is in the inbound direction in the AM peak hour and may reflect differences in anticipated amounts of growth in the commercial core, and as a consequence, more trips oriented to the northern portion of Downtown.

With respect to inbound/outbound directional patterns, Alternative 1 is projected to be similar to Alternative 4 – No Action, with the following directional splits: 52 percent of AM peak-hour traffic is inbound, and 58 percent of PM peak-hour traffic is outbound. PM peak-hour traffic volumes totaled across screenlines are roughly 23 percent larger than AM peak-hour volumes, which is similar to the No Action Alternative.

Regarding screenline v/c ratios, Alternative 1 is very similar to Alternative 4 – No Action, with the following four screenlines anticipated to experience ratios of 0.80 or higher, indicating potentially congested operations:

- Screenline 2, north of Seneca Street – northbound and southbound in the PM peak hour
- Screenline 6, east of Ninth Avenue – eastbound in the PM peak hour
- Screenline 7, east of Sixth Avenue - eastbound in the PM peak hour
- Screenline 8, north of Minor Avenue - westbound and eastbound in both the AM and PM peak hours

Of particular note is that none of the screenlines analyzed are projected to exceed a v/c ratio of 1.20. Screenline 8, east of Minor Avenue, is expected to be right at a v/c level of 1.20 eastbound in the PM peak hour. It is also expected to experience a v/c ratio of 1.06 in the AM peak hour, reflecting relatively high congestion.

Alternative 2

Projected screenline volume totals for Alternative 2 also show very minor differences from Alternative 4 – No Action for all screenlines except the following:

- Screenline 9, west of Sixth Avenue (between Yesler Way and S. Jackson St), westbound in the AM peak hour shows a 9.3 percent decrease in volumes.

As with Alternative 1, the decrease indicated across Screenline 9 is in the inbound direction in the AM peak hour. This may reflect differences in anticipated amounts of growth in the commercial core, and as a consequence, more trips oriented to the northern portion of Downtown.

With respect to inbound/outbound directional patterns, Alternative 2 is projected to be the same as Alternative 4 – No Action, with the following directional splits: 52 percent of AM peak-hour traffic is inbound, and 58 percent of PM peak-hour traffic is outbound. PM peak-hour traffic volumes totaled across screenlines are roughly 23 percent larger than AM peak-hour volumes, which is similar to the No Action Alternative.

Regarding screenline v/c ratios, Alternative 2 is also very similar to Alternative 4 – No Action, with the following four screenlines anticipated to experience ratios of 0.80 or higher, indicating potentially congested operations:

- Screenline 2, north of Seneca Street – northbound and southbound in the PM peak hour
- Screenline 6, east of Ninth Avenue – eastbound in the PM peak hour
- Screenline 7, east of Sixth Avenue - eastbound in the PM peak hour
- Screenline 8, north of Minor Avenue - westbound and eastbound in both the AM and PM peak hours

Of particular note is that none of the screenlines analyzed are projected to exceed a v/c ratio of 1.20. Screenline 8, east of Minor Avenue, is expected to have a v/c ratio of 1.02 in the AM peak hour and 1.13 in the PM peak hour, reflecting relatively congested conditions.

Table 18
2020 Peak Hour Traffic Volumes
Across Screenlines for All Alternatives

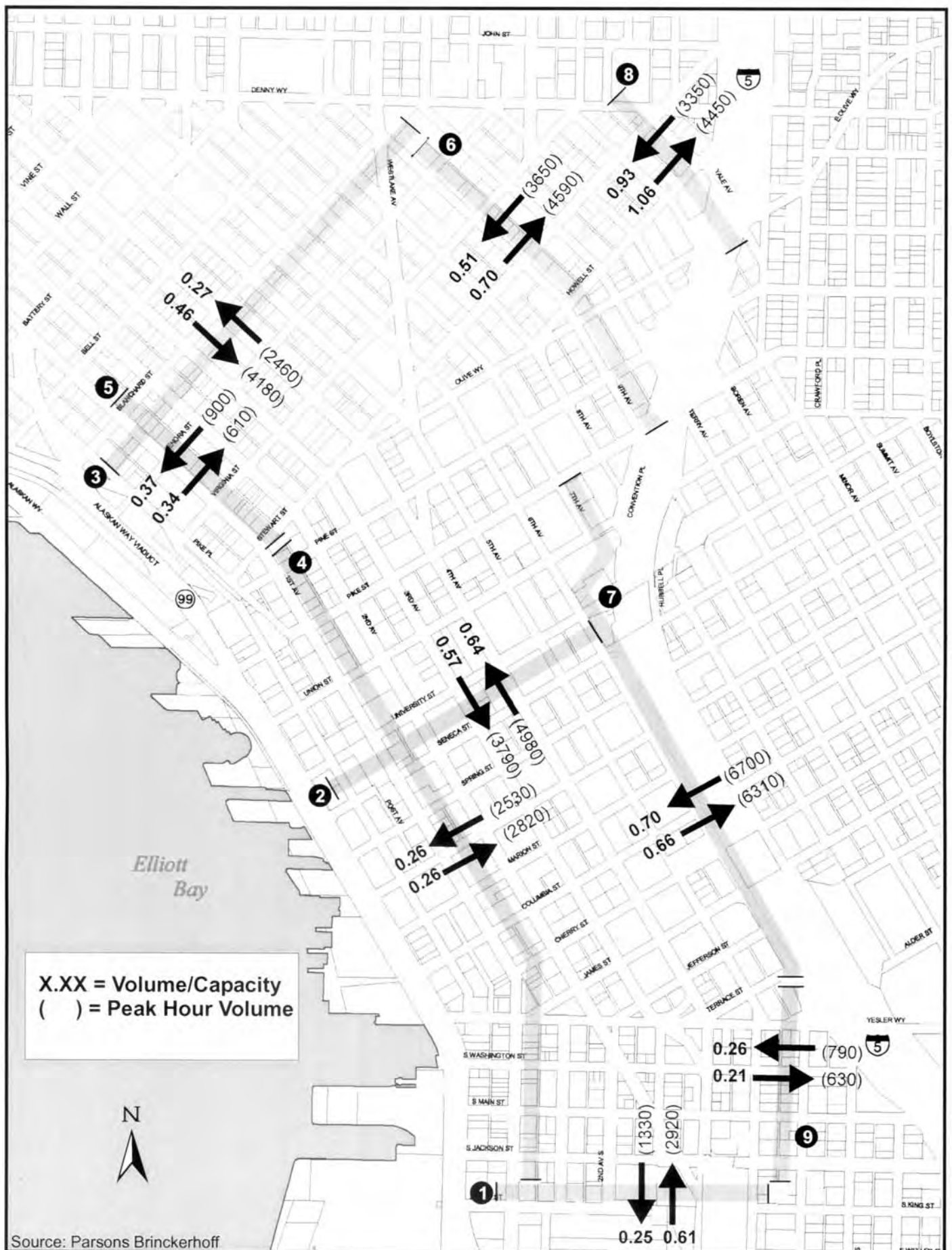
Screenline	Map Key	2020 No Action		Alternative 1				Alternative 2				Alternative 3			
		AM	PM	Volume	AM	PM	% Change from No Action	AM	PM	Volume	AM	PM	% Change from No Action	AM	PM
South Screenline: North of S. King St., First Ave. S. to Sixth Ave. S.	1	2920	2570	2920	2590	0.0%	0.8%	2930	2580	0.3%	0.4%	2910	2570	-0.3%	0.0%
		1340	2720	1330	2760	-0.7%	1.5%	1340	2720	0.0%	0.0%	1340	2760	0.0%	1.5%
		Northbound Total													
Central Screenline: North of Seneca St., Western Ave. to Sixth Ave.	2	4950	6220	4980	6290	0.6%	1.1%	4940	6270	-0.2%	0.8%	4960	6230	0.2%	0.2%
		3760	5450	3790	5520	0.8%	1.3%	3810	5450	1.3%	0.0%	3780	5470	0.5%	0.4%
		Northbound Total													
North Screenline: South of Blanchard St., Elliott Ave. to Ninth Ave.	3	2490	5320	2460	5410	-1.2%	1.7%	2450	5380	-1.6%	1.1%	2440	5310	-2.0%	-0.2%
		4100	3970	4180	4010	2.0%	1.0%	4130	3960	0.7%	-0.3%	4110	3950	0.2%	-0.5%
		Northbound Total													
West Screenline 1: East of First Ave., S. Jackson St. to Pine St.	4	2560	3520	2530	3570	-1.2%	1.4%	2520	3550	-1.6%	0.9%	2550	3510	-0.4%	-0.3%
		2820	3460	2820	3350	0.0%	-3.2%	2830	3380	0.4%	-2.3%	2840	3380	0.7%	-2.3%
		Westbound Total													
West Screenline 2: East of First Ave., Stewart St. to Blanchard St.	5	900	1020	900	1050	0.0%	2.9%	870	1070	-3.3%	4.9%	880	1110	-2.2%	8.8%
		610	910	610	910	0.0%	0.0%	580	890	-4.9%	-2.2%	580	880	-4.9%	-3.3%
		Westbound Total													

Table 18 (continued)
2020 Peak Hour Traffic Volumes
Across Screenlines for All Alternatives

Screenline	Map Key	2020 No Build		Alternative 1				Alternative 2				Alternative 3			
				Volume		% Change from No Action		Volume		% Change from No Action		Volume		% Change from No Action	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
East Screenline 1: East of Ninth Ave., Lenora St. to Pike St.	6	3640	3780	3650	3940	0.3%	4.2%	3550	3760	-2.5%	-0.5%	3790	3840	4.1%	1.6%
		4380	5830	4590	5970	4.8%	2.4%	4500	5990	2.7%	2.7%	4430	5960	1.1%	2.2%
East Screenline 2: East of Sixth Ave., Union St. to Jefferson St.	7	6740	5600	6700	5620	-0.6%	0.4%	6740	5610	0.0%	0.2%	6750	5620	0.1%	0.4%
		6250	8970	6310	8930	1.0%	-0.4%	6260	8930	0.2%	-0.4%	6280	8970	0.5%	0.0%
East Screenline 3: East of Minor Ave, Denny Way to Olive Way	8	3380	3360	3350	3240	-0.9%	-3.6%	3350	3250	-0.9%	-3.3%	3560	3680	5.3%	9.5%
		4280	4680	4450	5050	4.0%	7.9%	4300	4740	0.5%	1.3%	4380	4680	2.3%	0.0%
East Screenline 2: West of Sixth Ave., Yesler Way to S. Jackson St.	9	860	810	790	820	-8.1%	1.2%	780	820	-9.3%	1.2%	790	820	-8.1%	1.2%
		650	1100	630	1100	-3.1%	0.0%	640	1100	-1.5%	0.0%	640	1090	-1.5%	-0.9%

Table 19
2020 Peak Hour V/C Ratios
Across Screenlines for All Alternatives

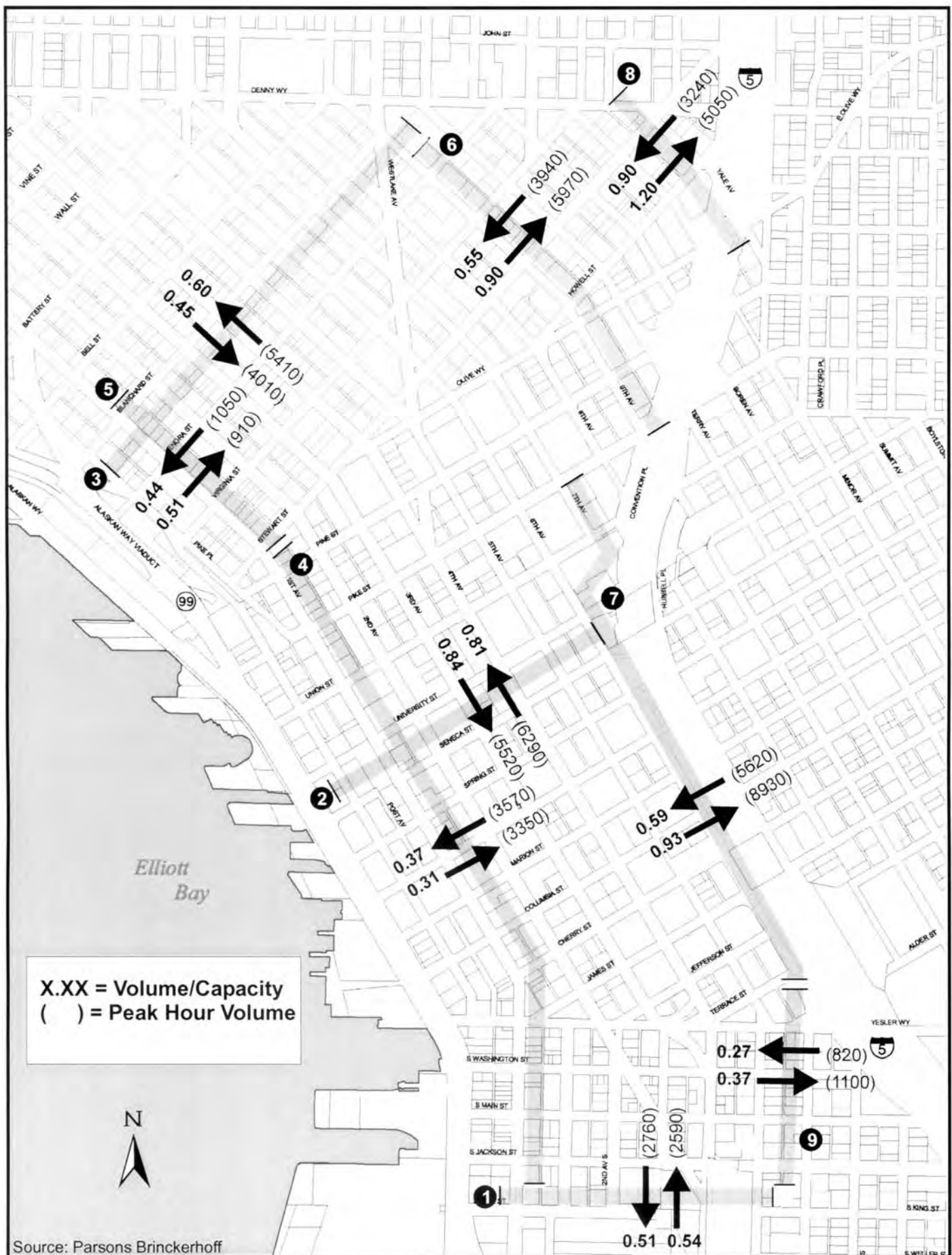
Screenline	Map Key	V/C Ratios							
		2020 No Build		Alternative 1		Alternative 2		Alternative 3	
		AM	PM	AM	PM	AM	PM	AM	PM
South Screenline: North of S. King St., First Ave. S. to Sixth Ave. S.	1								
Northbound Total		0.61	0.54	0.61	0.54	0.61	0.54	0.61	0.53
Southbound Total		0.25	0.50	0.25	0.51	0.25	0.50	0.25	0.51
Total Both Directions		0.42	0.52	0.42	0.52	0.42	0.52	0.42	0.52
Central Screenline: North of Seneca St., Western Ave. to Sixth Ave.	2								
Northbound Total		0.63	0.80	0.64	0.81	0.63	0.80	0.64	0.80
Southbound Total		0.57	0.83	0.57	0.84	0.58	0.83	0.57	0.83
Total Both Directions		0.60	0.81	0.61	0.82	0.61	0.81	0.61	0.81
North Screenline: South of Blanchard St., Elliott Ave. to Ninth Ave.	3								
Northbound Total		0.28	0.59	0.27	0.60	0.27	0.60	0.27	0.59
Southbound Total		0.46	0.44	0.46	0.45	0.46	0.44	0.46	0.44
Total Both Directions		0.37	0.52	0.37	0.52	0.37	0.52	0.36	0.51
West Screenline 1: East of First Ave., S. Jackson St. to Pine St.	4								
Westbound Total		0.27	0.37	0.26	0.37	0.26	0.37	0.27	0.37
Eastbound Total		0.26	0.32	0.26	0.31	0.26	0.31	0.26	0.31
Total Both Directions		0.26	0.34	0.26	0.34	0.26	0.34	0.26	0.34
West Screenline 2: East of First Ave., Stewart St. to Blanchard St.	5								
Westbound Total		0.38	0.42	0.37	0.44	0.36	0.44	0.36	0.46
Eastbound Total		0.34	0.51	0.34	0.51	0.32	0.49	0.32	0.49
Total Both Directions		0.36	0.46	0.36	0.47	0.35	0.47	0.35	0.47
East Screenline 1: East of Ninth Ave., Lenora St. to Pike St.	6								
Westbound Total		0.51	0.53	0.51	0.55	0.49	0.52	0.53	0.53
Eastbound Total		0.66	0.88	0.70	0.90	0.68	0.91	0.67	0.90
Total Both Directions		0.58	0.70	0.60	0.72	0.58	0.71	0.60	0.71
East Screenline 2: East of Sixth Ave., Union St. to Jefferson St.	7								
Westbound Total		0.70	0.58	0.70	0.59	0.70	0.58	0.70	0.59
Eastbound Total		0.65	0.93	0.66	0.93	0.65	0.93	0.65	0.93
Total Both Directions		0.68	0.76	0.68	0.76	0.68	0.76	0.68	0.76
East Screenline 3: East of Minor Ave, Denny Way to Olive Way	8								
Westbound Total		0.94	0.93	0.93	0.90	0.93	0.90	0.99	1.02
Eastbound Total		1.02	1.11	1.06	1.20	1.02	1.13	1.04	1.12
Total Both Directions		0.98	1.03	1.00	1.06	0.98	1.02	1.02	1.07
East Screenline 2: West of Sixth Ave., Yesler Ave. to S. Jackson St.	9								
Westbound Total		0.29	0.27	0.26	0.27	0.26	0.27	0.26	0.27
Eastbound Total		0.22	0.37	0.21	0.37	0.21	0.36	0.21	0.37
Total Both Directions		0.25	0.32	0.24	0.32	0.24	0.32	0.24	0.32

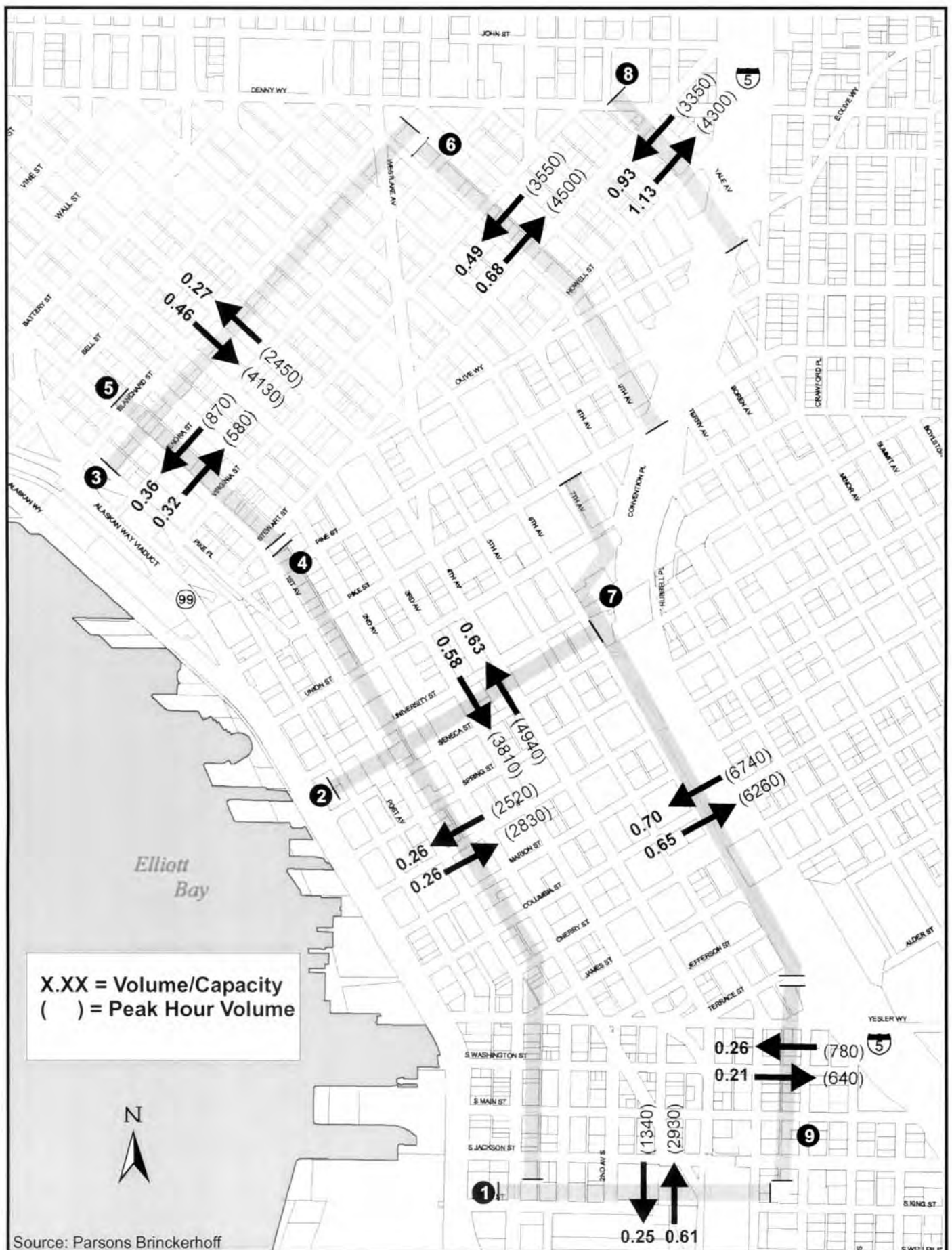


Source: Parsons Brinckerhoff

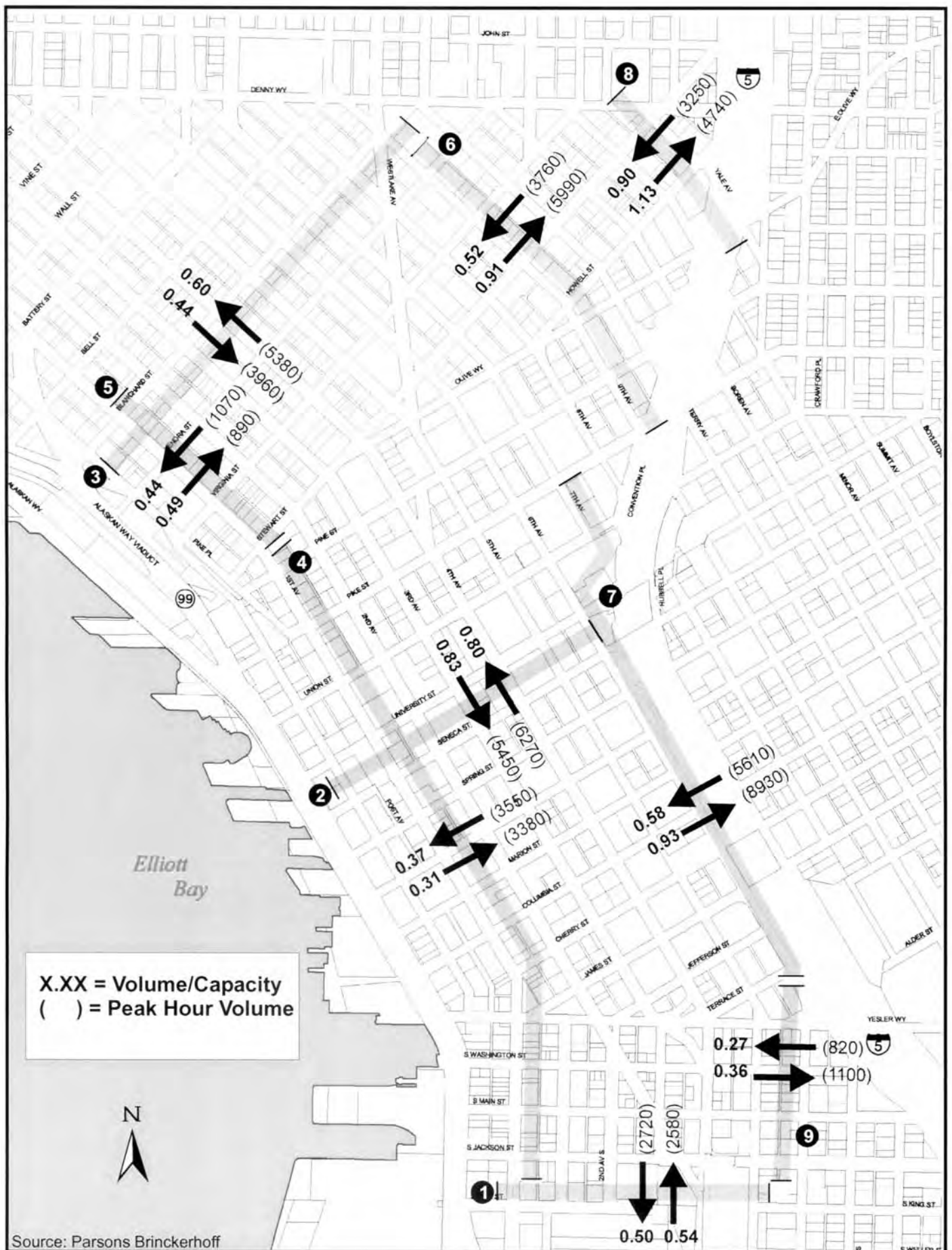
Downtown Height & Density EIS

Figure 9
 Screenline Volumes and V/C Ratios for Alternative 1
 AM Peak Hour





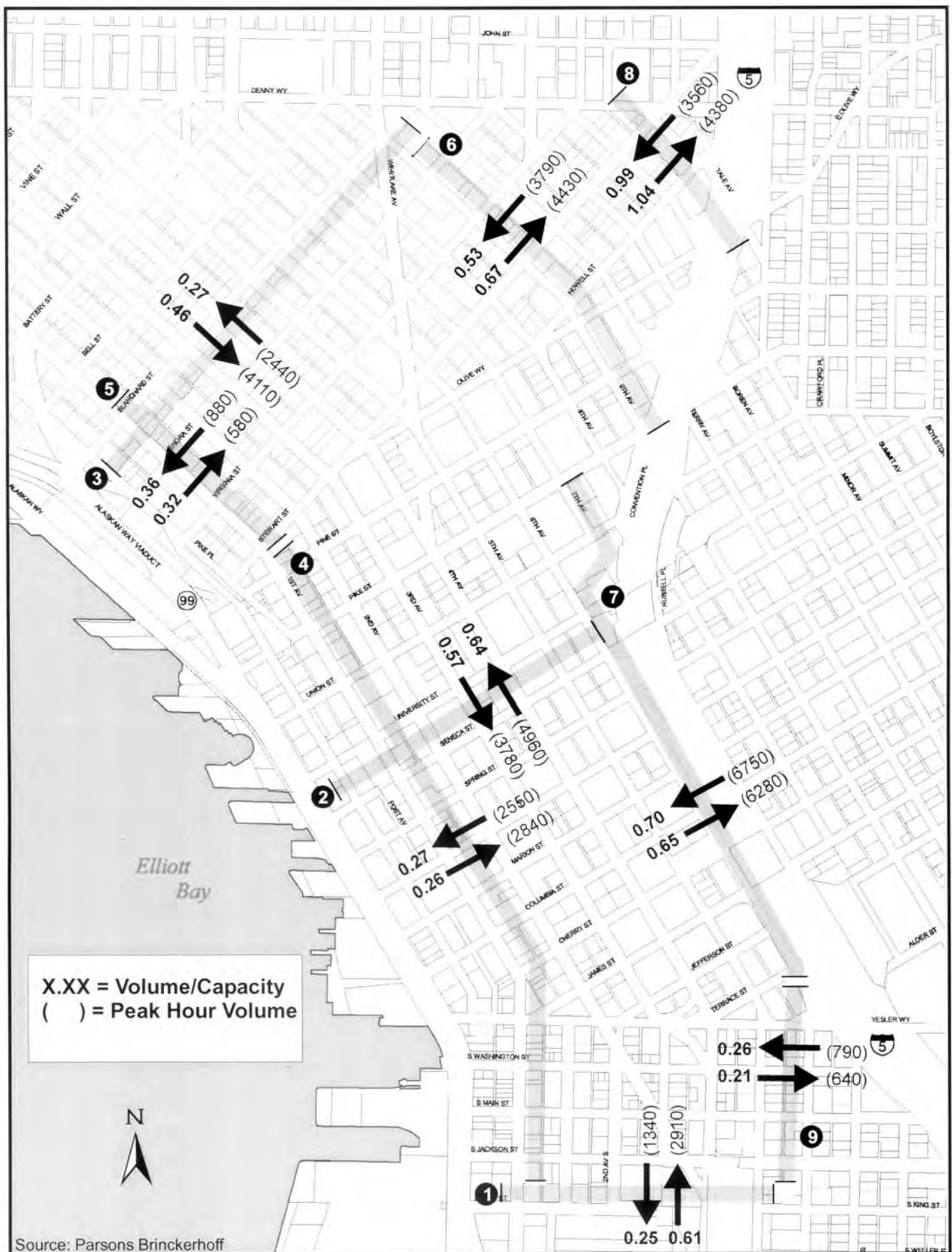
Source: Parsons Brinckerhoff

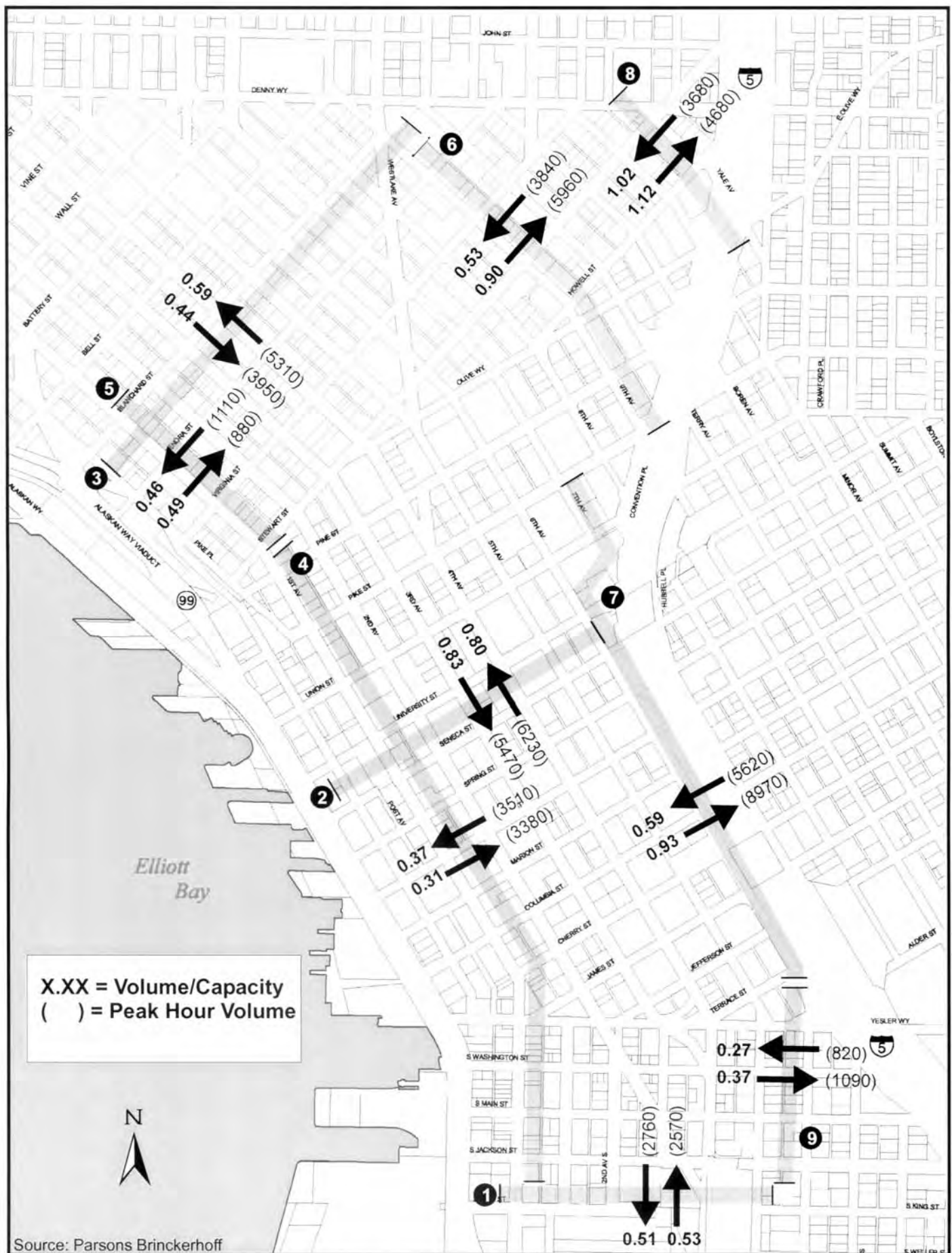


Source: Parsons Brinckerhoff

Downtown Height & Density EIS

Figure 12
 Screenline Volumes and V/C Ratios for Alternative 2
 PM Peak Hour





Source: Parsons Brinckerhoff

Downtown Height & Density EIS

Figure 14
 Screenline Volumes and V/C Ratios for Alternative 3
 PM Peak Hour

Alternative 3

Projected screenline volume totals for Alternative 3 show very minor differences from Alternative 4 – No Action for all except the following three screenlines:

Screenline 5, east of First Avenue (Stewart to Blanchard St.), westbound in the PM peak hour shows an 8.8 percent increase in volumes.

Screenline 8, east of Minor Avenue, eastbound in the PM peak hour shows a 5.3 percent increase in volumes.

Screenline 9, west of Sixth Avenue (between Yesler and S. Jackson St), westbound in the AM peak hour shows an 8.1 percent decrease in volumes.

The increase across Screenline 5 is relatively minor, and is in the outbound direction in the PM peak hour. This could reflect differences in anticipated development in the immediate Belltown vicinity and the First Avenue/Western Avenue vicinity to the south. The PM peak-hour increase across Screenline 8 (contrary to what is projected for Alternatives 1 and 2) is in the inbound direction, reflecting the higher residential use of the northeast portion of the study area. Similar to Alternatives 1 and 2, the decrease indicated across Screenline 9 is in the inbound direction in the AM peak hour. This may reflect the fact that no zoning changes are proposed for the portion of Downtown south of Yesler Way, and as a consequence more trips are reoriented to areas north.

With respect to inbound/outbound directional patterns, Alternative 3 is projected to be similar to Alternative 4 – No Action in the AM peak hour, with the directional traffic split being 52 percent inbound. In the PM peak hour, Alternative 3 is also very similar, with 57 percent of the traffic outbound as compared to 58 percent in the No Action Alternative. This indicates a slight decrease in outbound traffic with a corresponding slight increase in inbound traffic in the PM peak hour for Alternative 3, compared to Alternative 4 – No Action. This is consistent with the fact that Alternative 3 will have more residential development than any of the other alternatives (including No Action), reflecting an increase in people returning to their homes in the Downtown area in the PM peak hour. PM peak-hour traffic volumes totaled across screenlines are roughly 23 percent larger than AM peak-hour volumes, which is similar to the Alternative 4 – No Action.

Regarding screenline v/c ratios, Alternative 3 is also very similar to Alternative 4 – No Action, with the following four screenlines anticipated to experience ratios of 0.80 or higher, indicating potentially congested operations:

Screenline 2, north of Seneca Street – northbound and southbound in the PM peak hour

Screenline 6, east of Ninth Avenue – eastbound in the PM peak hour

Screenline 7, east of Sixth Avenue - eastbound in the PM peak hour

Screenline 8, north of Minor Avenue - westbound and eastbound in both the AM and PM peak hours

Again, none of the screenlines analyzed are projected to exceed a v/c ratio of 1.20. However, Screenline 8 east of Minor Avenue is expected to be congested, with a v/c ratio of 1.04 in the AM peak hour and 1.12 in the PM peak hour.

B. Traffic Circulation

Tables 20 and 21 list year-2020 intersection levels of service (LOS) and queuing impacts for the three land-use zoning alternatives, in comparison to Alternative 4 – No Action for the AM and PM peak hours respectively. Projected year-2020 intersection LOS results for each of the three alternatives are also shown in Figures 15 to 17 and Tables 22 and 23. These tables respectively show projected AM and PM peak-hour travel-time summaries across the corridors analyzed for each of the alternatives, in comparison with the No Action Alternative. The results in these tables were developed based on output from the Synchro micro-simulation traffic operations model. This section discusses findings by alternative, with respect to these traffic circulation measures. For each Alternative analyzed in this section, the following information is included:

The change in number of intersections projected to be at or exceeding capacity (i.e., LOS E or F), in comparison to Alternative 4 – No Action.

The number of intersections where operations are projected to significantly change from Alternative 4 – No Action (i.e., worsen or improve by two or more LOS levels).

The change in the number of corridor intersection approaches anticipated to have significant queuing impacts (i.e., queues that are expected to back up and affect operations at adjacent intersections).

Significant changes (10 percent or greater) from Alternative 4 – No Action in overall peak-hour corridor travel-time estimates.

Alternative 1

AM Peak Hour

In the AM peak hour for the corridors analyzed, 14 out of 38 intersections are projected to experience year-2020 operating conditions at LOS E or worse for Alternative 1, as compared to 11 for Alternative 4 – No Action. In particular, operational levels appear to deteriorate along Stewart Street and Denny Way, although they improve somewhat along Howell Street. A total of five intersections analyzed are expected to decrease in LOS by two or more LOS levels (compared to the No Action), and two are expected to improve by this amount. Of the five that worsen by this amount, two are along Stewart Street, two are along Denny Way, and one is along Olive Way.

In the assessment of significant queuing impacts projected by the traffic simulation model, there was very little difference between Alternative 1 and Alternative 4 – No Action. This is likely due to the fact that all of the corridors analyzed were already projected to experience significant queuing impacts that would be difficult to worsen. However, the corridor travel time estimates do show some substantial differences between Alternative 1 and Alternative 4 – No Action. Travel through the Stewart Street corridor westbound is projected to be nearly a minute, (or 20 percent) slower with Alternative 1, and nearly 6.5 minutes (52 percent) slower westbound along Denny Way. In contrast, however, the eastbound travel time along Denny Way is projected to decrease by 4.5 minutes, which is 31 percent faster. The decrease in Stewart Street speeds is consistent with the higher rate of growth in jobs and housing in the areas surrounding Stewart Street for Alternative 1, as compared to Alternative 4 – No Action. The changes in travel time

along Denny Way may be due to differences in the distribution of future development in the Denny Triangle vicinity. Development would be more concentrated in fewer projects in the eastern portion of the Denny Triangle under Alternative 1, and spread across more sites west of Westlake Avenue in Alternative 4 – No Action. However, other unidentified factors may also influence travel times along Denny Way.

PM Peak Hour

For year 2020 in the PM peak hour, 19 of the 38 intersections analyzed (50 percent) are projected to experience year-2020 operating conditions at LOS E or worse for Alternative 1, as compared to 17 for Alternative 4 – No Action. Six of 12 intersections along Stewart Street and eight of 12 along Denny Way are expected to operate at LOS E or worse, compared to five and seven intersections respectively for these streets under the No Action Alternative. Conditions at seven of the intersections analyzed are expected to worsen by two or more LOS levels in the PM peak hour as compared to Alternative 4 – No Action; and only two are anticipated to improve by this amount. Three of the intersections for which operations worsen significantly are along Stewart Street, and four are along Denny Way.

Net changes in queuing impacts are not anticipated to be significant along Stewart Street and Denny Way for Alternative 1 in the PM peak hour. This is likely due to the fact that these corridors were already projected to experience significant queuing impacts under the No Action Alternative, and showing them to worsen significantly could challenge the limits of the analysis tools. However, queuing impacts do appear to lessen on Olive Way eastbound. Projected travel-time summaries through the corridors show substantial differences between the two alternatives. Travel through the Stewart Street corridor westbound is projected to be nearly six minutes (50 percent) slower in the PM peak hour with Alternative 1. This is consistent with the higher rate of growth in both jobs and housing in the areas surrounding Stewart Street for Alternative 1, as compared to Alternative 4 – No Action.

In contrast, travel time along Olive Way eastbound is estimated to decrease by over a minute (24 percent), and along Denny Way westbound by over three minutes (16 percent) as compared to Alternative 4 – No Action. As in the AM case, this may be due to differences in the distribution of future development in the Denny Triangle vicinity. Development would be more concentrated in fewer projects in the eastern portion of the Denny Triangle under Alternative 1, and spread across more sites west of Westlake Avenue in Alternative 4 – No Action. However, other unidentified factors may also influence travel times through these corridors.

Table 20
Comparison of Year 2020 Intersection LOS and Queuing Impacts
AM Peak Hour

Intersection	2020 No-Action		2020 Alternative 1		2020 Alternative 2		2020 Alternative 3	
	LOS	Queuing Impacts*	LOS	Queuing Impacts*	LOS	Queuing Impacts*	LOS	Queuing Impacts*
Stewart & 3rd Ave	B	---	A	---	A	---	B	---
Stewart & 4th Ave	B	NB/WB	B	NB/WB	B	NB	B	NB/WB
Stewart & 5th Ave	F	SB/WB	F	SB/WB	F	SB/WB	F	SB/WB
Stewart & Westlake	B	WB	C	WB	B	WB	B	WB
Stewart & 6th Ave	C	WB	D	WB	D	WB	D	WB
Stewart & 7th Ave	B	SB/WB	E	SB/WB	C	WB	E	SB/WB
Stewart & 8th Ave	A	---	B	---	A	---	B	WB
Stewart & 9th Ave	A	---	A	---	A	---	B	---
Stewart & Terry	B	WB	B	WB	B	WB	B	WB
Stewart & Boren	D	SB/WB	F	SB/WB	D	SB/WB	E	SB/WB
Stewart & Minor	B	---	B	---	B	---	B	WB
Howell & Yale	F	SB/EB/WB	C	SB/WB	D	SB/WB	C	SB/WB
Howell & Minor	C	WB	C	WB	D	WB	B	WB
Howell & Boren	E	NB/EB/WB	D	NB/EB/WB	D	NB/EB/WB	F	NB/EB/WB
Howell & Terry	B	---	B	---	B	---	D	---
Howell & 9th Ave	D	---	C	---	D	---	C	---
Howell & 8th/Olive	C	EB	D	EB	B	---	A	---
Olive & Melrose	F	EB/NB	F	EB/NB	B	EB	F	EB/NB
Olive & Boren	F	EB/NB	E	EB/NB	C	EB	C	EB/NB
Olive & Terry	E	EB	E	EB	F	EB	C	EB
Olive & 9th Ave	D	EB	F	EB	C	EB	B	---
Olive & 7th Ave	C	---	C	---	B	---	B	---
Olive & 6th Ave	B	---	B	---	D	NB	B	---
Olive & 5th/Westlake	C	SB	C	SB	C	SB	D	SB
Olive & 4th Ave	B	---	B	---	B	---	B	---
Denny & Stewart	F	EB/WB/SW	F	EB/WB/SW	F	EB/WB/SW	F	EB/WB/SW
Denny & Fairview	F	EB/WB/NB	F	EB/WB/NB	F	EB/WB/NB	F	EB/WB/NB
Denny & Westlake	D	EB	B	EB	B	---	B	EB
Denny & 9th Ave	F	EB/SB	F	EB/SB	B	SB	B	EB/SB
Denny & Dexter	F	EB	F	EB	F	EB/WB	F	EB
Denny & Aurora NB	C	EB/WB	C	EB/WB	E	EB/WB	C	EB/WB
Denny & Aurora SB	B	EB/WB/SB	B	EB/WB/SB	B	EB/WB/SB	B	EB/WB/SB
Denny & 6th Ave	C	EB/WB/NB	D	EB/WB/NB	D	EB/WB/NB	B	EB/NB
Denny & Taylor	C	EB	F	EB	F	EB	B	---
Denny & 5th Ave	C	EB	C	EB	D	EB	A	EB
Denny & 4th Ave	B	EB	E	EB	D	EB	B	EB
Denny & Broad	C	EB	D	EB/WB	E	EB/WB	C	WB

* Direction(s) indicated are for those approaches where queues from the specified intersection are expected to back up and affect operations at adjacent intersections.

Table 21
Comparison of Year 2020 Intersection LOS and Queuing Impacts
PM Peak Hour

Intersection	2020 No-Action		2020 Alternative 1		2020 Alternative 2		2020 Alternative 3	
	LOS	Queuing Impacts*	LOS	Queuing Impacts*	LOS	Queuing Impacts*	LOS	Queuing Impacts*
Stewart & 3rd Ave	B	---	B	---	B	---	B	---
Stewart & 4th Ave	A	NB/WB	A	NB	A	NB/WB	A	NB/WB
Stewart & 5th Ave	C	SB/WB	C	SB/WB	C	SB/WB	C	SB/WB
Stewart & Westlake	B	---	B	---	B	---	B	---
Stewart & 6th Ave	C	WB	F	WB	D	WB	C	WB
Stewart & 7th Ave	F	SB/WB	F	SB/WB	E	SB	F	SB/WB
Stewart & 8th Ave	B	---	D	WB	B	---	B	---
Stewart & 9th Ave	F	SB/WB	F	SB/WB	F	SB/WB	F	SB/WB
Stewart & Terry	A	---	D	WB	B	---	B	---
Stewart & Boren	F	SB/WB	F	SB/WB	F	SB/WB	F	SB/WB
Stewart & Minor	F	SB/WB	F	---	E	SB/WB	F	SB/WB
Stewart & Yale	F	SB/WB	F	SB/WB	F	SB/WB	F	SB/WB
Howell & Yale	C	SB/EB	D	SB/EB	D	SB/EB	C	SB/EB
Howell & Minor	F	SB/WB	F	SB/WB	F	SB/WB	F	NB/SB/WB
Howell & Boren	E	---	E	NB/SB/EB	E	NB/SB/EB	E	NB/SB/EB
Howell & Terry	A	---	A	---	A	---	A	---
Howell & 9th Ave	F	SB	F	---	F	SB	F	SB
Howell & 8th/Olive	B	EB	B	---	B	---	D	EB/NB
Olive & Melrose	F	EB/NB	F	EB/NB	F	EB/NB	F	EB/NB
Olive & Boren	F	EB/NB/SB	F	EB/NB/SB	F	EB/NB/SB	F	EB/NB/SB
Olive & Terry	D	EB	C	EB	C	EB	E	EB
Olive & 9th Ave	C	EB/SB	B	EB	B	---	D	EB/SB
Olive & 7th Ave	D	SB	B	---	C	SB	F	EB/SB
Olive & 6th Ave	B	NB	B	NB	B	NB	F	EB/NB
Olive & 5th/Westlake	D	EB/SB	C	SB	C	SB	C	SB
Olive & 4th Ave	B	---	B	---	B	---	B	---
Denny & Stewart	F	EB/WB/SW	F	EB/WB/SW	F	EB/SW	F	EB/WB/SW
Denny & Fairview	D	EB/WB/NB	F	EB/WB/NB	F	EB/WB/NB	F	EB/WB/NB
Denny & Westlake	B	EB/NB	F	EB/NB	F	EB/NB	F	EB/NB
Denny & 9th Ave	B	EB/SB	E	EB/SB	C	EB/SB	D	EB/SB
Denny & Dexter	F	EB/WB/NB	F	EB/WB/NB	F	EB/WB/NB	F	EB/NB
Denny & Aurora NB	F	EB/WB/NB	E	EB/WB/NB	F	EB/WB/NB	F	EB/WB/NB
Denny & Aurora SB	B	EB/WB/SB	B	EB/WB/SB	B	EB/WB/SB	B	EB/WB/SB
Denny & 6th Ave	F	EB/NB	F	EB/NB	F	EB/NB	F	EB/NB
Denny & Taylor	D	EB	F	EB	D	EB	D	EB
Denny & 5th Ave	E	EB/WB	D	EB/NB	E	EB/NB	E	EB/WB/NB
Denny & 4th Ave	F	EB	D	EB	F	EB	F	EB
Denny & Broad	F	EB/WB/NE	D	EB/WB	F	EB/WB/NE	F	EB/WB/NE

* Direction(s) indicated are for those approaches where queues from the specified intersection are expected to back up and affect operations at adjacent intersections.



Figure 15
Year 2020 Peak Hour Intersection LOS for Alternative 1

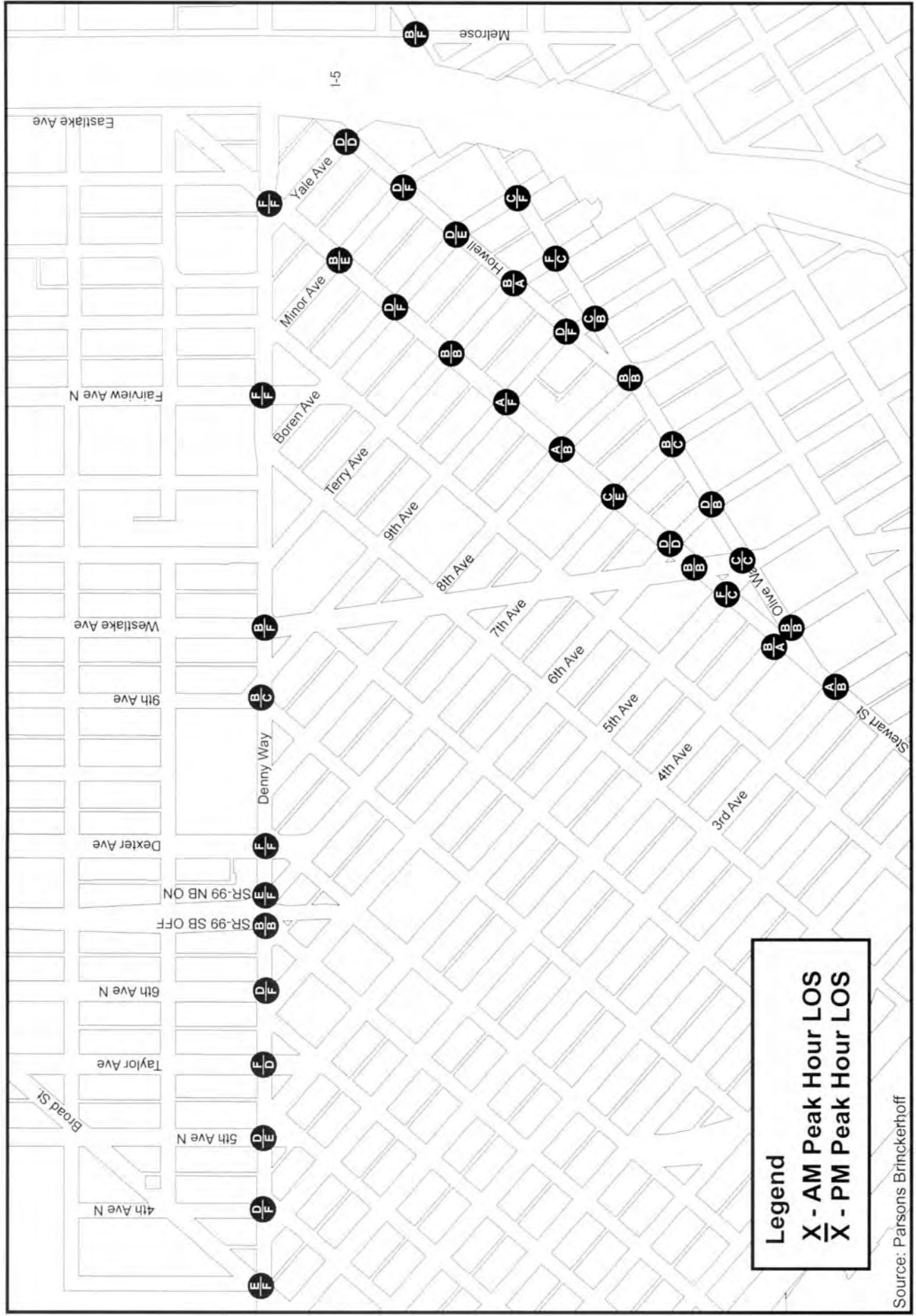


Figure 16
Year 2020 Peak Hour Intersection LOS for Alternative 2



Source: Parsons Brinckerhoff

Seattle Height & Density EIS

Figure 17
Year 2020 Peak Hour Intersection LOS for Alternative 3

Table 22
Comparison of Corridor Travel Time Summaries by Alternative
AM Peak Hour

Corridor	No Action	Alternative 1		Alternative 2		Alternative 3	
	Time (minutes)	Time (minutes)	% Change from No Action	Time (minutes)	% Change from No Action	Time (minutes)	% Change from No Action
Denny Way Eastbound	12.7	19.3	52%	16.7	31%	14.4	13%
Denny Way Westbound	14.7	10.2	-31%	10.0	-32%	10.0	-32%
Olive Way Eastbound	6.6	6.7	1%	6.0	-8%	4.5	-32%
Stewart Street Westbound	4.4	5.3	20%	4.7	7%	5.7	30%

Table 23
Comparison of Corridor Travel Time Summaries by Alternative
PM Peak Hour

	No Action	Alternative 1		Alternative 2		Alternative 3	
	Time (minutes)	Time (minutes)	% Change from No Action	Time (minutes)	% Change from No Action	Time (minutes)	% Change from No Action
Denny Way Eastbound	19.7	16.6	-16%	14.4	-27%	24.5	24%
Denny Way Westbound	10.6	10.4	-2%	10.1	-5%	10.3	-3%
Olive Way Eastbound	5.3	4.0	-24%	3.5	-34%	6.4	23%
Stewart Street Westbound	11.9	17.8	50%	11.3	-5%	15.0	26%

Alternative 2

In the AM peak hour, 9 out of the 38 intersections analyzed are projected to experience year-2020 operating conditions at LOS E or worse for Alternative 2, as compared to 11 for Alternative 4 – No Action. Overall, operational levels appear to decrease along Denny Way, although they improve along Olive Way and somewhat along Howell Street. Stewart Street is expected to operate similarly as the No Action Alternative. Five of the intersections analyzed for Alternative 2 are expected to decrease in LOS by two or more LOS levels as compared to Alternative 4 – No Action, and five are expected to improve by this amount. Of those that worsen, four are along Denny Way. Of those that improve, three are along Olive Way and Howell Street.

In the assessment of significant queuing impacts projected by the traffic simulation model, conditions are projected to improve somewhat along Stewart, Olive and Howell streets. Denny Way is projected to experience some improvement in the eastbound direction, and some degradation in the westbound direction with respect to queues. This is consistent with travel-time summaries that show travel times decreasing eastbound along Denny Way (by 4.7 minutes, or 32 percent faster), and increasing westbound (by 4.0 minutes, or 31 percent slower). Changes in travel times along Olive and Stewart Streets are expected to change by less than 10 percent. The changes in travel time along Denny Way are interpreted to be due to the location of more future growth away from the Denny Triangle area in this alternative, as compared to Alternative 1 or Alternative 4 – No Action.

In the PM peak hour, 19 of the 38 intersections analyzed (50 percent) are projected to experience year-2020 operating conditions at LOS E or worse under Alternative 2, as compared to 17 for the No Action Alternative. Nine out of twelve intersections along Denny Way are expected to operate at LOS E or worse, as compared to seven in Alternative 4 – No Action. In comparison to the No Action Alternative however, conditions at only two of the intersections analyzed are expected to worsen by two or more LOS levels in the PM peak hour, and none are anticipated to improve by this amount. The intersections for which operations are expected to worsen significantly are along Denny Way. Net changes in queuing impacts are only anticipated to be significant along Olive Way, where they are expected to improve somewhat. Projected travel-time summaries through the corridors show some improvement along Denny Way westbound, for which times are expected to decrease by over five minutes (27 percent); and along Olive Way eastbound, where times are estimated to decrease by nearly two minutes (34 percent). Changes in travel times along Denny Way eastbound and Stewart Street westbound are expected to change by less than ten percent. As indicated for the AM peak hour, these results are interpreted to be due to the location of more future growth away from the Denny Triangle area in this alternative, as compared to Alternative 1 or Alternative 4 – No Action.

Alternative 3

In the AM peak hour, nine of the 38 intersections analyzed are projected to experience year-2020 operating conditions at LOS E or worse for Alternative 3, as compared to 11 for the Alternative 4 – No Action. Overall, operational levels appear to degrade somewhat along Stewart Street, and improve somewhat along Denny Way, Olive Way and Howell Street. Only two of the intersections analyzed are expected to decrease in LOS by two or more LOS levels, as compared to the No Action Alternative, and eight are expected to improve by two or more levels. Of those that improve, five are along Olive Way/Howell Street, and three are along Denny Way. In the assessment of significant queuing impacts projected by the traffic simulation model, conditions are projected to worsen slightly along Stewart Street and to improve somewhat along Olive Way, Howell Street and Denny Way. Travel-time results show an expected decrease in travel times eastbound along Denny Way (by 4.7 minutes, or 32 percent faster), and a slight increase westbound (by 1.7 minutes, or 13 percent slower). Changes in travel times are projected to improve by over two minutes (32 percent) along Olive Way eastbound, and worsen by a little over a minute (30 percent) for Stewart Street westbound, as compared to the No Action Alternative. These results are interpreted to be consistent with projected future growth of housing and employment under Alternative 3.

In the PM peak hour, 22 of the 38 intersections analyzed (58 percent) are projected to experience year-2020 operating conditions at LOS E or worse under Alternative 3, as compared to 17 for Alternative 4 – No Action. The most noticeable changes are along Olive Way, where five out of eight intersections are expected to operate at LOS E or worse (as compared to only two in the No Action Alternative), and along Denny Way where nine out of twelve intersections along Denny Way are expected to operate at LOS E or worse (as compared to seven in the No Action Alternative). For Alternative 3, 6 of the 38 intersections analyzed are expected to worsen in operating levels from the No Action Alternative by two or more grades, and none are projected to improve by this amount. The intersections for which operations are expected to worsen significantly are along Olive Way/Howell Street and Denny Way. Net changes in queuing impacts are only anticipated to be significant along Howell Street and Olive Way, where they are expected to worsen. Projected travel-time summaries through the corridors show that travel times are expected to increase by close to five minutes (24 percent) along Denny Way westbound, by a little over one minute (23 percent) along Olive Way

eastbound, and a little over three minutes (26 percent) along Stewart Street westbound. Changes in travel times along Denny Way eastbound are expected to change by less than ten percent. The degradation of operations and increase in travel times along both Stewart Street and Denny Way appear to occur primarily in the eastern portion of the corridors, and may be a result of the increased residential and employment growth in that area. The degradation of operations and increase in travel times in Alternative 3 for Olive Way and Howell Street (as compared to the Alternative 4 – No Action) are centered around Sixth, Seventh and Eighth Avenues, and may also be a result of increased residential development in the Denny Triangle area.

C. Transit Service

North of Seneca Street Screenline

For the 2020 forecast, AM and PM peak-hour volume-to-capacity (v/c) ratios are similar for the three land-use zoning alternatives, and show little or no change in comparison to the No Action Alternative.

Stewart/Olive Corridors

As shown in Table 24, the alternatives are likely to have mixed results on transit travel time in the Stewart Street and Olive Way corridors. Note that these values represent average peak-hour travel time through the corridors multiplied by the number of peak-hour buses using the corridors. Alternative 2 shows an improvement in overall cumulative travel time through the corridors, due primarily to a 15 percent reduction in PM peak-hour times. Alternatives 1 and 3 have similar overall impacts on travel time (between a 12 and 17 percent increase over Alternative 4 – No Action). Both alternatives are expected to experience the largest relative degradation in travel time in the PM peak hour, where cumulative travel time is projected to be 24 to 25 percent worse than the No Action Alternative.

Table 24
Comparison of Future AM and PM Peak Hour
Cumulative Transit Travel Time (Bus-Minutes) - Stewart/Olive Corridors

Peak Hour	2020 No-Action	2020 Alternative 1		2020 Alternative 2		2020 Alternative 3	
	Travel Time	Travel Time	% Change	Travel Time	% Change	Travel Time	% Change
AM	801	881	10%	793	-1%	771	-4%
PM	942	1164	24%	800	-15%	1177	25%
AM / PM	1743	2045	17%	1594	-9%	1947	12%

Denny Way Screenline

As shown in Table 25, the three alternatives show mixed results when compared to the 2020 No Action Alternative. Although Alternatives 1 and 3 have combined AM and PM delays similar to the No Action Alternative, they show distinctly different patterns in the AM and PM distribution of the delay. Alternative 1 shows a modest reduction in cumulative delay of 7 percent in the PM peak hour, which is offset by an increase in delay of 6 percent in the AM peak hour. Conversely, Alternative 3 shows a significant reduction in AM transit delay of 28 percent, which is somewhat counterbalanced by an increased delay in the PM peak hour of approximately 18 percent.

Table 25
Comparison of Future AM and PM Peak Hour
Cumulative Bus Delay in Minutes - Denny Way Screenline

Peak Hour	2020 No-Action	2020 Alternative 1		2020 Alternative 2		2020 Alternative 3	
	Delay	Delay	% Change	Delay	% Change	Delay	% Change
AM	63	66	6%	79	26%	45	-28%
PM	108	100	-7%	129	19%	128	18%
AM and PM	171	167	-2%	207	21%	173	1%

Table 26 demonstrates that all alternatives show significantly higher delays in the PM peak hour as compared to the AM, indicating that PM peak-hour conditions are expected to be more congested than AM conditions. Under all the alternatives, Fairview Avenue is projected to experience intersection levels of delay greater than 100 seconds. Fifth Avenue, Aurora Avenue and Dexter Avenue show high levels of delay for all alternatives. For all alternatives, little or no increase in delay is anticipated on Fourth Avenue and on Ninth Avenue. For Westlake Avenue, all alternatives show modest levels of delay but sharp increases in PM peak-hour delay over the No Action Alternative. Levels of cumulative bus delay on Westlake Avenue are consistent across all three alternatives.

Table 26
Comparison by Street of Future AM and PM Peak Hour
Bus Delay in Minutes Crossing Denny Way

Crossing	2020 No-Action		2020 Alternative 1		2020 Alternative 2		2020 Alternative 3	
	AM	PM	AM	PM	AM	PM	AM	PM
Fourth Avenue	1	14	3	9	2	17	1	16
Fifth Avenue	9	27	11	16	13	26	2	23
Aurora Avenue	11	31	11	19	32	33	10	35
Dexter Avenue	15	27	15	27	15	27	15	27
Ninth Avenue	8	1	10	4	1	2	1	2
Westlake Avenue	4	2	1	10	1	10	1	10
Fairview Avenue	15	7	15	15	15	15	15	15
Total	63	108	66	100	79	129	45	128

Layover

As shown in Table 27, the impacts of Alternatives 1, 2, and 3 on layover space are less than Alternative 4 – No Action. The alternatives can be categorized as having a similar or marginally lower impact on layover space as compared to the No Action Alternative. Alternatives 1 and 2 have slightly lesser impacts than Alternative 3. However, as previously shown in Figure 5, the differences between the alternatives are confined to a relatively small number of blocks, and therefore a clear distinction cannot be made between the three alternatives.

Table 27
Impact of Alternatives on Layover Spaces

Alternative	Blocks Affected	Potential Displaced Spaces		
		Existing Layover	Potential Layover	Total Spaces
1	5	5	6	11
2	5	5	6	11
3	6	10	5	15
4	8	10	7	17

IV. MITIGATION STRATEGIES

A. Travel Characteristics

With respect to overall travel characteristics, significant changes in travel conditions are projected to occur with or without zoning changes, due to the amount of Downtown growth projected between current conditions and the 2020 baseline condition (Alternative 4 – No Action). For the most affected study screenlines, traffic volume growth is predicted to range from 40 to 90 percent greater in 2020 than under existing conditions. However, in most cases, the projected traffic volumes for the three land-use zoning alternatives would be within 5 percent of the volumes projected for the 2020 baseline condition. The biggest exception is Screenline 8 at the northeast corner of the Denny Triangle near the Denny Way/Stewart Street intersection, where Alternative 1 would result in approximately 8 percent more traffic in the PM peak hour than the 2020 baseline condition. Data from other studied screenlines (#2, 6 and 7) indicate that PM peak-hour traffic in 2020 will use a large portion of the available road capacity in the Downtown commercial core and the Denny Triangle. This information illustrates that regardless of potential zoning changes, growth over 20 years will generate additional traffic volumes and additional strain on the existing street network.

Demand Reduction Strategies

Mitigation strategies to help alleviate these conditions should include measures aimed at reducing vehicle trip growth and increasing the use of transit and carpool options. A sizable increase in transit ridership is already assumed in the analysis of future conditions.

For mitigation to be successful, greater implementation of transportation demand management (TDM) strategies coordinated through worksites is recommended, such as:

- Greatly reduced price transit passes (e.g., Flex Pass)
- Subsidization of other alternative modes (walking, biking)
- Increased telecommuting
- Business use of vans
- Carsharing
- Preferential parking for carpools/vanpools
- Guaranteed ride home
- Computerized ridematching database and mapping services

These types of strategies have already produced results. For example, between 1993 and 2001, Commute Trip Reduction programs at several larger worksites in Downtown Seattle helped reduce the percentage of workers driving alone to Downtown from 36 percent to 26 percent.¹ This is comparable to a change in demand for vehicle trips from 44 per 100 employees in 1993 to 33 per 100 employees in 2001. A survey by King County² in 2000-2001 of eleven Downtown Seattle

¹ Statewide, the percentage of commute trips made by persons driving alone at worksites included in the CTR program declined by 9.3 percent between 1993 and 2001. When all Statewide commuters are considered (including those who work at employers not included in the CTR Program), the drive alone share for commuting increased from 73.9 percent in 1990 to 74.1 percent in 2000. Source: WSDOT, CTR Task Force 2001 Report to the Legislature.

² King County, Handout from Oct. 18, 2001 Parking and TDM at Convention Place Meeting

employers with particularly strong TDM programs (including heavily subsidized transit fares through the FlexPass program) found that only 21 percent of these employees drove alone to work. This is comparable to a vehicle trip rate of 26 per 100 employees.

Benefits of Additional Mobility from Possible Transit Improvements

Regardless of alternative, the 2020 condition could experience the benefits of additional travel choices provided by Sound Transit and monorail transit systems that are currently being planning. Alternative alignments under either system could provide additional transit accessibility to portions of the Denny Triangle neighborhood. Specifically, Sound Transit is currently exploring alternative alignments for extending Link Light Rail from Downtown to Northgate. Two alternative alignments under study would bring light rail service to the Convention Place station, providing additional transit accessibility to the southeast portion of the Denny Triangle neighborhood.

The Elevated Transportation Company is also currently exploring alignment alternatives for the monorail in the Downtown area. The West Alternative alignment would serve Downtown along Second Avenue, with proposed station locations at Denny Way, Bell Street, Pike Street, Madison Street, James Street and South Jackson Street. The East Alternative alignment would skirt Downtown and use Denny Way and Boren Avenue. Three station locations for the East Alternative would provide additional transit accessibility around the edge of the Denny Triangle neighborhood, including at Denny Way/Dexter Avenue North, Denny Way/Westlake Avenue, and Boren Avenue/Pine Street. Another alignment option under consideration would provide service in the center of the Denny Triangle neighborhood, with a proposed station location at Westlake and 7th Avenue.

B. Traffic Circulation

The ability for traffic to circulate on the street network will significantly change by 2020, with or without zoning changes. There are relatively limited differences in traffic impacts among the land-use zoning alternatives. The biggest impacts are projected to occur along Stewart Street in the PM peak hour, Olive Way in the AM peak hour, and Denny Way in both directions during both peak hours. The possible mitigation strategies discussed below focus on ways to better accommodate anticipated traffic demands. Because of right-of-way constraints and the overwhelming cost of significant expansion of Downtown streets, the measures considered here are limited to strategies such as the optimization of traffic signal timings, and alternate uses of street pavement (e.g., utilizing parking lanes for travel during peak periods). However, for one location (the intersection of Stewart Street and Denny Way), a grade-separated intersection is presented as an option. Also, the potential benefits of Alaskan Way Viaduct Project improvements to the east-west grid network across Aurora Avenue are qualitatively addressed.

It should be noted that of the mitigation measures discussed, the only ones analytically assessed are those that involve converting parking lanes to travel lanes during peak periods. These are analyzed for Stewart Street and Olive Way. A quantifiable assessment of how signal timing optimization might improve operations along the three corridors analyzed was not conducted, because analyzing these corridors independently from the rest of the Downtown street network would not provide meaningful results, and assessing operations throughout the entire Downtown street system is beyond the scope of this study. However, a qualitative assessment of the potential effect of signal timing improvements on corridor operations is provided.

Potential Mitigation Strategies for Stewart Street

Restriping Stewart Street between Yale and Sixth Avenue to allow for four ten-foot travel lanes and (along most segments) an eight-foot parking lane during the AM and PM peak periods

Parking would be allowed in the off-peak hours on both sides through much of the corridor, as is the situation today. An assessment of this strategy using the Synchro traffic simulation model indicates that this could decrease average travel times through the corridor by 1.2 minutes (or about 10 percent) in the PM peak hour. However, in the AM peak hour, it appears to result in a slight increase in delay through the corridor. Model results indicate that although this strategy is expected to decrease delay at intersections in the northeastern portion of the corridor (Yale through Eighth Avenue), delay is likely to increase slightly at intersections in the downstream portion (Seventh through Third Avenues), so that the net delay through the corridor is 0.4 minutes greater with the restriping option. This is likely due to the fact that the added capacity in the northeastern section would allow more traffic into the system, and cause greater impacts to the southwestern portion of the system where capacity would not be added. This effect was also noted to occur in the PM peak hour, however unlike the AM peak hour, in the PM peak hour the amount of delay reduction in the northeastern section of the corridor significantly outweighs the amount of additional delay noted in the southwestern portion.

A second restriping option for Stewart Street between Yale and Sixth Avenue

A second restriping option was also considered, which allowed for four 12-foot travel lanes and no on-street parking during the AM or PM peak periods. On-street parking would be allowed on the right side during the off-peak hours and three lanes would be used for off-peak travel. An assessment of this strategy using the Synchro traffic simulation model indicates that it could decrease travel times through the corridor by close to a minute, resulting in a six percent improvement in the PM peak hour. In the AM peak hour, the net change in delay would be negligible.

Retiming traffic signals along Stewart Street

Retiming these traffic signals would help optimize corridor traffic flow. This strategy is expected to have the most significant effect on PM peak-hour operations, because the signals are already timed to facilitate traffic progression in the AM peak hour, but not necessarily in the PM peak, since this is currently the “off-peak” direction.

Constructing a grade-separated intersection of Stewart Street with Denny Way

This intersection is currently operating at LOS F, and is an important crossroads adjacent to the Denny Triangle area, which is projected to receive a large amount of growth over 20 years. Traffic operations at this location are anticipated to degrade significantly. Grade-separating this intersection could provide significant relief to both the Denny Way and Stewart Street corridors.

Potential Mitigation Strategies for Olive Way

Restriping Olive Way between Fourth and Eighth Avenues

This restriping would allow for four travel lanes during both the AM and PM peak periods. Parking would be allowed in the off-peak period where it exists today. An assessment of this strategy using the Synchro traffic simulation model indicates that this could decrease travel times through the corridor by two minutes (31 percent) in the AM peak hour, and by 1.7 minutes (32 percent) in the PM peak hour.

Retiming traffic signals along Olive Way to optimize corridor traffic flow

This strategy is expected to have the most significant effect on AM peak-hour operations, because the signals are already timed to facilitate traffic progression in the PM peak hour, but not necessarily in the AM peak hour, since this is currently the “off-peak” direction.

Potential Mitigation Strategies for Denny Way

Constructing a grade separated intersection of Stewart Street with Denny Way

See previous discussion.

Placing Aurora Avenue in a tunnel from the downtown area to north of Mercer Street

This is an improvement in the South Lake Union area that is being considered as part of the Alaskan Way Viaduct Project. This would allow the reconnection of several east/west arterial streets currently severed by Aurora Avenue north of Denny Way. This would allow for more east/west traffic capacity, and potentially reduce the amount of traffic using Denny Way (particularly in the western portion of the corridor). Although assessment of these impacts to Denny Way are beyond the scope of this study, separate studies analyzing the overall impacts of these improvements are currently underway.

C. Transit Service

The greatest level of change in transit service conditions is projected to occur with or without zoning changes, between now and the 2020 baseline condition (Alternative 4 – No Action), due largely to the influence of general traffic conditions. This is projected to be the case in the Stewart Street and Olive Way corridor, where the most noticeable impact would occur in the PM peak hour. In comparison, Alternatives 1 and 3 would generate an approximately 25 percent greater impact than Alternative 4 – No Action in the PM peak hour. The AM peak-hour delay for all alternatives (including No Action) would be approximately the same. In the Denny Way corridor, overall delay would be roughly equivalent, with the exception of Alternative 2, which shows a 21 percent additional increase in delay over the No Action Alternative.

As with traffic-oriented strategies, appropriate mitigation strategies for transit include those aimed at reducing the overall number of trips on these streets and/or enhancing traffic flow. In most cases, traffic circulation mitigation will have corresponding benefits for transit. However, the following transit-specific mitigation measures may also have merit:

Restriping Stewart Street and Olive Way to accommodate a right-side peak-period transit-only lane

On Stewart Street, the transit lane would begin north of Yale Street and end at Sixth Avenue. On Olive Way, it would run between Fourth Avenue and Eighth Avenue. Restriping would allow for up to three twelve-foot travel lanes and a twelve-foot transit-only lane on Stewart Street. Along Olive Way, less curb-to-curb width is available, so at some points the transit lane could be 11 to 12 feet in width, and other travel lanes would be nine to ten feet wide. The transit-only lane could be available for parking during off-peak hours. An assessment of this strategy was made using the Synchro traffic simulation model to assess general-purpose lane operation, and a separate methodology from the 1999 NCHRP HOV Systems Manual was used for estimating arterial HOV/transit lane delay. The evaluation indicates that this approach could improve average bus travel times along Stewart Street by 1.2 minutes (27 percent) in the AM peak hour, and 8.3 minutes (70 percent) in the PM peak hour. Note that a significant portion of the travel-time savings (nearly 5 minutes) in the PM peak hour is projected to occur at Yale Avenue. If the transit lane started downstream of this intersection, or not far enough upstream of the intersection to provide an adequate queue bypass, the improvement would be much less. Along Olive Way, the transit lane would have a more modest effect, reducing AM peak-hour travel times by approximately one minute in both the AM and PM peak hours, which is equivalent to a 15 and 19 percent improvement, respectively.

Another way to assess the effect of this potential mitigation measure is to factor in the number of buses expected to travel the corridor and experience the travel-time savings. For Stewart Street and Olive Way combined, implementing transit lanes would result in an overall decrease of 161 minutes in peak-hour bus-minutes of travel (25 percent improvement) in the AM peak hour, and a decrease of 484 minutes (106 percent improvement) in the PM peak hour.

The impact on general-purpose traffic is also of interest for this potential strategy. The Synchro traffic simulation model does not explicitly simulate transit lanes, but this impact was assessed in Synchro by modeling three general-purpose lanes and removing right-turning vehicles, buses and bus operations from the traffic stream (these movements are instead assumed to occur in the adjacent transit-only lane). With this configuration, model results indicate that operations along Stewart Street would improve slightly in the AM peak hour, with average travel time through the corridor reduced by 0.5 minutes (11 percent) in the general-purpose lanes, compared to the No Action Alternative. PM peak-hour results along Stewart Street are more pronounced, with travel times projected to decrease by 2.4 minutes (roughly 20 percent). Along Olive Way, AM peak-hour results show a travel time improvement for general-purpose traffic of 1.8 minutes (27 percent) over the No Action Alternative. PM peak-hour results showed no noticeable change in travel times for general-purpose traffic with this measure.

In the Denny Way corridor, target transit queue jumps at intersections with significant queues.

Under all of the alternatives, Fairview Avenue North would experience the longest queues and would likely benefit from a queue jump. Other intersections with significant delays that could also benefit from a signal queue jump include Fifth Avenue North, the Aurora Avenue North ramps, and Dexter Avenue North.

V. SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Without mitigation, future development through the year 2020 would generate additional traffic volumes and increase congestion in portions of Downtown, most notably in the Denny Triangle area. Much of this impact would occur with or without zoning changes. However if the higher-density zoning changes (Alternatives 1 and 2) considered in this study are implemented, congestion in the most affected areas could be approximately 5-10 percent worse than for other alternatives, including the 2020 baseline condition (Alternative 4 - No Action). Under all the alternatives considered, additional congestion will likely increase overall travel times on Denny Way, Stewart Street and Olive Way, including transit travel time. Implementation of mitigation strategies, at the City's discretion, would likely improve overall transportation conditions, so that a portion of the impacts of traffic congestion could be avoided.

APPENDICES

Appendix 1

List of Screenline Streets

Number	Title and Cross Street Names
1	North of S. King Street
	First Avenue
	Occidental Avenue
	Second Avenue
	Fourth Avenue
	Fifth Avenue
	Sixth Avenue
2	North of Seneca Street
	Western Avenue
	First
	Second
	Third
	Fourth
	Fifth
3	South of Blanchard Street
	First Avenue
	Second Avenue
	Third Avenue
	Fourth Avenue
	Fifth Avenue
	Sixth Avenue
	Seventh Avenue
	Eighth Avenue
	Westlake Avenue
	Ninth Avenue
4	East of First Avenue
	S Jackson Street
	S Main Street
	S Washington Street
	Yesler Way
	James Street
	Cherry Street
	Columbia Street
	Marion Street
	Madison Street
	Spring Street
	Seneca Street
	University Street
	Union Street
	Pike Street
	Pine Street

Appendix 1 (continued)

List of Screenline Streets

Number	Title and Cross Street Names
5	East of First Avenue
	Stewart Street
	Virginia Street
	Lenora Street
	Blanchard Street
6	East of Ninth Avenue
	Lenora Street
	Virginia Street
	Stewart Street
	Howell Street
	Olive Way
	Pine Street
	Pike Street
	Pike I-5 ramp
7	East of Sixth Avenue
	Union Street (I-5 ramp)
	University Street (I-5 ramp)
	Seneca Street
	Seneca Street (I-5 ramp)
	Spring Street
	Spring Street (I-5 ramp)
	Madison Street
	Columbia Street (I-5 ramp reversible)
	Columbia Street
	Cherry Street
	Cherry Street (I-5 ramp reversible)
	James Street
	James Street (I-5 ramp)
	6th Avenue
	n/o Yesler Way
8	East of Minor Avenue
	Denny Way
	Stewart Street
	Howell Street
	Olive Way
9	West of Sixth Avenue
	Yesler Way
	S Washington Street
	S Main Street Street
	S Jackson Street

Appendix O

Parking Technical Report

Parking Technical Report

Prepared for:

City of Seattle Strategic Planning Office

as part of

*Downtown Height & Density
Environmental Impact Statement*

Parsons Brinckerhoff

March 2002

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I. AFFECTED ENVIRONMENT

This parking analysis reviews existing parking supply and demand information for a portion of the Downtown Urban Center, and assesses the probable parking impacts of future growth scenarios represented by four EIS alternatives. The level of detail provided in the analysis is intended to be consistent with the programmatic, non-project nature of the proposal and the environmental impact statement.

Data sources include parking inventory and utilization data compiled by the Puget Sound Regional Council (PSRC) and the City of Seattle's Comprehensive Neighborhood Parking Study, and information about mode shares and transportation demand management from King County and the Washington State Department of Transportation.

The study area for this analysis includes the portion of Downtown Seattle bordered by Denny Way on the north, I-5 on the east, Yesler Way on the south and Alaskan Way on the west, omitting Pioneer Square and the International District. This study generally characterizes the area south of Olive Way as part of the commercial core neighborhood, and areas north of Olive Way (and Stewart Street west of 3rd Avenue) as the Denny Triangle and Belltown neighborhoods.

A. Parking Supply and Utilization

Off-Street Parking Supply

The 1999 PSRC *Parking Inventory for Seattle and Bellevue* and supplemental data from the City of Seattle are the source for off-street parking supply information. There are roughly 48,000 off-street parking spaces in approximately 540 lots and garages within the Downtown study area. The types of spaces are as follows:

- 38,000 spaces, general public paid parking
- 5,600 spaces, employee parking
- 3,200 spaces, residential parking
- 1,000 spaces, customer/short-term free parking

Approximately 19,220 parking spaces, about 40 percent of the total inventory, are located north of Olive Way, while approximately 28,000 parking spaces (60 percent of the total) are located south of Olive Way. An additional 700 parking spaces are located in unspecified newer developments throughout the study area. The data indicate that parking facilities in the commercial core area south of Olive Way tend to be larger than facilities north of Olive Way. However, there are a greater number of off-street facilities (likely smaller surface parking lots) in areas north of Olive Way. Figure 1 illustrates the location of off-street parking garages and lots.

Off-Street Parking Utilization

Average weekday utilization of off-street parking is available from 1999 PSRC data for the study area as a whole, and for areas north and south of Olive Way (see Table 1). Average weekday morning parking utilization for the entire study area is approximately 81 percent, and average afternoon parking utilization is approximately 77 percent. The subarea data indicate that off-street parking in areas south of Olive Way is slightly more occupied on average than areas north of Olive Way. This is generally consistent with the greater employment density and commercial activity in the commercial core area. These parking utilization rates indicate that a modest amount of off-street parking capacity is available on an average day, if the user is willing to pay. Parking rates are generally highest in the central part of the commercial core, easing gradually with greater distance to the north and south.

Table 1
Average Weekday Off-Street Parking Utilization

	Max. Capacity (see note)	Average Weekday Utilization			
		Morning (9-11:30 am)		Afternoon (1-3:30 pm)	
Total Study Area	47,230	38,380	81%	36,450	77%
N/of Stewart/Olive	19,220	15,090	79%	14,545	76%
S/of Stewart/Olive	28,010	23,290	83%	21,905	78%

Source: PSRC data compiled by Parsons Brinckerhoff.

Note: The maximum capacity for the total study area (47,230) does not include 700 parking spaces at new developments. Utilization data was not available for parking at these new developments.

Historical Trend in Parking Utilization, Supply, and Price

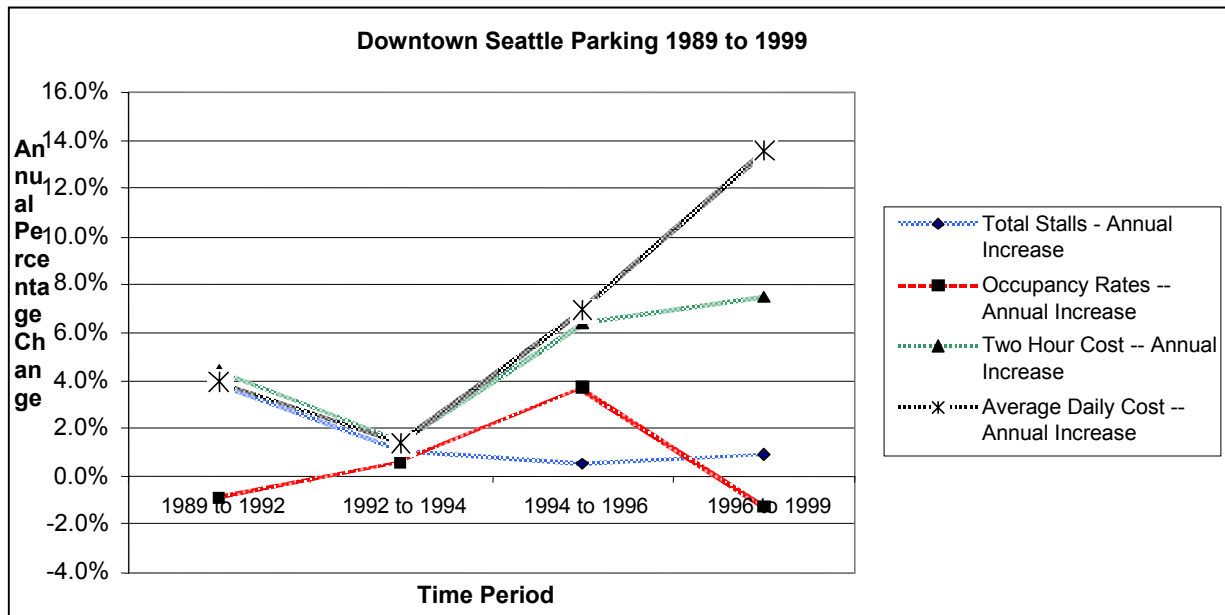
The Puget Sound Regional Council inventoried off-street parking in Downtown Seattle in 1989, 1992, 1994, 1996, and 1999. This inventory included a count of total parking stalls, occupancy, and cost. Table 2 below summarizes the parking information for Downtown Seattle.

The relationships between parking supply, demand (represented as occupancy), and cost are complex. As shown in Table 2, from 1989 to 1999, the cost of parking increased faster than the demand or supply of parking changed. As shown in Table 2, between 1989 and 1999, parking supply increased by an annual average of 1.8%. During this same time period, the average daily cost increased by an annual average of 6.8%. The demand, expressed as occupancy, has at times increased, and at other times decreased. It decreased between 1989 and 1992, possibly because of an increase in parking supply during this same period of more than 5,000 spaces. As shown in Figure 1, occupancy decreased between 1996 and 1999. During this period the cost of daily parking jumped considerably, while the supply of parking increased only modestly. Parking supply increased by only about 900 spaces, but the daily cost of parking increased by about \$4.50, or over 13 percent. This suggests that between 1996 and 1999, the demand for parking decreased partially because it became too expensive for some to park.

Table 2
Summary of Parking in Downtown Seattle, 1989–1999

Parking Data	1989	1992	1994	1996	1999	Average Annual % Change
Total Stalls	45,389	50,863	52,596	53,164	54,063	
Total Stalls -- Annual Percent Change	--	3.9%	1.1%	0.5%	0.9%	1.8%
Occupancy Rates	75.4%	73.3%	74.6%	80.3%	78.2%	
Occupancy Rates -- Annual Percent Change	--	-0.9%	0.6%	3.7%	-1.3%	0.4%
Two Hour Cost	\$3.76	\$4.28	\$4.41	\$4.99	\$6.20	
Two Hour Cost -- Annual Percent Change	--	4.4%	1.5%	6.4%	7.5%	5.1%
Average Daily Cost	\$7.45	\$8.37	\$8.60	\$9.83	\$14.39	
Average Daily Cost -- Annual Percent Change	--	4.0%	1.4%	6.9%	13.6%	6.8%

Figure 1
Summary of Parking Changes in Downtown Seattle, 1989–1999



Over time, market forces will continue to influence the supply of parking, the demand for it, and the cost. More detailed information about this inventory of parking can be found in *Parking Inventory for Seattle and Bellevue, 1999*, which can be found at PSRC's website (<http://www.psrc.org/datapubs/pubs/parking1999.htm>).

On-Street Parking Supply

Although much of the Downtown study area's on-street parking supply primarily consists of parallel curb parking controlled by parking meters, the different subareas have different mixes of on-street parking resources, as described below.

Commercial Core (south of Olive Way)

Office core and retail core vicinity

Metered parallel parking typically present on east-west streets, but more limited on portions of the north-south avenues such as 4th, 5th and 1st Avenues. Typical metering is two hours, with some meters thirty minutes or less.

Commercial vehicle parking zones and pickup/dropoff zones

Selected areas reserved for government vehicles near public facilities

Limited carpool parking on some blocks, primarily in peripheral areas

Curb parking frequently interrupted by bus stop zones and curb cuts

Western Avenue vicinity

Metered parallel parking in a majority of locations, two-hour and short-term

Metered angle parking in adjacent Alaskan Way corridor

Commercial vehicle parking zones and pickup/dropoff zones

Belltown

Metered parallel parking in majority of area, majority with two-hour term

Denny Triangle (north of Olive Way)

Metered parallel parking in majority of area, majority with two-hour term

Relatively limited number of streets with no curb parking

Limited carpool parking on a few blocks, primarily in northern area

Angled parking available in some non-arterial blocks

Free curb parking available

Curb parking occasionally interrupted by bus stop zones and curb cuts

Bus layover zones defined in a few blocks

Nearby Areas Outside Denny Triangle

South Lake Union vicinity

Other than Denny and Valley most streets offer plenty of parking

Most parking is free parallel parking with a time limit of two hours or no time limit at all.

Metered parking is mainly limited to two hours.

In the Seattle Times area metered parking is limited to fifteen minutes.

In the Denny/Harrison/Westlake area there is a mix of angled parking with parallel with a couple of blocks limiting parking to four hours

Commercial vehicle parking zones and pickup/dropoff zones

Curb parking frequently interrupted by bus stop zones and curb cuts

On-street parking utilization data is available for portions of the Belltown and Denny Triangle neighborhoods, but not the commercial core. Table 3 describes the average weekday and peak hour on-street parking utilization for sampled portions of those neighborhoods, with a comparison to the Pike-Pine neighborhood, adjacent and east of Downtown. The peak hour on-street parking utilization in Belltown is approximately 87 percent, considerably higher than the Denny Triangle's peak hour utilization of approximately 71 percent. The average parking

utilization for both neighborhoods is approximately the same at 61-62 percent.¹ In an everyday operational sense, on-street parking is generally perceived to be near capacity when rates reach 80 to 85 percent. The perception of low parking availability at these rates occurs because, while turnover may be relatively high, the available spaces are dispersed infrequently within the entire street network, making them difficult to find. The somewhat lower rate of utilization for the Denny Triangle may reflect the tendency for lower parking utilization in peripheral locations and greater utilization closer to the retail and commercial core.

As a comparison, the Pike-Pine neighborhood adjacent to Downtown has an average utilization of 84 percent and a peak hour utilization of 91 percent, higher than both of the studied Downtown neighborhoods. This high utilization is likely due to the combination of dense residential use and growing commercial uses in that neighborhood.

Table 3
Existing On-Street Parking Utilization in Selected Neighborhoods

Sub-Area	On-Street	
	Average Utilization	Peak Hour Utilization
Denny Triangle	61%	71%
Belltown	62%	87%
Pike-Pine	84%	91%
TOTALS		

Source: PSRC and City of Seattle data compiled by Parsons Brinckerhoff.

In addition, a considerable amount of on-street parking is available in the south end of the study area near the baseball and football stadiums. Within a ten-minute walk of the stadiums (about five or six blocks largely in the Pioneer Square and International District areas), about 1,830 on-street parking spaces are available.²

¹ These utilization figures are based on a sample of the on-street parking inventory, including 210 spaces in Denny Triangle and 360 spaces in the Belltown neighborhood.

² Source: SR 519 Operational Analysis Team - *SR 519 – Operational Analysis Weekday Event*, May 1998.

II. IMPACTS

Table 4 compares parking lost, parking added, and parking demand in 2020 for all alternatives. Demand is estimated for a baseline 2020 condition, as well as a TDM-intensive condition (to estimate how parking demand could be reduced if the new developments instituted strong TDM programs). The five sections of Table 4 are explained as follows:

1. Existing Parking – Identifies total off-street existing parking in the study area by type of parking: customer parking, employee parking, or “other” parking. Note that “other” parking is generally public pay parking. This includes public pay parking in stand-alone parking garages and lots, as well as paid public parking in office buildings.

2. Parking Lost Due to Development – The new development will displace some existing off-street parking. Parking lost is broken into two categories: spaces lost from stand-alone public parking lots and garages, and other spaces lost (primarily parking included as part of an office building or other development). Parking spaces lost from stand-alone public parking lots and garages is important to note because these are parking spaces available to the entire Downtown area, not just building tenants. The second category “other spaces lost” is less important to note since it is assumed that the new developments will provide their own parking. For example, the new development may replace an existing office building that provides its own parking. Because the new development will also provide its own parking, the parking is not really lost, just replaced.

3. Parking Spaces Added According to Current Code – This section of the table documents the minimum parking spaces provided according to code, which is based primarily on the square footage. Table 4 assumes .67 parking spaces provided per 1,000 square feet of gross floor area (including .13 carpool spaces). For hotels the assumption is 1 space per 4 rooms. These numbers represent minimums, and developers may instead choose to provide parking levels higher than these minimums if market conditions warrant it. For residential units, there are no parking requirements. However, Table 4 assumes .63 parking spaces per residential unit (based on 1990 census data on auto ownership in Downtown Seattle). This may underestimate parking provided since developers may instead provide 1 parking space per residential unit. In downtown areas it is normal for the parking provided to be less than unrestricted demand. This is one of the reasons why parking is usually expensive in downtown areas. The excess demand then either parks in adjacent areas or uses alternative modes of transportation.

4. 2020 Parking Demand Based On Number of Employees and Residential Units – Predicting parking demand is very complicated, and is impacted by the number of employees, parking cost, availability, and availability of alternative modes of transportation. A very simple method for estimating 2020 parking demand is included in this section. This method is based on the number of employees and residents, and an assumption of the number of employees who will drive their cars to work. To estimate year 2020 vehicle work trips per employee for the study area, the 2020 Regional Model was utilized. Specifically, mode share information for 2020 home to work (Downtown Seattle) trips was used. The Regional Model indicated .31 vehicle trips per employee, and assumes some TDM (e.g., expensive downtown parking). Mode share assumptions used to derive this number are included in the Appendix. This number was then reduced by 5% to account for a percentage of employees absent on any given day. For residential units, .63 parking spaces per residential unit were assumed based on the most recent (1990) census data available.

5. 2020 Potential Mitigation Impacts of TDM Supportive Measures – For potential mitigation impacts (for a more extensive TDM program in the new developments), mode share from two data sources was compared: data from the *WSDOT CTR Task Force 2001 Report to the Legislature* for Downtown Seattle (for employers impacted by CTR legislation), and King County mode share information for a sample of Flex Pass Customers. The WSDOT CTR Task Force data is presumed to represent mode share for a "standard" TDM program, while the King County data is assumed to represent mode share for a more extensive TDM program. The mode share difference between an "extensive" TDM program and a "standard" TDM program was then applied to the 2020 mode share to estimate potential 2020 mode share assuming TDM mitigation. This method indicated .24 vehicle trips per employee. This number was also then reduced by 5% to account for a percentage of employees absent on any given day.

A. 2020 Baseline Growth Condition (Alternative 4 – No Action)

Future projected growth and redevelopment in the Downtown study area will result in changes to parking supply and demand conditions, with or without any changes to zoning. This discussion addresses conditions in 2020 for Alternative 4 - the No Action Alternative.

Projected future development under EIS growth assumptions is for an additional 70,000 jobs and approximately 17,500 residential households in the Downtown Urban Center through 2020. The EIS growth assumptions predict approximately the same amount of job and residential growth for all alternatives, so there will only be limited differences in parking impacts among the alternatives.

Off-Street Parking

Future residential and employment growth throughout the study area would increase overall demand for parking. Table 4 compares predicted parking supply and demand conditions in 2020 for all of the alternatives. A detailed description of Table 4 is provided at the beginning of the Impacts section of this memorandum. Demand is estimated for a baseline 2020 condition, as well as a TDM-intensive condition (to estimate how parking demand could be reduced if the new developments instituted strong TDM programs). Parking supply estimates in Table 4 assume that minimum parking requirements for commercial uses would be met, and that residential development (which has no minimum parking requirement) would provide .63 parking spaces per residential unit³.

³ The value .63 is a low estimate based on 1990 census data for auto ownership per household in downtown Seattle census tracts. In reality, developers may instead provide each unit with a parking space. So this estimate of parking provided may be conservatively low.

Table 4
Parking Lost, Parking Added, and Potential Parking Demand

Existing Parking				
Total Parking in Study Area (Denny to Yesler, West of I-5)	47,226			
Percent Other (generally public pay parking - stand alone and in office buildings)	83%			
Percent Employee parking	14%			
Percent Customer (short-term free)	3%			
Parking Lost Due to Development				
	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Spaces Lost from Stand-Alone Public Parking (Lots/Garages)	3,481	3,481	3,661	3,775
Other Lost Spaces (e.g., Parking Provided In Office Building)	3,656	3,656	3,656	3,774
Total Spaces Lost	7,137	7,137	7,317	7,549
Parking Spaces Added According to Current Code (Plus Assumption for Residential Units)				
	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Parking Spaces Added (According to Code, Excluding Residential)	12,357	12,178	12,201	12,187
Residential Parking Spaces (assuming .63 space/unit provided by developer)	4,648	4,811	4,696	4,804
Potential Estimated Parking Spaces Added	17,005	16,989	16,897	16,991
2020 Parking Demand Based On Number of Employees and Residential Units:				
	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of Employees/Residential Units				
<i>Jobs</i>	64,511	63,931	64,070	64,243
<i>Residential Units</i>	7,378	7,636	7,454	7,624
Assumptions Used Regarding Mode Share/Vehicle Work Trips*				
	Vehicle Work Trips/Employee			
Commercial (Office/Retail/Hotel)	0.31			
Residential	0.63	census data - vehicles/household Seattle CBD 1990		
Parking Spaces Required to Meet Demand**				
<i>Parking Spaces for Jobs</i>	19,113	18,942	18,983	19,034
<i>Parking Spaces for Residential Units</i>	4,648	4,811	4,696	4,803
Total Parking Demand	23,762	23,752	23,678	23,837

**Note that some jobs will occur during off peak hours or weekends, so estimate may be high.
However doesn't include visitor or customer parking, which may off-set difference.

2020 Potential Mitigation Impacts of TDM Supportive Measures

Assumptions Used Regarding Mode Share/Vehicle Work Trips*				
SOV Rates	Vehicle Work Trips/Employee			
Commercial (Office/Retail/Hotel)	0.24			
Residential	0.63	census data - vehicles/household Seattle CBD 1990		
Parking Spaces Required				
<i>Parking Spaces for Jobs</i>	14,857	14,723	14,755	14,795
<i>Parking Spaces for Residential Units</i>	4,648	4,811	4,696	4,803
Total Parking Demand	19,505	19,534	19,451	19,598

*To estimate year 2020 vehicle work trips/employee for the study area, utilized 2020 Regional Model mode share information for 2020 Home to Work (downtown Seattle CBD) trips. The 2020 number assumes some TDM (e.g., expensive downtown parking). This number was then reduced by 5% to account for a percentage of employees absent on any given day.

For potential mitigation impacts (for extensive TDM program), mode share from two data sources was compared: WSDOT CTR Task Force 2001 Report to the Legislature for downtown Seattle (for employers impacted by CTR legislation), and King County mode share information for a sample of Flex Pass Customers. The WSDOT CTR Task Force data is presumed to represent mode share for a "standard" TDM program, while the King County data is assumed to represent mode share for a more extensive TDM program. The mode share difference between an "extensive" TDM program and a "standard" TDM program was then applied to the 2020 mode share to estimate potential 2020 mode share assuming TDM mitigation. This number was also then reduced by 5% to account for a percentage of employees absent on any given day.

As shown in Table 4 under the section “Parking Spaces Added According to Current Code”, the predicted amount of off-street parking supply provided with future development would be approximately 16,991 spaces. This includes about 12,200 office/retail parking spaces and about 4,800 residential spaces. Note that these estimates are conservative and developers may very well provide several thousand additional parking spaces. For example, this assumes .63 parking spaces per residential unit (based on the most current census data available for vehicle ownership per household in Downtown Seattle), but many developers may provide more parking than this. If it were to be assumed that developers provided one parking space per residential unit, the amount of parking provided would increase by about 2,800.

Table 4 estimates parking demand assuming moderate TDM, and more aggressive TDM. The 2020 demand estimate assuming moderate TDM is 23,837 spaces, while the estimate assuming more aggressive TDM is 19,598 spaces. This suggests that the demand for parking may exceed the minimum provided by 2,600 to 6,900 spaces. While this may at first seem significant, it is important to point out that the parking minimums indicated are just that — minimums. Developers may provide more parking than the minimum required if market conditions warrant it. In addition, it is not unusual for parking to be severely restricted in downtown areas. The most typical result is an increase in parking prices.

Table 4 also presents off-street parking that would be displaced under the section “Parking Lost Due to Development.” Future development under Alternative 4 would displace approximately 7,550 existing off-street parking spaces, of which approximately one-half would be from existing stand-alone public parking lots/garages and one-half would be from other land uses that have parking lots associated with them, but whose primary function is other than parking.⁴ The new developments will provide some of their own parking, so the truly “displaced” parking might only be considered those developments that displace facilities that are currently stand-alone public parking garages or lots.

Most of the off-street parking displaced (from stand-alone public parking lots and garages) is concentrated into three areas Downtown, which are shown in Figure 2. These three areas represent about 79 percent of the 3,775 off-street parking spaces from garages/lots displaced by the new development. Area 1 is the north area of Downtown bordered by 9th Ave., 6th Ave., Pine Street, and Denny Way. Area two is just south of this area, bordered by Lenora Street, Stewart Street, 5th Avenue and 1st Avenue. Area three is a one-block area between 4th Ave. and 5th Avenue, bordered by Seneca and Spring Streets. As shown in Table 5, in Area 1 (between 9th Avenue and 6th Avenue, from Pine Street to Denny Way), about 1,900 parking spaces from lots and garages will be lost to development. This is an area where parking is currently more available and less expensive than in the heart of the business area of Downtown, which is located further south. In Area 2 (from Lenora Street to Stewart Street, between 5th Avenue and 1st Avenue), about 373 parking spaces from lots or garages will be lost to new development. In Area 3 (a one square block between 4th Ave. and 5th Avenue, bordered by Seneca and Spring Streets), a 700 space parking garage will be displaced due to new development. This is in an area that is already expensive to park and few parking spaces available.

⁴ Determination of current parking (whether parking is part of another land use or a stand-alone garage or lot) was determined by data received from the City of Seattle (20years_4.xls). It was assumed that parcels whose primary use are considered Public Parking Commercial Lot (Code 180) or Public Parking Garage (Code 182) are parking garages/lots. It was assumed that parcels whose primary land use was other than one of these two had parking included as part of the development, but the primary function wasn't parking.

The consequences of parking demand unmet by off-street parking supply would be increased demand for other off-street and on-street parking resources. It is likely there would be increased competition for on-street parking in a greater portion of the study area, and increased prices for off-street parking. This decrease in parking availability and increase in parking costs may impact businesses, primarily in the three areas indicated above. The degree to which these businesses could be impacted, however, cannot be fully addressed within the scope of this study.

The City could consider adjusting its parking minimums to increase the supply of parking that will be provided as redevelopment occurs. However, one important potential impact of a tighter parking supply is the increased use of alternative modes of transportation — which is consistent with the City's long-range goals. Therefore, the City may want to maintain the existing minimum parking standards in order to help encourage the use of alternative modes in the future.

Table 5
Off-Street Stand-Alone Parking Lost by Alternative
in Three Areas Most Affected

	Parking Spaces Lost from Stand-Alone Garages by Area		
	Area 1	Area 2	Area 3
Alternative 4 – Future No Build	1,900	373	700
Alternative 1	1,639	309	700
Alternative 2	1,639	309	700
Alternative 3	1,819	309	700

On-Street Parking

As noted above, increased overall parking demand from future development would likely lead to increased competition for on-street parking resources. This trend would be gradual and occur in response to the amount of additional development in a particular area. However, given that the largest concentration of future development would occur in the Denny Triangle neighborhood, the increased competition would most strongly occur in the Denny Triangle and nearby surrounding areas. More specifically, the areas that will most be impacted by increased competition for on-street parking are the same three areas presented in Figure 2: north of Downtown bordered by 9th Ave., 6th Ave., Pine Street, and Denny Way; the area bordered by Lenora Street, Stewart Street, 5th Avenue and 1st Avenue; and a one-block area between 4th Ave. and 5th Avenue, bordered by Seneca and Spring Streets.

In addition, as future development occurs, some displacement of on-street parking resources would likely occur due to the need for garage access points and possibly additional commercial vehicle parking spaces or other specialized types of parking or curb uses.

Figure 2
Three Areas Most Affected by Displacement of Parking Garages*



*Polygons indicate new development areas. Dots indicate displaced off-street parking lots/garages

B. Alternative 1 – High End Height and Density Increase

While overall amounts of growth would be approximately the same under all alternatives, under Alternative 1 approximately 5 percent fewer existing off-street parking spaces would be displaced, and new development would likely affect a slightly lower number of blocks. This could mean less potential for disruption of existing on-street parking, and slightly less additional competition for on-street parking resources than under the No Action Alternative.

Off-Street Parking

Future residential and employment growth throughout the study area would increase overall demand for parking. Table 4 (page 8) compares predicted parking supply and demand

conditions in 2020 for all of the alternatives. A detailed description of Table 4 is provided at the beginning of the Impacts section of this memorandum. Demand is estimated for a baseline 2020 condition, as well as a TDM-intensive condition (to estimate how parking demand could be reduced if the new developments instituted strong TDM programs). Parking supply estimates in Table 4 assume that minimum parking requirements for commercial uses would be met, and that residential development (which has no minimum parking requirement) would provide .63 parking spaces per residential unit⁵.

As shown in Table 4 under the section “Parking Spaces Added According to Current Code”, the predicted amount of off-street parking supply provided with future development would be approximately 17,005 spaces. This includes about 12,357 office/retail parking spaces and about 4,648 residential spaces. Note that these estimates are conservative and developers may very well provide several thousand additional parking spaces. For example, this assumes .63 parking spaces per residential unit (based on the most current census data available for vehicle ownership per household in Downtown Seattle), but many developers may provide more parking than this. If it were to be assumed that developers provided one parking space per residential unit, the amount of parking provided would increase by about 2,800.

Table 4 estimates parking demand assuming moderate TDM, and more aggressive TDM. The 2020 demand estimate assuming moderate TDM is 23,762 spaces, while the estimate assuming more aggressive TDM is 19,505 spaces. This suggests that the demand for parking may exceed the minimum provided by 2,500 to 6,700 spaces. While this may at first seem significant, it is important to point out that the parking minimums indicated are just that — minimums. Developers may provide more parking than the minimum required if market conditions warrant it. In addition, it is not unusual for parking to be severely restricted in downtown areas. The most typical result is an increase in parking prices.

⁵ The value .63 is a low estimate based on 1990 census data for auto ownership per household in downtown Seattle census tracts. In reality, developers may instead provide each unit with a parking space. So this estimate of parking provided may be conservatively low.

Table 4 also presents off-street parking that would be displaced under the section “Parking Lost Due to Development.” Future development under Alternative 1 would displace approximately 7,137 existing off-street parking spaces, of which approximately one-half would be from existing stand-alone public parking lots/garages and one-half would be from other land uses that have parking lots associated with them, but whose primary function is other than parking.⁶ The new developments will provide some of their own parking, so the truly “displaced” parking might only be considered those developments that displace facilities that are currently stand-alone public parking garages or lots.

Most of the off-street parking displaced (from stand-alone public parking lots and garages) is concentrated into three areas Downtown, which are shown in Figure 2. These three areas represent about 76 percent of the 3,481 off-street parking spaces from garages/lots displaced by the new development. Area 1 is the north area of Downtown bordered by 9th Ave., 6th Ave., Pine Street, and Denny Way. Area two is just south of this area, bordered by Lenora Street, Stewart Street, 5th Avenue and 1st Avenue. Area three is a one-block area between 4th Ave. and 5th Avenue, bordered by Seneca and Spring Streets. As shown in Table 5, in Area 1 (between 9th Avenue and 6th Avenue, from Pine Street to Denny Way), about 1,639 parking spaces from lots and garages will be lost to development. This is an area where parking is currently more available and less expensive than in the heart of the business area of Downtown, which is located further south. In Area 2 (from Lenora Street to Stewart Street, between 5th Avenue and 1st Avenue), about 309 parking spaces from lots or garages will be lost to new development. In Area 3 (a one square block between 4th Ave. and 5th Avenue, bordered by Seneca and Spring Streets), a 700 space parking garage will be displaced due to new development. This is in an area that is already expensive to park and few parking spaces available.

The consequences of parking demand unmet by off-street parking supply would be increased demand for other off-street and on-street parking resources. It is likely there would be increased competition for on-street parking in a greater portion of the study area, and increased prices for off-street parking. This decrease in parking availability and increase in parking costs may impact businesses, primarily in the three areas indicated above. The degree to which these businesses could be impacted, however, cannot be fully addressed within the scope of this study.

The City could consider adjusting its parking minimums to increase the supply of parking that will be provided as redevelopment occurs. However, one important potential impact of a tighter parking supply is the increased use of alternative modes of transportation — which is consistent with the City’s long-range goals. Therefore, the City may want to maintain the existing minimum parking standards in order to help encourage the use of alternative modes in the future.

⁶ Determination of current parking (whether parking is part of another land use or a stand-alone garage or lot) was determined by data received from the City of Seattle (20years_4.xls). It was assumed that parcels whose primary use are considered Public Parking Commercial Lot (Code 180) or Public Parking Garage (Code 182) are parking garages/lots. It was assumed that parcels whose primary land use was other than one of these two had parking included as part of the development, but the primary function wasn’t parking.

On-Street Parking

Alternative 1's predicted on-street parking impacts in 2020 would be similar to but slightly less than impacts of the No Action Alternative. As noted above, increased overall parking demand from future development would likely lead to increased competition for on-street parking resources. This trend would be gradual and occur in response to the amount of additional development in a particular area. However, given that the largest concentration of future development would occur in the Denny Triangle neighborhood, the increased competition would most strongly occur in the Denny Triangle and nearby surrounding areas. More specifically, the areas that will most be impacted by increased competition for on-street parking are the same three areas presented in Figure 2: north of Downtown bordered by 9th Ave., 6th Ave., Pine Street, and Denny Way; the area bordered by Lenora Street, Stewart Street, 5th Avenue and 1st Avenue; and a one-block area between 4th Ave. and 5th Avenue, bordered by Seneca and Spring Streets.

In addition, as future development occurs, some displacement of on-street parking resources would likely occur due to the need for garage access points and possibly additional commercial vehicle parking spaces or other specialized types of parking or curb uses.

C. Alternative 2 – Concentrated Office Core

While overall amounts of growth would be approximately the same under all alternatives, under Alternative 2 approximately 5 percent fewer existing off-street parking spaces would be displaced, and new development would likely affect a slightly lower number of blocks. This could mean less potential for disruption of existing on-street parking, and slightly less additional competition for on-street parking resources than under the No Action Alternative.

Off-Street Parking

Future residential and employment growth throughout the study area would increase overall demand for parking. Table 4 compares predicted parking supply and demand conditions in 2020 for all of the alternatives. A detailed description of Table 4 is provided at the beginning of the Impacts section of this memorandum. Demand is estimated for a baseline 2020 condition, as well as a TDM-intensive condition (to estimate how parking demand could be reduced if the new developments instituted strong TDM programs). Parking supply estimates in Table 4 assume that minimum parking requirements for commercial uses would be met, and that residential development (which has no minimum parking requirement) would provide .63 parking spaces per residential unit⁷.

As shown in Table 4 under the section "Parking Spaces Added According to Current Code", the predicted amount of off-street parking supply provided with future development would be approximately 16,989 spaces. This includes about 12,178 office/retail parking spaces and about 4,811 residential spaces. Note that these estimates are conservative and developers may very well provide several thousand additional parking spaces. For example, this assumes .63 parking spaces per residential unit (based on the most current census data available for vehicle ownership per household in Downtown Seattle), but many developers may provide more

⁷ The value .63 is a low estimate based on 1990 census data for auto ownership per household in downtown Seattle census tracts. In reality, developers may instead provide each unit with a parking space. So this estimate of parking provided may be conservatively low.

parking than this. If it were to be assumed that developers provided one parking space per residential unit, the amount of parking provided would increase by about 2,800.

Table 4 estimates parking demand assuming moderate TDM, and more aggressive TDM. The 2020 demand estimate assuming moderate TDM is 23,752 spaces, while the estimate assuming more aggressive TDM is 19,534 spaces. This suggests that the demand for parking may exceed the minimum provided by 2,500 to 6,700 spaces. While this may at first seem significant, it is important to point out that the parking minimums indicated are just that — minimums. Developers may provide more parking than the minimum required if market conditions warrant it. In addition, it is not unusual for parking to be severely restricted in downtown areas. The most typical result is an increase in parking prices.

Table 4 also presents off-street parking that would be displaced under the section “Parking Lost Due to Development.” Future development under Alternative 2 would displace approximately 7,137 existing off-street parking spaces, of which approximately one-half would be from existing stand-alone public parking lots/garages and one-half would be from other land uses that have parking lots associated with them, but whose primary function is other than parking.⁸ The new developments will provide some of their own parking, so the truly “displaced” parking might only be considered those developments that displace facilities that are currently stand-alone public parking garages or lots.

Most of the off-street parking displaced (from stand-alone public parking lots and garages) is concentrated into three areas Downtown, which are shown in Figure 2. These three areas represent about 76 percent of the 3,481 off-street parking spaces from garages/lots displaced by the new development. Area 1 is the north area of Downtown bordered by 9th Ave., 6th Ave., Pine Street, and Denny Way. Area two is just south of this area, bordered by Lenora Street, Stewart Street, 5th Avenue and 1st Avenue. Area three is a one-block area between 4th Ave. and 5th Avenue, bordered by Seneca and Spring Streets. As shown in Table 5, in Area 1 (between 9th Avenue and 6th Avenue, from Pine Street to Denny Way), about 1,639 parking spaces from lots and garages will be lost to development. This is an area where parking is currently more available and less expensive than in the heart of the business area of Downtown, which is located further south. In Area 2 (from Lenora Street to Stewart Street, between 5th Avenue and 1st Avenue), about 309 parking spaces from lots or garages will be lost to new development. In Area 3 (a one square block between 4th Ave. and 5th Avenue, bordered by Seneca and Spring Streets), a 700 space parking garage will be displaced due to new development. This is in an area that is already expensive to park and few parking spaces available.

The consequences of parking demand unmet by off-street parking supply would be increased demand for other off-street and on-street parking resources. It is likely there would be increased competition for on-street parking in a greater portion of the study area, and increased prices for off-street parking. This decrease in parking availability and increase in parking costs may impact businesses, primarily in the three areas indicated above. The degree to which

⁸ Determination of current parking (whether parking is part of another land use or a stand-alone garage or lot) was determined by data received from the City of Seattle (20years_4.xls). It was assumed that parcels whose primary use are considered Public Parking Commercial Lot (Code 180) or Public Parking Garage (Code 182) are parking garages/lots. It was assumed that parcels whose primary land use was other than one of these two had parking included as part of the development, but the primary function wasn't parking.

these businesses could be impacted, however, cannot be fully addressed within the scope of this study.

The City could consider adjusting its parking minimums to increase the supply of parking that will be provided as redevelopment occurs. However, one important potential impact of a tighter parking supply is the increased use of alternative modes of transportation — which is consistent with the City's long-range goals. Therefore, the City may want to maintain the existing minimum parking standards in order to help encourage the use of alternative modes in the future.

On-Street Parking

Alternative 2's predicted on-street parking impacts in 2020 would be similar to but slightly less than impacts of the No Action Alternative. As noted above, increased overall parking demand from future development would likely lead to increased competition for on-street parking resources. This trend would be gradual and occur in response to the amount of additional development in a particular area. However, given that the largest concentration of future development would occur in the Denny Triangle neighborhood, the increased competition would most strongly occur in the Denny Triangle and nearby surrounding areas. More specifically, the areas that will most be impacted by increased competition for on-street parking are the same three areas presented in Figure 2: north of Downtown bordered by 9th Ave., 6th Ave., Pine Street, and Denny Way; the area bordered by Lenora Street, Stewart Street, 5th Avenue and 1st Avenue; and a one-block area between 4th Ave. and 5th Avenue, bordered by Seneca and Spring Streets.

In addition, as future development occurs, some displacement of on-street parking resources would likely occur due to the need for garage access points and possibly additional commercial vehicle parking spaces or other specialized types of parking or curb uses.

D. Alternative 3 – Residential Emphasis

Alternative 3's predicted parking impacts in 2020 would be similar to but slightly less than impacts of the No Action Alternative. While overall amounts of growth would be approximately the same under all alternatives, approximately 3 percent fewer existing off-street parking spaces would be displaced, and new development would likely affect a slightly lower number of blocks. This could mean less potential for disruption of existing on-street parking, and slightly less additional competition for on-street parking resources than under the No Action Alternative.

Off-Street Parking

Future residential and employment growth throughout the study area would increase overall demand for parking. Table 4 compares predicted parking supply and demand conditions in 2020 for all of the alternatives. A detailed description of Table 4 is provided at the beginning of the Impacts section of this memorandum. Demand is estimated for a baseline 2020 condition, as well as a TDM-intensive condition (to estimate how parking demand could be reduced if the new developments instituted strong TDM programs). Parking supply estimates in Table 4 assume that minimum parking requirements for commercial uses would be met, and that

residential development (which has no minimum parking requirement) would provide .63 parking spaces per residential unit⁹.

As shown in Table 4 under the section “Parking Spaces Added According to Current Code”, the predicted amount of off-street parking supply provided with future development would be approximately 16,897 spaces. This includes about 12,201 office/retail parking spaces and about 4,696 residential spaces. Note that these estimates are conservative and developers may very well provide several thousand additional parking spaces. For example, this assumes .63 parking spaces per residential unit (based on the most current census data available for vehicle ownership per household in Downtown Seattle), but many developers may provide more parking than this. If it were to be assumed that developers provided one parking space per residential unit, the amount of parking provided would increase by about 2,800.

Table 4 estimates parking demand assuming moderate TDM, and more aggressive TDM. The 2020 demand estimate assuming moderate TDM is 23,678 spaces, while the estimate assuming more aggressive TDM is 19,451 spaces. This suggests that the demand for parking may exceed the minimum provided by 2,500 to 6,800 spaces. While this may at first seem significant, it is important to point out that the parking minimums indicated are just that — minimums. Developers may provide more parking than the minimum required if market conditions warrant it. In addition, it is not unusual for parking to be severely restricted in downtown areas. The most typical result is an increase in parking prices.

Table 4 also presents off-street parking that would be displaced under the section “Parking Lost Due to Development.” Future development under Alternative 3 would displace approximately 7,317 existing off-street parking spaces, of which approximately one-half would be from existing stand-alone public parking lots/garages and one-half would be from other land uses that have parking lots associated with them, but whose primary function is other than parking.¹⁰ The new developments will provide some of their own parking, so the truly “displaced” parking might only be considered those developments that displace facilities that are currently stand-alone public parking garages or lots.

Most of the off-street parking displaced (from stand-alone public parking lots and garages) is concentrated into three areas Downtown, which are shown in Figure 2. These three areas represent about 77 percent of the 3,661 off-street parking spaces from garages/lots displaced by the new development. Area 1 is the north area of Downtown bordered by 9th Ave., 6th Ave., Pine Street, and Denny Way. Area two is just south of this area, bordered by Lenora Street, Stewart Street, 5th Avenue and 1st Avenue. Area three is a one-block area between 4th Ave. and 5th Avenue, bordered by Seneca and Spring Streets. As shown in Table 5, in Area 1 (between 9th Avenue and 6th Avenue, from Pine Street to Denny Way), about 1,819 parking spaces from lots and garages will be lost to development. This is an area where parking is currently more available and less expensive than in the heart of the business area of Downtown,

⁹ The value .63 is a low estimate based on 1990 census data for auto ownership per household in downtown Seattle census tracts. In reality, developers may instead provide each unit with a parking space. So this estimate of parking provided may be conservatively low.

¹⁰ Determination of current parking (whether parking is part of another land use or a stand-alone garage or lot) was determined by data received from the City of Seattle (20years_4.xls). It was assumed that parcels whose primary use are considered Public Parking Commercial Lot (Code 180) or Public Parking Garage (Code 182) are parking garages/lots. It was assumed that parcels whose primary land use was other than one of these two had parking included as part of the development, but the primary function wasn't parking.

which is located further south. In Area 2 (from Lenora Street to Stewart Street, between 5th Avenue and 1st Avenue), about 309 parking spaces from lots or garages will be lost to new development. In Area 3 (a one square block between 4th Ave. and 5th Avenue, bordered by Seneca and Spring Streets), a 700 space parking garage will be displaced due to new development. This is in an area that is already expensive to park and few parking spaces available.

The consequences of parking demand unmet by off-street parking supply would be increased demand for other off-street and on-street parking resources. It is likely there would be increased competition for on-street parking in a greater portion of the study area, and increased prices for off-street parking. This decrease in parking availability and increase in parking costs may impact businesses, primarily in the three areas indicated above. The degree to which these businesses could be impacted, however, cannot be fully addressed within the scope of this study.

The City could consider adjusting its parking minimums to increase the supply of parking that will be provided as redevelopment occurs. However, one important potential impact of a tighter parking supply is the increased use of alternative modes of transportation — which is consistent with the City's long-range goals. Therefore, the City may want to maintain the existing minimum parking standards in order to help encourage the use of alternative modes in the future.

On-Street Parking

Alternative 3's predicted on-street parking impacts in 2020 would be similar to but slightly less than impacts of the No Action Alternative. As noted above, increased overall parking demand from future development would likely lead to increased competition for on-street parking resources. This trend would be gradual and occur in response to the amount of additional development in a particular area. However, given that the largest concentration of future development would occur in the Denny Triangle neighborhood, the increased competition would most strongly occur in the Denny Triangle and nearby surrounding areas. More specifically, the areas that will most be impacted by increased competition for on-street parking are the same three areas presented in Figure 2: north of Downtown bordered by 9th Ave., 6th Ave., Pine Street, and Denny Way; the area bordered by Lenora Street, Stewart Street, 5th Avenue and 1st Avenue; and a one-block area between 4th Ave. and 5th Avenue, bordered by Seneca and Spring Streets.

In addition, as future development occurs, some displacement of on-street parking resources would likely occur due to the need for garage access points and possibly additional commercial vehicle parking spaces or other specialized types of parking or curb uses.

III. MITIGATION STRATEGIES

Mitigation strategies for all alternatives would be similar, and would include strong TDM programs at the new development sites. These TDM programs could include considerable transit fare subsidies, such as included in the Flex Pass Program. Potential impacts of the mitigation strategies are presented in Table 4 in the section titled "2020 Potential Mitigation Impacts of TDM Supportive Measures." For this analysis, mode share from two data sources was compared: data from the *WSDOT CTR Task Force 2001 Report to the Legislature* for Downtown Seattle (for employers impacted by CTR legislation), and King County mode share information for a sample of Flex Pass Customers. The WSDOT CTR Task Force data is presumed to represent mode share for a "standard" TDM program, while the King County data is assumed to represent mode share for a more extensive TDM program. For all Downtown CTR-affected employers, vehicle trips per 100 employees were approximately 33, while for Flex Pass customers it was approximately 26. This difference was then applied to the Regional Model mode share in 2020 for all Downtown employees of 31 vehicle trips per 100 employees to estimate impacts of TDM mitigation. This method indicated 24 vehicle trips per 100 employees. As shown in Table 4, TDM mitigation can reduce demand for parking by about 22 percent.

Mitigating parking impacts is complicated, and the parking demand estimated using the assumptions described above does not fully mitigate parking impacts for any of the alternatives. However, market influences may help to balance the demand for parking with supply. As the parking supply becomes tighter, parking prices may increase. This in turn may lead to an increase in the supply of parking, as providing parking becomes more profitable.

Table 6
Mode Share Used to Estimate Mitigation Impacts

	2001	2000/2001
	All Downtown CTR Employers*	TDM Aggressive (Flex Pass) Customers**
Bus	51%	59%
Drive Alone	26%	21%
Carpool/Vanpool	15%	10%
Non-Motorized	8%	9%
Veh. Trips Per 100 Employees***	33	26

*Source: *WSDOT CTR Task Force 2001 Report to the Legislature, P. 7.*

**Source: *King County, Handout from Oct. 18, 2001 Parking/TDM at Convention Place Meeting.*

*** Assumes 2.1 Vehicle Occupancy in Carpools/Vanpools

APPENDIX

Mode Share Assumption Used to Predict Vehicle Trips Per Employee

Daily Person/Transit Trips to/from Work from Regional Model - Seattle CBD		
	Daily Person Trips to /from work 1998	Daily Person Trips to /from work 2020
Daily Transit	96,002	176,906
SOV	106,087	80,148
HOV	12,038	32,902
Daily Total Persons	214,127	289,955
<i>Auto vehicles per person</i>	<i>0.52</i>	<i>0.31</i>

*Assumes 2.1 occupants per HOV in 1998, and 3.2 in 2020.

Appendix P

Relationship to Transportation & Utilities Plans & Policies

APPENDIX P

RELATIONSHIP TO TRANSPORTATION AND UTILITIES PLANS AND POLICIES

This appendix provides summarized discussion of the relationship of the proposed alternatives to the plans and policies affecting transportation and utilities in the City of Seattle.

TRANSPORTATION PLANS AND POLICIES

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
PUGET SOUND REGIONAL COUNCIL: ADOPTED MULTICOUNTY FRAMEWORK GOALS AND POLICIES				
<p><i>Transportation:</i></p> <p>RT-8 Develop a transportation system that emphasizes accessibility, includes a variety of mobility options, and enables the efficient movement of people, goods and freight, and information.</p>	L			<p>The alternatives would increase development capacity within Seattle's Downtown Urban Center, an area with the greatest accessibility to various transportation options. This is generally consistent with regional transportation system objectives because it would tend to increase efficiencies. Examples of efficiencies include probable reduced dependence on the automobile for Downtown residents, shorter average commute trips, greater use of transit and non-motorized travel choices, and lesser per capita contributions to air, water and noise pollution. However, to remain in a functional state over the long-term future, the street, freeway, rail and transit systems must be adequately maintained and multimodal opportunities expanded to maintain accessibility and flow for people, goods and freight.</p>
<p><i>Adopted Multicounty Transportation Policies</i></p> <p><u>Optimize and Manage the Use of Transportation Facilities and Services</u></p> <p>RT-8.1 Develop and maintain efficient, balanced, multimodal transportation systems which provide connections between urban centers and link centers with surrounding communities by:</p> <ul style="list-style-type: none"> Offering a variety of options to single-occupant vehicle travel. Facilitating convenient connections and transfers between travel modes. Promoting transportation and land use improvements that support localized trip-making between and within communities. Supporting the efficient movement of freight and goods. 	L			<p>See the response to RT-8 above.</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p><u>Manage Travel Demand Addressing Traffic Congestion and Environmental Objectives</u></p> <p>RT-8.11 Promote demand management and education programs that shift travel demand to non-single-occupant vehicle travel modes and to off-peak travel periods, and reduce the need for new capital investment in surface, marine and air transportation.</p> <p>RT-8.14 Emphasize transportation investments that provide alternatives to single-occupant vehicle travel to and within urban centers and along corridors connecting centers.</p> <p><u>Focus Transportation Investments Supporting Transit and Pedestrian-Oriented Land Use Patterns</u></p> <p>RT-8.17 Integrate land use and transportation solutions that offer the best opportunity to reduce air pollution, conserve energy, and protect the natural environment.</p> <p>RT-8.20 Encourage a mix of land uses and densities at major transit access points to meet passenger needs and offer an opportunity to reduce vehicle trips.</p> <p><u>Ability of transportation facilities and programs to retain existing and attract new jobs and private investment to accommodate growth in demand</u></p> <p>RE-7.12 Maintain and enhance the economic viability of centers and compact communities by improving accessibility to commercial and retail sector activities and promoting circulation of goods and people.</p>	<p>£</p> <p>£</p> <p>£</p> <p>£</p> <p>£</p>			<p>Transportation Demand Management programs using several techniques will continue to be a part of overall strategies to deal with traffic congestion.</p> <p>Providing for additional residential development and employment growth in an Urban Center with several transit options is preferable to supporting lower-density growth in suburban areas that would generate more overall need for transportation improvements.</p> <p>Providing for greater development capacity within the Downtown Urban Center can be interpreted as a land use strategy that helps result in fewer vehicle miles traveled on the regional road network, compared to more typical patterns of suburbanized development in peripheral locations. This would have complementary benefits in terms of air pollutants released, energy expended, and natural environment impacted by vehicle traffic and road system expansion. This is recognized by the already-adopted transfer of development credits (TDC) strategy used by King County and the City of Seattle.</p> <p>The alternatives would be consistent with this policy because additional development capacity at or near major transit access points Downtown would allow more people to live near transit stations and use transit rather than automobiles.</p> <p>The alternatives would enhance the economic viability of the Downtown Urban Center by allowing for greater employment and development capacity and increasing the number of people living near commercial/retail activities Downtown. See the Transportation section for further discussion of impacts and mitigation strategies addressing congestion.</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
PUGET SOUND REGIONAL COUNCIL: DESTINATION 2030				
<p><i>Destination 2030</i> is a comprehensive transportation action plan and a coordinated strategy for the next 30 years of growth in the Seattle metropolitan area counties. It lays out a program for addressing transportation problems by investing in more roads, transit service, better traffic management, and improved linkages between land use and transportation. Further, it establishes investment principles that emphasize intergovernmental coordination. It expands upon the regional vision previously expressed in <i>Vision 2020</i> and supports growth management efforts and concepts.</p> <p><i>Destination 2030</i> focuses first upon maintaining, preserving and managing the existing public investment in the transportation system. The plan focuses next on ensuring that the region continues to develop a balanced transportation system that includes choices for private vehicles, public transit, ridesharing, walking, biking and various freight modes. It provides a blueprint for achieving these objectives through investments in a transportation system that serves and supports the regional vision.</p> <p>Implementation actions seek to: complete the regional roadway systems, invest in vehicle trip reduction programs, develop traveler information and management technology, expand transit services including ferries, and invest in non-motorized transportation features.</p> <p><i>Destination 2030</i> describes how to more specifically link land use and transportation planning, and clarify growth management policies and strategies. The continued development and support of centers is a core component of the region's growth strategy. The urban centers strategy was devised to achieve multiple goals, including the creation of an efficient transportation system that supports travel options by all modes and maximizes benefits of system investments. Transit and non-motorized travel modes can reduce the number and length of auto trips and are generally supported by higher concentrations of development and activity.</p> <p>New <i>Destination 2030</i> strategies build on the</p>	£			<p>The alternatives are generally congruent with the objectives of <i>Destination 2030</i> in supporting a greater amount of future growth within urban centers, supporting greater accessibility to transit options and non-motorized modes, reducing dependence upon automobiles, and lessening relative impacts of commuting on regional transportation systems. The responses to other policies in this section further describe the alternatives' relationship to transportation goals and policies.</p> <p>Further transportation planning will be needed over the long term to ensure that the best investments are made to maintain and expand transit and other transportation systems, as well as accommodation of pedestrians and bicyclists.</p> <p>Under any of the alternatives, future Downtown development is expected to be congruent with the recommendations of <i>Destination 2030</i> with respect to physical design guidelines, characteristics of urban centers/concentrated development, and best practices/tools. In a sense, the proposal for zone changes represents a type of best practice or tool for focusing growth in an urban center. However, an accompanying principle is that the future condition should be viable in terms of traffic operations. See the Transportation section of this EIS for further discussion of impacts and mitigation strategies.</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
relationship between land use and transportation presented in Vision 2020 and the 1995 Metropolitan Transportation Plan policies. Three broad groups of actions that address the character of growth have been included in <i>Destination 2030</i> to better articulate this relationship. These are: 1) physical design guidelines; 2) characteristics of urban centers and concentrated development; and 3) best practices and tools. The physical design guidelines are intended to advance fundamental design principles and site development characteristics to support land use and transportation. They include as a partial list: mixing of complementary land uses, compact growth, linking neighborhoods and pedestrian routes, locating public uses near high-capacity transit stations in urban centers, and managing parking supplies. "Characteristics of urban centers" refers to developing urban centers into compact communities in a manner commensurate with their prominence. "Best practices and tools" refers to additional tools such as regulatory reforms, financial incentives and development strategies that can leverage local planning to focus and expedite growth in targeted areas.				
KING COUNTY GROWTH MANAGEMENT PLANNING COUNCIL: COUNTYWIDE PLANNING POLICIES				
<p>LU-44 To encourage transit use, jurisdictions should establish mechanisms to limit the use of single-occupancy vehicles for commuting purposes. Such mechanisms could include charging for long-term single-occupancy vehicle parking and/or limiting the number of off-street parking spaces for each Urban Center; establishing minimum and maximum parking requirements that limit the use of the single-occupant vehicle; and developing coordinated plans that incorporate Commuter Trip Reduction guidelines. All plans for Urban Centers shall encourage bicycle travel and pedestrian movement.</p> <p>LU-45 Jurisdictions' comprehensive plans for Urban Centers shall demonstrate compliance with the Urban Centers criteria. In order to promote urban growth within Centers, the Urban Center plan shall establish strategies which:</p> <ul style="list-style-type: none"> a. Support pedestrian mobility, bicycle use and transit use; b. Achieve a target housing density and mix of use; c. Provide a wide range of capital 	<p>£</p> <p>£</p>			<p>Existing regulations address commute trip reduction measures, parking, bicycle and pedestrian accommodations. The alternatives generally would encourage residential growth that is less dependent upon automobiles and more accessible to transit and other non-motorized modes of travel.</p> <p>The City's Comprehensive Plan addresses topics in this policy. The alternatives would further improve the Downtown Urban Center's ability to accommodate residential and commercial growth over the long-term and reach targeted housing densities.</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>improvement projects, such as street improvements, schools, parks and open space, public art and community facilities.</p> <p>LU-46 The system of Urban Centers shall form the land use foundation for a regional high-capacity transit system. Urban Centers should receive very high priority for the location of high-capacity transit stations and/or transit centers.</p> <p>Transportation Transportation Policies</p> <p>FW-18 The land use pattern shall be supported by a balanced transportation system which provides for a variety of mobility options. This system shall be cooperatively planned, financed and constructed. Mobility options shall include a high-capacity transit system which links the Urban Centers and is supported by an extensive high-occupancy vehicle system, local community transit system for circulation within the Centers and to the non-center Urban Areas, and non-motorized travel options.</p> <p>FW-19 All jurisdictions in the County, in cooperation with METRO, the Metropolitan Planning Organization, and the State, shall develop a balanced transportation system and coordinated financing strategies and land use plan which implement regional mobility and reinforce the Countywide vision. Vision 2020 Regional Growth Strategies shall be recognized as the framework for creating a regional system of Centers linked by high-capacity transit and an interconnected system of freeway high-occupancy vehicle lanes, and supported by a transit system.</p> <p>T-1 The Countywide transportation system shall promote the mobility of people and goods and shall be a multi-modal system based on regional priorities consistent with adopted land use plans. The transportation system shall include the following:</p> <ol style="list-style-type: none"> An aggressive transit system, including high-capacity transit; High-occupancy vehicle facilities; Freight railroad networks; Marine transportation facilities and navigable waterways; Airports; Transportation Demand Management actions; 	<p>£</p> <p>£</p> <p>£</p> <p>£</p>			<p>The alternatives would encourage growth in the Downtown Urban Center in a manner generally supportive of a high-capacity transit system.</p> <p>See the responses to all of the transportation policies above.</p> <p>See the responses to all of the transportation policies above.</p> <p>See the responses to all of the transportation policies above.</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>g. Non-motorized facilities; and h. Freeways, highways, and arterials.</p> <p>Freeways/Highways/Arterials T-8 In order to maintain regional mobility, a balanced multi-modal transportation system shall be planned that includes freeway, highway and arterial improvements by making existing roads more efficient. These improvements should help alleviate existing traffic congestion problems, enhance high-occupancy vehicle and transit operations, and provide access to new desired growth areas, as identified in adopted land use plans. General capacity improvements promoting only single-occupant vehicle traffic shall be a lower priority. Transportation plans should consider the following mobility options/needs: a. Arterial high-occupancy vehicle treatments; b. Driveway access management for principal arterials within the Urban Growth Area; and c. Improvements needed for access to Manufacturing and Industrial Centers, marine and air terminals.</p> <p>T-13 Level-of-service standards shall vary by differing levels of development patterns and growth management objectives. Lower arterial standards, tolerating more congestion shall be established for Urban Centers. Transit level-of-service standards may focus on higher service levels in and between Centers and decrease as population and employment densities decrease.</p>	<p>£</p> <p>£</p>	<p>£ ?</p>		<p>See the responses to all of the transportation policies above.</p> <p>See the Transportation section for further discussion.</p>
SEATTLE'S COMPREHENSIVE PLAN: TOWARD A SUSTAINABLE SEATTLE				
<p>Transportation Element Summary: The Transportation Element addresses ten topics: environmental stewardship; changing and managing travel demand and travel behavior; land use and transportation; use of streets; level of service; parking; transit and public transportation; pedestrians and bicycles; moving goods and services; and transportation financing.</p> <p>Environmental Stewardship These policies seek to improve environmental quality, promote energy-efficient transportation, and reduce or mitigate air, water and noise pollution from motor vehicles.</p>	<p>£</p>			<p>Accommodating a greater amount of commercial and residential growth within the Downtown Urban Center would promote energy efficiencies in public and private transportation compared to a more typical metropolitan/suburban growth pattern. Examples of efficiencies include</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p><u>Changing and Managing Travel</u></p> <p>These policies seek a range of viable transportation alternatives (including transit, bicycling and walking) in a balanced transportation system that meets mobility needs while reducing dependence on the automobile over time.</p>	£			<p>probable reduced dependence on the automobile for Downtown residents, shorter average commute trips, greater use of transit and non-motorized travel choices, and lesser per capita contributions to air, water and noise pollution.</p> <p>A greater amount of residential growth within Downtown would encourage use of non-automobile travel modes and less dependence on automobiles, particularly for commute trips. Most of the Downtown is more accessible to transit service than outlying areas that would otherwise accept this residential growth.</p>
<p><u>Land Use and Transportation</u></p> <p>These policies seek to ensure that land use and transportation decisions, strategies and investments are coordinated, complementary, and support the urban village strategy.</p>	£			<p>Increases in residential and commercial density would be consistent with the intent of the urban village strategy and Downtown's Urban Center role. The policies promote a mix of complementary neighborhood businesses and services in urban villages, and provision of adequate transportation facilities and services. All of the alternatives would influence the mix of uses developed in Downtown areas.</p>
<p><u>Use of Streets</u></p> <p>These policies seek to make the best use of the City's street capacity, with adequate capacity for transit uses and efficient freight and goods movement. They also support a shift toward non-single-occupant vehicle modes, and protection of neighborhood streets from through traffic.</p>	£			<p>Under all alternatives, future growth will contribute to greater traffic activity on Downtown streets and other parts of the local and regional road network. This may affect overall efficiency in portions of the road network and pose greater challenges for maintaining efficient transit and freight/goods movement. See the Transportation section of this EIS for further discussion.</p>
<p><u>Level of Service</u></p> <p>These policies define standards for measuring the performance of the street and transit system, using level of service measures. For several screenlines, levels of service are calculated using vehicle-to-capacity (v/c) ratios for peak hours. The LOS standard is a v/c ratio of 1.0 or 1.2.</p>	£			<p>See the Transportation section of this EIS for further discussion.</p>
<p><u>Transit and Public Transportation</u></p> <p>These policies seek to provide mobility through public transportation for the greatest number of people to the greatest number of destinations, and to increase transit ridership to help reduce environmental degradation. Service should be available within ¼ mile of</p>	£			<p>Future development in the affected Downtown areas would generally be closer to more public transportation choices than development in other parts of the city. However, there may be some gaps (geographically or time-of-day) in transit</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>most residences and businesses, and there should be an integrated system with several types.</p> <p><u>Pedestrians and Bicycles</u> These policies seek to increase walking and bicycling, and create safe, desirable and convenient environments conducive to those activities.</p> <p><u>Moving Goods and Services</u> These policies seek to improve commercial transportation mobility and access, and maintain Seattle as a hub for regional and international goods movement.</p> <p><u>Transportation Financing</u> These policies describe the general orientation of transportation financing priorities.</p> <p><i>Downtown Urban Center Goals and Policies</i> <u>Regional Transit Access</u> Policy DT-TP1 Recognize the critical role that high capacity transit corridors play, including the transit tunnel, in supporting the distribution of development density and the movement of goods and people within and through Downtown. Seek to improve the system, through actions by the City, with Sound Transit and King County [Transit], that:</p>	<p>£</p> <p>£</p> <p>£</p> <p>£</p>	<p>£</p> <p>£</p>		<p>service availability that could be improved over the long term. Additional development density in these and other areas would generate potential rider populations that might support additional transit service.</p> <p>Additional residential density in the affected Downtown areas would generally encourage more people to walk and bicycle as viable alternatives to automobile travel. Future development would help provide improvements to sidewalks and pedestrian amenities to better accommodate these choices.</p> <p>The designated major truck streets essentially avoid the area affected by this proposal. The nearest such streets include Alaskan Way, Mercer St., Broad St., SR-99 and I-5. However, trucks do use Downtown streets for deliveries to Downtown businesses. The policy to consider access and mobility needs for goods delivery/ collection at local businesses is relevant, and should be considered in future development patterns.</p> <p>With future development, the transportation network would be used more intensively and accommodate a greater number of person trips via transit, pedestrian and bicycle modes. This would increase the overall efficiency of network use. However, some portions of the transportation network may experience increased impacts of congestion under the alternatives. Overall needs for transportation investment would likely increase for the Downtown street network, for additional maintenance and potentially for capital improvements, to best accommodate traffic of all types.</p> <p>Accommodating additional residential growth in areas relatively near transit stations and routes would tend to contribute to transit accessibility and efficiencies. Transit travel times would likely increase through Denny Triangle commuting corridors, unless mitigation strategies are implemented.</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>Provide capacity to meet forecast transit growth through the year 2014; Reduce travel time by transit; Reduce transit rider crowding on sidewalks; Reduce diesel bus noise and odor; and Provide an attractive and pleasant street environment for the pedestrian and transit rider.</p> <p><u>Transit Circulation</u></p> <p>Policy DT-TP2 Improve and expand the street level elements of the regional transit system to provide the primary mode of vehicular travel among Downtown activities. Integrate the system with transit tunnel, the pedestrian circulation network, peripheral parking facilities and other modes of travel to Downtown including the ferry system, intercity bus and intercity rail.</p> <p><u>Vehicular Access and Circulation Improvements</u></p> <p>Policy DT-TP4 Promote the efficiency of the regional highway system and major arterials within Downtown for vehicular access and circulation. Discourage through traffic within Downtown's residential and shopping areas as well as those surrounding Downtown. Facilitate the smooth flow of peak-hour traffic on Downtown streets providing access to the regional highway network.</p> <p>Support projects intended to improve access to and local circulation within Downtown, taking into account other Downtown goals and policies.</p> <p><u>Commercial Core Goals and Policies</u></p> <p>Policy COM-P8 Seek to improve the cleanliness and safety of streets and public spaces.</p> <p>Policy COM-P9 Seek to improve the pedestrian qualities of streets and public spaces.</p> <p>Policy COM-P10 Seek to enhance pedestrian connections between the Commercial Core and other neighborhoods.</p> <p>Policy COM-P11 Work with transit providers to promote convenient transit and public access to and through the Commercial Core.</p>	<p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p>	<p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p>	<p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p> <p>Ⓛ</p>	<p>Same response as above.</p> <p>See other responses to transportation policies above, and the Transportation section of this EIS for further discussion.</p> <p>See the Urban Design and Transportation sections of this EIS for further discussion.</p> <p>Same response as above.</p> <p>Same response as above.</p> <p>Accommodating additional residential growth in areas relatively near transit stations and routes would tend to contribute to transit accessibility and efficiencies. See the Transportation section of this EIS for</p>

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>Policy COM-P12 Seek opportunities to improve mobility throughout the Commercial Core.</p> <p>Denny Triangle Goals and Policies</p> <p>Transportation</p> <p>Goal DEN-G4 Reduce external transportation impacts while improving internal access and circulation.</p> <p>Policy DEN-P14 Encourage the integration of Westlake Avenue into the neighborhood physically, aesthetically, and operationally, while maintaining its arterial functions.</p> <p>Policy DEN-P15 Use partnerships with transit providers to improve the basic transit route structure, system access and connectivity to better serve the neighborhood.</p> <p>Policy DEN-P16 Seek ways to improve safety and convenience of bicycle travel within and through the neighborhood.</p> <p>Policy DEN-P17 Explore ways to improve pedestrian safety and convenience along and across the arterials in the neighborhood.</p> <p>Policy DEN-P18 Consider development of traffic improvement plans to lessen the impact of regional automobile traffic on the Denny Triangle neighborhood.</p>	<p>ⓧ</p> <p>ⓧ</p> <p>ⓧ</p> <p>ⓧ</p> <p>ⓧ</p> <p>ⓧ</p> <p>ⓧ</p>	<p>ⓧ</p> <p>ⓧ</p> <p>ⓧ</p> <p>ⓧ</p> <p>ⓧ</p> <p>ⓧ</p> <p>ⓧ</p>	<p></p> <p></p> <p></p> <p></p> <p></p> <p></p> <p></p>	<p>further discussion.</p> <p>Same response as above.</p> <p>See the Transportation section of this EIS for further discussion.</p> <p>Future development under any of the alternatives may help encourage improvements to Westlake Boulevard.</p> <p>See the Transportation section of this EIS for further discussion.</p> <p>The proposals do not address bicycle safety. Future development under any zoning will generate additional traffic and challenges for bicycle travel, including in the Denny Triangle.</p> <p>The proposals do not address pedestrian safety. Future development under any zoning will generate additional pedestrian traffic and pedestrian safety challenges, including in the Denny Triangle.</p> <p>This EIS contains an extensive transportation analysis, as well as possible mitigation strategies to deal with traffic impacts. However, additional planning will be required over the long term to determine practical and effective improvements for the Denny Triangle area.</p>

PARKING PLANS AND POLICIES

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
SEATTLE'S COMPREHENSIVE PLAN: TOWARD A SUSTAINABLE SEATTLE				
<i>Transportation Element</i> <u>Parking</u> These policies seek to provide enough parking for economic viability of commercial areas while discouraging commuting by single-occupant vehicles. The policies also seek to make the best use of the City's limited street space, a balance among competing uses, and protection of neighborhoods from overflow parking.	£			Future development in affected areas would convert existing parking lots, and include on-site parking, primarily to serve on-site users. Future development would also likely contribute to greater use of on-street parking resources. See the Parking section of this EIS.
<i>Downtown Urban Center Goals & Policies</i> <u>Parking</u> Through a variety of actions, seek to provide an adequate supply of parking to meet forecast needs, balanced with incentives to encourage the use of transit, vanpools, carpools and bicycles as alternatives to commuting by auto. In this balancing, generally maintain tighter restrictions on parking serving low-occupancy auto commuters who add to peak period traffic congestion, while allowing more flexibility for parking associated with trips for non-peak activities, such as shopping.	£			See the Parking section of this EIS for further discussion.

CAPITAL FACILITIES AND UTILITIES

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
SEATTLE'S COMPREHENSIVE PLAN: TOWARD A SUSTAINABLE SEATTLE				
<i>Capital Facilities and Utilities Elements</i> The Capital Facilities policies (which do not address transportation facilities or utilities) seek efficient provision of capital facilities in a manner consistent with the Comprehensive Plan vision and urban village strategy. Facilities investments should be made in a way that supports the urban village strategy, and emphasizes maintenance of existing facilities, attractiveness to users and sustainability/resource-efficiency.	£			Additional residential development in the affected Downtown areas would increase overall demand for facilities such as recreational open space, clinics, community centers, libraries and schools. The denser development pattern may increase the efficiency of providing these services, but would also increase demands on service providers with limited budgets.
The Utilities policies seek to assure reliable service that is efficiently used by customers, and is consistent with the City's environmental stewardship, social equity and economic development goals. Also, they seek to	£			Reliable service, efficiency, environmental stewardship, social equity and support of economic development are ongoing principles of the City's utility operations. Future growth under any of the alternatives

Plan/Policy	Consist.	Neutral	Not Consist.	Alternatives' Relationship to Plans/Policies
<p>minimize the cost and public inconvenience of trenching activities in roads and rights-of-way. The most relevant topics discussed in the Utility Element are:</p> <p>Utility Service</p> <p>State law generally requires utilities to serve all customers requesting service. However, the City can consider financial mechanisms to recover from future development the costs of new City utility facilities and, where appropriate, new utility resources necessitated by such service.</p> <p>Utility Infrastructure</p> <p>The City seeks to maintain the reliability of the utility infrastructure as its first capital expenditure priority. Providing for critical maintenance and remedying existing deficiencies in the utility systems are also important.</p> <p>Environmental Stewardship</p> <p>Promote environmental stewardship through: efficient use of resources; cost-effective demand-side management to meet City utility resource needs; consideration of environmental impacts and costs in acquisition of new resources; waste-reduction and recycling; correction of combined sewer overflows; and cooperation with King County.</p>	<p>£</p> <p>£</p> <p>£</p>			<p>may generate the need for improvements to some of the City's Downtown infrastructure. See the Energy and Water/Sewer Utility sections of this EIS.</p> <p>The City will continue to serve customers requesting utility service. Future growth may require location-specific improvements to some utility facilities, costs of which could be recovered from individual developments.</p> <p>The alternatives would not result in significant impacts on water and sewer utility infrastructure. Energy infrastructure will require investments, already anticipated by City Light, to prudently expand overall capacity and maintain reliability. See the Energy section of this EIS.</p> <p>The utilities consider these factors in their ongoing operations. Concentrating growth within the Downtown Urban Center would result in a more efficient and environmentally protective pattern of regional growth.</p>

Appendix Q

Glossary

APPENDIX Q

GLOSSARY

Population and Employment, Housing and Land Use Terminology

Absorption. Absorption compares the amount of office space newly built and/or demolished to the amount of space newly occupied and/or vacated. Typically, a gain in market absorption represents space that is now leased, that was not previously leased. Negative absorption indicates that space that was leased is now vacant.

Affordable Monthly Rents. An affordable monthly rent is defined as housing costs equal to 30% of Monthly Income. Affordable rents are calculated assuming 1.5 persons per bedroom. For example, a two-bedroom unit is assumed to have 3 persons. A zero bedroom unit is expected to have one person.

Base FAR. In Downtown Seattle, the base FAR is the FAR (floor area ratio) permitted as of right without mitigation of the impacts of that development through the use of the City's bonus or TDR programs.

Bonus. Also called Public Benefit Feature. Bonuses are amenities, uses, and other features of benefit to the public in Downtown zones, which are provided by a developer and which can qualify for an increase in floor area above a base FAR. Examples include public open space, pedestrian improvements, housing, and provision of human services. Often, bonuses are provided on-site by a developer, although cash payments or off-site improvements are sometimes permitted.

Built-out. A built-out area refers to an area where all the sites are occupied by development and no additional buildings would be permitted under the zoning. A built-out area has no more room for development.

Covered Employment. Covered employment counts jobs that are covered by the Washington State Employment Security Department (ESD). According to ESD, "covered" employment excludes "the self-employed, full-commissioned sales workers, employees of religious organizations, elected and appointed officials, some student employees and some agricultural workers" ("Annual Demographic Information", <http://www.wa.gov/esd/lmea/pubs/adi/glossary.htm>)

Development Capacity. Development capacity represents the amount of new development that can be accommodated in an area under existing constraints, including zoning, existing development, etc. It is intended to provide a reasonable real estate estimate of total future development.

Downtown Mixed Commercial (DMC). Downtown Mixed Commercial Zones provide a transition in the level of activity and scale of development between high density office core zones and less intensive neighborhoods within and adjacent to Downtown. The zone encourages a mix of uses, including housing and other activities that do not contribute substantially to peak hour traffic. The zone currently is mapped on the periphery of the office and retail core zones, including the western edge of the Commercial Core, the southern and eastern edges of Belltown, and the northern edges of the Denny Triangle.

Downtown Mixed Residential/Commercial (DMR/C). The Downtown Mixed Residential/Commercial Zone applies to Downtown areas where concentrations of housing are to be encouraged, while also allowing limited commercial development to accommodate modest employment growth.

Downtown Office Core 1 (DOC 1). The Downtown Office Core 1 Zone accommodates the greatest intensity of office development Downtown in areas with superior access to transit to encourage use of transit for work commute trips.

Downtown Office Core 2 (DOC 2). The Downtown Office Core 2 Zone accommodates the expansion of the office core in areas that are similarly well served by transit, while also providing scale and density transitions with adjacent areas.

Family. According to the U.S. Census Bureau, a family is a group of two or more people related by birth, marriage, or adoption and residing together. A family household is a household maintained by a householder who is in a family and includes any unrelated people (unrelated subfamily member and/or secondary individuals) who may be residing there.

Floor Area Ratio (FAR). The floor area ratio is a ratio expressing the relationship between the amount of gross floor area permitted in a structure and the area of the lot on which the structure is located. For example, if the floor area ratio (FAR) is 10, and the lot area is 20,000 square feet, the permitted floor area in a structure located on that lot would be 200,000 square feet (10 x 20,000 square feet = 200,000 square feet). In Downtown zoning, FAR limits only apply to chargeable floor area; the floor area occupied by certain uses, including residential use, is not included as chargeable floor area in FAR calculations.

Household. A household includes all the people who occupy a housing unit as their usual place of residence.

Housing Unit. A house, an apartment, a mobile home or trailer, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants live separately from any other individuals in the building and which have direct access from outside the building or through a common hall.

Maximum Floor Area Ratio (FAR). In Downtown zoning, the maximum FAR is the limit on the total amount of chargeable floor area permitted on a site, and includes the base FAR and all additional floor area that can be gained through the use of floor area bonuses and the transfer of development rights (TDR).

Median Area Income (MAI). The median income of all households in King County. Half of the households in King County have an income higher than the MAI and half of the households in King County have incomes lower than the MAI.

Room. The U.S. Census Bureau counts living rooms, dining rooms, kitchens, bedrooms, finished recreation rooms, enclosed porches suitable for year-round use and lodgers' rooms. Strip and Pullman kitchens and bedrooms, among other types of rooms, are excluded from room counts.

Transfer of Development Credit (TDC). The Transfer of Development (TDC) program applies to zones in the Denny Triangle. Under this program, residential and mixed-use developments can add floor area above current height limits by purchasing development rights to preserve rural land in King County and funding public amenities in the Denny Triangle neighborhood.

Transfer of Development Rights (TDR). The transfer of development rights is a mechanism that allows a property owner to sell unused development rights on a site (the "sending" site) to another property owner seeking to increase the development potential on another site (the "receiving" site). In Downtown zoning, eligible sending sites include sites occupied by structures with housing affordable to lower-income households or designated landmark structures, sites dedicated for public open space use, and, in

limited areas, sites occupied by small-scale structures located on the same block as the receiving site. The development potential of a site is established by the zoning.

For the sending site, the development rights available to transfer, or the amount of floor area that can be sold, is based on the total development potential of the site minus whatever amount of development potential is already "used" by the existing structure on the site. For example if the development potential on the site totals 50,000 square feet, and the floor area of the existing structure on the site is 20,000 square feet, then up to 30,000 square feet can be sold and transferred to a receiving site. The zoning also determines which sites are eligible to receive development rights, and the amount of additional floor area that can be added through such transfers.

Transportation and Parking Terminology

Baseline Condition. Generally refers to conditions that would occur in 2020 if zone changes were not made—equivalent to the Alternative 4 No Action condition.

Bus-minutes of delay. Refers to the total amount of delay incurred by several buses using a route or crossing a particular street.

Commute Trip Reduction (CTR). Refers to a State requirement that employers with 100 or more employees participate in programs to promote greater use of alternative transportation modes, such as transit and carpools.

FlexPass. A King County Metro program that promotes a wide range of alternative transportation modes. Employers of all sizes can participate in the program, to encourage or incentivize different travel choices by employees.

Layover. Designated curbside locations near origins of bus routes where buses idle before commencing on routes.

Level of Service (LOS). A measure defined by the Highway Capacity Manual that ranges from excellent conditions (LOS A) to overloaded conditions (LOS F). Average vehicle delay for LOS A is 10 seconds or less, and for LOS F is greater than 80 seconds. The Arterial Level of Service Standard designated by the City is an areawide volume-to-capacity ratio measured against all the arterials crossing certain specifically-defined screenlines.

Mode share. Refers to the share of total trips that are made by a particular mode of transportation, such as automobile, bus, ferry or bicycle. The mode share assumptions help determine how many vehicle trips have origins or destinations in a particular area.

Multimodal. Refers to an overall condition where several transportation modes are available and supported. Can include consideration of freight (truck, rail, and ship) modes.

Peak hours. Refers to the 60-minute periods during which the greatest volumes are present in a given location or road system, often distinguished as morning and evening (AM and PM) peak hours.

Person-trips. Refers to a single trip from one place to another, by a person.

Principal Use Parking. Parking in lots or garages where parking is the primary or only land use. In contrast, "accessory parking" refers to parking that serves another use that is the primary use of a given property.

Queuing. Refers to persistent traffic backups at an intersection for a given lane or direction of travel.

Screenline. An imaginary line defined to measure traffic volumes and capacities on multiple streets carrying traffic in the same general direction.

Short-term parking. Refers to parking for shorter periods, such as 30 minutes, 1 hour, 2 hours or more, but less than 8 hours.

Single-occupant-vehicles (SOV). Automobiles driven by one person, typically a major component of commuting traffic.

Transportation Demand Management (TDM). Refers to numerous programs or strategies intended to increase transportation efficiency by encouraging alternative methods of transportation that are more efficient than single-occupant-vehicle travel. Through greater use of bus, carpool and other high-capacity transit modes, person-trips can be accommodated within fewer vehicle-trips.

Transportation Network. A general term referring to the collective network of streets, highways and other transportation systems.

Travel times. Refers to the average time needed to travel a given distance within a street corridor.

Volume-to-capacity ratio (V/C ratio). A numerical ratio that compares traffic volumes on a given street or screenline to the calculated capacity of a street or streets to accommodate traffic. A v/c ratio of 1.0 represents 100% use of calculated capacity, although in operation, volumes can exceed the calculated capacity due to factors such as closer spacing of vehicles.

Utility Terminology

ASHRAE/IESNA. American Society of Heating, Refrigerating and Air-Conditioning Engineers and the Illuminating Energy Society of North America

Capital Improvement Plan (CIP). A plan for future physical improvements to a system.

Combined sanitary/stormwater sewers. Sewer systems that handle both stormwater and sanitary sewage in the same pipes.

Combined sewer overflows (CSOs). These are events where high rainfalls in short periods cause an overflow of stormwater and untreated sanitary sewage to ground surfaces and/or bodies of water. Improvements over time are reducing the likelihood and the impacts of CSOs on water quality.

Feeder. A type of electrical line within the Downtown network.

Fire flow. The volume and pressure of water available within water systems to provide fire protection in emergency situations.

Gallons per minute (gpm). A measure of flow rate, used for water, sewer and drainage planning purposes.

Green Buildings. A phrase describing buildings that incorporate environmentally friendly features, such as energy-efficient lighting, heating or cooling, recycled products, or many other positive features.

Gravity flow. Refers to utility systems where water or sewer volumes move through the system due to the forces of gravity (e.g., due to slopes of pipes or topography).

Impervious surfaces. Hard surfaces, such as concrete and building roofs, that do not allow absorption of rain or stormwater, thereby creating runoff.

Infrastructure. General term referring to utility and road systems and other manmade features that provide functions to city dwellers.

KwH. Kilowatt-hour. A measure of electricity used.

LEED. Abbreviation for Leadership in Energy and Environmental Design. Refers to a rating system for building design that evaluates a design's effectiveness in including energy-efficient and environmentally friendly features.

Load. Refers to the amount of electricity demanded by system users.

MW. Megawatt. One megawatt is equivalent to one million watts.

MVA. Megavolt-amperes. A measure of electrical capacity.

Peak stormwater flow. Refers to the maximum volumes of stormwater generated by a particular storm event. Such storm events may be designated according to their length and how frequently a storm of that intensity is likely to occur (such as a "2-year/1-hour storm").

Pounds per square inch (psi). A measure of water pressure.

SPU. Seattle Public Utilities.

Transformers. Equipment that transforms electricity from higher power levels to lower power levels.

Transmission lines. Electrical lines that transmit power over long distances.

Vaults. General term for a subsurface chamber that holds or detains stormwater volumes. Often located on the site of new developments.

Wastewater. General term for sewage and stormwater flows.

Downtown Height and Density Changes

Final Environmental Impact Statement

January 2005

**City of Seattle
Department of Planning and
Development**



FINAL
ENVIRONMENTAL IMPACT STATEMENT
FOR
DOWNTOWN HEIGHT AND DENSITY CHANGES

January 2005

City of Seattle
Department of Planning and Development

Prepared in compliance with:
State Environmental Policy Act
Chapter 43.21, Revised Code of Washington
Chapter 197-11, Washington Administrative Code

PREFACE

Introduction

On May 3rd, 2001, the City of Seattle Strategic Planning Office issued a SEPA Determination of Significance (DS) for a proposal to change several existing zoning provisions for a portion of Downtown Seattle. This proposal originates from concepts expressed in the neighborhood plans for the Denny Triangle neighborhood and the Commercial Core, as well as the plan prepared by the Downtown Urban Center Planning Group (DUCPG). Numerous discussions between neighborhood stakeholders and City staff since 1999 have helped define a proposal that is being advanced for further discussion and decisionmaking.

FINAL EIS ORGANIZATION

This Final EIS is organized as follows: **Chapter 1** describes the newly defined Preferred Alternative that was developed since publication of the Draft EIS; **Chapter 2** provides a description of the four alternatives evaluated in the Draft EIS; **Chapter 3** provides discussion of several "key issues and findings" identified as a result of the Draft EIS analysis and commentary on it; **Chapter 4** contains a summary of impacts and mitigation measures (reproducing and expanding upon Chapter 1 of the Draft EIS) that includes new analysis of impacts for the Preferred Alternative; and **Chapter 5** which contains responses to public comments received on the Draft EIS. A transcript of public spoken comments from two meetings and responses to those comments is included in Appendix A.

SEPA NON-PROJECT REVIEW

Pursuant to the State's SEPA requirements, this environmental impact statement has been prepared to examine the potential for environmental impacts from this proposal. This is a "non-project" proposal in that it involves decisions on policies, plans or regulations rather than a single site-specific project. In this case, the proposal is for changes to regulations in the Land Use Code. The analysis is intended to describe how the proposed regulatory changes would affect future long-term development patterns, and whether those changes would result in significant adverse impacts. The intent of this EIS is to provide substantive analysis of impact implications (at a programmatic level of detail), to aid in making final decisions on the proposal.

The State's SEPA rules and handbook provide for flexibility in the content and formatting of environmental review for non-project proposals, because details about the proposal are typically limited. Topics that should be addressed include: background, objectives, existing conditions, description of the proposal and alternatives, and environmental impact analysis. The level of analysis should be consistent with the specificity of the proposal and available information.

Broad analyses of non-project proposals can facilitate "phased review" by addressing bigger-picture concerns and allowing review of future proposals to focus on a smaller range of more specific concerns. This means that future proposals in the study area could incorporate or refer to portions of this EIS to fulfill their SEPA requirements. This could increase the efficiency of environmental review and expedite permitting processes.

FACT SHEET

Project Title

Downtown Seattle Height and Density Changes

Nature and Location of Proposal

This Final EIS examines five alternatives that cover a range of possible actions for the City Council's consideration. Three of the alternatives (**Alternatives 1, 2 and 3**) consist of different combinations of increases in allowable maximum heights and densities (volumes) of buildings in several Downtown zones. A **"No Action" Alternative (Alternative 4)** is included to assess what is likely to occur over time under the current Land Use Code. The **Preferred Alternative** is a new alternative included in this Final EIS, to represent the Mayor's recommendation for changes to the Downtown zoning.

The area affected by the proposal includes portions of the Denny Triangle, Commercial Core and Belltown neighborhoods within Downtown, but does not include the retail core (zoned DRC), the International District, or Pioneer Square neighborhoods.

Alternative 1 (High End Height and Density Increase) would increase height and density provisions in portions of Downtown zoned Downtown Office Core 1 and 2 (DOC 1, DOC 2), and Downtown Mixed Commercial (DMC). The proposed density changes would increase allowable densities by 3 or 4 FAR (floor area ratio), equivalent to three or four times the property area of a given site. Within the affected area, maximum heights under Alternative 1 would increase by up to:

- 135 feet in the central DOC 1 zone;
- 100 feet in all of the northern DOC 2 and DMC zones in the Denny Triangle;
- 40 and 48 feet (approximately 30 percent increase) in the central DMC zones along 1st Avenue between Pike and Virginia Streets, and in the Western Avenue vicinity, respectively; and
- 72 feet (30 percent increase) in the southern DOC 2 zone, and the DMC zone along 1st Avenue between Union and Columbia, adjacent to the central office core.

Alternatives 2 and 3 consist of height and density increases in fewer areas or lesser amounts of change. Alternative 2 (Concentrated Office Core) would limit changes to the Downtown Office Core zones. Alternative 3 (Residential Emphasis) would increase height and density in most of the office core zones, but would re-orient zoning in some areas to better encourage housing production.

The **Preferred Alternative** would increase densities in the DOC 1 and much of the DOC 2 office core to levels comparable to Alternative 1, and would increase densities in fewer of the DMC zones. It would also increase maximum heights in several of these zones to a higher level than defined in Alternative 1, with highest height limits oriented to

developments including housing. New controls on building bulk would also be adopted to encourage slimmer building profiles.

Proponent	City of Seattle
Lead Agency	City of Seattle Department of Planning and Development 700 Fifth Avenue, Suite 2000 Seattle, WA 98104-5070
Responsible Official	Diane Sugimura
Date of Implementation	The City Council anticipates making decisions on this proposal in 2005.
Contact Person	Dennis Meier City of Seattle Dept. of Planning and Development 700 Fifth Avenue, Suite 2000 Seattle, WA 98104-5070 206-684-8270
Required Approvals	Actions on the proposal will require approval by the City Council.
EIS Authors and Principal Contributors	<p>Primary author, EIS coordination City of Seattle Dept. of Planning and Development staff: Dennis Meier, Gordon Clowers, Lish Whitson</p> <p>Real Estate/Economic consultants Craig Kinzer & Associates The Seneca Group Cushman & Wakefield Heartland</p> <p>Transportation consultant Parsons Brinckerhoff Quade & Douglas, Inc.</p> <p>Urban Design consultant Otak, Inc.</p>
Location of Background Data	City of Seattle Dept. of Planning and Development 700 Fifth Avenue, Suite 2000 Seattle, WA 98104-5070
FEIS Date of Issuance	January 6, 2005
Nature and Date of Final Action	The City Council is expected to take action in 2005 on the proposal to amend the allowable heights and densities within portions of Downtown.
Availability of Final EIS	Copies of the Final EIS are available for public review at several branches of the Seattle Public Library. Interested parties may obtain copies of the Final EIS at DPD, 20 th floor Key Tower, 700 Fifth Avenue.

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ELEMENTS OF THE ENVIRONMENT

Earth	Not Reviewed
Air Quality.....	Not Reviewed
Water	Not Reviewed
Plants and Animals	Not Reviewed
Energy	Reviewed
Natural Resources.....	Not Reviewed
Environmental Health—Noise	Not Reviewed
Environmental Health—Toxic/hazardous materials	Not Reviewed
Environmental Health—Risk of Explosion.....	Not Reviewed
Land Use.....	Reviewed
Height/Bulk/Scale	Reviewed
Housing	Reviewed
Population and Employment	Reviewed
Historic Preservation	Reviewed
Light and Glare.....	Not Reviewed
Public View Protection.....	Reviewed
Transportation	Reviewed
Parking	Reviewed
Fire/Emergency Protection.....	Not Reviewed
Police Protection.....	Not Reviewed
Schools	Not Reviewed
Parks and Recreation	Not Reviewed
Water Supply	Reviewed
Stormwater Utilities	Reviewed
Sewer	Reviewed
Solid Waste.....	Not Reviewed
Maintenance	Not Reviewed
Communications	Not Reviewed
Other Governmental Services/utilities	Not Reviewed
Shadows on Open Spaces	Reviewed

Chapter One

Description of the Preferred Alternative

CHAPTER ONE

DESCRIPTION OF THE PREFERRED ALTERNATIVE

Overview

Public policies and regulations promote multiple objectives for Downtown Seattle and govern the patterns of land use and development in complex ways. The City's policies promote both employment and residential purposes in Downtown, with priorities that include a dense office core, an active retail core, areas with mixed uses and some areas, such as Belltown, that are primarily oriented to residential development. Zoned height and density limits set a "building envelope" within which future development can occur. City policies support transitions that step down the zoning in intensity from the most intensive office core areas to the less-intensive peripheral areas of Downtown.

The regulatory environment is further layered by bonus provisions that require certain levels of performance in addressing impacts (such as the effects of new development on the need for affordable housing and social services) in order to reach the highest levels of permissible heights and densities. The ability to transfer development rights (TDR) is another feature of the Downtown zoning that affords some flexibility in obtaining development rights from other properties, often to promote public objectives such as historic preservation.

Given the multiple objectives that pertain to commercial/employment growth and residential growth Downtown (along with various urban design and functional objectives), changes in zoning must be carefully conceived to maintain a rational system that does not create unintended consequences. Regulations that would unduly restrict Downtown development or make it economically unfeasible are not the intent of City policy.

Analysis for the EIS has confirmed that there is considerable potential for accommodating future growth Downtown. The Preferred Alternative will help shape that growth in ways that will create better environments, whether oriented to commercial uses, residential uses or both.

New Preferred Alternative

Following publication of the Draft EIS, the Mayor's Office and DPD developed a new Preferred Alternative that is distinct from the other Alternatives studied in the Draft EIS (see Figure 1). This Preferred Alternative is informed by findings of the Draft EIS, public response to the Draft EIS, comprehensive and neighborhood planning principles, and additional analyses of financial feasibility and building bulk controls. It is meant to be a balanced zoning solution that will encourage continued employment growth in the core of Downtown while also ensuring sufficient capacity for future residential growth. This will encourage the further evolution of an active, round-the-clock, safe and vital environment for living that is essential to the Mayor's vision for Downtown and the "Center City."

The following information describes the key objectives of the Preferred Alternative and key actions that will help fulfill those objectives.

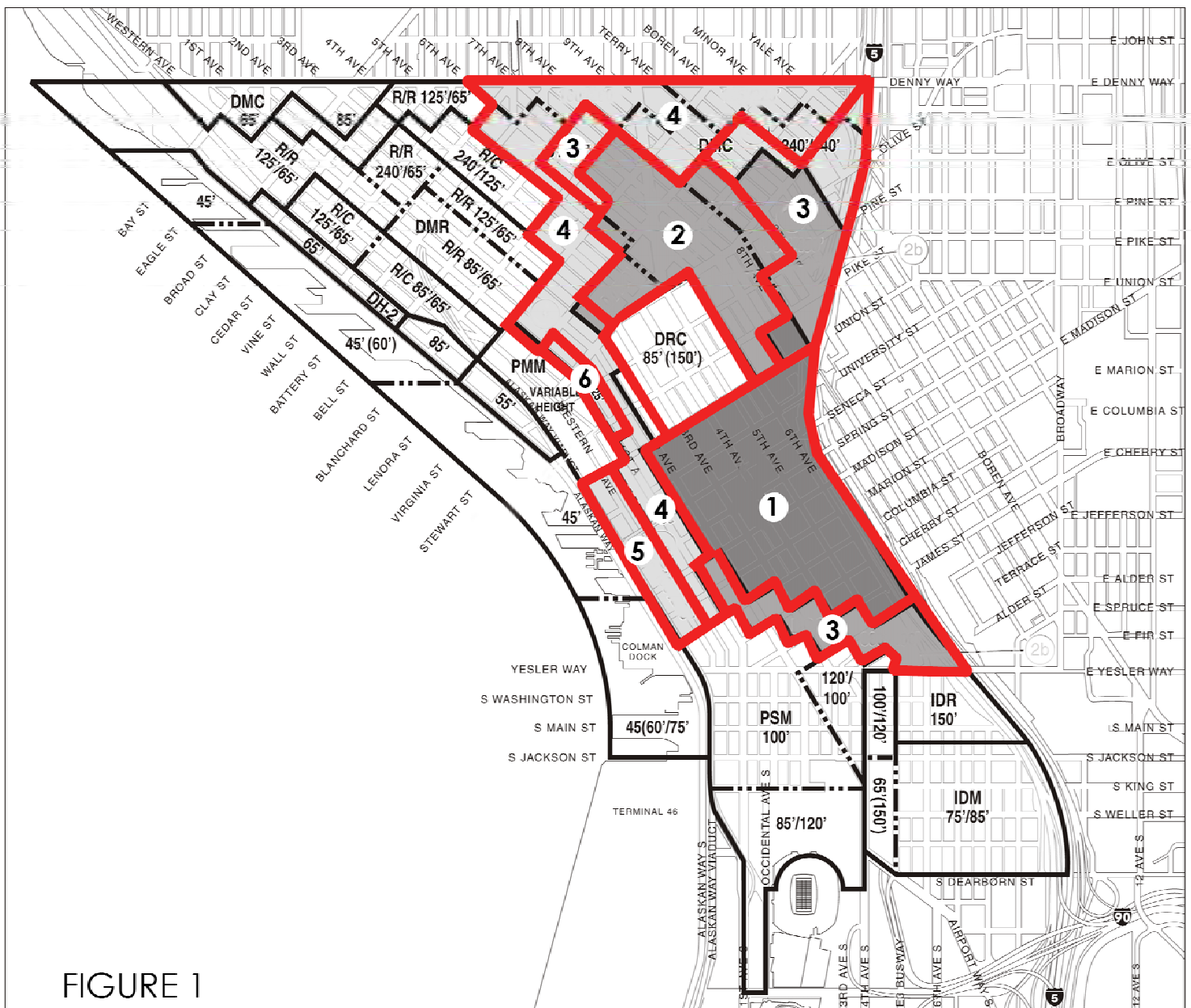


FIGURE 1

Preferred Alternative

1 OFFICE CORE

- increase maximum FAR from 14 to 17
- increase height limit from 450'/540' to 700'

2 OFFICE CORE EXPANSION AREA

- increase maximum FAR from 10 to 14
- increase height from 300'/360' to 600'

3 DMC 340/400

- increase heights to 340' for commercial and 400' for residential and mixed use projects
- increase maximum FAR from 7 to 10 in DMC areas

4 DMC 240/400

- 240' height limit for commercial and 400' for residential and mixed use projects
- maintain existing maximum FAR of 7

Note: Two half-blocks between Pine and Union Sts. on Second Avenue have been included in the study area for this Final EIS.

5 DMC 160/240

- increase height from 160' to 240' for residential and mixed use projects
- maintain existing maximum FAR of 7 and 160' height limit for commercial projects

6 DMC 125

- no change



0 2 4 6 8 10
SCALE IN 100 FEET

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Key Objectives of the Preferred Alternative

Key objectives of the Preferred Alternative and associated actions are summarized below:

1. Enhance opportunities for housing development to create a vital mixed-use Downtown environment, reduce sprawl in the region, and protect the city's existing residential neighborhoods.

Key actions:

- Provide a height incentive for residential and mixed-use projects in DMC areas and some DOC 2 areas to be reclassified to the DMC zone. In most of these areas, the maximum height limit for residential/mixed-use structures would be 400 feet.
- Maintain existing height and density limits for commercial use in selected DMC areas where housing is to be emphasized to keep residential development a viable option.
- Increase commercial density limits in other selected areas (DOC 1, DOC 2 and some DMC areas) to concentrate commercial growth and prevent high-density commercial development from encroaching into housing areas.
- Establish commercial development rights transfer in DMC areas to create more opportunities for housing on sending sites.

2. Accommodate as broad a range of household incomes as possible

Key actions

- Establish provisions for affordable housing mitigation (generally workforce housing for households with incomes up to 80% of median income) in high-rise residential structures by allowing larger floorplates and additional floor area above a base height limit for projects contributing to the program.
- Eliminate the Denny Triangle Transfer of Development Credits program and replace it with a housing affordability incentive.
- Maximize commercial development's use of housing bonus/TDR programs by:
 1. maintaining the current base FAR limits in all zones and eliminating the option to gain the first FAR above the base FAR without participating in housing/childcare bonus/TDR programs;
 2. raising the maximum FAR limits in DOC 1, DOC 2 and some DMC areas, in areas where concentrated employment growth is desired, thereby increasing the amount of floor area gained through housing bonus/TDR programs; and
 3. eliminating options to reach the maximum FAR in DMC zones without participation in some action related to housing development or improving neighborhood character, such as using commercial TDR to create new residential sites, open space TDR, low-income housing TDR, landmark TDR, or contributing to the housing/child care bonus/TDR programs.

3. Maintain Downtown Seattle as the major regional employment center and concentrate employment growth where it can best be served by transit

Key actions

- Increase height and FAR for commercial projects in DOC 1, northern DOC 2, and DMC areas in the Denny Triangle on the edge of the office core, and retain existing limits elsewhere.
- Eliminate the commercial parking requirement to support transit use.

4. Help ensure that added height promotes less bulky development for both residential and non-residential projects

Key actions

- Establish bulk controls, including maximum average floorplate sizes and building width dimensions for residential development in DMC areas.

- Increase height substantially for commercial projects in areas where commercial FAR is increased to help prevent squat, bulky structures; replace current upper-level development standards with simpler, more flexible bulk controls.

5. Provide a transition in development intensity and scale between the office core and adjacent neighborhoods

Key Actions

- Create a DMC transition zone that includes some DOC 2 areas on the eastern and southern edges of the office core and some DMC 240 areas in the Denny Triangle to address transition with Capitol Hill, Pike/Pine, South Lake Union/Denny Park, and Pioneer Square.
- Maintain the current 125-foot height limit for all uses in the DMC zone along the eastern edge of Pike Place Market.
- Maintain “stepping down” of height along waterfront in the DMC zone west of Post Alley.

6. Promote historic preservation

Key Actions

- Raising maximum FAR limits in DOC 1, DOC 2 and some DMC areas and eliminating some of the bonus options that can now be used in the first FAR above the base FAR increases the amount of floor area that can be gained through landmark TDR; and
- Allowing the use of landmark TDR while limiting other options for increasing FAR above the base in other DMC zoned areas.
- Consider further measures, such as funding TDR bank established in 2001 for landmark preservation.

7. Simplify the Downtown Code

Key actions

- Eliminating complicated interim Code provisions that allow use of either new or old bonus/TDR programs
- Establishing simpler bulk controls
- Eliminating bonuses for features no longer contributing to priority public benefits
- Eliminating minimum parking requirements

The Preferred Alternative's overall approach is to update and reinforce the purposes of Downtown zoning through strategic changes that will:

- Accommodate continued job growth and concentrate employment in the core, where it can be best served by transit;
- meet Downtown housing objectives by providing additional incentives for residential and mixed-use development;
- provide sensible building bulk controls that promote improved building design and contribute to a positive urban environment;
- continue to provide for historic preservation and open space needs; and
- maintain a reasonable hierarchy and relationship among the Downtown zones that will be consistent with the intent of City's comprehensive and neighborhood planning.

The Preferred Alternative retains consistency with the policy directions of comprehensive and neighborhood planning while updating the zoning provisions to better direct future Downtown growth. The current emphasis on a dense office core, complemented by an active retail core, surrounded by mixed-use areas that transition to lower densities at the periphery is retained by the proposed zoning system. However, areas

intended for future office core development are more tightly defined, while areas intended for mixed uses, including residential development, are better clarified by the proposed zoning. Additionally, the proposed changes will provide more flexibility and space for better architectural design of buildings, which should encourage slimmer and better proportioned building forms. The net result of the proposed changes, then, will be a better pattern of growth in Downtown as a whole, as well as better-looking buildings.

Height and Density: Compared to Alternative 1, the Preferred Alternative defines higher height limits in several zones and similar increases in density within the office core, but also proposes no changes in density in some areas and lesser density increases than Alternative 1 in other areas (see Table 1 below). The proposed density limits in the DOC 1 and most of the DOC 2 office core zones would be 17 and 14 FAR, respectively, which would be increases of 3 and 4 FAR over the current limits (same as Alternative 1). This would help encourage infill development and efficient use of available sites within the portion of Downtown with the densest development pattern. These proposals also intended to enhance the use of development incentives by better integrating permitted development densities with the revisions to the bonus and transfer of development rights (TDR) programs adopted in 2001 as part of an early phase of zoning changes implementing Downtown neighborhood plans.

The approach supports a "grow-from-the-core" future development pattern that foresees expansion of the office core northward with a surrounding vicinity oriented to mixed commercial uses in DMC zones. In some of the DMC zones within the Denny Triangle, a denser pattern of employment growth (up to 10 FAR in density) will be accommodated by the proposed zoning. Additionally, some existing DOC 2 areas (in the northeastern corner of the Denny Triangle and along the southern edge of the office core near Yesler Way) will be reclassified to this DMC zone, retaining their current commercial FAR to maintain development intensities similar to existing conditions while providing a transition between the portions of the office core where commercial densities are proposed to be increased, and less-intensive adjacent neighborhoods. In other portions that extend around the northern and western edges of the office core, a DMC zone with unchanged maximum densities may encourage a more residentially-oriented mix of uses. In both versions of these DMC zones, a higher maximum height limit—generally 400 feet for residential and mixed-use development—may also encourage more future development of housing.

The Preferred Alternative's approach to height limits provides more flexibility to arrange building bulk into taller forms, particularly for residential and mixed-use development. In many of the DMC zones, the same amount of density allowed today could be designed within a taller building envelope that would extend up to 400 feet. In DMC zones where commercial densities would increase to 10 FAR, heights for non-residential structures would be increased to 340 feet, while in most other DMC zones the height limit for these structures would be 240 feet—an increase in areas within the Denny Triangle where the limit is currently 125 and 160 feet.

Near the waterfront, east of the Viaduct, height limits for the DMC zones would be raised from 160 to 240 feet for residential and mixed-use projects, while the current height and maximum density for commercial uses would be retained. This type of DMC zone would continue to provide for a stepdown in height and density in areas near Elliott Bay, as is currently the case. Also providing for a stepdown in height and density would be the existing DMC zone with a 125-foot height limit near the Pike Place Market, which would be retained with no changes.

**Table 1
Preferred Alternative**

ZONE	Base FAR (no change)	Existing Maximum FAR	Proposed Maximum FAR	Existing Height Limits	Proposed Height Limits
DOC 1 (commercial core)	6	14	17	450'/540'	700'
DOC 2 (west of 9th Ave)	5	10	14	300'/360'	600'
DOC 2 (east of 9th Ave)	Reclassified to DMC 340'/400'				
DOC 2 (southern edge of Commercial Core)	Reclassified to DMC 340'/400'				
DOC 2 (1/2 block west of 3rd Ave in Belltown)	Reclassified to DMC 240'/400'				
DMC 340/400 (includes about half the existing DMC 240 areas in Denny Triangle and DOC 2 areas east of 9 th Ave in Denny Triangle and southern edge of Commercial Core)	5	<i>7 in existing DMC areas</i> <i>10 in existing DOC 2 areas</i>	10	<i>240' in existing DMC areas (312' with TDC in Denny Triangle)</i> <i>240'/288' and 300'/330' in existing DOC 2 areas (390' for residential and mixed use with TDC in Denny Triangle)</i>	340' for commercial uses; 400' for residential and mixed use
DMC 240/400	5	7	7	<i>125', 160', 240' (162.5, 208', and 312' for residential and mixed use with TDC in Denny Triangle)</i>	240' for commercial uses; 400' for residential and mixed use
DMC 160/240 (Western edge of Commercial Core)	5	7	7	160'	160' for commercial; 240' for residential and mixed use
DMC 125 Pike Place Market	5	7	7	125'	125'

Note: All FAR increases above base FAR to maximum FAR gained through current bonus/TDR provisions with 75%-25% split between housing/child care and non-housing options. The exception is the DMC 240/400 zone, where the increase could be gained through use of commercial TDR, landmark TDR, low-income housing TDR, or open space TDR, or the 75%-25% split.

Bulk Controls: The approach to bulk controls in the Preferred Alternative is to set higher maximum height limits that will stretch the building envelope vertically, allowing for less bulky structures to accommodate the increases in maximum density. The length of facades that can extend uninterrupted along street edges area is also limited. For residential use, specific limits are set on the size of floors and maximum dimensions of facades, above prescribed elevations, to promote less bulky towers.

In general, under the Preferred Alternative, the increased densities proposed in the office core zones and higher height limits for residential and mixed-use projects are expected to result in fewer new structures overall relative to development under existing conditions and other alternatives, with the greatest concentration of larger structures in the DOC 1 zone in the Commercial Core and in the DOC 2 area between 6th and 9th Avenues and along the Olive Way/Pine Street corridor in the Denny Triangle. On larger development sites, allowing taller structures may require fewer structures, or at least fewer structures built to the maximum height allowed, to accommodate the permitted commercial density, potentially resulting in massing on the site that appears less compact, and with the taller portions of structures able to be sited more to the center of the site, rather than to be pushed out closer to the street edges.

Taller residential structures are expected to occur in the DMC 240/400 zone extending along the western edge of the Commercial Core and southern edge of Belltown, with additional tall residential structures appearing on the periphery of the Denny Triangle. With the greater height limits, there is more variation in the skyline profile under the Preferred Alternative compared to the “tabletop” profile that is expected under existing conditions.

Bonus/TDR Provisions: For the most part, the Preferred Alternative advances neighborhood plan proposals to provide for increases in maximum commercial density limits that would allow greater use of floor area bonus and transfer of development rights (TDR) programs that mitigate the impacts of new development by providing for such public benefits as affordable housing, child care, open space, landmark preservation and transit facilities. Incentives for affordable housing and other priority features are maximized by:

- proposing the highest maximum FARs analyzed in the Draft EIS for DOC 1, most of DOC 2, and some DMC areas;
- maintaining base FARs at their current levels in all zones;
- eliminating a provision in DOC 1 and DOC 2 zones that allows the first full FAR above the base FAR to be gained through non-housing related bonuses or TDR; and
- reducing the bonus options available in DMC zones consistent with neighborhood plan priorities.

For those DMC areas where the maximum FAR would be increased from 7 to 10, the current option to use a variety of non-housing related bonus and TDR options to gain all additional floor area above the base FAR to the maximum FAR would be replaced by the same provisions that would apply in DOC 1 and DOC 2 zones, which establish housing incentives as a priority.

Commercial development rights transfer, a new form of TDR, is introduced for DMC areas as an incentive to promote residential development. Sites in this zone that are committed to residential development can transfer their unused commercial development rights to sites in DMC areas where current density limits are maintained. In these DMC areas, incentives that promote housing, including the creation of housing sites through commercial TDR, or incentives that contribute to conditions supporting a residential environment, such as open space TDR or landmark TDR, would provide the means for gaining the floor area between the base and maximum FAR limits.

The Preferred Alternative also introduces a new proposal to provide height and bulk incentives for residential uses to contribute to affordable housing programs. Contributions to an affordable housing mitigation program would be required for a residential project to build to the maximum height and bulk allowed.

Rezoning: In order to carry out stated development objectives, the Preferred Alternative includes proposals for zoning reclassifications in several areas. These include:

- Portions of existing DOC 2 300' areas, primarily in the northeast corner of the Denny Triangle, and one block of DOC 1 in the Commercial Core (the Convention Center), and the DOC 2 240' area on the southern edge of the Commercial Core would be reclassified to DMC 340'/400'. The base and maximum FAR limits in this zone would be the same as they currently are in DOC 2. By maintaining these density limits, the area will continue to provide for a transition in the intensity of development between the office core, where maximum density limits are proposed to be increased, and less-intensive neighboring areas.
- A one-half block area currently zoned DOC 2 300' on the west side of Third Avenue between Stewart and Virginia Streets would be reclassified to DMC 240'/400'. This action would reduce the commercial density permitted, from the current maximum of 10 FAR to a maximum of 7 FAR, and the permitted height for a commercial project would be reduced from 300 feet to 240 feet. However, the height allowed for a residential or mixed-use building would be increased to 400 feet. This proposal is intended to accommodate a better transition between the office core to the east, where height and density limits are substantially increased, and the mixed-use corridor along Second Avenue.
- Two half-blocks along the eastern side of Second Avenue between Pine and Union Streets currently zoned Downtown Retail Core (DRC) are proposed to be reclassified to DMC 240'/400'. These half-blocks are currently covered by a special provision that allows a residential structure to exceed the current height limit of 150 feet by 30%, or up to 195 feet. The proposed reclassification to DMC would allow a residential structure to extend to 400 feet. Permitted densities for commercial uses would increase from the current maximum of 5 FAR to a new maximum of 7 FAR, and commercial structures would be subject to a 240-foot height limit. The proposal is intended to recognize changes in the shifting boundaries of the retail core, which has gravitated eastward, and to encourage redevelopment, especially with mixed-use and housing, along this edge. The proposed reclassification to DMC 240'/400' would also promote development that is compatible with what is allowed elsewhere along the Second Avenue corridor—much of which is currently zoned DMC 240' and under the Preferred Alternative is now proposed to be DMC 240'/400'.

Chapter Two

Description of Alternatives 1, 2, 3 & 4

CHAPTER TWO

DESCRIPTION OF ALTERNATIVES 1, 2, 3 and 4

Introduction

This EIS studies ~~three~~ five alternatives for ~~possible changes to~~ height and density regulations within portions of the Downtown Urban Center (including a newly-defined Preferred Alternative described in Chapter 1 of this Final EIS), ~~and a No Action Alternative~~. These changes, if adopted, would influence the maximum height and size of future building projects allowed in the Commercial Core, Denny Triangle and ~~on the an~~ edge of Belltown. ~~None of the alternatives have been chosen as a preferred alternative. Rather,~~ This EIS is intended to analyze the impact implications of alternative courses of action, for the benefit of decisionmakers, agencies and interested citizens.

OVERALL OBJECTIVES

The following are general objectives of the alternatives studied in this EIS.

- Designate adequate zoned development capacity in the Downtown Urban Center to encourage long-term residential and commercial growth and economic development in a manner consistent with Downtown's position as the largest urban center in the metropolitan area.
- Define regulatory requirements that will encourage development consistent with the City's Comprehensive Plan and neighborhood plans, and will support Downtown's vibrant urban character. Make changes that will aid in realizing a mix of low, moderate and market rate affordable housing throughout Downtown, particularly in areas intended to be "residential enclaves."
- Study possible changes to height and density regulations in selected Commercial Core (particularly Office Core zones), Denny Triangle and Belltown portions of Downtown.
- Determine how to best accommodate growth while maintaining a functional transportation system, including the street network, transit, and non-motorized modes of travel. Similarly, determine how to best accommodate growth while maintaining the function and capacity of utility systems, including but not limited to electrical energy, water, sewer and stormdrain systems.
- Achieve a high quality urban environment that can accommodate high-density development while ensuring livability and enhancing Downtown's positive existing characteristics.

All of the Alternatives analyzed provide sufficient development capacity to accommodate projected growth for the next 20 years and beyond, ~~of projected growth~~. The various actions proposed under any of the Alternatives are not expected to influence the amount of growth occurring in the affected area within this timeframe. The proposed changes may influence the distribution of growth within the study area and the character of development that accommodates it, and these conditions are analyzed in this EIS to help decisionmakers evaluate different approaches to managing the next 20 years of Downtown growth.

REGULATORY FRAMEWORK

The regulatory context of Downtown includes its Urban Center designation, the City's Comprehensive Plan (and relationship to State growth management requirements), neighborhood plans, land use policies, the Land Use Code and other procedural requirements such as master use permits and design review.

The City's **Comprehensive Plan**, "*Toward a Sustainable Seattle*," is a 20-year policy plan completed in 1994 that articulates a vision of how Seattle will grow. The Comprehensive Plan makes policy choices and provides a flexible framework for adapting to real conditions over time. The Comprehensive Plan emphasizes an "urban village" strategy seeking to promote and reinforce the pattern of residential and employment growth in larger urban centers and several smaller "urban village" neighborhood districts spread throughout the city. The Plan includes 20-year growth targets for the urban centers and villages. The Comprehensive Plan satisfies requirements of the State's Growth Management Act and fits within King County's framework of Countywide Planning Policies. The Urban Center designation for Downtown is part of the regional growth strategy outlined in the Countywide Planning Policies calling for the concentration of a significant share of the region's employment and housing growth within a limited number of urban centers linked together by high capacity transit. In addition, the City's Comprehensive Plan includes numerous **Land Use Policies** that help define the basis for the City's zoning and Land Use Code regulations.

Following adoption of the City's Comprehensive Plan, approximately 37 **neighborhood plans** were prepared through the Neighborhood Planning Office to address future conditions in subareas in and around urban centers and villages. Within Downtown, five neighborhood plans were prepared for Belltown, Denny Triangle, Commercial Core, Chinatown/International District, and Pioneer Square. Also, an overall plan addressing the entire Downtown Urban Center was prepared. The alternatives in this EIS include actions to implement recommendations included in these neighborhood plans.

The **Land Use Code** contains extensive land use and zoning regulations addressing the various zones within the City, including several distinct zones defined for Downtown. The Land Use Code defines numerous requirements for future development, such as setbacks, allowable heights and densities, and parking requirements to name a few. Applications for development are reviewed through the City's Master Use Permit (MUP) process, and often go through the "design review" process that provides for public input and City input on how a development is designed, with the intent of improving overall design quality.

Certain other land use regulatory concepts are defined within the Code, such as "transfer of development rights" (TDR), bonus features, and "transfer of development credits" (TDC). These are concepts that allow for some flexibility in the amount of development that can occur in different Downtown locations.

- ***TDRs*** allow transfer of unused portions of allowable density from one property to another. TDRs can help preserve desirable features such as landmark structures, affordable housing, and public open space that otherwise might be threatened by redevelopment.
- ***Bonus features*** allow additional height or density to be obtained if a developer provides features or amenities that have public benefit or offset impacts.
- ***TDC*** is a program that allows a developer to purchase development rights from rural lands in King County **and contribute to neighborhood amenities** to gain additional density in portions of Downtown, to aid in preservation of rural land and accommodate more residential growth in Downtown.

Several sections in **Draft EIS** Chapter 3 and selected appendices further discuss the alternatives' relationship to plans and policies.

BACKGROUND

The proposal to consider changes to zoned height and density arises from neighborhood plans for the Denny Triangle and Commercial Core neighborhoods, as well as the overall urban center plan prepared by the Downtown Urban Center Planning Group (DUCPG). These plans contain visions, goals, policies

and action recommendations to achieve the vision for future growth in the Downtown Urban Center. All of the plans include objectives of promoting vibrant, diverse mixed-use neighborhoods containing housing for households of all income ranges, as well as objectives for open space, urban design character, transportation and other matters. These plans recommend changes to zoning and land use regulations to promote their objectives.

The Commercial Core, Denny Triangle and DUCPG plans all included proposals for increasing the capacity of the Downtown area, intended to accommodate further employment and residential growth, stimulate residential development and provide resources for affordable housing. To implement these proposals, major revisions to the incentive zoning Downtown were recommended, including an overhaul of the bonus and TDR programs to reprioritize their focus on achieving housing goals. In the Commercial Core Plan, interim height and density increases through a "super bonus" were also proposed to capture opportunities for increasing development density and the use of incentives during the economic boom underway at the time. Permanent height increases were also proposed to promote less bulky development and achieve other urban design objectives. The Denny Triangle Plan included recommendations for permanent height and density increases for all zones in that neighborhood.

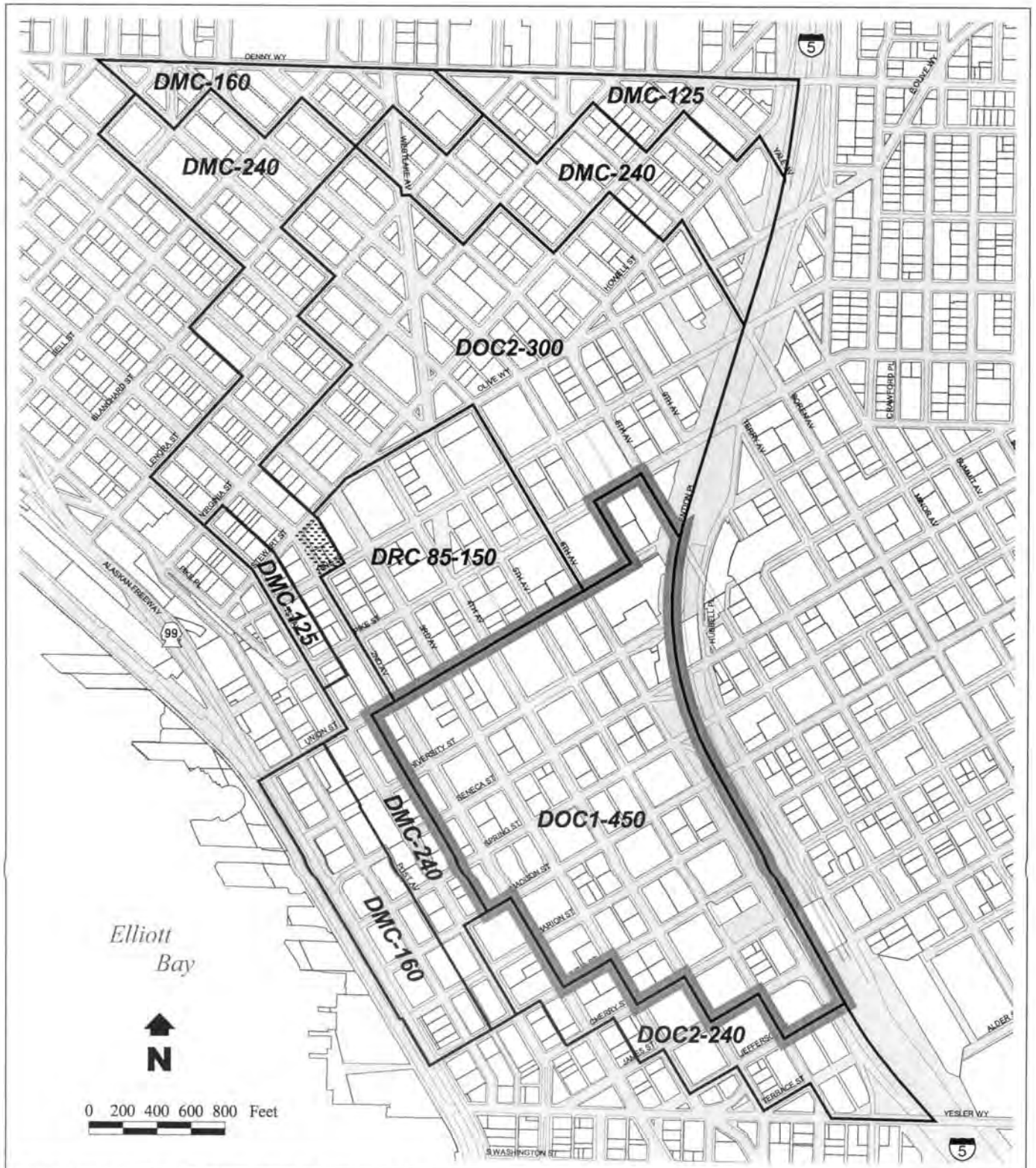
Immediately following the City Council's approval of the Downtown neighborhood plans in early 1999, a limited number of proposals were implemented through revisions to the Land Use Code, including:

- expanding the use of TDR to allow mixed-income structures including low- and low-moderate income housing to qualify as TDR sending sites;
- removing some density restrictions on residential use in the DOC 1 zone;
- rezoning portions of Pioneer Square and the northwest corner of the retail core to promote mixed use development; and
- amending the Pioneer Square Preservation District provisions to better promote neighborhood development objectives.

The locations where these changes apply are shown on Figure 2.

In November of 1999, the City enacted the Transfer of Development Credit (TDC) program in the Denny Triangle to allow height and density increases as an incentive for residential development. The TDC program allows up to a 30 percent increase above mapped height limits for residential and mixed-use projects that purchase conservation credits from rural properties in King County and contribute to an amenity credit fund for open space and Green Street improvements consistent with the Denny Triangle Neighborhood Plan. The program also establishes a partnership with King County for ongoing public investment in amenities in the area, in conjunction with the purchase of development credits by private developers. Also as part of the TDC legislation, an area of approximately 4.5 acres adjacent to the office core zoned Downtown Mixed Commercial 240 (DMC 240) was rezoned to Downtown Office Core 2 300' (DOC 2 300') to expand the office core and increase capacity for commercial development. Figure 3 shows the areas affected by these changes.

As part of the City's ongoing neighborhood plan implementation activities in 2000 and 2001, City staff met frequently with an advisory committee of Downtown stakeholders to discuss regulatory changes that would further support and foster the types of changes advocated by the neighborhood plans. As a result of this work, additional proposals for addressing height and density increases were recommended for further consideration. These proposals were documented in a report entitled, "City of Seattle TDR/Bonus Program Review Advisory Committee Recommendations," dated May 31, 2000.



CHANGES IMPLEMENTED FOLLOWING APPROVAL OF DUCPG PLAN February 1999

FIGURE 2

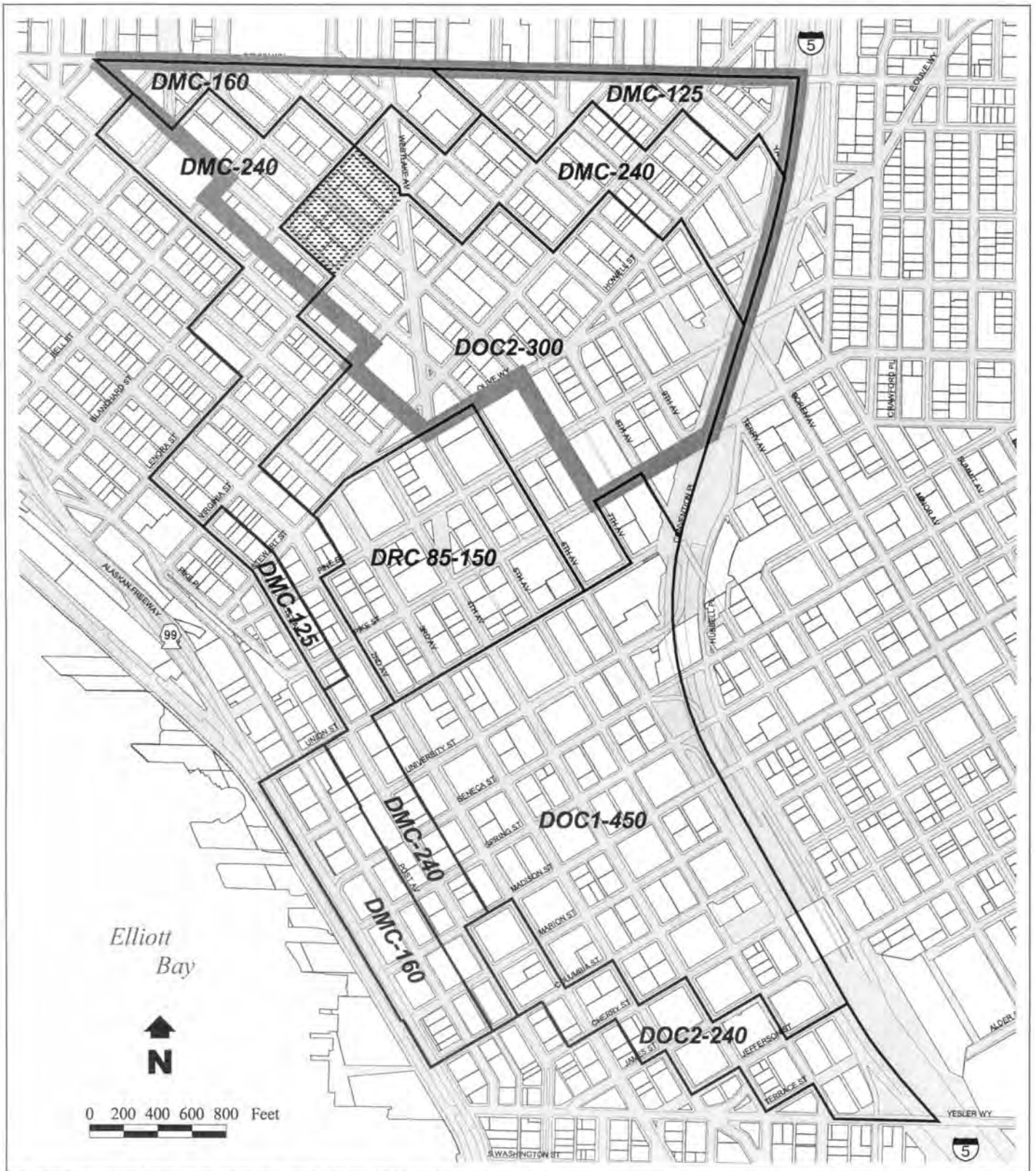
- Reduced Restrictions on Residential Density in DOC1
- Rezone Portion of Retail Core (DRC 85-150) to DMC-240

Note: Extend eligible TDR sending sites to include mixed income housing with units affordable to households with incomes up to 80% of median.

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City of Seattle
May 17, 2002

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**CHANGES IMPLEMENTED WITH ADOPTION OF
TRANSFER OF DEVELOPMENT CREDIT (TDC) PROGRAM
November 1999**

FIGURE 3

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City of Seattle
May 17, 2002

- Denny Triangle TDC Area: 30% height increase above existing mapped limits (and additional 37.5' and 90' depending on zone) for mixed use and residential projects
- Rezone Area: Approximately 5.5 acres of DMC-240 rezoned to DOC2-300

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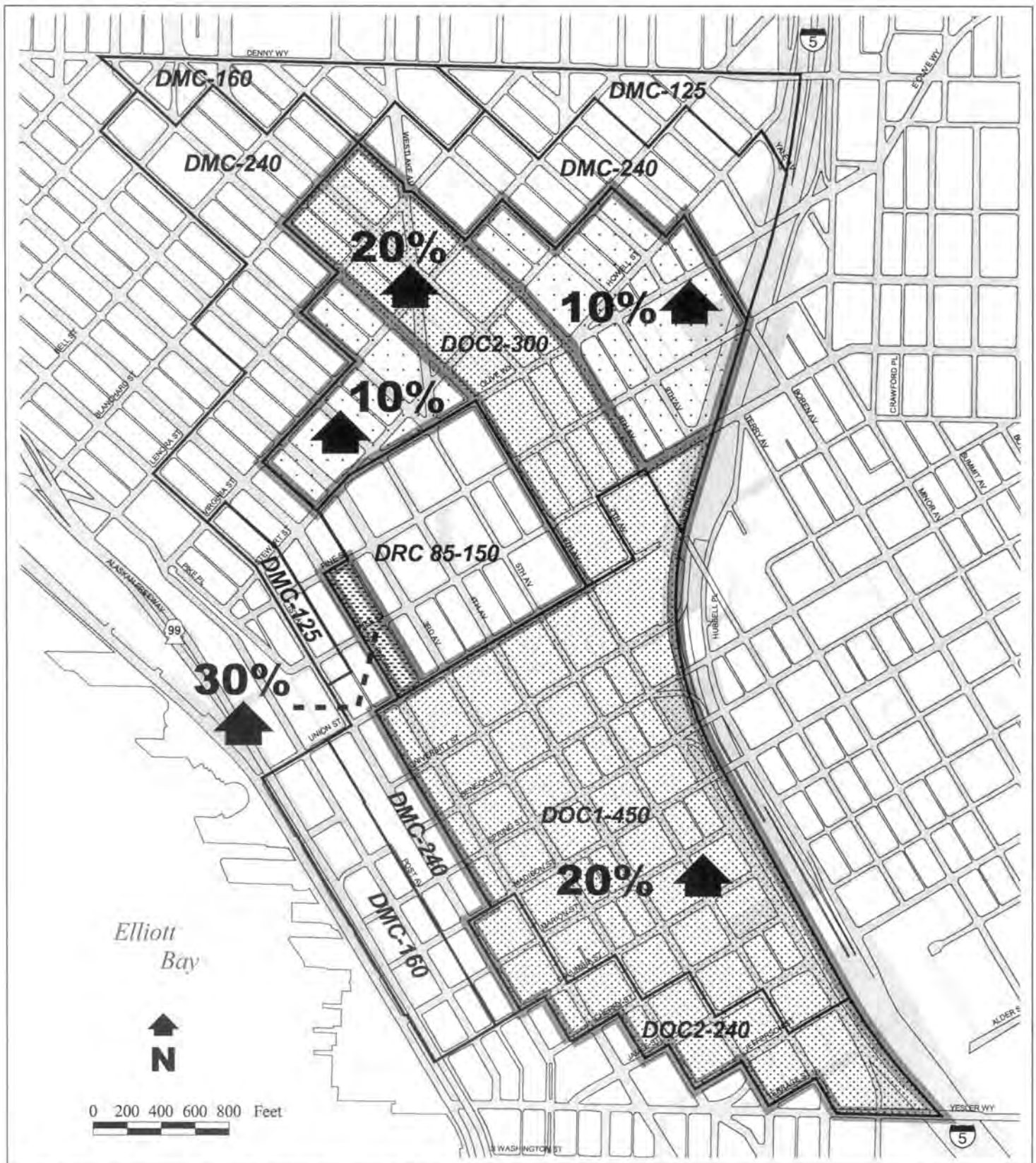
Upon reviewing the breadth of these requested changes, the decision was made to first pursue revisions to the bonus and TDR provisions of the Downtown incentive zoning, within the context of the existing maximum density limits. Because this set of changes did not substantively change the permitted density or location of future development, environmental review proceeded with expeditious review and issuance of a Determination of Non-Significance. In July 2001, the City Council adopted revisions to the bonus and TDR provisions, as well as: 1) related increases to the base FAR limits in the office core (DOC 1 and DOC 2) and retail core (DRC) zones; 2) allowances for increasing height by 10 or 20 percent, without any increase in permitted density, in specified areas of the DOC 1 and DOC 2 zones; and 3) limited adjustments to height and bonus provisions in the DRC retail core zone (see Figure 4).

Proposals for increasing maximum density limits and height limits are a second set of actions now proceeding through the SEPA process to assess potential adverse impacts on the Downtown area. On May 3rd, 2001, the Strategic Planning Office issued a Determination of Significance indicating that an environmental impact statement (EIS) will be prepared for this proposal. In preparation for this EIS, City staff examined the neighborhood plans and advisory committee recommendations, considered the input from interest groups and citizens during the EIS scoping process, and defined alternatives that cover a range of possible actions. One of these alternatives includes proposed regulatory changes that collectively represent the maximum extent (“high-end”) of changes requested by the neighborhood plans, as well as additional recommendations made by a citizen advisory committee convened to guide the development of proposals undertaken in the first phase. The other alternatives include a No Action Alternative, and two intermediate alternatives defining different options for height and density changes that could support the City’s and neighborhoods’ goals.

City staff conducted a “scoping” period for this EIS, to receive public comments about EIS study topics and definition of alternatives. Several citizens and groups submitted written and verbal comments during the scoping period. A formal scoping meeting was held on May 23rd, 2001, and a general forum summarizing Downtown planning activities was held on May 16th, 2001. These comments were considered in defining the alternatives and elements of the environment studied in this EIS.

Location of Proposal

The proposal affects portions of the Downtown area generally bounded by Denny Way, Interstate 5, Yesler Way, Alaskan Way, as well as Lenora Street and 5th Avenue in the Belltown vicinity (refer to Figure 1). The areas most affected by the proposal include the following zones: Downtown Office Core (DOC 1 and DOC 2), and Downtown Mixed Commercial (DMC). While the proposals are primarily focused on the Commercial Core and Denny Triangle neighborhoods, edges of the Belltown neighborhood zoned DMC 240’ and DOC 2 300’ are also included in the study area. Under the Preferred Alternative, a change is also proposed for an area of two half-blocks on the western edge of ~~No changes are proposed to the Downtown retail core (DRC) zone. in any of the alternatives.~~



CHANGES IMPLEMENTED WITH ADOPTION OF REVISED BONUS/TDR PROVISIONS July 2001

FIGURE 4

Strategic Planning Office
City of Seattle
May 20, 2002

- - - - - 10% Height Increase in Portions of DOC2-300
 - 20% Height Increase in DOC1 and Portions of DOC2
 - 30% Height Increase on Western Edge of Retail Core (DRC)
- Base density limit increased by 1.0 FAR in DOC1 and DOC2 and 0.5 FAR in DRC.

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Description of Alternatives 1, 2, 3 and 4

This EIS examines a total of ~~four~~ five alternatives. ~~that cover a range of possible actions.~~ The Preferred Alternative is a new alternative included in this Final EIS, representing the Mayor's recommendation for changes in height and density (refer to Chapter 1 for more details). ~~Three of the Alternatives 1, 2 and 3~~ consist of different sets of changes in allowable maximum height and density of development (measured by floor area) in several Downtown zones. Alternative 4—the “No Action” Alternative—is also included to assess what is likely to occur over time if no changes are made to the Land Use Code. This “baseline” alternative assumes that projected development will occur under the height and density limits that now apply (including July 2001 amendments) to accommodate changes to the bonus and TDR provisions that apply to zones in the study area. A summary and comparison of the alternatives is provided in Table 6 on page 2-24.

For all of the Alternatives, the same amount of residential and commercial growth is assumed to occur within the study area over the 20-year planning horizon. This amount, approximately 63,000 additional jobs and 7,350 additional residential units, represents a relatively high forecast of 20-year growth. Preliminary economic analysis indicated that this level of growth could be accommodated under existing zoning conditions, and that changes to zoning would not alter the demand for residential and commercial space generating the growth. Consequently, even though the actions proposed in different alternatives may add capacity for future growth, the actual demand for additional commercial space and residential units is expected to be the same for the 20-year study period. Therefore, the differences between alternatives are not in the overall amount of growth accommodated, but rather in how the same amount of growth may be accommodated differently in terms of the number, size, location and type of projects required.

ALTERNATIVE 1 – HIGH END HEIGHT AND DENSITY INCREASE

Overview

Alternative 1 is a composite of the initial recommendations for height and density increases included in Downtown neighborhood plans, supplemented by later recommendations from the Bonus/TDR Advisory Committee. As such, it represents the higher-end of possible changes to height and density, related to concepts from the Denny Triangle Neighborhood Plan (refer to Figure 2) and the Commercial Core Neighborhood Plan (refer to Figure 3), with the support of the DUCPG Downtown Urban Center Plan. It also includes recommendations from the TDR/Bonus Program Review Advisory Committee for consideration of additional changes (not from neighborhood plans) on the edges of Belltown and within the Commercial Core neighborhood (refer to Figure 4). The primary intent of proposals for increasing height and density limits is to: 1) provide sufficient zoned capacity to accommodate continued residential and employment growth Downtown, 2) stimulate housing production, and 3) provide resources to increase the supply of affordable housing.

Alternative 1 proposes the greatest magnitude of changes in height and density studied in this EIS, for areas including all of the Denny Triangle, most of the Commercial Core, and the southern and eastern edges of the Belltown neighborhood. Specific proposals from each of the sources of Alternative 1 are presented below. For the purposes of EIS analysis, those recommendations calling for the highest increases to height and density limits in an area were incorporated in this alternative.

Commercial Core. Both the Commercial Core Neighborhood Plan and the DUCPG Downtown Urban Center Plan include a proposal for a “super bonus” that was intended to allow height and density increases during the peak of the last economic cycle as an incentive to stimulate housing production. As initially proposed, the super bonus concept would have applied on an interim basis in the DOC 1, DOC 2 and DMC 240 zones of the Commercial Core, allowing increases in the base and maximum floor area ratio

(FAR) limits and a 30% height increase for projects including a specified housing incentive bonus package. Proposals for permanent changes to height controls in the Commercial Core Plan were limited to increasing height limits by 20 to 25% in the DOC 1 and DOC 2 zones though a building height variance, while maintaining "current FAR provisions to control overall building bulk." This proposal was implemented as part of the legislation amending the Downtown bonus/TDR provisions adopted by Council in July 2001, and therefore is represented in Alternative 4: No Action. Proposals from the Commercial Core Neighborhood Plan are presented on Figure 5.

Denny Triangle. The Denny Triangle Neighborhood Plan calls for increasing height limits in all zones in that neighborhood by 100 feet. This Plan also includes proposals for specific increases to base and maximum FAR limits in the DOC 2 zone, with increases also to be considered in all DMC zones. The proposed increases were not linked to a super bonus and were intended to be permanent. The extent of the height increases, which in some areas represent an 80% increase above existing limits, and the intended purpose to increase capacity for both employment and residential development, would supplant the existing transfer of development credits (TDC) provisions, which only allow a 30% height increase and limit the incentive to residential and mixed-use developments. Proposals from the Denny Triangle Neighborhood Plan are presented on Figure 6.

Bonus/TDR Advisory Committee. The recommendations of the TDR/Bonus Program Review Advisory Committee included proposals for increasing height and density limits in the DOC 1, DOC 2 and DMC 240 zones, as called for in the Commercial Core "super bonus" proposal, but on a permanent rather than interim basis. Furthermore, increasing height and density limits was recommended throughout all DMC zones "consistent with requirements developed for other zones." The report, "Advisory Committee Recommendations," dated May 31, 2000 calls for consideration of the following increases to height and density limits:

- DOC 1 Zone: 2 FAR increase in base FAR and 3 FAR increase in Maximum FAR; 30% height increase.
- DOC 2 Zone: 2 FAR increase in base FAR and 3 FAR increase in Maximum FAR; 30% height increase (note: these are lower than recommendations in Denny Triangle Plan for DOC 2 zone in that neighborhood).
- DMC Zone: Consider increases in height and density throughout the DMC zones; for the area north of Union, not in Denny Triangle, consider mirroring TDC program features as the DMC zone is further considered for additional height/density consistent with requirements developed for other zones. (note: density increases not specified; does not address any changes to DMC zones in Denny Triangle).
- DRC Zone: 1 FAR increase in Base FAR; replace 85-foot height limits with 150-foot height limits; consider increase above 150 feet for housing only (up to 30% increase in height). (note: changes to height and density limits in the DRC Zone were implemented under previous legislation related to revisions to bonus/TDR bonus programs).
- DMR Zone: no change.

The location of these proposed changes are shown on Figure 7.



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May 20, 2002

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Alternative 1 Height and Density Changes

The proposed height and density changes in Alternative 1 would add 72-135 feet and 3-4 FAR (floor area ratio¹) to the office core zones, and would also extend similar increases to DMC zones across the rest of the Denny Triangle neighborhood south of Denny Way (see Figure 8). Given the existing height limits of 125-240 feet of zones in this area, the proposed heights would represent an increase of 40-80% in allowable heights; the proposed increases of 3-4 FAR would represent an increase of 30-43% in allowable density.

Alternative 1 also includes a proposal for a 30% increase in height and 3 FAR increase in density (over the existing 7 FAR) for the Downtown Mixed Commercial (DMC) zones at the periphery of the office and retail cores. These areas include the southern edge of Belltown, the area east of the Pike Place Market, and the 1st Avenue and Western Avenue corridors. Existing height limits in these areas are 125 feet, 160 feet, and 240 feet.

Height: Within the affected area, maximum height limits would increase by:

- 135 feet in the central DOC 1 zone;
- 100 feet in all of the northern DOC 2 and DMC zones in the Denny Triangle;
- and 48 feet (30% increase) in the central DMC zones along 1st Avenue between Pike and Virginia Streets, and in the Western Avenue vicinity, respectively; and
- 72 feet (30% increase) in the southern DOC 2 zone, the DMC zone on the southern edge of Belltown and along 2nd Avenue on the western edge of the retail core, and the DMC zone along 1st Avenue between Union and Columbia, west of the central office core.

Density: The proposed density increases for this alternative would increase maximum FAR by 3 (additional floor area equal to three times the area of a given site) in most areas and by 4 in the Denny Triangle DOC 2 zone. Specific proposed density and height changes for the various zones are summarized on Table 2, below.

Bonus/TDR provisions. Under Alternative 1, all floor area above the new base FARs in the DOC 1, DOC 2 and DMC zones would be gained through bonuses and/or the transfer of development rights (TDR) according to a split that requires 75% of the additional floor area to be gained through affordable housing TDR, payment to an affordable housing/child care fund, and/or a bonus for providing affordable housing. The remaining 25% can be gained through other eligible bonuses or TDRs, including specified open space and on-site amenities, human services, open space TDR, variable scale TDR, and landmark TDR, within the limits and conditions prescribed in the Code. In the DMC zone, the current option to use the newly adopted bonuses and TDR provisions establishing the 25%/75% split, or to use the bonus options available prior to this amendment, would be eliminated. Also, the provision that now allows a wider range of bonus choices to be used to gain the first FAR above the base FAR in the DOC 1 and DOC 2 zones would be eliminated.

¹ Floor area ratio is a measure of allowable building density. On any given site, the FAR value multiplied by the site area is the total floor area allowed to be built. On a 10,000 square foot site, an FAR of 5 allows a 50,000 square foot building.

Table 2
Alternative 1—High End Height and Density Increases

ID #	Location	Existing Zone	Maximum Density (FAR)		Maximum Height (feet)	
			Existing	Proposed	Existing	Proposed
1	Commercial Core <i>Advisory Committee Recommendation as permanent action; Comm. Core and DUCPG Plan recommendation as interim "super bonus" proposal</i>	DOC 1 – 450'	14	17	450 ft.	585 ft.
2	Denny Triangle—office expansion area <i>Denny Triangle Neighborhood Plan recommendations</i>	DOC 2 – 300'	10	14	300 ft.	400 ft.
3	Commercial Core—southern edge <i>Advisory Committee Recommendation as permanent action; Commercial Core and DUCPG Plan recommendation as interim "super bonus" proposal</i>	DOC 2 – 240'	10	13	240 ft.	312 ft.
4	Denny Triangle—mixed use area <i>Denny Triangle Neighborhood Plan recommendations</i>	DMC – 125' DMC – 160' DMC – 240'	7 7 7	10* 10* 10*	125 ft. 160 ft. 240 ft.	225 ft. 260 ft. 340 ft.
5	Commercial Core—1st and 2nd Avenue Corridor <i>Advisory Committee Recommendation as permanent action; Commercial Core and DUCPG Plan recommendation as interim "super bonus" proposal</i>	DMC – 240'	7	10	240	312 ft.
6	Commercial Core—western edge, Belltown—southern and eastern edges <i>TDR/Bonus Advisory Committee Recommendation</i>	DMC – 125' DMC – 160' DMC – 240'	7 7 7	10 10 10	125 ft. 160 ft. 240 ft.	165 ft. 208 ft. 312 ft.

* The Denny Triangle Plan does not include a specific proposal for increase to maximum FAR in DMC zones; 10 FAR represents an increase that is proportionally similar to what the Plan proposes for the DOC 2 Zone.
TDC=Transfer of Development Credits. DOC=Downtown Office Core. DMC=Downtown Mixed Commercial.

ALTERNATIVE 2 – CONCENTRATED OFFICE CORE

Overview

Alternative 2 would limit height and density changes to the existing office core zones, DOC 1 and 2. Zoning would not change in the DMC zones peripheral to the office core, where it is desirable to balance residential and employment growth and maintain a gradual transition between the concentrated development intensity in the office core zones and surrounding neighborhoods of Belltown, the Harborfront, Pike/Pine and South Lake Union (see Figure 9). Height increases through the TDC program would still be possible, to provide height incentives for mixed-use and residential development in the

DMC zones of the Denny Triangle. However, the 100-foot height increase in the Denny Triangle DOC 2 zone would displace TDC provisions for height increases in that zone.

Alternative 2's theme is that greater height and density for office/commercial development is most preferable in central core areas where Downtown zoning favors high concentrations of development and there is sufficient infrastructure to accommodate growth. Within the office core zones of the Commercial Core, the proposed changes in height and maximum density are the same as for Alternative 1. In the Denny Triangle, the maximum density in the DOC 2 zone would increase by 3 FAR rather than the 4 FAR increase proposed in Alternative 1. The concentrated office core theme is similar to concepts of urban growth expressed in past Downtown land use planning, emphasizing continued concentration of higher-density employment growth and redevelopment within the existing DOC 1 core, with limited expansion into adjacent DOC 2 areas, primarily in the Denny Triangle.

Alternative 2 Height and Density Changes

Height: Within the affected area, maximum heights would increase by:

- 135 feet in the central DOC 1 zone;
- 100 feet in the northern DOC 2 zone; and
- 72 feet (30% increase) in the southern DOC 2 zone.

Density: The proposed density increases for Alternative 2 would increase maximum FAR by 3. However, no density changes would occur in the DMC zones in the Denny Triangle, Commercial Core or Belltown edge. Specific proposed density and height changes are summarized in Table 3.

Table 3
Alternative 2—Concentrated Office Core

ID #	Location	Existing Zone	Maximum Density (FAR)		Maximum Height (feet)	
			Existing	Proposed	Existing	Proposed
1	Commercial Core	DOC 1 – 450'	14	17	450 ft.	585 ft.
2	Denny Triangle—office expansion area	DOC 2 – 300'	10	13	300 ft.*	400 ft.
3	Commercial Core—southern edge	DOC 2 – 240'	10	13	240 ft.	312 ft.
4	Denny Triangle—mixed use area and Belltown—southern edge	DMC – 125'	7	7	125 ft.*	No change
		DMC – 160'	7	7	160 ft.*	No change
		DMC – 240'	7	7	240 ft.*	No change
5	Commercial Core—western edge	DMC – 125'	7	7	125 ft.	No change
		DMC – 160'	7	7	160 ft.	No change
		DMC – 240'	7	7	240 ft.	No change

Notes: *Height increases up to 30% above mapped height are allowed in the Denny Triangle through the TDC program. TDC = Transfer of Development Credits. FAR = floor area ratio. DOC = Downtown Office Core. DMC = Downtown Mixed Commercial.



FIGURE 9

Alternative 2: Concentrated Office Core

1. EXISTING OFFICE CORE
 - increase maximum FAR from 14 to 17
 - increase height limit from 450' to 585'
2. OFFICE EXPANSION AREA/DENNY TRIANGLE
 - increase maximum FAR from 10 to 13
 - increase height limit from 300' to 400'
3. OFFICE EXPANSION AREA/SOUTH DOWNTOWN
 - increase maximum FAR from 10 to 13
 - increase height limit from 240' to 312'

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Bonus/TDR provisions. Under Alternative 2, no changes to current base FARs are proposed. All floor area above the base FAR would be gained through bonuses and/or transfer of development rights (TDR) according to a split that requires 75% of the additional floor area to be gained through affordable housing TDR, payment to an affordable housing/child care fund, and/or a bonus for providing affordable housing. The remaining 25% can be gained through other eligible bonuses or TDRs, including specified open space and on-site amenities, human services, open space TDR, variable scale TDR, and landmark TDR, within the limits and conditions prescribed in the Code. In the DMC zone, the current option to use the newly adopted bonuses and TDR provisions establishing the 25%/75% split, or to use the bonus options available prior to this amendment, would be eliminated. Also, the provision that now allows a wider range of bonus choices to be used to gain the first FAR above the base FAR in the DOC 1 and DOC 2 zones would also be eliminated.

ALTERNATIVE 3 – RESIDENTIAL EMPHASIS

Overview

Alternative 3 places a greater emphasis on regulatory changes tailored to specific areas to help encourage provision of housing. This alternative's theme supports increased height and densities in the office core zones, but with transitions in development intensity provided by sub-areas of variable height and density limits in the DOC 2 zones in Belltown and the eastern portion of the Denny Triangle. While the TDC program would be displaced for a portion of the DOC 2 zone in the Denny Triangle allowing the greatest increase in commercial density, the program would continue to provide height incentives limited to housing and mixed use projects in other DOC 2 and DMC areas of the Denny Triangle (see Figure 10).

In Downtown areas peripheral to the office and retail core, maximum commercial densities would not increase, but would be reduced in some areas by rezoning to designations that promote residential development and limit commercial development. In addition to increasing residential capacity, the intent of regulatory changes in these peripheral areas is to provide zoning that will: 1) ensure a concentration of housing consistent with neighborhood plan objectives for creating "enclaves" of residential development in the north central portion of the Denny Triangle, 2) increase the emphasis on housing and promote a more compatible residential scale of development along the southern edge of Belltown to extend the predominantly residential character emerging throughout the rest of the neighborhood, and 3) encourage mixed uses by requiring housing in projects developed to maximum commercial density limits in other DMC zones within the study area. The latter objective would occur by making non-residential density (above the base density) contingent upon providing on-site housing.

Alternative 3 Height and Density Changes

Height: Within the affected area, maximum heights would increase by:

- 135 feet in the central DOC 1 zone;
- 100 feet in the portion of the DOC 2 zone in between 8th Avenue and 5th/6th Avenues; and
- 72 feet (30% increase) in the southern DOC 2 zone;

Density: In the DOC 1 and approximately half of the Denny Triangle DOC 2 zone, the maximum density would increase by 3 FAR. In other portions of the DOC 2 zone, the maximum density would remain unchanged. Densities in DMC zones would not change, but portions of the DMC zone in north central Denny Triangle and the southern edge of Belltown would be rezoned from DMC to Downtown Mixed Residential/Commercial (DMR/C). With this zone, the maximum density would decrease from 7 to 4 or 5. This is summarized in Table 4.



Table 4
Alternative 3—Residential Emphasis

ID	Location	Existing Zone (zone change in bold)	Maximum Density (FAR)		Maximum Height (feet)	
			Existing	Proposed	Existing	Proposed
1	Commercial core	DOC 1 – 450'	14	17	450 ft.	585 ft.
2a	Denny Triangle—office expansion, 5 th to 8 th	DOC 2 – 300'	10	13	300 ft.*	400 ft.
2b	Denny Triangle —office expansion, between 8 th and Boren	DOC 2 – 300'	10	10	300 ft.*	300 ft.*
	Belltown, office expansion, between 3 rd & 5 th and Olive and Virginia	DOC 2 – 300'	10	10	300 ft.	300 ft.
3	Commercial core—southern edge	DOC 2 – 240'	10	13	240 ft.	312 ft.
4a	Denny Triangle—mixed use area, roughly between Westlake, Howell, and Minor	DMC → DMR/C	7	4	125 ft.*	125 ft.*
		DMC → DMR/C	7	5	160 ft.*	160 ft.*
		DMC → DMR/C	7	5	240 ft.*	240 ft.*
5a	Belltown—southern edge	DMC → DMR/C	7	5	240 ft.*	240 ft.*
4b	Denny Triangle—mixed use areas west of Westlake, and near I-5	DMC – 125'	7	7**	125 ft.*	125 ft.*
		DMC – 160'	7	7**	160 ft.*	160 ft.*
		DMC – 240'	7	7**	240 ft.*	240 ft.*
5b	Commercial core—western edge	DMC – 125'	7	7**	125 ft.	125 ft.
		DMC – 160'	7	7**	160 ft.	160 ft.
		DMC – 240'	7	7**	240 ft.	240 ft.

Notes:

* Height increases up to 30% above mapped height are allowed in the Denny Triangle through TDC.

**Increases in non-residential density above base FAR would be contingent on including on-site housing.

FAR = floor area ratio. TDC = Transfer of Development Credits. DOC = Downtown Office Core.

DMC = Downtown Mixed Commercial. DMR/C = Downtown Mixed Residential/Commercial.

Bonus/TDR provisions. Under Alternative 3, current base FARs would remain for DOC 1 and DOC 2 zones and areas proposed to remain designated DMC. In DMC areas proposed for a DMR/C designation, the base FAR would be reduced from 5 to 1 or 2 FAR, depending on the height limit of the zone. In DOC 1 and DOC 2 zones, all floor area above the base FAR would be gained through bonuses and/or the transfer of development rights (TDR) according to a split requiring 75% of the additional floor area to be gained through affordable housing TDR, payment to an affordable housing/child care fund, and/or a bonus for providing affordable housing. The remaining 25% can be gained through other eligible bonuses or TDRs, including specified open space and on-site amenities, human services, open space TDR, variable scale TDR, and landmark TDR, within the limits and conditions prescribed in the Code. The provision that now allows a wider range of bonus choices to be used to gain the first FAR above the base FAR in the DOC 1 and DOC 2 zones would be eliminated. The DMC zone would continue to allow the option to use the newly adopted bonuses and TDR provisions establishing the 25%/75% split, or to use the bonus options available in this zone prior to this amendment. The DMR/C zone would have more options for gaining floor area above the base FAR, including gaining floor area according to the prescribed 25%/75% split, or through the use of available bonuses for on-site amenities and the full range of TDR choices.

ALTERNATIVE 4 – NO ACTION ALTERNATIVE

Overview

Under the No Action Alternative, the existing zoning and Land Use Code regulations would continue to apply for the foreseeable future (see Table 5). Projected economic growth would continue to generate demand for additional residential and nonresidential development in the City as well as the region. However, this alternative assumes no major changes would be made to further augment the zoned development capacity in the Denny Triangle or Commercial Core, or to increase or reduce the emphasis on particular uses beyond conditions established under current zoning. The general development pattern of a concentrated commercial core surrounded by less intensive mixed-use areas promoted under existing zoning would be maintained.

Current Height and Density Limits

The maximum allowable densities and mapped height limits would continue to apply, with the existing opportunities to gain additional height above these limits (see Figure 11). These include: 10% additional height in DOC 1 and DOC 2 zones when prescribed measures are taken to control the overall bulk of a project; 20% additional height in DOC 1 and some DOC 2 areas with bulk controls and open space provision, landmark preservation or small-scale structures on-site; and up to 30% additional height for residential and mixed-use development through participation in the TDC programs in the Denny Triangle.

Bonus/TDR provisions. Under Alternative 4, in DOC 1 and DOC 2 zones, there are two options for gaining floor area above the base FAR. One option allows additional floor area to be gained through bonuses and/or the transfer of development rights (TDR) according to a split that requires 75% of the additional floor area to be gained through affordable housing TDR, payment to an affordable housing/child care fund, and/or a bonus for providing affordable housing. The remaining 25% can be gained through other eligible bonuses or TDRs, including specified open space and on-site amenities, human services, open space TDR, variable scale TDR, and landmark TDR, within the limits and conditions prescribed in the Code. The other option allows a wider range of bonus choices to be used to gain the first FAR above the base FAR, with any additional floor area gains subject to the 25%/75% split.

In the DMC zone, developers have two choices for increasing floor area above the base FAR. The first is through the use of the newly adopted bonuses and TDR provisions establishing the 25%/75% split. The other choice is to use the bonus options available prior to this amendment.

Table 5
Alternative 4—No Action

ID	Location	Zone	Maximum Density (FAR)	Maximum Height (feet)	
				Existing mapped limit	Optional height increases
1	Commercial core	DOC 1 – 450'	14	450 ft.	+20% w/bulk limits <u>and</u> open space, or landmark, small bldg. preservation.
2a	Denny Triangle—office expansion, 5 th to 8 th	DOC 2 – 300'	10	300 ft.	+20% as above, or +30% with TDC
2b	Denny Triangle—office expansion, transitioning east and west	DOC 2 – 300'	10	300 ft.	+10% with bulk limits, or +30% with TDC
	Belltown, office expansion, between 3 rd & 5th	DOC 2 – 300'	10	300 ft.	+10% with bulk limits
3	Commercial core—southern edge	DOC 2 – 240'	10	240 ft.	+20% w/bulk limits <u>and</u> open space or landmark, small bldg. preservation.
4	Denny Triangle—mixed use area	DMC – 125'	7	125 ft.	+30% with TDC
		DMC – 160'	7	160 ft.	+30% with TDC
		DMC – 240'	7	240 ft.	+30% with TDC
5	Commercial core—western edge	DMC – 125'	7	125 ft.	None
		DMC – 160'	7	160 ft.	None
		DMC – 240'	7	240 ft.	None
	Belltown—southern edge	DMC – 240'	7	240 ft.	None

Notes: Optional height/density increases are opportunities in the Land Use Code for additional height if certain conditions are met. FAR = floor area ratio. TDC = Transfer of Development Credits.

DOC = Downtown Office Core. DMC = Downtown Mixed Commercial.

**Table 6
Comparison of Alternatives**

Alternative 1-High End Height and Density Increases	Alternative 2 – Concentrated Office Core
<ul style="list-style-type: none"> • 135-foot height increase in DOC 1 and 100-foot increases in all Denny Triangle zones • 30% height increase in zones at edge of office and retail cores • 4 FAR maximum density increase in Denny Triangle DOC 2 zone and 3 FAR maximum density increase in other zones • 1 FAR increase in base FAR in DOC 1 zone and DOC 2 zones outside Denny Triangle; 2 FAR increase in base FAR in DMC zones and DOC 2 zone in Denny Triangle. • No TDC in Denny Triangle zones 	<ul style="list-style-type: none"> • 100 and 135-foot height increases to the DOC 1 and DOC 2 zones • 30% height increase only at southern edge of office core • 3 FAR maximum density increases in DOC 1 and DOC 2 zones • No increase in base FAR • No height or density changes in western or northern DMC zones at periphery of the office/retail core • TDC limited to DMC zones in Denny Triangle
Alternative 3 – Residential Emphasis	Preferred Alternative
<ul style="list-style-type: none"> • 135-foot height increase in DOC 1 and 100-foot increase in Denny Triangle DOC 2 between 5th/6th and 8th Avenues, west to Blanchard St. • No other height increases • 3 FAR maximum density increase in DOC 1 and same DOC 2 area described above • No increases in base FAR • Rezone Denny Triangle mixed use area between Westlake, Howell and Minor Ave. from DMC to DMR/C, lowering density from 7 FAR to 5 and 4. This re-orientes the zoning to mixed residential development. • Rezone Belltown southern edge from DMC to DMR/C, lowering density from 7 FAR to 5. • In other Denny Triangle and Commercial Core DMC zones, require the development of <u>non-residential density</u> (above the base) to be contingent upon including on-site housing. • TDC remains in all Denny Triangle zones except portion of DOC 2 with height, density increases. 	<ul style="list-style-type: none"> • <u>250-foot height increase above base height in DOC 1 and 300-foot increase in Denny Triangle and Belltown DOC 2 between 3rd and 9th Avenues, from Blanchard St. to Pine St.</u> • <u>3 FAR maximum density increase in DOC 1; 4 FAR increase in DOC 2 area described above. Remaining DOC 2 areas on southern edge of Commercial Core and Denny Triangle would be rezoned to DMC, but would retain current DOC 2 density limits of base 5 FAR and maximum 10 FAR. A ½ block DOC 2 area in Belltown west of 3rd Avenue would also be rezoned to DMC.</u> • <u>No increases in base FAR in DOC 1 and DOC 2 zones, and the current provision allowing special actions for floor area increases for the first FAR above the base FAR would be eliminated.</u> • <u>DMC areas in portions of the Denny Triangle and along the southern edge of the Commercial Core would have height limits of 340 feet for non-residential use and 400 feet for residential use, with a base FAR of 5 and maximum FAR of 10 for commercial uses. Remaining DMC areas would retain the current base 5 and maximum 7 FAR limits on commercial density. In most of these areas, height limits would be 240 feet for non-residential uses and 400 feet for residential use. However, the current 125-foot height limit would be retained for all uses along the eastern edge of the Pike Place Market, and west of Post Alley, the height limits would be 160 feet for non-residential uses and 240 feet for residential use.</u>

	<ul style="list-style-type: none"> • <u>An area of two half-blocks on the eastern edge of the retail core currently zoned DRC would be rezoned to DMC, increasing the permitted height and density for all uses.</u> • <u>The transfer of development credit (TDC) program would be eliminated in the Denny Triangle.</u> • <u>A new provision would allow sites in any DMC area committed to residential development to transfer unused commercial development rights to receiving sites in specified DMC areas.</u> • <u>Special bulk controls would be established for residential and mixed-use structures over 125 feet in height.</u> • <u>Residential structures built to the maximum allowed height and bulk would contribute to an affordable housing mitigation program.</u>
Alternative 4 – No Action <ul style="list-style-type: none"> • No changes in allowable height or density • Existing optional height increases would be available, through use of bulk limitations, use of TDC program, preservation of landmarks or small structures on-site, or provision of on-site open-space usable to public. • Optional height increases range from 10% to 30% above mapped height limits. 	

Source: DPD, 2004

Recent Downtown Regulatory Changes Adopted in 2001

In 2001, the City Council approved several changes to Downtown land use regulations, including changes to the system of obtaining bonuses, using transfer of development rights (TDR), options for obtaining additional height, and adjustments to base densities in some zones. This section summarizes these changes, for the information of the reader.

Downtown regulations continue to govern density in most zones by establishing a base and maximum floor area ratio (FAR), varying among the Downtown zones. The 2001 amendments fundamentally changed the system for increasing floor area above the base FAR and related development standards, including height provisions. The following is a summary of the major amendments:

PROVISIONS FOR HEIGHT INCREASES

An increase in height of up to 10% above current mapped height limits is allowed for occupied floor area in the Downtown Office Core 1 (DOC 1) and Downtown Office Core 2 (DOC 2) zones as a replacement for the sculptured building top bonus. A reduction in floor size for the upper portion of the structure is required to achieve a less bulky appearance, and the height increase does not permit increases in density beyond established maximum FAR limits. The 10% additional height allowed for unoccupied rooftop features is permitted above the 10% height gain.

A height increase of up to 20% in the DOC 1 zone and a limited portion of the DOC 2 zone is also now allowed to further promote less bulky development and to achieve enhanced conditions at the street level of tall structures. In addition to the reduction in floor size for the upper portion of the tower, special

conditions are required at the street level, including the provision of open space, low-scale structures and/or preservation of a landmark structure on the development site.

CHANGES TO DENSITY LIMITS

Maximum FAR Limits. There were no increases to maximum FAR limits. In the DRC zone, the maximum FAR was reduced from 6 FAR to 5 FAR.

Base FAR Limits. Permitted base FARs were increased in the DOC 1 and DOC 2 zones by 1 FAR, and by 0.5 FAR in the DRC zone. These changes re-establish a graduated range of base FARs reflecting a land use pattern that focuses greatest density on the Downtown office core in the DOC 1 zone, with the next greatest density permitted in the DOC 2 zone. Increases in the base FAR also offset the elimination of floor area bonuses previously allowed for required features, such as sidewalk widening. In the DOC 1 and DOC 2 zones, the first FAR above the base FAR can still be gained by providing a variety of on-site amenities, such as street-level retail shopping uses, short-term parking, and public open space features.

CHANGE TO BONUS/TDR PROVISIONS

The original incentive provisions allowed incremental increases in floor area above the base FAR through the use of certain types of bonuses or by acquiring development rights from eligible properties that could be transferred to the development site (TDR). Under this system, use of housing bonuses and TDR from affordable housing structures was reserved for the uppermost increments needed to reach the maximum FAR.

Under the new provisions, the maximum FAR can be achieved in several ways, including:

- Transfer of development rights (TDR);
- Floor area bonuses when certain impacts of development are mitigated by voluntary agreements to provide or contribute to housing and child care (“facilities bonus”); or
- Floor area bonuses when certain impact-mitigating features are provided (“amenity bonuses”).

The bonus and TDR options have been re-prioritized under the amended provisions to focus on mitigation of housing impacts. In DOC-1 and DOC-2, seventy-five percent (75%) of any floor area above 1 FAR above the base FAR must be earned by TDR transferred from qualified housing sites or by facilities bonuses that involve mitigation of housing and child care impacts. Twenty-five percent of the floor area above 1 FAR above the base FAR must be earned from other (non-housing) development rights transfers or amenity bonuses, or both. Five percent (one-fifth of the 25%) must be achieved through TDR from Landmark structures when available. In DRC, the 75%-25% split would be applied to all chargeable floor area above the base FAR.

Some bonus features, including major performing arts theaters, sculptured building tops, and major retail stores, have been eliminated.

The first FAR above the base in DOC 1 and DOC 2 zones can be gained through by using amenity bonuses, including short-term parking and retail uses, or non-housing TDR. In DMC zones, floor area increases above the base FAR can be gained by using one of two options: a) the rules governing floor area in general and for gaining bonus floor area that applied prior to the amended provisions, or b) the newer bonus and exemption rules described above.

CHANGES TO TRANSFER OF DEVELOPMENT RIGHTS (TDR) OPTIONS

The use of TDR continues to allow the unused base density permitted on a site to be transferred to other sites within the same block or transferred between blocks from eligible sites in some areas of Downtown to other areas. Transfers continue to be permitted from sites developed with landmark structures and

from sites with housing for households with incomes up to 80% of median income, provided a minimum amount of housing for households with incomes up to 50% of median income is included. The area where landmarks are eligible as TDR sending sites was expanded to include zones north of Virginia Street to Denny Way. Transfers are no longer permitted from Pioneer Square infill sites, from sites occupied by new housing or from new or existing performing arts facilities (except landmarks).

A new provision allows for the transfer of development rights from sites provided as Downtown public open spaces, subject to special conditions. All transfers are subject to limitations, some of them new (for example, in many areas a lower FAR is used to calculate floor area available to transfer from sending sites).

CHANGES TO RETAIL CORE PROVISIONS

The use of specific bonus features and conditional use approval is no longer required for structures to exceed the 85-foot base height up to the maximum height of 150 feet. Certain types of mixed-use development that include residential use or a minimum amount of retail and/or entertainment uses are permitted up to the maximum height of 150 feet without additional conditions. In addition, up to 30% more height is permitted on two half-blocks along the western edge of the retail core on the east side of 2nd Avenue between Pine and Union Streets.

Chapter Three

Key Issues and Findings

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KEY ISSUES AND FINDINGS

Introduction

The overall purpose of this Environmental Impact Statement is to provide information that will assist decisionmakers in making choices about possible changes in Downtown zoning. Given the complexities involved in zoning regulations and planning Downtown's long-term future, understanding the full spectrum of issues is a challenge. It is necessary to focus on "big picture" policy perspectives as well as the relationship to detailed aspects of the Land Use Code and zoning. This chapter summarizes the most important findings of the Draft EIS and places them in the context of the City's long-term Downtown planning efforts.

OVERVIEW OF KEY ISSUES AND FINDINGS

The key findings of this EIS speak to the multidimensional effects of making choices in Downtown zoning controls. Different choices may alter the "shape" of Downtown in terms of its buildings' physical dimensions, mixes of land uses, streetscape quality, real estate market, the presence of open space amenities, and the preservation of historic resources. How it functions will depend upon the adequacy of the available infrastructure.

Growth Policy and Downtown Planning Issues

The alternatives studied in this EIS would alter the height and density parameters for future growth in certain Downtown zones. The EIS analysis identifies a range of potential impacts relevant to: the City's growth policies and regulatory programs; the mix of commercial and residential uses that will occur with future growth; and the physical qualities of building height, bulk and scale. The ultimate choices may confirm the City's current growth policies expressed in its Comprehensive Plan and zoning, or alternatively, may adjust the City's policies to recognize changes in preferred growth priorities.

Relationship to growth policies and regulatory programs

Downtown Seattle is the pre-eminent urban center in the region, a dense employment and residential center that will continue to support a diverse mix of office, retail, service, governmental, cultural and entertainment uses. The City's Comprehensive Plan defines a central role for Downtown in accommodating employment and residential growth that helps fulfill the City's growth management responsibilities. Neighborhood planning for the various Downtown neighborhoods provides further policy guidance about the shape of growth Downtown.

The City's Downtown growth policies define a commercial office and retail core at the heart of Downtown, with office expansion areas extending north into the Denny Triangle area and south toward Pioneer Square and the International District. The map on page NP-58 of the Comprehensive Plan illustrates this concept. The largest residential concentration area defined by the growth policies is Belltown, and much of the rest of Downtown is intended for mixed commercial and residential development, as reflected by Downtown Mixed Commercial (DMC) zoning. The heights and densities of the DMC zone currently provide intermediate levels of height and density that act as a transition from the densest portion of Downtown to the adjacent neighborhoods.

The alternatives studied in the Draft EIS emphasize different aspects of the City's Downtown growth policies, with Alternative 1 posing the greatest challenge to those policies. The extent of changes

proposed in Alternative 1 would essentially represent further expansion of the office core area into areas currently intended to be transition areas with mixed residential and commercial uses. Alternative 2 is more compatible with the City's current growth policies because it avoids changing the DMC zones, while still adding height and density to the office core zones. Alternative 3 would provide a more residentially-oriented option by adjusting zoning in the DMC zones to more greatly emphasize inclusion of housing as part of mixed-use development and by reclassifying some DMC areas in the northern Denny Triangle and southern edge of Belltown to a more residential zone designation.

As a response to the findings of the Draft EIS and subsequent public input, the Mayor's Office has developed a Preferred Alternative (refer to Chapter 1). This alternative would retain most of the office core, office expansion and mixed-use transition zones described in current comprehensive and neighborhood planning. However, it would more tightly define the office expansion area by establishing a new DMC zone that would apply to some DMC areas in the Denny Triangle, as well as office expansion areas currently zoned DOC 2 near Interstate 5 and along the southern edge of the Commercial Core adjacent to Pioneer Square and Chinatown/International District. At the same time, many of the existing DMC-zoned areas in Belltown, the Commercial Core and the Denny Triangle would continue to have a mixed residential and commercial use emphasis to support further residential and mixed-use development. The Preferred Alternative would essentially combine the most beneficial elements of Alternatives 1, 2 and 3 while retaining the existing purposes and hierarchy of the zoning system.

The EIS alternatives would impact the existing Transfer of Development Credits (TDC) program in different ways. The TDC program accommodates additional density of residential development through increased height in the Denny Triangle in exchange for obtaining development rights from rural areas in King County and contributing to neighborhood amenities. It also is expected to result in King County funding for public amenities in the Denny Triangle. Alternative 1 would have the greatest effect on the TDC program, and Alternatives 2 and 3 would also constrict this program compared to existing conditions. Depending upon zoning choices, the TDC program could continue to be a factor in the City's Downtown regulations or could be superseded. Similar to Alternative 1, the proposed changes in the Preferred Alternative would supersede the Transfer of Development Credit program.

Relationship to mix of commercial and residential uses

Increases in the height and density limits of DMC zoned properties and some DOC 2 zoned properties could alter assumptions about property values and attractiveness for development. This could influence how properties are developed or speculatively held for future development. Future development might seek to maximize development potential by providing commercial and residential mixes of uses on sites. Alternatively, depending upon zoning, some properties might become more valuable and attractive only for commercial uses. Dynamics of real estate values could encourage speculative holding of property, squeeze out residential uses and discourage the economic viability of residential development. These dynamics could alter the future character of development, especially in Denny Triangle, and preclude achieving Comprehensive Plan and neighborhood plan objectives, unless the zoning and land use regulations are consciously defined.

The Preferred Alternative proposes zones with height and density limits that will clarify the intended scale and pattern of future development. Increases to commercial density limits are confined to a smaller area than under Alternative 1 to promote a stronger concentration of employment density in areas best served by transit, and in DMC areas, the maximum height limits are reserved for residential use to help promote housing where it is most desired as part of the overall mix of uses. Using zoning to better direct the type and densities of development desired in different areas should help avoid "overzoning" that can lead to speculative holding of property in underdeveloped uses such as parking lots.

Relationship to height, bulk and scale of future development

Possible code changes would alter the size and shape of future development through height and bulk regulations. The relationship between permissible height and density in a zone helps influence the shape and design of buildings. If the maximum height is too low, buildings seeking to maximize floor area may be designed in bulky squat forms rather than slimmer towers that better distribute building bulk. Conceptually, providing higher height limits would allow the same amount of building floor area to be more flexibly designed in a greater variety of forms. Therefore, the relationship between the permissible height and density should be carefully considered so that building designs are not artificially constrained within a building envelope that is too small.

The Draft EIS found that some of the proposed density increases would be proportionately even greater than the proposed height increases. For at least portions of Alternatives 1 and 2, this suggests that overly bulky buildings would continue to be an issue. Further, because residential use is currently exempt from density limits, residential structures could be designed in a quite bulky and dense form. Therefore, unless refined strategies are employed, the possible code changes could result in taller yet similarly bulky buildings as under the existing regulations (see Draft EIS pages 3-74 to 3-101 and 1-4 to 1-9 for further discussion of related issues).

The Preferred Alternative includes recommendations that would address height, bulk and scale concerns with refined strategies. For commercial development, the proposed increases in height limits, which in several areas exceed those in the Draft EIS alternatives, will allow structures with smaller, less bulky floor sizes to accommodate the additional density proposed. Modified upper-level development standards will also continue to ensure relief in the massing of structures to make them appear less bulky from the street level. For high-rise residential structures, maximum floor size limits and maximum wall dimensions will provide more predictability regarding the allowed bulk of residential towers, and will result in structures that are taller but relatively more slender than what is currently allowed.

Housing, Open Space and Historic Preservation Issues

The EIS identifies preservation and enhancement of housing, open space and historic resources as important aspects of City policy that should be considered in decisionmaking of zoning proposals. These are valuable resources and amenities that help shape the attractiveness, character and livability of Downtown. The presence of significant amounts of housing Downtown can also benefit transportation conditions, as more people could live close enough to walk, cycle or use transit to commute, helping to manage the impacts of vehicle commute trips.

Housing Resources

Housing resources for households at all income levels are important to the future of Downtown, including perpetuation of existing affordable housing resources and development of new housing resources. As discussed above, the mix of residential and commercial uses encouraged by zoning in portions of the Denny Triangle, Belltown and the Commercial Core is an issue pertinent to housing resources Downtown. A positive impact of the alternatives (including the Preferred Alternative) is the projected increase in housing bonus program funds for affordable housing that, if leveraged, could provide for more housing units developed Downtown than under the existing zoning. These funds, when leveraged with other resources, could contribute to the production of between 3,600 units under existing conditions to over 8,000 units, depending upon the alternative. Under all of the alternatives, including the Preferred Alternative, up to six residential buildings (three of which receive subsidies) totaling 300 residential units are located on sites that could be redeveloped by 2020.

The EIS also takes into consideration the nature of the residential environments likely to emerge under various zoning scenarios, recognizing that Downtown policies are not only targeted at increasing housing resources, but also at creating viable residential neighborhoods. Factors that influence Downtown's livability include type of development, character of the street environment, presence of amenities desired by residents, and concentrations of housing sufficient to support needed services and a residential character.

The Preferred Alternative encourages greater concentrations of housing in most DMC areas, through height incentives for residential use and other measures such as provisions for the transfer of commercial development rights from housing sites. The proposed bulk controls on high-rise residential structures will promote development that is more compatible with high-density, mixed-use neighborhoods, with a greater variety in development scale and a generally stronger sense of openness in the street environment than would be expected with development under existing conditions. The potential for increased use of landmark TDR, open space TDR and low-income housing TDR by commercial developments in DMC areas could result in more amenities complementing residential use in the area and enhancing the overall quality of neighborhood character. Provisions allowing common recreation area requirements for residential projects to be made off-site provide an opportunity to generate more funding for public open space in mixed-use neighborhoods. The screening of parking in residential structures, including separation from the street by other uses along the ground floor and portions of upper floors, should also contribute to more positive streetscape conditions.

Park and Open Space Resources

Growth in Downtown's residential and office populations will generate additional demand for park and open space amenities, for which there is a shortfall in supply relative to Comprehensive Plan goals for Downtown open space. "Open space" or recreation spaces can encompass several types of features, including parks, public plazas, indoor atriums, rooftop gardens, private and shared residential recreation spaces, and sidewalk "Green Street" spaces improved with landscaping and aesthetic and pedestrian-oriented features. Future development would provide some of these features over time per code requirements, but these may not be enough to satisfy all park and open space needs of Downtown residents and employees. Several commenters noted the importance of dealing with the open space impacts of future growth, recommending that effective mitigation be required. Potential mitigation strategies include making additional public investments in open space, exploring mechanisms to pool resources for open space improvements (such as payment of in-lieu funds), adjusting open space requirements to allow for innovative solutions (to residential and/or commercial demands), and other regulatory or incentive-oriented strategies.

Under the Preferred Alternative, increasing the maximum commercial density (FAR) limits while retaining the current base FAR in DOC 1, DOC 2 and the newly created DMC areas increases potential use of bonus floor area in these locations for open space amenities and open space TDR beyond what would likely occur under other alternatives. Limiting options for floor area increases in many DMC zones to various types of TDR could encourage greater use of open space TDR for open space improvements. Allowing developers to meet common recreation requirements for residential projects at off-site public open space locations or through green street improvements could contribute to the future supply of Downtown open space.

Historic Resources

City policy supports preservation of important historic resources typically consisting of Downtown buildings with architectural and/or historic value. Historic preservation was cited as an important issue in comments on the EIS by the Seattle Planning Commission, State Office of Archaeology and Historic

Preservation, the State Department of Community, Trade and Economic Development, and the Historic Seattle preservation group. Already-designated landmarks are afforded protection by the current regulations governing preservation of historic resources, and zoning incentives such as the transfer of development rights, providing opportunities to direct resources to these structures to ensure their preservation.

The Draft EIS also identified several buildings that are not yet designated but might qualify for landmark status. Historic Seattle and a couple of other sources also submitted the names of several other such buildings that were not identified in the Draft EIS. Of those, approximately 12 are located in the study area, including the Centennial Building, Chamber of Commerce, Diller Hotel/Porter-Davis, Fifth Avenue Court, Foster and Marshall Building, IBM Building, Maritime Building, Norton Building, Rainier Tower, Second and Pike Building, Securities Building, and the YWCA. Possible mitigation strategies identified in the Draft EIS include (but are not limited to) additional funding for acquisition of development rights from landmarks most at risk for redevelopment, as well as additional designation of landmarks by the City.

Under the Preferred Alternative, increasing the maximum commercial density (FAR) limits while retaining the current base FAR in DOC 1, DOC 2 and the newly created DMC areas increases potential use of bonus floor area in these locations for landmark TDR beyond what would likely occur under other alternatives. Limiting options for floor area increases in many DMC zones to various types of TDR could encourage greater use of landmark TDR than might otherwise occur. **Some special provisions that could be considered would provide greater incentives for landmark preservation, including the amended Planned Community Development process (or modified combined lot provisions) which identify landmark preservation as a public benefit enabling a project to seek added development flexibility through these mechanisms.**

Transportation and Energy Impact Issues

The EIS identifies transportation and energy as important environmental elements affected by the zoning proposals.

Transportation

Even with projected increases in transit ridership using bus, monorail, light rail and Sounder service, denser growth would contribute to increased congestion in portions of Downtown, most notably in the Denny Triangle. Traffic on commuting corridors to/from the north, east and south would experience greater delay, including delay in bus travel. Several intersections along the key commuting corridors of Stewart Street, Olive Way, Howell Street and Denny Way are likely to experience significant congestion during evening commute peak hours by 2020. Providing for continued capability to develop housing Downtown is one way to help limit the effects of congestion. More aggressive implementation of demand reduction programs, transit improvements, easing of parking requirements, and strategic physical improvements to the street system would also aid in reducing these impacts. City staff have also recommended examining the possibility of public-private partnerships that would leverage developer contributions to fund additional hours of transit service. Decisionmakers' choices will determine which package of mitigation strategies will be selected. By targeting proposed commercial density increases to those areas best served by transit and expected to receive further investment in transit infrastructure, the Preferred Alternative further concentrates employment at locations where commuters will be most likely to use transit.

Energy Infrastructure

This Final EIS, based on updated input from City Light, now identifies a need for an additional electrical substation to serve Downtown growth beyond 2020. However, a portion of the Denny Triangle could experience electrical capacity limitations sooner than that if commercial energy load grows more quickly than expected. These findings point to the need for strategic actions to ensure that future development can be served sufficiently. Actions could include additional capital investments, adoption of incentives or requirements for more sustainable choices in energy system design, and further implementation of City Light capacity planning recommendations.

The Preferred Alternative would have the effect of moderating impacts on energy infrastructure in critical areas like the northeast portion of the Denny Triangle by encouraging a mix of uses with more housing, which would generate less-intensive energy demands than commercial-only buildings.

Public Comment Themes

Public comments on the Draft EIS reflect a healthy diversity of opinions. Several of the comments indicate a willingness to consider regulatory changes that would lead to better forms of future development, with a sense that decisions need to be made in a balanced and careful manner. Many also favor stewardship of resources such as Downtown open space, housing and pedestrian-oriented streetscapes. Some commenters questioned the need for zoning changes, expressing concerns about aesthetic impacts as well as building bulk, streetscape quality and open space impacts. Some commenters also wondered how the EIS's Downtown growth scenario fit in with regional growth expectations and whether there are implications related to shifts in growth.

Many of the stakeholders representing the development community and Downtown business community expressed concerns that some Alternatives (particularly Alternative 3) would be too constrictive, with negative implications for development prospects. Several requested that even larger changes than Alternative 1 be considered, so that the Downtown zoning regulations do not hinder development in the next wave of economic growth. For many of these stakeholders, the desired strategies are believed to be mandated by neighborhood plans, and should be implemented so that subsequent development maximizes the fund-generating benefits accrued to housing resources, so there would be "wins across the board." This approach leans toward letting the market decide the uses and form of development that occurs in Downtown.

GROWTH RELATIONSHIPS BETWEEN DOWNTOWN, NEIGHBORHOODS AND THE REGION

In comments on the Draft EIS, a number of commenters expressed interest in how Downtown Seattle's growth (or lack of growth) under the alternatives might affect growth regionally and within Seattle. These comments arose from a range of perspectives both for and against change.

Pro-change and neutral perspectives in public comments

Several of the growth-related comments favor significant increases in the height and density limits of Downtown zoning. Some theorize that new development can choose to locate either in Downtown or other portions of Seattle or the region. Unless Seattle loosens its Downtown regulations, they believe that developers may more often choose to develop in other regional cities or parts of Seattle where the regulatory environment is more favorable. This outlook assumes that some of the Draft EIS alternatives might be "downzones" or contain disincentives to development.

Other comments more neutrally inquired about the potential impacts of diverting growth away from Downtown to other neighborhoods. They asked: "What happens if growth does not occur Downtown?"

Evaluation

Evaluating the potential for growth diversions into other areas is beyond the scope of this EIS. It is not reasonably possible to infer how different Downtown zoning choices might influence different patterns of growth in other parts of the city or region. This type of analysis would need to interpret extensive amounts of regional growth data and broadly infer how future growth might redistribute itself and what effects that might have. This would require too much speculation about how or if development might instead locate in the greatly different environments of Seattle neighborhoods or various suburban cities. Even supposing that such studies are possible, numerous “push” and “pull” factors would be involved as well as a multitude of uncertainties.

The EIS does not support conclusions of growth shifts away from Downtown Seattle based on differences among alternatives. The real estate consultant's analysis did not believe such shifts to be a plausible outcome. Historical trends in Downtown growth, including the perspectives provided by reviewing real estate and economic trends and Puget Sound Regional Council projections, support the growth range studied in the EIS. Inferring significant diversion of growth from Downtown based on particulars of certain zoning alternatives is not a supportable finding of the EIS, even as a hypothetical exercise. In fact, considering that the alternatives would all increase allowable height and density compared to existing zoning, these alternatives should increase the attractiveness of Downtown for development rather than decrease it.

Furthermore, even under existing conditions, Downtown can accommodate significantly more growth than is projected over the next 20 years—and beyond. The more pressing issue presented by the choices in this EIS is: where within Downtown can projected growth be best accommodated, and what type of growth is most desirable in different locations to be consistent with the City's growth plans and policies?

Skeptical perspectives in public comments

Among the skeptical perspectives expressed in comments on the Draft EIS were the following:

- Downtown might absorb more than its share of regional growth which might slow the prospective benefits of growth that might be achieved in other urban centers such as Lynnwood or Federal Way.
- Alternatively, the South Lake Union neighborhood might grow so much that demand for Downtown growth would thus be reduced, bringing into question the need for zoning changes.
- We should consider the secondary impacts of future Downtown growth, such as increased traffic congestion and housing costs, on other Seattle neighborhoods.

Evaluation

The EIS does not identify shifts in growth that might cause Downtown to absorb “too much” growth. Studies for the EIS concluded that increasing zoning capacity would not likely increase the amount of growth that might occur in Downtown over 20 years. Further speculation about differences in growth rates in other neighborhoods or cities is beyond the scope of this EIS. Rather than characterize whether growth in some areas would be “too much” or “not enough”, the suggested perspective is to consider that growth is a long-term and ongoing phenomenon. Regardless of possible zoning changes in Downtown Seattle, growth will likely continue to happen in the city and region. Even so, it may take decades for many neighborhoods (including Downtown and South Lake Union) and suburban cities to reach their full growth potential. The suggested approach is to examine the long-term needs of Downtown Seattle and

ensure that sufficient commercial and residential development capacity is available and that development consistent with Seattle's policies for Downtown can be reasonably achieved. This would ensure that Downtown can continue to fulfill its role as the central, largest urban center in the region.

Further analyses of secondary impacts of long-term Downtown growth on other neighborhoods are beyond the scope of this EIS. The EIS was oriented to analyze what difference the zoning changes might make in development patterns and the identifiable differences that might result in Downtown. This is a suitable approach for a programmatic environmental review on a non-project proposal. Given this, it is not within the EIS scope to evaluate the cumulative impacts of 20 years of growth on Seattle neighborhoods. This task would be better addressed in analyses for the City's Comprehensive Plan.

Those with concerns about citywide housing and traffic impacts should consider that potential Downtown zoning changes are oriented to accommodating additional housing development in areas where residents will be better able to live without automobiles. This type of Downtown housing growth is conceptually more efficient in terms of housing, transportation and environmental impacts than growth in areas away from the Downtown Urban Center. Data from the 2000 Census indicate that a significant proportion of Downtown residents commute on foot or by transportation modes other than automobiles.

Chapter Four

Summary

CHAPTER FOUR

SUMMARY

Introduction

Chapter Four is a summary of EIS findings and recommended mitigation strategies, revised for this Final EIS. The chapter briefly describes background, features of the ~~four~~ five alternatives (including a Preferred Alternative, three other Alternatives and a No Action Alternative), anticipated impacts, major issues to be resolved and mitigation strategies. ~~At this stage, a preferred alternative has not been identified.~~ A chart included in this chapter is a comparative overview of impacts identified for each alternative. For a more detailed discussion of the impact analysis, please see Chapters 2 and 3 of the Draft EIS and the accompanying technical appendices.¹

Background

The City engaged in an extensive neighborhood planning process following the adoption of Seattle's Comprehensive Plan in 1994. As part of this process, neighborhood plans were developed for five subareas of the Downtown Urban Center, as well as a plan for the Downtown Urban Center as a whole. Some of these plans included proposals for changes to height and density limits in some Downtown areas. As part of ongoing planning, the City has studied and made decisions on a number of individual proposals:

- With the City Council's initial approval of Downtown neighborhood plans in early 1999, proposals for rezones in the Commercial Core and Pioneer Square neighborhoods were implemented, along with limited amendments to bonus and TDR provisions.
- In collaboration with King County and the Denny Triangle, the Transfer of Development Credits (TDC) program was adopted in late 1999, which allowed for a 30% height increase for residential and mixed-use development in zones within the Denny Triangle to preserve rural lands and generate resources for public amenities in the neighborhood. An area of approximately four acres was also upzoned from DMC 240 to DOC 2 300' to increase employment capacity in the neighborhood.
- More recently, the City amended the provisions of the Downtown bonus and TDR programs through legislation adopted in mid-2001. Conditional height increases ranging from 10% to 30% were also adopted under this legislation for DOC 1, DOC 2 and portions of DRC zones. The bonus and TDR programs specify how projects can gain approval for greater density by providing for affordable housing, public open space, landmark preservation, human services and other public amenities.

This EIS studies another discrete set of actions that could be taken to implement changes recommended by Downtown neighborhood plans. It analyzes changes to height and density limits in three Downtown zones (see Study Area Map, Figure 12). The alternatives represent a range of possible actions that would increase zoning capacity within these areas to accommodate additional employment and residential growth. Alternative 1 represents the "high end" of possible changes (except in comparison to the newly defined Preferred Alternative), while Alternatives 2 and 3 emphasize changes supporting the commercial core and residential uses, respectively. An additional "Preferred Alternative" has ~~not~~ been identified, as discussed in Chapter 1 of this Final EIS. It is likely that City decisionmakers will combine actions from different alternatives as a result of public input and the findings of the EIS.

¹ This chapter includes new text in underline format and deleted text in strikethrough format, to indicate changes made since publication of the same chapter in the Draft EIS, where it was identified as Chapter 1, Summary.

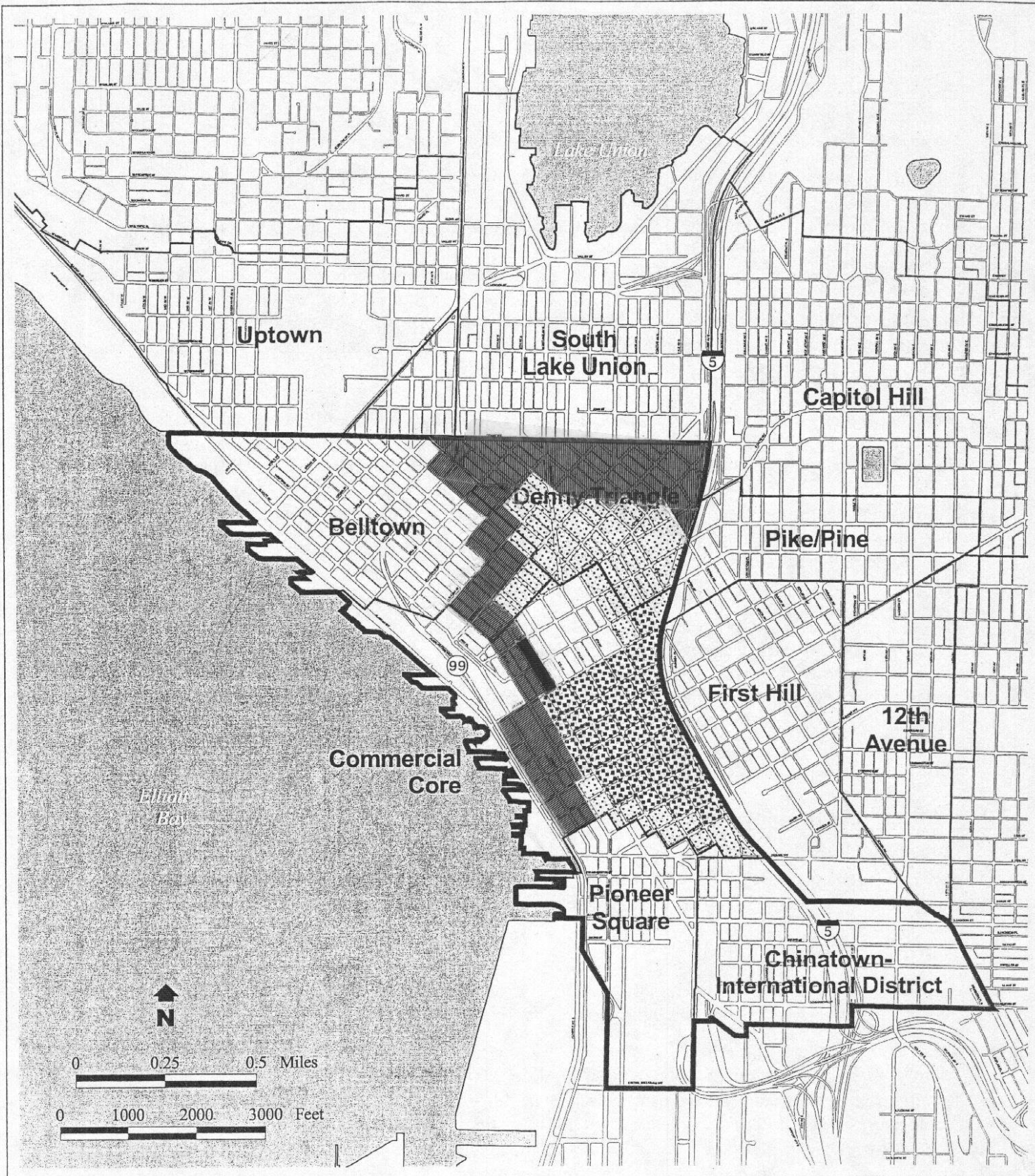
The purpose of this EIS is to disclose impacts associated with actions proposed under each alternative. This analysis makes it possible to compare outcomes of these different actions. It assists in identifying major issues that should be addressed in the course of developing a final proposal for implementation. Public review of this document and discussion of these issues will provide additional input about desired outcomes and the best approach for achieving them. This review will also help focus on key concerns that may require further attention, either with additional work for the Final Environmental Impact Statement or as part of developing mitigation strategies to accompany a final proposal.

Features of the Alternatives

SUMMARY OF THE ALTERNATIVES

- **Alternative 1.** Alternative 1 is a composite of proposals included in different Downtown neighborhood plans and recommendations by the advisory committee that participated in revising the Downtown bonus and TDR programs. Among the Draft EIS alternatives, this alternative calls for the greatest increases to both base and maximum density limits and height limits for all DOC 1, DOC 2 and DMC zones within the study area. Except for the Preferred Alternative, it also calls for the greatest increases in height, especially for zones within the Denny Triangle.
- **Alternative 2.** This alternative limits height and density increases to the DOC 1 and DOC 2 zones and maintains existing limits in the DMC zones within the study area. There would be no changes to base density limits, and use of housing bonuses or housing TDR would be required to gain a 75% portion of all floor area above base density (FAR) limits.
- **Alternative 3.** Alternative 3 would further limit height and density increases to DOC 1 and a portion of DOC 2. To increase capacity for housing, mixed-use provisions would apply to DMC zones, and some DMC areas would be rezoned to DMR/C, a more residential-oriented zone.
- **Alternative 4.** Alternative 4 is a No Action Alternative reflecting current zoning conditions, including the previously-adopted amendments that helped implement neighborhood plans.
- **Preferred Alternative.** The Preferred Alternative recommends changes that would increase height limits in DOC 1, DOC 2 and most DMC zones. The maximum heights proposed for DOC 1 and portions of DOC 2 would reach 700 and 600 feet respectively, and in most DMC areas heights for residential use would be increased to 400 feet, all of which are higher than those analyzed in Alternative 1.

Maximum density limits (FAR) would be increased in the DOC 1 zone, in most DOC 2 areas, and in some DMC areas in the Denny Triangle. The largest density increases in the DOC 1 and DOC 2 zones and the Denny Triangle DMC areas would be the same as discussed under Alternative 1. Portions of the DOC 2 zone in the Denny Triangle and along the southern edge of the Commercial Core would be converted to a DMC zone without changes to the maximum density limits. In other DMC zones, the current maximum density limits would be maintained. A single half-block currently zoned DOC 2 in Belltown (west side of Third Avenue between Virginia and Stewart Streets) is proposed for reclassification to DMC, which would lower the permitted commercial density but allow greater height for housing than is permitted under existing conditions. An area of two half-blocks along the western edge of the retail core not originally included in the Draft EIS study area is also recommended to be reclassified from the existing DRC designation to a DMC designation, which would increase both permitted commercial density limits and height for all uses.



DOWNTOWN EIS STUDY AREA

FIGURE 12

- Downtown Urban Center Boundary
- Urban Center/Urban Village Boundaries

EIS STUDY AREA:

DOC1 Zone

DOC2 Zone

DMC Zone

DRC Zone

Strategic Planning Office
City of Seattle
May 17, 2002

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ASSUMED AMOUNT OF GROWTH

Different proposals for height and density increases vary the capacity of commercial and residential growth that can ultimately be accommodated within Downtown under each alternative. However, the projected demand for housing and commercial floor area Downtown over the 20-year period between 2000 and 2020 is assumed to be constant, regardless of overall zoning capacity. Because developers build for perceived demand rather than building the maximum that zoning will allow, and all available sites will not be developed over a given time period, the zoning changes will not significantly alter Downtown's growth over twenty years. Therefore, for all alternatives, the assumption is that from 2000 to 2020, the Downtown Urban Center will add 70,000 jobs and housing to accommodate 17,500 households (equivalent to 18,400 dwelling units).

- **Employment growth.** The majority of the employment growth—90% (63,000 jobs)—is assumed to occur within the study area where height and density increases are being considered, with the remaining 10% (7,000 jobs) occurring in Pioneer Square, the International District, the retail core and Belltown.
- **Residential growth.** Of the 18,400 units added Downtown, approximately 7,350 units (40%) would be accommodated in development within the study area, with the remaining 11,050 units occurring in other areas, including Belltown, Pioneer Square and the International District. It is estimated that accommodating 11,050 units outside the study area would require utilizing about 87% of the remaining development capacity in these areas. Depending on the alternative, between 69% (Alternative 3) and 87% (Alternative 4) of the total available development capacity would be needed to accommodate the additional 7,350 units forecasted for the study area.

ASSUMED PATTERN OF GROWTH

- **Infill and growth outward from the core.** The analysis assumes future development will seek to infill remaining sites in the Downtown Office Core (DOC 1 and DOC 2) zones, and also grow outward from the office/retail core. Thus, redevelopable properties in or near the existing core are likely to be the most attractive for the next round of development within Downtown.
- **Larger sites and sites already assembled are more attractive.** The “grow from the core” assumption is tempered by an assumption that larger sites under single ownership will be as likely to develop as sites in better locations that are challenged by small site sizes or multiple owners.
- **Similarities among alternatives in the pattern of growth.** Under all of the alternatives, most of the growth projected for the 20-year period can be accommodated on the same sites, resulting in only limited distinctions between alternatives in the geographic distribution of growth. However, more distinctive growth patterns would likely emerge as additional growth occurs in later years, due primarily to changes in the DMC zones affecting available capacity for housing.

Relationship to Plans and Policies. All of the alternatives provide sufficient capacity to accommodate housing and job growth targets established for the Downtown Urban Center in Seattle's Comprehensive Plan.

The various Downtown Neighborhood Plans and the Downtown Urban Center Plan include a wide range of goals and policies about how Downtown should grow and the ~~desired~~ desired type of urban environment desired to accommodate growth. Of particular relevance to this EIS analysis are housing affordability goals and policies with regard to lower-income households. Other relevant goals and policies seek to maintain the positive characteristics of existing development conditions, promote high-quality livable residential environments, and maintain desired physical relationships between Downtown areas and adjacent neighborhoods. Impacts related to these goals and policies are discussed in more detail below.

Major Conclusions

Development over 20 years under existing zoning, as reflected in Alternative 4, will result in substantial changes to some Downtown areas, particularly the Denny Triangle. For some studied topics, the Alternatives 1, 2 and 3 would result in only subtle differences in impacts from the 20-year “baseline condition.” But for quite a few topics, future development under these alternatives would likely generate distinctly different levels of impacts. This section discusses several overall conclusions. Table 7 later in this chapter compares the impacts of the alternatives.

Population and Employment

- Depending on the source of the projection, Downtown Seattle is expected to grow by 16,000-26,000 new residents and 50,000-70,000 new employees. This level of population and employment growth can be accommodated through development permitted by the zoning under all alternatives, including the Preferred Alternative.

Housing

- All of the alternatives provide enough capacity for new residential units to meet demand between 2000 and 2020. However, after 2020 the limits to available capacity for residential development may begin to constrain growth. ~~will be limited~~
- The Denny Triangle Transfer of Development Credits (TDC) program would be eliminated under Alternative 1 and the Preferred Alternative. This program encourages residential development in the Denny Triangle, provides funds for amenities in the Denny Triangle and preserves land from development in rural King County. Its use would be restricted under Alternatives 2 and 3. ~~By retaining~~ If existing zoning was retained under Alternative 4 (No Action), the TDC program would continue to be available throughout the Denny Triangle. However, in the Preferred Alternative, proposed increases to height limits for residential use in DMC areas should offset some of the loss in residential capacity that could result from termination of the TDC program.
- Funding for low-income housing would increase under Alternatives 1, 2, ~~and 3,~~ and the Preferred Alternative above that projected with existing zoning. The Preferred Alternative and Alternative 2 followed by Alternative 3 would provide the most funds for low-income housing development. Increased funding for low-income housing in the Preferred Alternative is primarily attributed to increasing the maximum FARs in DOC 1 and DOC 2 and some DMC zones while maintaining the current base FAR.
- Six existing residential buildings containing 300 units are identified as sites where redevelopment could occur in the future. Three of the six buildings, with 141 dwelling units, receive subsidies to keep their units affordable to households earning less than 50% of the median area income. Under all alternatives, more subsidized units would be built through housing bonus funds than might be demolished.

Land Use

- There will be only modest ~~little~~ differences among the alternatives in the mix of land uses in the study area. Under all alternatives, the mix of uses in the Denny Triangle would significantly change with the redevelopment of many of the neighborhood’s vacant and underutilized blocks. Alternative 1 would result in fewer but larger office and residential buildings mixed in a high-density environment, whereas Alternative 4 (existing zoning) would likely result in more sites developed with slightly smaller buildings. Alternative 3 would provide the most difference from the other alternatives, with

the projected development of residential enclaves in Belltown and the Denny Triangle. The impacts of the Preferred Alternative would likely fall between those of Alternative 1 and Alternative 3.

- As redevelopment occurs, less expensive office space is likely to be lost, and those human service providers that do not own their own space may find it more difficult in the future to find affordable space in Downtown Seattle.
- ~~One City of Seattle landmark and~~ A number of buildings considered important to various Downtown neighborhoods were identified as sites where redevelopment might occur, due to the small size of their ~~structures landmark~~ compared to the potential maximum development permitted on the site. One City of Seattle Landmark (Old Norway Hall) is located on a site identified to be at a "secondary" level in terms of its likelihood to redevelop.

Height, Bulk and Scale

- Among the Draft EIS alternatives, Alternative 1 allows the greatest increases in height and density throughout the study area. With these increases, projected growth could be accommodated in fewer but larger projects than the other alternatives. Under Alternative 1, taller bulkier structures would be permitted in some sensitive transition areas, resulting in a more abrupt change in scale and intensity of development along edges where the study area abuts other neighborhoods. The Preferred Alternative allows greater height than the Draft EIS alternatives in DOC 1 and most DOC 2 areas, as well as many DMC areas. In the office core zones, the greater height is intended to accommodate the same maximum density limits proposed in Alternative 1, but in less bulky towers. In the DMC areas, the greatest height increases are limited to residential use, and are combined with more stringent controls on building bulk to ensure that taller buildings are less bulky than what could occur if only existing restrictions applied. In transition areas, the greatest increases in height are for residential use subject to additional bulk controls, and the commercial density limits would remain at existing levels. Consequently, buildings built to these heights in the future would appear less bulky, and the achievable density of development would continue to provide for the desired transition between the denser office core and less intensive adjacent neighborhoods.
- Under all the Draft EIS alternatives, the absence of a density limit on residential use, along with the lack of any restrictions on exemptions for above-grade residential parking from floor area limits, creates the potential for very bulky residential and mixed-use developments.
- The likely scale and character of residential development, and the general mixing of housing with high-density commercial projects under Alternatives 1 and 2 could hinder development of areas with a strong residential character. except in Under Alternative 3, where establishing additional residential zones are established in part of the Denny Triangle and the southern edge of Belltown could result in environments with a greater concentration of housing and a more residential character. While residential-oriented zones would not be established under the Preferred Alternative, proposed changes in the DMC zones, including height incentives for residential use and special provisions like the transfer of commercial development rights to create housing sites, and the rezoning of some DOC 2 areas to DMC may encourage development choices that result in greater concentrations of housing and a stronger residential character in some areas.
- In some zones where the bulky appearance of recent development is attributed to current height limits, the proposed density increases are proportionally greater than proposed height increases. Consequently, the outcome could be taller buildings with similar bulky characteristics rather than more slender, taller towers. The Preferred Alternative would largely avoid or reduce the likelihood of this type of impact by allowing sufficient height to comfortably accommodate permitted density in high-rise towers without requiring the large floor sizes that make structures appear bulky.

- The narrower street widths and longer block sizes in portions of the Denny Triangle could exacerbate impacts associated with bulkier development. The Preferred Alternative would somewhat reduce the potential for this type of bulk impact, due to improved controls on building bulk of residential structures.

Pedestrian Amenities and Streetscape

- Only minimal development standards for enhancing the pedestrian environment apply in the portion of the Denny Triangle west of Westlake Avenue. This could result in a low level of pedestrian amenity and limited street level activity in what is likely to emerge as a high-density office district.

Parks and Open Space

- Future development under any of the alternatives will increase Downtown employment and residential populations, creating more demand for the use of existing open space resources. Some of this demand will be met through open space provided as a result of zoning requirements and incentives, as well as common development practices. Development will provide required open space to meet the needs of building occupants, as well as public open space to help augment existing public resources.
- The greatest increase in employment and residential population is projected for the Denny Triangle, where open space resources are currently limited. Under any alternative, open spaces are unlikely to increase sufficiently to meet all of the open space goals in the Comprehensive Plan. Potential additions to open space resources through public action include acquisition of land in the Denny Triangle with funds allocated to the area for open space improvements through the Pro-Parks initiative, and the potential for a significant open space to be developed as part of King County's TOD redevelopment of the Convention Place station site. Opportunities for significant additional public open space along the waterfront in conjunction with the replacement of the Alaskan Way Viaduct are also being contemplated. Providing open space resources jointly with other public infrastructure and utility projects, such as power substations, may provide additional opportunities for increasing open space resources. Also, improved design of existing open space resources, such as Freeway Park and Denny Park, could enhance access and increase use for the growing Downtown population.
- Elimination of the Transfer of Development Credits program due to height increases (as is likely under Alternative 1 and the Preferred Alternative), or reduction of the TDC program's area, represents a potential loss of a funding source for desired open space improvements in the Denny Triangle. A commitment by King County to develop a major public open space as part of the Convention Place TOD project was also part of the Inter-local Agreement between the City and County establishing the program.

Views and Aesthetics

- Potential impacts on views were considered for public viewpoints, view-protected landmarks, scenic routes, the skyline and other non-protected views. In many cases, differences between the alternatives in visual impacts would be relatively subtle. However, Alternatives 2, 3 and 4 would promote differences in allowable building bulk that would be detectable when viewed from some locations. Under the Preferred Alternative, taller structures would be allowed at various locations than under any of the other alternatives, but individual new developments are more likely to be perceived as less bulky than under the other Alternatives.

Urban Climate (Shadows and Wind)

- Future development of taller buildings in the Denny Triangle, edge of Belltown and First Avenue/Western Avenue vicinities would add to the shading of city streets. The possibility of higher

building heights on a few properties near Denny Way creates slightly greater potential for shading impacts on Denny Park.

- Future development of new buildings in Downtown would create the potential for additional wind effects near street level, depending upon the design of specific buildings and the general grouping of buildings. If development under the Preferred Alternative uses the added height allowed to accommodate smaller floorplates and more varied massing schemes previously not possible under existing height constraints, portions of towers may be located further from street edges or there may be additional vertical interruptions in facades with reductions in the size of upper floors that could reduce “downwash” and other negative wind impacts at street level.

Transportation

- For all alternatives, traffic volumes in 2020 entering and leaving Downtown at the studied locations would increase by approximately 10% in the AM Peak hour and 20% in the PM peak hour compared to existing conditions. This reflects the relatively high level of growth over 20 years studied by this EIS.
- In the northeast corner of Downtown (Denny Triangle), Alternative 1 would generate traffic approaching the rated capacity of key commuting corridors near the Stewart Street and Denny Way intersection by the year 2020. For the other alternatives (including the Preferred Alternative), traffic volume/capacity conditions in this vicinity would be roughly 5-10% better than Alternative 1.
- Impacts of the alternatives in other portions of Downtown would not be as substantial as in the Denny Triangle.
- By 2020, even with no zoning changes, the number of intersections experiencing significant or severe congestion in the key studied corridors (e.g., Stewart, Howell, Olive Way, Denny Way) would increase from 5 intersections today to approximately 17 intersections in the PM peak hour. Alternatives 1, 2 and 3 would cause 2 to 5 additional intersections to experience this level of congestion (level of service E or F) in the PM peak hour. This would adversely affect travel times through the studied corridors for general traffic and buses, and cause some queuing (lane backup) issues in several locations. Impacts of the Preferred Alternative likely would be between those of Alternatives 1 and 3.
- Future development over time could contribute to displacement of several existing King County Metro bus layover locations, primarily in the Denny Triangle.

Parking

- With future development under any of the alternatives, at least 17,000 additional off-street parking spaces would be provided, and approximately 7,100-7,500 existing off-street parking spaces would be displaced, largely in the Denny Triangle and edge of Belltown vicinities. While the Preferred Alternative includes a proposal to eliminate the minimum parking requirement for commercial uses, most projects are expected to provide some amount of parking for building tenants within the maximum limits allowed.
- Future growth would increase overall parking demand, for approximately 19,500 to 23,750 spaces, depending upon how many commuters choose to use transit rather than automobiles. Depending upon the strength of demand, it is possible that developers or private parking providers would provide a greater supply of parking, although the maximum limits on the amount of long-term commuter parking in projects and restrictions on where principal-use parking facilities can be located would limit the amount of additional parking that could be provided in future development.
- Competition for on-street parking spaces would likely increase, especially in areas of concentrated future development.

Energy

- ~~The EIS growth assumptions are approximately consistent with levels of growth in City Light projections. Given updated analyses available in 2004, City Light predicts that a new substation serving Downtown needs to be energized by 2012 after 2020.~~ Under Alternative 1, potential future development resulting from higher zoning height/density limits in the Denny Triangle area east of 8th Avenue could result in capacity limitations more quickly than would otherwise occur, due to increased commercial loads. These limitations and needed improvements will be closely monitored and addressed in City Light's Capacity Plan in 2005 (and as subsequently updated in the future). Alternatives 3 and 4 would generate comparatively lesser impacts on the electrical system than Alternatives 1 and 2. The impacts of the Preferred Alternative are likely to be similar to but somewhat less than Alternative 1 because with slightly more commercial development concentrated in the office core zones, there would likely be less potential for higher-density commercial development extending into the eastern edge of the Denny Triangle.

Water and Sewer/Stormwater Utilities

- The alternatives would generate additional water consumption and sanitary sewage volumes due to future development of commercial and residential uses. However, the capacity of existing systems in general would be adequate to provide for this future growth.
- Better stormwater control requirements with future development will likely improve overall stormwater flow conditions in the combined sewer facilities.

Major Issues to be Resolved

Some questions relating to the magnitude of impacts or the design of mitigation strategies are still unresolved. These issues, discussed in this Final EIS, will be addressed in ongoing review and planning... Major issues ~~requiring further study and resolution~~ include the following:

Balance between employment and housing growth Downtown

The proposed changes studied in the EIS raise an important policy question about Downtown growth that needs to be addressed to guide the City's decisions. Should actions be taken to expand areas Downtown dedicated primarily for concentrated employment growth, with the potential risk of foreclosing opportunities for more housing development in these areas? Or should actions to increase Downtown's capacity for employment growth be balanced with actions to create additional capacity for residential growth?

Below are two potential policy choices related to the nature of Downtown growth:

- **Expand Downtown's role as employment center.** Changes to height and density limits in the study area will expand Downtown's ability to accommodate more jobs by increasing employment capacity. Higher commercial densities beyond the core will provide opportunities for more concentrated employment growth in areas currently intended for a mix of both housing and moderate-density employment activity. As more of the Downtown area absorbs employment growth, housing will be accommodated in peripheral areas, like Belltown, or in areas adjacent to Downtown where land is available.

As growth continues under the proposed changes, residential capacity will eventually be "built-out" while capacity remains for continued employment growth. Consequently, the amount of housing that can continue to be provided Downtown for Downtown employees will diminish. Housing for Downtown employees will increasingly need to be provided in areas outside of Downtown. With constraints on housing capacity in adjacent areas, including First Hill, Capitol Hill, South Lake Union,

and Uptown Queen Anne, opportunities for housing future Downtown employees in these areas will be limited as well.

- **Promote a balance between both employment and housing growth.** This approach implies there is an first requires defining the appropriate balance between the amount of jobs and housing to be accommodated Downtown over the long term, beyond the 2014 timeframe of the Comprehensive Plan growth targets. As noted in comments on the Draft EIS, the concept of "balance" is relative, not necessarily consisting of a 1-to-1 balance of housing and jobs. As the Comprehensive Plan is updated in 2004 to cover the timeframe between 2014 and 2024, housing and employment growth targets may be updated to cover those additional ten years. To the degree this concept is favored by decisionmakers, measures then need to be considered for ensuring sufficient capacity to maintain this balance—either by reserving more areas for housing, linking increased employment density to provisions for additional housing production, or some other means. The Preferred Alternative proposes certain actions to promote this balance within the study area; in a large portion of the DMC areas, the permitted density for commercial development is maintained at current limits, while incentives are added for housing, including increased height limits for residential and mixed-use development and provisions that allow the transfer of commercial development rights from sites that are developed with housing. Increased commercial densities in the DOC 1 and DOC 2 office core zones are also intended to attract a larger share of future commercial growth to these areas, thereby reducing pressure for commercial expansion into the adjacent mixed-use DMC areas.

Livability of Downtown residential environments

Assumptions about the type and location of housing to be built in the study area in the future imply that a certain type of residential environment will emerge, with larger, denser residential projects mixed with high-density commercial development. These assumptions raise questions about the type of residential environments desired to accommodate future housing, as well as the measures needed to achieve these environments. Included among these questions: how best to accommodate a desirable mix of housing serving households of various incomes, and how to provide necessary amenities and services needed to support different residential populations? With higher land costs in areas where commercial densities are increased, will subsidized affordable housing continue to be ~~built~~ buildable in these areas? If so, will there be sufficient support services available to this population?

Two options for future Downtown residential environments that are explored in the EIS include:

- General mixing of housing development with commercial development;
- Creation of residential areas or "enclaves" where housing is the predominant use.

Elimination or Continuation of the Transfer of Development Credit Program

The City established the TDC program in the Denny Triangle jointly with King County in 1999. Since then, one project has purchased a limited number of conservation credits and incorporated public amenities on the development site as a contribution to the amenity credit fund. While no projects have yet purchased development credits, at least a half dozen Several other projects have expressed interest, and the County has already committed limited resources to be used in the design and implementation of a demonstration Green Street block.

In varying degrees, the proposed alternatives reduce the area of the Denny Triangle where the TDC program would continue to operate. Alternative 1, with proposals for the greatest height and density increases in the Denny Triangle, would likely result in the elimination of the program altogether. Alternative 2 would keep the program active in roughly half of the area, while Alternative 3 would maintain the program in about 2/3 of the area. The Preferred Alternative would likely result in the elimination of the program.

The TDC program provides a means to target public and private resources into a high-growth area. It is also seen as a way to make residential development a more competitive option for developers in zones that allow relatively high densities for commercial development. Because residential use is not subject to a density limit under Downtown zoning, the one mechanism the TDC program employs to encourage provides the only mechanism for requiring market-rate residential development to contribute to public amenities is the ability to add in exchange for allowing additional residential floor area above current height limits. Proposals to allow greater height for development in the Denny Triangle will remove this incentive of added height that participation in the TDC program was able to provide.

Accommodating transition between high-density Downtown commercial areas and less intensive adjacent neighborhoods

Downtown zones were originally established and mapped to accommodate a ~~gradual~~ transition in the density, height and scale of development in areas ~~between~~ ~~separating~~ the "core" commercial zones and adjacent residential and mixed-use areas. Increases in height and density that would create a more abrupt change in the scale and intensity of development along the "edges" of these transition areas should be evaluated to ensure that they remain compatible with the general principles of transition discussed in City policies.

Under what circumstances should measures be applied to maintain a development transition? This is especially an issue for portions of DMC areas abutting Belltown, Capitol Hill, Pike/Pine, the Cascade neighborhood and the waterfront; as well as portions of the DOC 2 zone abutting the historic districts of Pioneer Square and the International District to the south, Pike/Pine to the east, and the residential enclave desired in the northeast corner of the Denny Triangle. The proposed changes in the Preferred Alternative are meant to alleviate potential impact concerns of height and bulk in future development, including their relationship to transition issues. While the Preferred Alternative includes proposals for height increases in most of these areas for residential use, for the most part, commercial height and density limits are maintained at existing levels. This would retain the transition in the intensity of development that these zones currently provide. Since there is no increase in commercial density limits, commercial buildings, where allowed increased height, would likely be less bulky, and residential structures would be subject to new bulk controls.

Accommodating additional open space

With only limited open space, the affected area currently has the greatest employment density in the region (over 300 jobs per acre), which is projected to increase further in 20 years to over 460 jobs per acre. Furthermore, projections call for adding a substantial amount of housing to the area—over 7,350 new units. With about 6,000 units currently in the affected area, the amount of housing will more than double, increasing density to about 32 units per acre. With only a limited increase in the amount of open space planned for the area, this additional growth is likely to raise concerns about being adequately served. Under the Preferred Alternative, increasing the maximum commercial density limits while maintaining current base density limits creates the potential for greater use of development incentives for providing public open space, such as bonus open space features like plazas, hillside terraces, and parcel parks located on projects sites, green street improvements, contributions through in-lieu of payments for off-site open space improvements, and use of open space TDR from future public open space sites, such as the Olympic Sculpture Park.

Promoting a desired development scale

~~Preliminary~~ Studies for this EIS have identified several issues related to the bulk of development under any of the EIS alternatives, including:

- **Residential and mixed-use development.** Current conditions create the potential for very bulky residential and mixed-use development due to the fact that FAR density limits do not apply to residential uses and accessory parking provided in above-grade structures. In the absence of such limits, current bulk controls have only a limited impact on overall building bulk. With increased height limits, the issue of development bulk is likely to gain more attention as more residential and mixed-use developments occur in Downtown commercial zones, and projects increasingly push the building envelope to maximize development potential. The Preferred Alternative is meant to alleviate impact concerns by controlling residential building bulk better and adjusting the relationship between permissible bulk and permissible density. ~~However, addressing this issue raises another dilemma. Measures to promote more desirable building forms (slender towers, tower spacing, etc.) will reduce the number of units that can be accommodated on a site—appearing to contradict efforts to promote more housing.~~
- **Commercial development.** Increasing density limits, even when coupled with height increases, could result in the unintended consequence of producing bulkier buildings. For example, the Alternative 1 proposal to raise density limits from 10 FAR to 14 FAR (40% increase) in DOC 2 areas of the Denny Triangle, while increasing height limits from 300 feet to 400 feet (33% increase), will create a similar situation to that of the DOC 1 zone, where problems have been cited with the bulkiness of development built to the current maximum 14 FAR and 450-foot height limit. Given the larger site sizes and lower height limit of the DOC 2 zone, this condition would likely be repeated by Alternative 1. ~~here~~ Similarly, the proposed 10 FAR in DMC zones with height limits of 240 feet or less could raise the same issues cited in DOC 2 zones under the current 10 FAR limit and 300-foot height limit. The Preferred Alternative is meant to alleviate impact concerns by allowing for taller buildings that will be able to distribute bulk better in a tower form that is more likely to be slimmer than what would occur under the existing height limits. Consequently, the proposed height limits are proportionately greater than the proposed density limits.

Additional Impact Analysis on the Preferred Alternative

This section provides additional impact analysis that expands upon the Draft EIS's land use, height/bulk/scale and urban design impact analyses, in relation to the Preferred Alternative. Also, it further expands the impact analysis to address one newly proposed rezone within the Preferred Alternative that is distinct from the other alternatives.

Height/Bulk/Scale Impact Analysis for the Preferred Alternative

This chapter's various new discussions provide additional analysis of the height/bulk/scale implications of the Preferred Alternative, including underlined text throughout the chapter and the additional "Preferred Alternative" impact column in Table 7 below. These provide the necessary level of evaluation with the additional benefit of allowing comparisons among alternatives.

As an additional supplement to the analyses, this section includes graphics that depict the implications of the Preferred Alternative on building height, bulk and scale and its relationship to the cityscape. Figure 13 provides a depiction of the largest projects that might be anticipated under the Preferred Alternative, compared with existing development built under various Downtown Zoning Codes and potential development under the current code. For commercial development, the illustration shows a project on a full-block site accommodating the maximum density (FAR) allowed and extending to the maximum height limit. The residential project is shown built to the maximum bulk and height limits allowed in the various zones. For commercial development, the largest projects, while taller than existing zoning allows, would not be as tall as many existing Downtown office towers, and would be more slender when compared to other towers built to maximum density limits. Few residential buildings have been built in

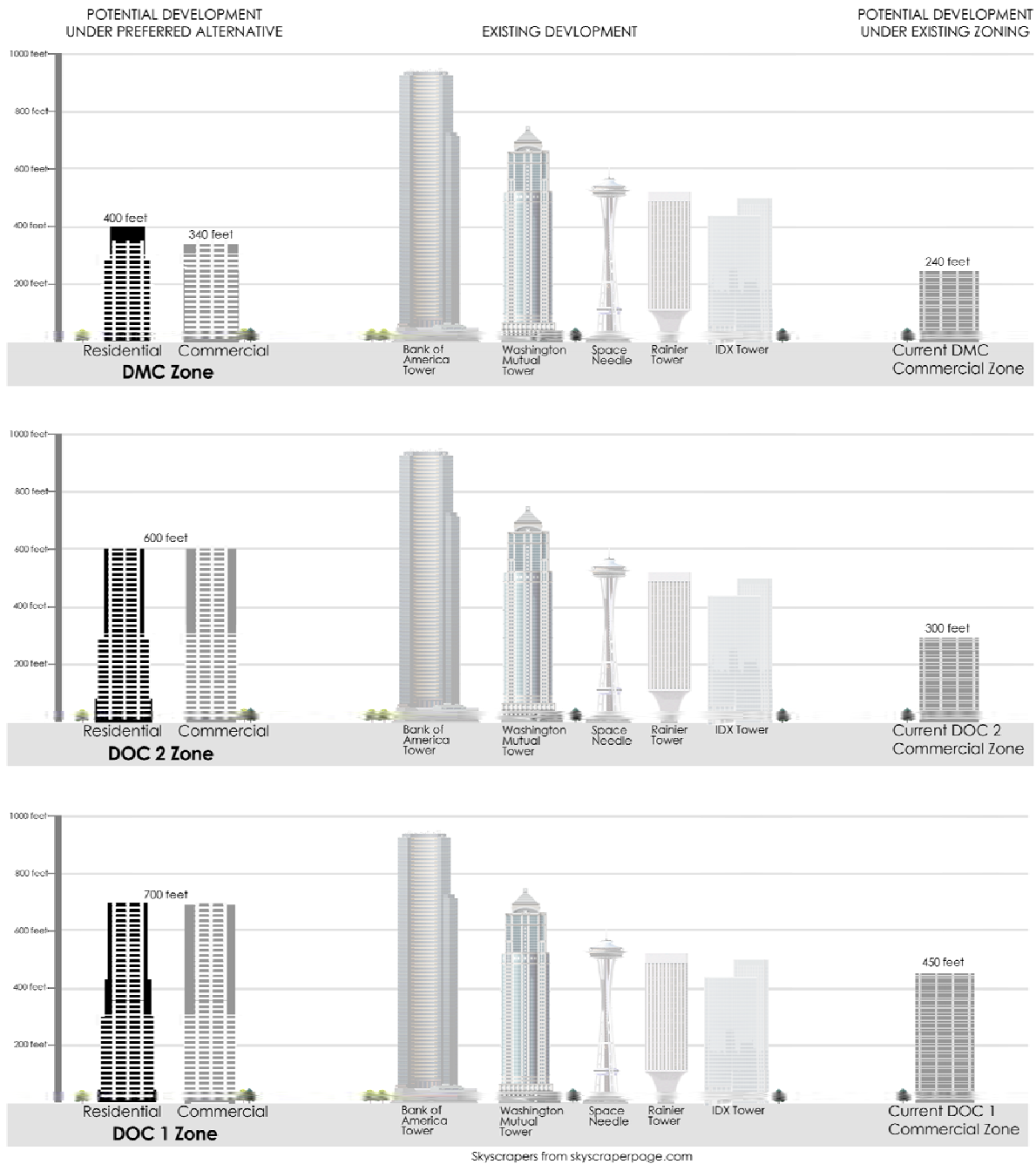


FIGURE 14.
**Comparison of Proposed and
 Existing Building Heights**

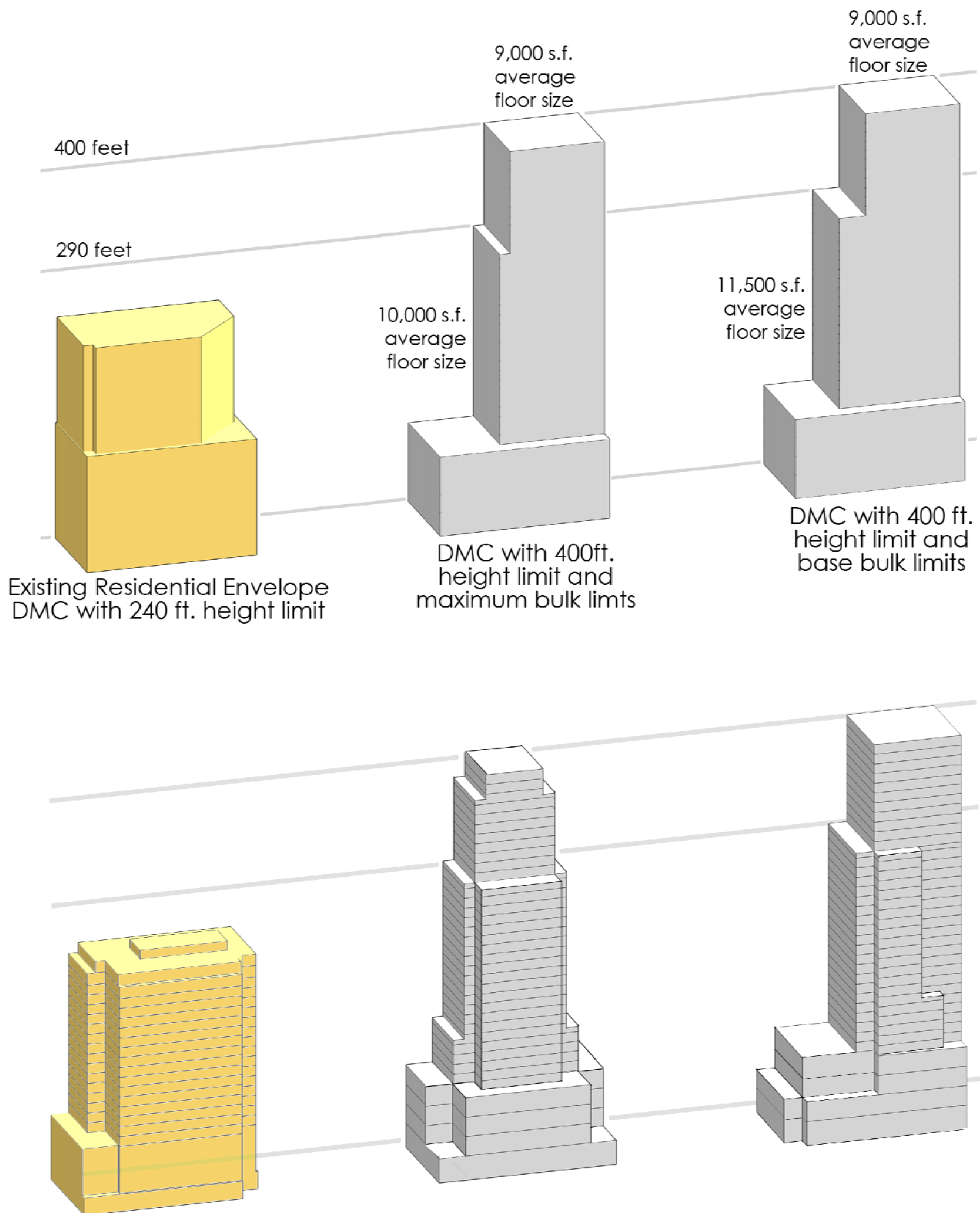


FIGURE 14.

**Illustration of zoning envelopes
and possible building forms,
DMC 240/400 zone.**

the Downtown office core and DMC zones as large as the zoning allows, but buildings built at this scale under the Preferred Alternative would be considerably less bulky than buildings allowed under current zoning, and less bulky than commercial development under the Preferred Alternative, especially on the upper floors.

Figure 14 provides a more detailed look at the differences in the zoning envelopes for residential development in the DMC under existing conditions and the Preferred Alternative. The upper portion of the graphic compares the permitted building envelopes that define the maximum building bulk allowed, while the lower portion shows images of buildings that more closely reflect what might be built. Under existing conditions, there is no limit on bulk below a height of 125 feet. Above 125 feet, if the floor size is greater than 15,000 square feet, there are some restrictions on the amount of floor area that can extend within 20 feet of street property lines, but no overall limits on the width and depth of a structure up to the current height limit of 240 feet. Under the Preferred Alternative, structures with residential use above 125 feet in height would be subject to more specific bulk controls, including maximum limits on floor sizes above the height of 85 feet and maximum limits on the width and depth of structures. Within these limits, floor sizes can be averaged, but are also required to be narrower in the upper third of the tower. In order to build to the maximum floor size allowed, and add floors up to the maximum height limit of 400 feet, a project would have to contribute to an affordable housing mitigation program.

Figures 15 and 16 illustrate the cityscape as viewed from Elliott Bay under existing zoning and with the Preferred Alternative, respectively. These graphics show that, under the Preferred Alternative, towers would be noticeably taller in the northeast portion of the Downtown study area. However, with more slender towers, the overall massing of development is generally less compact, providing a greater sense of openness. In the existing office core area to the south, the scale of existing development and more limited amount of new development would make the differences under the two scenarios less apparent. In fact, the building that will likely be most noticeable because of its size and location is the new Washington Mutual Tower now under construction.

Figures 17 and 18 illustrate the relative changes expected in the cityscape as viewed from north of Denny Way, under existing zoning and with the Preferred Alternative, respectively. These graphics best depict the differences that would likely result from the proposed changes. Overall, under the Preferred Alternative, there are fewer buildings, with less development pushing out to the far edges of the Denny Triangle—the exception being some taller residential structures at scattered locations. Closer to the core, towers are noticeably taller under the Preferred Alternative, but development on the larger sites in the area appears less compact, since the added height allows taller buildings to free up more space on the site. Overall, under the Preferred Alternative, there is also greater variation in the skyline profile than the more “tabletop” profile anticipated under existing conditions as a result of more restricting height limits.

Figures 19 and 20 illustrate the relative changes expected in the cityscape as viewed from Capitol Hill. The location of this perspective is slightly different than shown in the Draft EIS, because it locates the viewer at Melrose Avenue. These graphics show the differences in future views of the cityscape from this portion of Capitol Hill.



FIGURE 15.
Cityscape view from West
Existing Conditions (Alternative 4)

LEGEND

- New (since 2000)/Under Construction
- Potential
- Currently Permitted/Proposed

*Note: Site Status as of 2002



FIGURE 16.
Cityscape view from West
Preferred Alternative

LEGEND

- New (since 2000)/Under Construction
- Potential
- Currently Permitted/Proposed

* Note: Site Status as of Jan. 2005

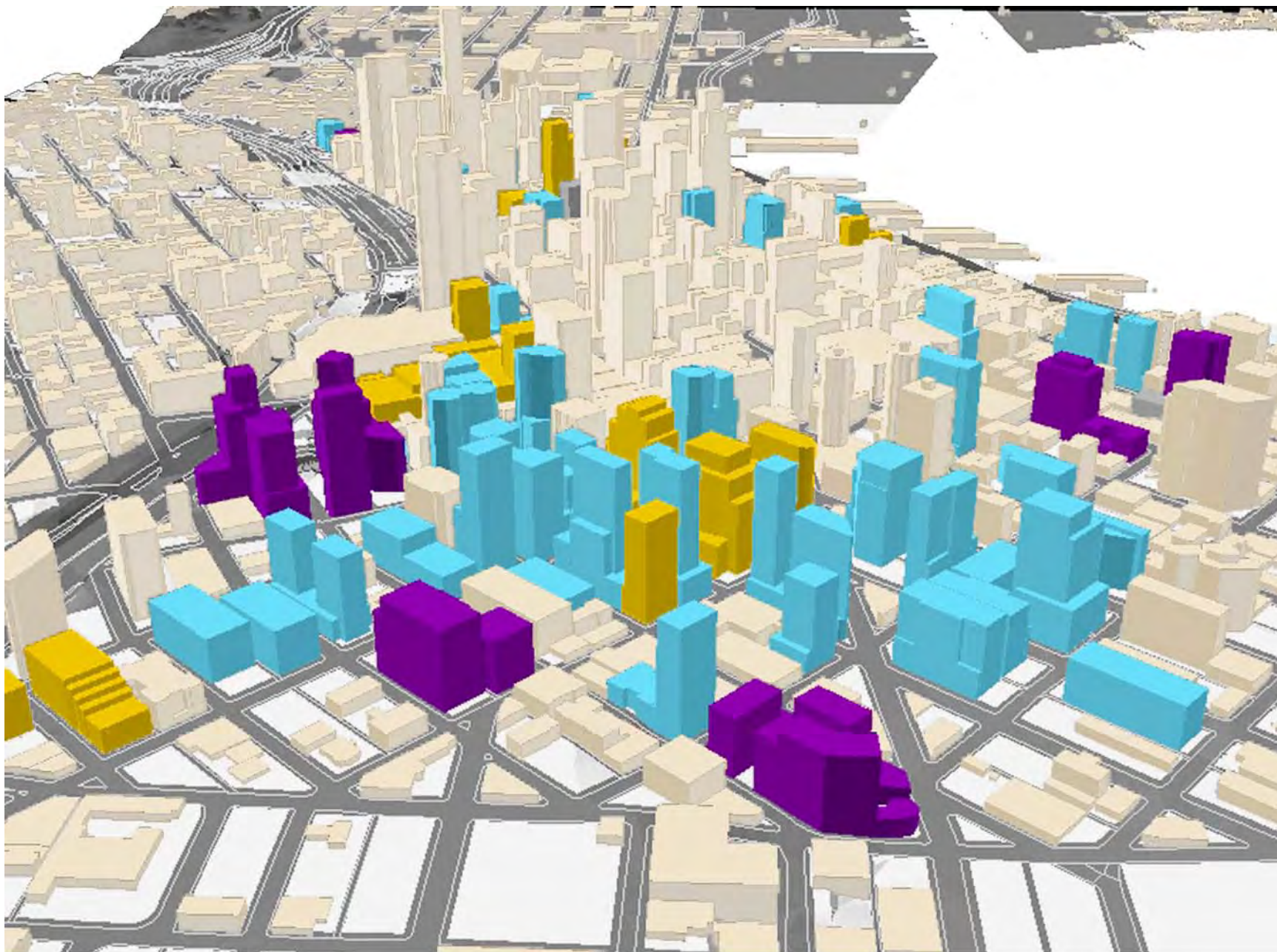


FIGURE 17.
Cityscape view from North
 Existing Conditions (Alternative 4)

LEGEND

- New (since 2000)/Under Construction
- Potential
- Currently Permitted/Proposed

*Note: Site Status as of 2002



FIGURE 18.

Cityscape view from North

Preferred Alternative

LEGEND

- New (since 2000)/Under Construction
- Potential
- Currently Permitted/Proposed

* Note: Site Status as of Jan. 2005

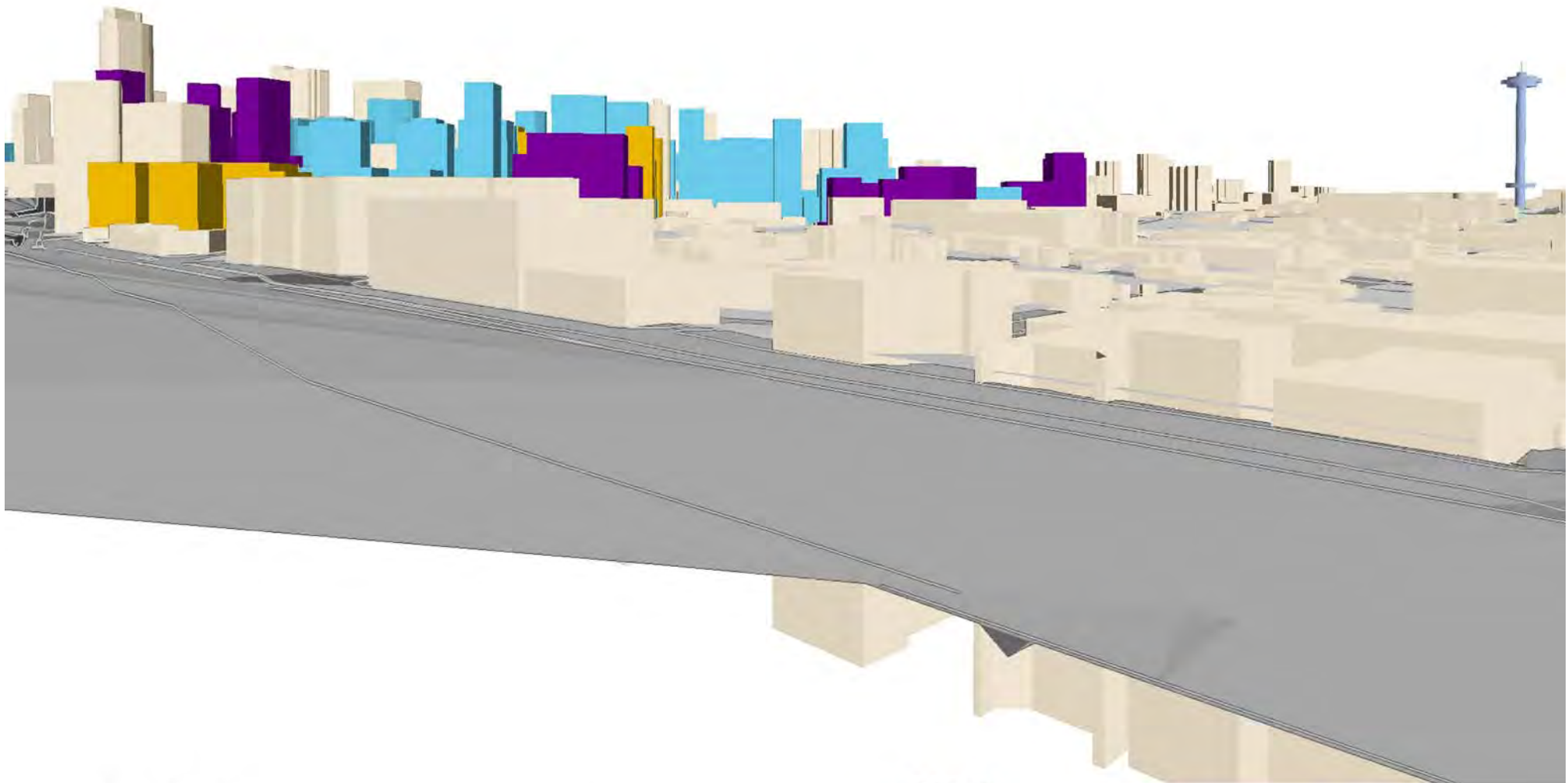


FIGURE 19.
Cityscape view from Capitol Hill
Existing Conditions (Alternative 4)

LEGEND

- New (since 2000)/Under Construction
- Potential
- Currently Permitted/Proposed

*Note: Site Status as of 2002

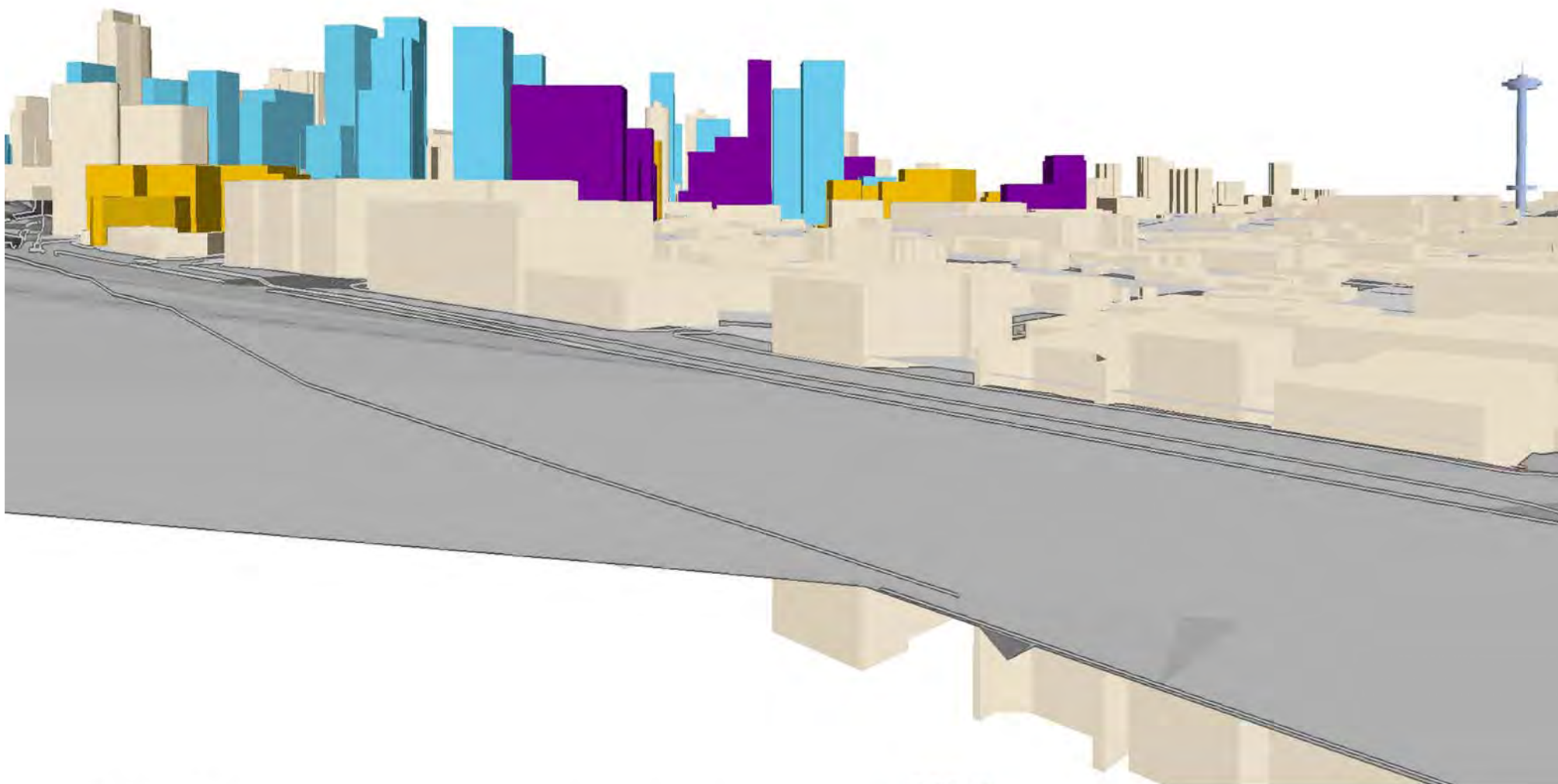


FIGURE 20.
Cityscape view from Capitol Hill
Preferred Alternative

LEGEND

- New (since 2000)/Under Construction
- Potential
- Currently Permitted/Proposed

* Note: Site Status as of Jan. 2005

Proposed rezone of two half-blocks on Second Avenue from Downtown Retail Core to Downtown Mixed Commercial

This proposed rezone that is part of the Preferred Alternative would change two half-blocks on the east side of Second Avenue between Pine and Union Streets from the Downtown Retail Core zone to the Downtown Mixed Commercial zone. This area is part of a three half-block area that the Commercial Core Neighborhood Plan had asked to be considered for rezone to DMC. In 2001, the City adopted a rezone from DRC to DMC 240' of one half-block directly to the north of these two half-blocks. These two half-blocks had also been reviewed at that time for rezoning to DMC, but this did not occur, due in part to public comments opposing the changes. Instead, a Land Use Code revision in SMC 23.49.008A5 was made, to allow additional height up to 195 feet in these two half-blocks if all portions of a structure above 85 feet in height contain only residential use.

Land Use

Like most large cities, Downtown Seattle's core is comprised of many sub-districts with dedicated purposes and distinct character, such as the retail core, the office center, the government center, and Pike Place Market. At an even finer grain, the character and pattern of uses may vary on a block-by-block basis or within clusters of a few blocks, contributing to different perceptions about comfort and attractiveness.

The proposed rezone area consists of two half-blocks located between the major activity centers of the retail core and the Pike Place Market, within the two blocks immediately north of Benaroya Hall. These half-blocks are part of a localized district that over many years has seen few improvements attractive to pedestrians and customers. While the First Avenue corridor has experienced marked improvement in quality of aesthetics and street-level uses over the past 20 years, and areas to the south have benefited from the attractiveness of Benaroya Hall and the Seattle Art Museum, this vicinity is less attractive. The Newmark mixed-use building on the west side of Second Avenue is an exception, but even the Newmark has had varying degrees of success in maintaining use of its ground-floor commercial spaces.

This vicinity's land use patterns include a variety of small, older buildings used for many retail, commercial and residential purposes, as well as parking lots and garages that contribute to a marginal quality in streetscape and attractiveness, both in aesthetic and commercial terms. On the two half-blocks affected by the proposed rezone, existing uses include: two parking garages with street-level retail and office uses, two surface parking lots, the Columbia Building (in commercial use) and the Haight Building (accommodating the 42-unit Second and Pine Apartments plus street-level retail use). No landmarks are present within this rezone area.

Notable buildings and uses in the vicinity include: Benaroya Hall to the south, the Newmark to the west (south of Pike), and the Doyle Building, Green Tortoise Hostel, and 2nd and Pike Building to the west (north of Pike). The Broadacres Building (a landmark that contains the Nordstrom Rack) lies across Pine to the northwest from the proposed rezone area. Buildings on the other halves of the two affected blocks include: the 1423 3rd Avenue and Mann Buildings (Wild Ginger Restaurant at ground floor) in the block south of Pike, and the Olympic and Melbourne Towers, Fischer Studio and Lerner buildings in the block north of Pike. Of these buildings, the Doyle, Broadacres, Mann and Olympic Tower buildings are landmarks designated by the City of Seattle.

Over the past ten years or so, numerous uses in the heart and eastern portions of the retail core have revitalized the popularity and attractiveness of Downtown shopping. However, that resurgence has not had much effect on Second Avenue and only a modest positive effect along Third Avenue. Neither has the Second Avenue corridor benefited much from proximity to the Pike Place Market. Within the context of "micro-climates" of attractiveness for retail uses, these two half-blocks on the Second Avenue corridor are only a minimally functioning part of Seattle's Downtown retail core. They share more in common

with the use pattern of blocks to the west, which are those in proximity to the Pike Place Market. Also of interest, recent announcements of development proposals in this vicinity have not emphasized retail-oriented uses but have concentrated more on residential structures or hotel uses, with residential uses planned for upper levels. This includes a pending proposal at the southwest corner of 1st Avenue and Union Streets, a residential tower at the northeast corner of 2nd and Pike, and the potential of another residential tower mid-block on the west side of 2nd Avenue between Pike and Pine Streets, adjacent to a proposed monorail station. A previous development proposal for the one half-block that was earlier rezoned to DMC 240' included a combination of retail, hotel and housing, but there has been no recent activity related to the permit application. It is also worthwhile to note that the monorail will pass through this Second Avenue corridor.

Given the characteristics and trends described above, it is logical to consider rezoning these two half-blocks away from the Downtown Retail Core zone to the Downtown Mixed Commercial zone, similar to blocks to the north, south and west. Indeed, an analysis of zone function and the relative match between zone criteria and area characteristics confirms that a DMC zone would be appropriate at this location. While the City's planning and zoning principles support vitality and retail-oriented growth in the retail core, these two half-blocks' location at the periphery of the retail core, their relatively low performance in retail uses, and their limited attractiveness for retail core-oriented uses are indicators that a rezone away from the DRC zone can be considered. Also supporting a rezone is the potential that these areas could be more compatibly woven in with the use patterns of buildings to the west and south (e.g., the Pike Place Market and the symphony hall/art museum district), and the emerging mixed-use character of Second Avenue. These positive aspects tend to indicate a reasonable level of consistency with the City's land use plans and policies for Downtown, which support efficient and attractive forms of development that will enliven the urban environment.

Under the Preferred Alternative, the adjoining DMC zones would see an increase in height limit to 400 feet only for buildings including residential uses, and a 240-foot height limit (similar to existing conditions in DMC areas) for commercial uses. The Preferred Alternative also would not change the maximum FAR (density) limit of 7 for DMC in this vicinity, meaning no increase in permissible density of buildings.

The proposed rezone from DRC to DMC would mean that the maximum FAR (density) limit on the two half-blocks would increase from 5 to 7, and the maximum height limit for buildings including residential uses would increase from a maximum of 195 feet (using allowances in SMC 23.49.008A5) to a maximum of 400 feet. The maximum for commercial-only buildings would increase from 85 feet to 240 feet. With these changes, development capacity in the affected area would increase. Per the City's methodology for calculating development capacity, the sites most likely to redevelop are those where the property value is significantly greater than the value of the structural improvements. Using this methodology, two properties in this affected area would be considered likely to redevelop. The most likely scenario would be that one site develops in predominantly residential uses and the other identified site develops in commercial uses. The associated increase in development capacity with the rezone would then be approximately 152 dwelling units and 13,000 square feet of commercial space.

Population, Employment and Housing

By increasing the development capacity available on these two half-blocks, this proposed rezone would expand the capability to accommodate additional resident and employee populations within a central part of the Downtown core. Within the context of growth management, including the positive effects that accrue when a core area is better able to accommodate efficient residential and employment growth, this proposed change would not represent an adverse impact. It would also imply an increase in the overall

potential activity levels of this two-block vicinity, which in the context of revitalizing this localized portion of the Downtown core is also interpreted as not representing an adverse impact.

Height, Bulk and Scale

Height

With the proposed change from DRC to DMC, the maximum height limit for buildings including residential uses would increase from a maximum of 195 feet (using allowances in SMC 23.49.008A5) to a maximum of 400 feet. The maximum for commercial-only buildings would increase from 85 feet (with an increase to 150 feet possible under special conditions) to 240 feet. This would be a relatively large increase for these two half-blocks given the current presence of primarily 2-story to 12-story buildings, but it would fit in with the zoning changes that would occur on the other properties to the north, west and south of the subject properties, due to other proposed changes in the Preferred Alternative.

Bulk: Density, massing and height/density relationships

The proposed changes to DMC on these properties would increase the potential bulk that could occur in future development. With the current DRC zone, the potential building bulk for commercial structures has been controlled by the maximum FAR limit of 5 in the DRC zone, while all uses are subject to upper-level development standards specific to the DRC zone. The proposed rezone to DMC would increase the maximum FAR limit to 7, which means more potential for building bulk in commercial uses, as well as the additional bulk that could occur with residential development that does not count against the FAR limit. However, the proposed bulk controls in DMC areas in the Preferred Alternative for residential structures above 125 feet would establish limits on floor sizes of residential towers, which would result in less bulky structures than is possible on larger sites under existing DRC provisions for structures extending to the current 195-foot height limit. Compared to the existing buildings in the immediate vicinity, the bulk of future development would be noticeably larger. Furthermore, the existing DRC requirement for an upper-level setback along Pike Street would not apply in the DMC zone.

Scale: Transitions

As part of the proposed rezones in the Preferred Alternative that would establish a scale of 240 and 400-foot height limits for commercial and residential/mixed-use buildings, respectively, in the DMC zone, the proposed rezone from DRC would allow these two half-blocks to fit with the scale of the adjacent blocks that is proposed by the Preferred Alternative. This would generally be considered a transitional area between the higher height limits of the core office areas and the lower height limits of areas to the west. However, the proposed scale would be noticeably larger than the predominant existing building scale.

Pedestrian Amenities and Streetscape

With the proposed rezone, the type of pedestrian amenities and street-level uses likely to result on these two half-blocks would be similar to what would occur under existing zoning. Given the relatively low quality of the existing streetscape and street-level uses, future development would likely contribute to improved conditions overall.

Parks and Open Space

With the proposed rezone, the affected sites would likely be more attractive for future redevelopment, which would discourage the prospects for them to be instead used as open space. Given the rules that apply to DMC and DRC zones, the proposed change would not have any effect on the chances of public plazas being provided with future development, since these are not bonusable in either zone. With the proposed DMC zone and higher height limit, there would be some modest increase in the potential for future development to utilize open space TDR or a floor area bonus for a parcel park, which could be a

positive impact. However, on the whole, differences in park/open space impacts due to the proposed rezone are likely to be minor.

Views and Aesthetics

Viewpoints and skyline views

Skyline views and views from viewpoints would be only modestly affected by the proposed rezone. From Kerry Park, potential future development on the affected properties might be visible in the western portion of the skyline, extending up a bit further than the other buildings (depending upon how tall the new buildings would be), but not blocking the Mount Rainier vista. At Hamilton Viewpoint in West Seattle, the potential future buildings likely would be visible as part of the foreground of the cityscape. Views of future buildings from Capitol Hill likely would be minimal. The view of the skyline from Victor Steinbrueck Park would likely include the upper portions of future buildings on the subject properties, if those buildings extended up past approximately 20 stories. This would add to the skyline view without detracting or blocking notable skyline view features.

Views toward landmarks

Two buildings, the Olympic Tower and the Mann Building, are view-protected landmarks that are located on the other halves of the two blocks proposed for changes. Despite that proximity, the proposed changes are not likely to result in significant adverse impacts to these buildings. Future development on the subject properties would not be likely to block views toward these landmark buildings in a significant adverse manner. The primary views of these buildings occur from Third Avenue, Union and Pine Streets. While buildings on the rezoned properties could act as adjacent "backdrops" in views to the landmarked buildings, design review processes would be able to account for site-specific design relationships to the existing landmarks.

Scenic routes

The Alaskan Way Viaduct and the Harbor Avenue (Alki) scenic routes are the routes most likely to be able to view potential future buildings on the subject sites. From the Viaduct, views from automobiles could newly include those buildings in views of the cityscape. From Alki, the potential future buildings would add to the cityscape, potentially being fairly visible due to their position in front of other larger buildings that are located further to the east, such as the Pacific First Centre. Neither of these types of changes in views are considered adverse impacts.

Shadows and Wind

The proposed rezone would increase the potential height of future development by approximately 200 feet and the potential size by 2 FAR. This would contribute to slightly greater potential for shadowing impacts, in a manner similar to other development that might occur in this vicinity. Given its location, there is only minor potential that additional shadowing would contribute to significant adverse impacts. The shadows from potential future development would be unlikely to significantly affect the Pike Place Market, for example, due to the distance from the Market area. Potential impacts are also not identified with respect to public parks. Potential adverse wind impacts would likely be avoided through review of individual projects and provision of features such as overhead weather protection.

Energy

At this level of environmental review, the analyses for this EIS have not identified issues of system capacity or limitations on the ability to provide service to future growth in the relevant two half-blocks. Any future development would need to consider during design processes the exact nature of electrical system improvements necessary to serve that development, in coordination with City Light staff. Given

the research and findings of this EIS and the design and planning work that would be necessary for any future development, there is a low potential for significant adverse impacts on energy systems at these locations as a result of this proposal.

Transportation and Parking

At the Downtown-wide level of environmental review, this proposed rezone of two half-blocks would not substantively alter the traffic impact analyses provided in this EIS. However, for this immediate vicinity, the proposed increase of 2 FAR in maximum density (between DRC and the proposed DMC zone) would result in additional potential traffic generation with future development of these two half-blocks. Availability of transit options including bus, light rail and monorail would aid future users in reaching these sites, reducing to some extent the maximum vehicle trip generation.

Future development would likely result in the displacement of surface parking and might possibly also eventually displace one or two existing parking garages. This would reduce the local parking supply, although new on-site parking would to some degree offset this reduction. Given City policies that discourage commuter-oriented parking, this projected reduction in parking is not identified as a significant adverse impact.

Water Utility

At this level of environmental review, the analyses for this EIS have not identified issues of system capacity or limitations on the ability to provide service to future growth in the relevant two half-blocks. It should be noted that while the Draft EIS reported two areas as having localized fire flow deficiencies within the study area, this particular vicinity of Second Avenue between Pine and Union Streets was not identified as having specific deficiencies. Any future development would need to consider (in coordination with City staff) whether unusual water utility infrastructure improvements would be necessary to serve that development. Given the research and findings of this EIS and the design and planning work that would be necessary for any future development, there is a low potential for significant adverse impacts on water utility systems at these locations as a result of this proposal.

Sewer and Stormwater Utilities

Similar to the conclusions expressed above for water utility and energy systems, analyses to date have not identified issues of system capacity in these locations, but any future development would need to consider (in coordination with City staff) whether unusual sewer/stormwater utility improvements would be necessary. Given the research and findings of this EIS and necessary future design/planning work for future development, there is a low potential for significant adverse impacts on sewer/stormwater utility systems at these locations as a result of this proposal.

**Table 7
Summary of Impacts**

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative	Preferred Alternative
POPULATION AND EMPLOYMENT Impacts <ul style="list-style-type: none"> • Employment Growth: Commercial capacity could accommodate as much as 48 years worth of employment growth, resulting in as many as 338,000 employees in Downtown Seattle. • In 20 years, there could be an increase of between 50,000 and 71,000 new Downtown employees. • Population Growth: Residential capacity could accommodate as much as 26 years of demand for Downtown housing. • In 20 years there could be an additional 21,900 new Downtown Seattle residents in 17,500 new Downtown households. • Approximately 13% of new households could earn less 	<ul style="list-style-type: none"> • Commercial capacity could accommodate as much as 42 years worth of employment growth, resulting in as many as 319,000 employees in Downtown Seattle. • Same as Alternative 1 • Population Growth: Residential capacity could accommodate as much as 27 years of demand for Downtown housing. • Same as Alternative 1. • Approximately 17% of new households could 	<ul style="list-style-type: none"> • Commercial capacity could accommodate as much as 38 years worth of employment growth, resulting in up to 305,000 Downtown Seattle employees. • Same as Alternative 1 • Population Growth: Residential capacity could accommodate as much as 30 years of demand for Downtown housing. • Same as Alternative 1 • Approximately 15% of new households could 	<ul style="list-style-type: none"> • Commercial capacity could accommodate as much as 37 years worth of employment growth, resulting in up to 300,000 employees in Downtown Seattle. • Same as Alternative 1 • Population Growth: Residential capacity could accommodate as much as 29 years of demand for Downtown housing. • Same as Alternative 1 • Approximately 11% of new households could 	<ul style="list-style-type: none"> • Similar to Alternative 1. Increases in capacity in the DOC 1 and most of the DOC 2 zones and some DMC areas would be identical to Alternative 1, while in other areas, capacity would remain the same as under current zoning. • Same as Alternative 1 • Population Growth: Proposed increases in height for residential use in almost every zone would likely result in more capacity for housing than under all other Alternatives. • Same as Alternative 1. • Based on relative comparison to Alts. 1

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative	Preferred Alternative
<p>than 80% of the median income in King County.</p> <p>HOUSING Impacts</p> <ul style="list-style-type: none"> • Capacity for Housing: There could be capacity for as many as 22,855 new units in Downtown Seattle. • TDC Program: The Denny Triangle Transfer of Development Credits (TDC) program would no longer be viable under this Alternative. • Housing Types: Market-rate housing is most likely to be 	<p>earn less than 80% of the median income in King County.</p> <ul style="list-style-type: none"> • Capacity for Housing: There could be capacity for as many as 24,800 new units in Downtown Seattle. • TDC Program: The Denny Triangle TDC program would only be active in the DMC zones. It would create additional capacity for as many as 2,630 new units. • Same as Alternative 1. 	<p>earn less than 80% of the median income in King County.</p> <ul style="list-style-type: none"> • Capacity for Housing: There could be capacity for up to 27,440 new units in Downtown Seattle. • TDC Program: The Denny Triangle TDC program would be active in the DMC zones and portions of the DOC2 zone. It would create additional capacity for as many as 4,400 new units. • Same as Alternative 1. 	<p>earn less than 80% of the median income in King County.</p> <ul style="list-style-type: none"> • Capacity for Housing: There could be capacity for as much as 26,410 new units in Downtown Seattle. • TDC Program: The Denny Triangle TDC program would be active in all Denny Triangle neighborhoods. It would create additional capacity for as many as 5,300 new units. • Same as Alternative 1. 	<p>and 3, the probable estimate is that approximately 13-15% of new households could earn less than 80% of the median income in King County.</p> <ul style="list-style-type: none"> • Capacity for Housing: Proposed increases in height for residential use in almost every zone would likely result in more capacity for housing than under all other Alternatives. • TDC Program: The TDC program would no longer be viable under this Alternative. However, limiting maximum height increases to residential use in DMC zones and some DOC 2 areas in the Denny Triangle would likely result in additional capacity for housing, in a range between Alts. 2 and 3. • Same as Alternative 1.

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative	Preferred Alternative
<p>built in towers as part of mixed-use projects. Subsidized units are more likely going to be built in lower-scale residential structures.</p> <ul style="list-style-type: none"> • Housing Bonus Program: The Housing bonus program might leverage sufficient funds to build up to 2,675 units affordable to households earning less than 80% of King County's Median Annual Household Income (MAI) over twenty years. • Demolition of Existing Residential Buildings: Up to six residential buildings with 300 residential units are on sites that could be redeveloped. Three of the six buildings, with 141 dwelling units, receive subsidies to keep their units affordable to households earning less than 50% MAI. 	<ul style="list-style-type: none"> • Housing Bonus Program: The Housing bonus program might leverage sufficient funds to build up to 3,225 units affordable to households earning less than 80% of MAI over twenty years. • Same as Alternative 1. 	<ul style="list-style-type: none"> • Housing Bonus Program: The Housing bonus program might leverage sufficient funds to build up to 2,775 units affordable to households earning less than 80% of MAI over twenty years. • Same as Alternative 1. 	<ul style="list-style-type: none"> • Housing Bonus Program: The Housing bonus program might leverage sufficient funds to build up to 2,025 units affordable to households earning less than 80% of MAI over twenty years. • Same as Alternative 1. 	<ul style="list-style-type: none"> • Housing Bonus Program: The number of affordable units the housing bonus program might leverage would likely be in a range between Alts. 2 and 3. Furthermore, the Preferred Alternative includes affordable housing incentives for residential projects that would provide a new source of funding not available in any of the other alternatives. • Same as Alternative 1.

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LAND USE Impacts <ul style="list-style-type: none"> • Development Capacity: There would be capacity for over 38 million square feet of new commercial space and 10,500 new units within the study area. • Up to 244 Downtown parcels containing 72 acres have been identified as potential sites for redevelopment. • Over twenty years, approximately 17.5 million square feet of commercial space would be built in the study area. Almost 45% of the commercial space might be built within the Denny Triangle DOC2 zone, with another 25% built in the Commercial Core DOC1 zone. • Over twenty years, approximately 7,400 units would be built within the study area. Approximately 60% of those units might be built in mixed-use projects in the Denny Triangle DOC2 zone. • One City of Seattle Landmark and one site on 	<ul style="list-style-type: none"> • Development Capacity: There would be capacity for over 33 million square feet of new commercial space and as many as 11,900 new units within the study area. • Same as Alternative 1. • Similar to Alternative 1. • Similar to Alternative 1. • Same as Alternative 1. 	<ul style="list-style-type: none"> • Development Capacity: There would be capacity for over 30 million square feet of new commercial space and as many as 14,600 new units within the study area. • Same as Alternative 1. • Similar to Alternative 1. • Similar to Alternative 1. • Same as Alternative 1. 	<ul style="list-style-type: none"> • Development Capacity: There would be capacity for over 28 million square feet of new commercial space and 13,750 new units within the study area. • Same as Alternative 1. • Similar to Alternative 1. • Similar to Alternative 1. • Same as Alternative 1. 	<ul style="list-style-type: none"> • Development Capacity: Development capacity for commercial space would likely be most similar to Alternative 1, while capacity for new residential units would likely be similar to Alternative 3. • Same as Alternative 1. • Similar to Alternative 1. • Similar to Alternative 1. • Similar to Alternative 1.

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative	Preferred Alternative
<p>the National Register have been identified as potential development sites.</p> <p>HEIGHT, BULK AND SCALE Impacts</p> <ul style="list-style-type: none"> • Height: New buildings by height range: Approx. 36 structures greater than 250 feet in height (65% of new structures). • Bulk/Density: Predicted to result in 39 developments with 55 structures by 2020. • Additional bulk from exempted residential uses and a few “other” uses would contribute to actual building bulk legally exceeding maximum density limits. • Bulk Massing Patterns: Greatest massing of bulk would occur in the Denny Triangle. Rectangular shape of blocks would contribute to perceived bulkiness of development in the Denny Triangle. • New development in peripheral areas would be more dispersed, except for potential concentration at 	<ul style="list-style-type: none"> • Approx. 31 structures greater than 250 feet (55% of new structures). • Nearly the same as Alt. 1—40 developments with 56 structures. • Similar to Alt. 1, but fewer developments would achieve the higher end of densities. • Similar to Alt. 1, but lower scale of development at periphery. • Similar to Alt. 1, but lower scale of development at periphery. 	<ul style="list-style-type: none"> • Approx. 28 structures greater than 250 feet (47% of new structures). • Bulk would be spread across more projects: 44 developments and 60 structures. • Fewer developments than Alts. 1 or 2 would reach higher densities, due to lower height limits and more bulk controls. • Retention of existing height and density at east and west edges of Denny Triangle DOC 2 zone would provide some “stepping down” in massing of bulk. • Similar to existing zoning, but more bulk controls in some areas may result in residential towers that are more 	<ul style="list-style-type: none"> • Approx. 26 structures greater than 250 feet (41% of new structures). • Bulk would be spread across more projects: 48 developments and 63 structures. • Similar to Alt. 3. • Similar to Alt. 1, but less-bulky development spread over more sites in Denny Triangle. • Similar to Alt. 3 but no additional bulk controls would allow some bulkier new development. 	<ul style="list-style-type: none"> • Approx. 34 structures greater than 250 feet (65% of new structures) • Similar to Alternative 1 with 41 developments and 52 structures. • Similar to Alt. 1, but additional height with bulk controls on residential use would continue to result in developments achieving the higher end of densities. • In general, increased densities proposed in the office core zones and higher height limits for residential and mixed-use projects result in fewer new structures overall compared to other alternatives. • Concentration of larger structures in the DOC 1 zone in the Commercial Core and

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative	Preferred Alternative
edge of Belltown.		slender.		<p>in the DOC 2 area between 6th and 9th Avenues and along the Olive Way/Pine Street corridor in the Denny Triangle.</p> <ul style="list-style-type: none"> • Fewer structures, or at least fewer structures built to the maximum height allowed, may be required on large development sites to accommodate the permitted commercial density, potentially resulting in less compact massing on the site, and with the potential to site taller portions of structures more to the center of the site, rather than to being pushed out closer to the street edges. • Taller residential structures are expected to occur in the DMC 240'/400' zone extending along the western edge of the Commercial Core and southern edge of Belltown, with additional tall residential structures appearing on the periphery of the Denny

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<ul style="list-style-type: none"> • Bulk—Height/density relationships: Alt. 1 changes may not resolve an existing zoning issue (relating to allowable height and bulk) that results in bulkier building designs. • It may be difficult to fit all of the maximum commercial density within proposed DMC height limits between 165 and 225 feet (near Denny Way, and 1st Ave/Western Ave vicinity). • Scale—Transitions: Greatest differences among the alternatives in zoning height/density with adjacent areas (Pike/Pine, Denny Way, Belltown, Pioneer Square/Int. District, harborfront, retail core). 	<ul style="list-style-type: none"> • Similar to Alt. 1 • Without these changes, this impact would not occur. • Fewer changes in transitions than Alt. 1, due to no changes in zoning near Belltown, Denny Way, or 1st Ave/ Western Ave vicinity. 	<ul style="list-style-type: none"> • Similar to Alt. 1. • Without these changes, this impact would not occur. • Lower commercial density limit, additional bulk limits for towers would make transitions more gradual in the Denny Way, Belltown and 1st Ave./Western Avenue vicinities. 	<ul style="list-style-type: none"> • The existing zoning issue would remain. • Not applicable. • Transitions provided by the existing zoning pattern would be maintained. 	<p>Triangle.</p> <ul style="list-style-type: none"> • Increased height limits would allow for more variation in the skyline profile under the Preferred Alternative compared to the “tabletop” profile that is expected under existing conditions. • Increased heights in DOC 1 and DOC 2 areas and DMC areas where current density limits are maintained should allow permitted commercial density to be accommodated in less bulky-appearing structures. Conditions should remain similar in DMC areas where the relative increase in maximum density is similar to the increase in height. • Maintaining current commercial density limits in existing DMC and DOC 2 transition areas along Denny Way and I-5 in the Denny Triangle, along the southern edges of Belltown, and western and southern edges of the Commercial Core

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<ul style="list-style-type: none"> • Scale—Compatibility with existing development: Intensity of new development in Denny Triangle would generate the greatest differences in compatibility with existing development. • Scale—Effect on development diversity: The amount of redevelopment in Denny Triangle could potentially result in a more homogeneous character. • Scale—Effect on residential character: Overall additional bulk of development and mixing of residential and non-residential projects could discourage achievement of a beneficial residential character. 	<ul style="list-style-type: none"> • Less impact than Alt. 1 in the peripheral DMC zones. Similar impacts to Alt. 1 in Commercial Core. • Similar to Alt. 1. • Similar to Alt. 1. 	<ul style="list-style-type: none"> • Alt. 3 changes would promote greater compatibility in residential-oriented zones. Similar to Alt. 1 for the DOC office core zones. • Similar to Alt. 1, but broader potential range of scale in new structures. • Residential-oriented zoning in some areas creates some greater potential for achieving beneficial residential character. 	<ul style="list-style-type: none"> • Similar to Alt. 1, except for DMC zones where no zoning changes would occur. • Similar to Alt. 1, but the broadest potential range of scale in new structures. • Similar to Alt. 1. 	<p>would provide for transition in density of development. Although heights would be increased in these areas for residential use, additional bulk controls would help maintain transition in scale.</p> <ul style="list-style-type: none"> • Most similar to Alt. 1. • Most similar to Alt. 1. • Additional bulk controls on residential use and incentives to encourage more housing in certain areas could contribute to more residential character in these areas.

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<p>PEDESTRIAN AMENITIES & STREETSCAPE Impacts</p> <p>Positive Impacts:</p> <ul style="list-style-type: none"> • Narrow sidewalks would be widened. • Additional street trees would be provided. • Green Street improvements would be provided. • Continuous street level uses would be promoted along several streets, aided by infill development over time. • New public open spaces in developments should benefit pedestrians. <p>Adverse Impacts:</p> <ul style="list-style-type: none"> • Above-grade parking could detract from street-level character. • In some areas, non-requirement of street level uses could limit street level activity in buildings. • There would be a greater sense of “enclosure” within several streets. • In some areas, possible loss of older structures may diminish variety & pedestrian orientation at street level. 	<p>Positive Impacts:</p> <ul style="list-style-type: none"> • Similar to Alt. 1. Even in areas with retained zoning (in DMC zones), the streetscape conditions as perceived by pedestrians would not be much different than would occur under Alt. 1. <p>Adverse Impacts:</p> <ul style="list-style-type: none"> • Similar types of impacts as under Alt. 1. However, lack of zone changes in DMC areas would mean buildings less dense and lower in height in these areas than under Alt. 1. 	<p>Positive Impacts:</p> <ul style="list-style-type: none"> • Similar to Alt. 1, except greater chance for positive street environment in the residential-zoned areas, due to lower bulk limits. Lack of zone changes in some DOC 2 areas would avoid some streetscape effects related to greater building bulk. <p>Adverse Impacts:</p> <ul style="list-style-type: none"> • Similar types of impacts as under Alternative 1, but somewhat less potential for impacts, due to residential-oriented zoning changes in some areas, and lack of change in some DOC 2 areas. 	<p>Positive Impacts:</p> <ul style="list-style-type: none"> • Same amount of growth would be accommodated on more properties than under Alt. 1, providing more opportunities for streetscape improvements, including Green Streets. <p>Adverse Impacts:</p> <ul style="list-style-type: none"> • Same amount of growth on more properties than under Alt. 1 would have additional risk of adverse impacts occurring along some streets, as listed under Alt. 1. 	<p>Positive Impacts:</p> <ul style="list-style-type: none"> • Similar to Alt. 1 in general and Alt. 3 regarding additional controls on residential bulk. <p>Adverse Impacts:</p> <ul style="list-style-type: none"> • Similar to Alt. 1, although additional screening requirements for residential parking would ameliorate this negative impact.

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PARKS & OPEN SPACE Impacts <ul style="list-style-type: none"> • <i>Predicted on-site open space developed in future projects:</i> 1.7 acres • <i>Use of open space TDR:</i> The potential supply of open space TDR is approx. 1.0 to 1.3 million square feet. Demand not expected to exceed supply. • Open space required for office uses: 7.9 acres • Common rec. area open space required for residential uses: 7.2 acres • Predicted Contributions to TDC Amenity Credit Fund: None, since Alt. 1 would likely terminate the use of the TDC program. • Relationship to Open Space Goals - Denny Triangle Even with predicted open space in future development, this area would fall a bit short of meeting the residential and employee-oriented open space goals. However, would likely meet the distribution goal. 	<ul style="list-style-type: none"> • 1.9 acres • Supply would remain the same. Changes in DOC zones would increase demand similar to Alt. 1. • 7.7 acres • 7.2 acres Est. \$1.2 million • Similar to Alternative 1. 	<ul style="list-style-type: none"> • 1.9 acres • Similar to Alt. 1 and 2, but areas rezoned to DMR/C would allow slight increase in use of open space TDRs. • 7.8 acres • 6.5 acres Est. \$3.5 million • Nearly the same as Alternative 1, except residential-zoned area could promote more residentially-oriented open space. 	<ul style="list-style-type: none"> • 2.9 acres • Supply would be less than under Alt. 1, but Alt. 4 would allow for the greatest use of open space TDR among the alternatives. • 7.8 acres • 6.5 acres Est. \$4.3 million • Slightly more open space in Denny Triangle, possibly spread over more area than Alternative 1. 	<ul style="list-style-type: none"> • Similar to Alts. 1, 2 and 3. • Similar to Alts. 1 and 2. • Similar to Alts. 1, 2 and 3 • Similar to Alts. 1, 2 and 3 • None, since termination of the TDC program is likely. • Similar to Alts 1 and 2.

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<p>Open Space - Commercial Core</p> <ul style="list-style-type: none"> • Would meet or exceed the residential and employee-oriented open space goals, and would likely meet the distribution goals. • Number of future development sites adjacent to Green Streets: 10 sites <p>VIEWS AND AESTHETICS Impacts</p> <p>Public Viewpoints</p> <ul style="list-style-type: none"> • Harborview Viewpoint: Possible future development at a site between Yesler Way and Jefferson St., 5th and 6th Avenues would block a view toward the south end of Elliott Bay from the Harborview Viewpoint. • Four Columns Park: With future development in the Denny Triangle, views from Four Columns Park toward the Space Needle, Olympic Mountains and Queen Anne (including the landmark Q.A. High School) would gradually be obscured. The additional increment of height/density would obscure additional sky area, but would not cause different types of visual 	<ul style="list-style-type: none"> • Similar to Alternative 1. • 10 sites • Same impacts as Alternative 1. • Similar impacts to Alternative 1, but slightly less potential for impairment of more northerly views toward the vicinity near I-5 and Denny Way. Similar to Alternative 1 in potential for impairment of Space Needle and Olympic Mountains views. 	<ul style="list-style-type: none"> • Similar to Alternative 1. • 11 sites • Same impacts as Alternatives 1 and 2. • Similar impacts to Alternative 2, but less potential for impairment due to omission of DOC 2 zone change east of 8th Avenue. However, similar to Alternative 1 in potential for impairment of Space Needle and Olympic Mountains views. 	<ul style="list-style-type: none"> • Similar to Alternative 1. • 14 sites • No impacts. Slightly less potential for view impacts than Alternatives 1, 2 or 3 due to lower height limits in property. • No impacts. However, similar to Alternative 1 in potential for impairment of Space Needle and Olympic Mountains views. Generally, less potential for impacts than Alternatives 1, 2 or 3. 	<ul style="list-style-type: none"> • Similar to Alternative 1 • Slightly less than Alternative 1, with fewer projects on Denny Triangle green streets. • Same impacts as Alternatives 1 and 2. • Similar impacts to Alternative 1 due to height and density increases in DMC area in Denny Triangle. However, somewhat offset by potentially fewer buildings in this area.

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative	Preferred Alternative
<p>impairment than are already possible under existing regulations.</p> <p>Views Toward Landmarks</p> <ul style="list-style-type: none"> Additional building bulk (greatest allowable under Alt. 1) adjacent to or near some landmarks would contribute to their diminished prominence in the urban setting. Examples include the Camlin Hotel, Rainier Club & Terminal Sales Bldg. <p>Skyline Views</p> <ul style="list-style-type: none"> Kerry Park: Future development in the Denny Triangle vicinity would further obscure views toward Cascade foothills to the southeast (already partially blocked by existing development). Belvedere Viewpoint: Future development in the Denny Triangle would fill in a portion of the skyline and further obscure views toward Cascade Mountains in the background of views from the Belvedere (W. Seattle) viewpoint. Other skyline views: Changes in skyline views would be most apparent in views from the east, from 	<ul style="list-style-type: none"> Less potential for impacts than Alternative 1 because Terminal Sales Building and 1st Avenue group of landmark buildings would not be subject to influence of zone changes. Slightly less potential for impacts than Alternative 1 due to omission of some zone changes. Slightly less potential for impacts, due to lesser bulk and height in the 1st Avenue and Western Avenue vicinity. Somewhat less potential than Alternative 1 for skyline view impacts from the east and north due to 	<ul style="list-style-type: none"> Slightly less potential for impacts than Alternatives 1 or 2, because of modest changes near Terminal Sales Building and 1st Avenue group, and lack of rezone adjacent to the Times Square Building. Slightly less potential for impacts than Alternative 1 due to different set of zone changes that maintains transitions. Slightly less potential for impacts than Alternatives 1 and 2. Somewhat less potential than Alternatives 1 or 2 for skyline view impacts 	<ul style="list-style-type: none"> No impacts. However, the potential for impacts on views to landmarks is roughly similar under any alternative. No impacts. Somewhat less potential for identified types of view impacts with future development. No impacts. Somewhat less potential for identified types of view impacts with future development. No impacts. However, existing opportunities for height increases would remain. Over 	<ul style="list-style-type: none"> Slightly less potential for impacts than Alternative 1, due to maintaining commercial density and height limits in some areas and improved controls on residential building bulk. Somewhat less potential for impacts than Alternative 1 due to somewhat fewer buildings in the northeastern corner of the Denny Triangle. Slightly less potential for impacts than Alternative 1. While buildings would potentially reach higher heights than under Alternative 1,

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<p>Pike-Pine and Capitol Hill areas, and views from the north.</p> <p>Scenic Routes</p> <ul style="list-style-type: none"> Changes in views from scenic routes would primarily involve changes in the skyline and greater presence of denser buildings in the middle ground and background. Routes most affected include: Westlake and Fairview Aves, I-5 southbound between Lakeview Blvd and Olive Way, Yesler Way, Dexter Avenue, and SR 99 southbound before Battery Street Tunnel. <p>CLIMATE—SHADOWS AND WIND</p> <p>Impacts</p> <p>Shadows</p> <ul style="list-style-type: none"> Taller buildings in all of Denny Triangle would add to shading of city streets. 	<p>omission of zone changes in the Denny Way vicinity.</p> <ul style="list-style-type: none"> Slightly less potential for impacts due to omission of zone changes in the Denny Way and 1st Avenue and Western Avenue vicinities. No zone changes in peripheral areas of Denny Triangle would result in somewhat less potential for shading of city streets 	<p>due to omission of zone changes in portion of Denny Triangle.</p> <ul style="list-style-type: none"> Slightly less potential for impacts due to different zone changes in the Denny Way and 1st Avenue and Western Avenue vicinities. Less intensive zoning in peripheral areas of Denny Triangle would result in less potential for shading of city streets than 	<p>time, future development will change the skyline in ways similar under any alternative.</p> <ul style="list-style-type: none"> No impacts. Over time, future development will add building bulk in ways generally similar under any alternative. No changes, but future developments under existing height/density limits could add to total extent of shading of city 	<p>the new buildings would more likely be perceived as slimmer building types. Lower densities in the existing DOC 2 area near I-5 (compared to Alternative 1) would also aid in moderating impacts to skyline views.</p> <ul style="list-style-type: none"> Slightly less potential for impacts than Alternative 1 due to different zone changes in the Denny Way and First Avenue and Western Avenue vicinities. Somewhat greater potential for shading in most intensive portion of Denny Triangle, due to higher heights.

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative	Preferred Alternative
<ul style="list-style-type: none"> Taller buildings in 1st/Western Ave. vicinity and edge of Belltown would add to shading of city streets. Additional shading of Downtown SEPA-identified parks not likely to occur due to zoning changes. The possibility of higher building heights with future development near Denny Park at Denny Way creates slightly greater potential for shading impacts on the park. <p>Wind</p> <ul style="list-style-type: none"> Future new buildings in the office core and some peripheral areas would create the potential for additional wind effects near street level. However, interspersing of new buildings with existing buildings may help protect them from some wind exposure. 	<p>than Alternative 1.</p> <ul style="list-style-type: none"> No zone changes in 1st Ave./ Western Ave. vicinity or edge of Belltown would avoid additional shading effects. Similar to Alternative 1. No zone changes near Denny Way would avoid additional shading effects on Denny Park. Nearly the same as Alternative 1. 	<p>Alternatives 1 or 2.</p> <ul style="list-style-type: none"> Less intensive zoning in edge of Belltown and 1st Avenue/ Western Ave. vicinities would result in less potential for shading of city streets than Alternatives 1 or 2. Similar to Alternative 1. Changes would not affect zoned height/density near Denny Way, thus avoiding additional shading effects on Denny Park. Slightly less potential for wind effects than Alternatives 1 or 2. 	<p>streets.</p> <ul style="list-style-type: none"> No changes, but future developments under existing height/density limits could add to shading of city streets. No changes relative to Downtown SEPA-identified parks, although future development closer to protected parks could possibly trigger the need to use SEPA protections. No changes Slightly less potential for wind effects than Alternatives 1, 2 or 3. 	<ul style="list-style-type: none"> Potential impacts would be less than Alternative 1, but more than Alts. 2 and 3, given the increase in residential height limit. Similar to Alternative 1. Roughly similar to Alternative 1, given that increased height of buildings offsets the lesser density allowed near Denny Park. Slightly less than Alternative 1.

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative	Preferred Alternative
<ul style="list-style-type: none"> The additional bulk and distribution of future development in the Denny Triangle may provide some additional buffering of winds from the north. However, the new buildings at the northern periphery would be exposed to those winds and their effects. <p>ENERGY Impacts</p> <ul style="list-style-type: none"> City Light's recent forecast is that a new substation serving Downtown would be needed <u>after 2020</u>. by 2012. Growth rates studied in the EIS are comparable to City Light load growth projections. Factors that could accelerate growth in electrical loads include: <ul style="list-style-type: none"> --higher-than-forecasted economic activity; --greater-than-expected high-density loads (such as "server hotels" <u>and biotech research facilities</u>); and --higher "system redundancy" needs. Potential future development arising from higher zoned height/density limits in the Denny Triangle area east of 8th Avenue could result in 	<ul style="list-style-type: none"> Due to somewhat less height and bulk of future buildings in the Denny Triangle and peripheral areas, potential wind effects would be somewhat less than for Alternative 1. Same as Alternative 1. Same as Alternative 1. Impacts approximately similar to Alternative 1, except slightly less-intensive zoning changes in portions of Denny 	<ul style="list-style-type: none"> Somewhat less potential for wind effects than Alternatives 1 or 2. Same as Alternative 1. Same as Alternative 1. Impacts slightly less than Alternative 1 and 2. Alternative 3's greater residential emphasis in zoning of 	<ul style="list-style-type: none"> Slightly less potential for wind effects than Alternatives 1, 2 or 3. Same as Alternative 1. Same as Alternative 1. Under Alternative 4 (existing zoning), impacts would be nearly the same as for Alternative 1. However, 	<ul style="list-style-type: none"> Slightly less than Alternative 1. Same as Alternative 1. Same as Alternative 1. Differences from Alternative 1 would likely help reduce the potential magnitude of impacts on the

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative	Preferred Alternative
<p>capacity limitations more quickly than would otherwise occur, due to increased commercial loads. These limitations and needed improvements will be closely monitored and addressed in City Light's Capacity Plan and updates.</p> <ul style="list-style-type: none"> There is considerable potential for additional growth in both Downtown and South Lake Union. <u>City Light is monitoring and addressing the Downtown and South Lake Union system relationships and necessary improvements.</u> <p>TRANSPORTATION Impacts</p> <ul style="list-style-type: none"> Approximately 1.285 million person trips are projected to have an origin and/or destination in Downtown Seattle on an average weekday in year 2020, 58% greater than today's 815,000 person trips. This reflects the high-end growth forecast used in this EIS. For Alternative 1, volumes across all screenlines are projected to increase by 10.1% in the AM peak and 20.9% in the PM peak hour 	<p>Triangle east of 8th Avenue could reduce the worst case potential for electrical infrastructure impacts in that area.</p> <ul style="list-style-type: none"> Similar to Alternative 1. Same as Alternative 1. For Alternative 2, volumes across all screenlines are projected to increase by 9.3% in the AM peak and 19.7% in 	<p>the portion of Denny Triangle east of 8th Avenue would reduce the magnitude of impacts on the electrical system compared to Alternatives 1 and 2.</p> <ul style="list-style-type: none"> Similar to Alternative 1. Same as Alternative 1. For Alternative 3, volumes across all screenlines are projected to increase by 10.1% in the AM peak 	<p>growth may spread over a few more properties in the Commercial Core, and overall commercial development capacity would approximately 25% less than Alt. 1 (and residential capacity 19% less).</p> <ul style="list-style-type: none"> Similar to Alternative 1. Same as Alternative 1. In 2020 Baseline Condition, volumes across all screenlines are projected to increase by 9.4% in the 	<p>electrical system, due to the maintaining of current commercial densities in some DMC and DOC 2 areas and a greater probability of residential uses in some portions of the DMC zones.</p> <ul style="list-style-type: none"> Similar to Alternative 1. Same as Alternative 1. Comparable to Alts. 1, 2 and 3.

Alternative 1 High End Height and Density (year 2020).	Alternative 2 Concentrated Office Core the PM peak hour.	Alternative 3 Residential Emphasis and 20.4% in the PM peak hour.	Alternative 4 No Action Alternative AM peak hour, and by 19.4% in the PM peak hour.	Preferred Alternative
<ul style="list-style-type: none"> At Screenline 8 (NE Denny Triangle), eastbound PM peak hour traffic is projected to be approximately 8% greater than projected for the 2020 Baseline Condition (Alt. 4). At Screenline 8 (NE Denny Triangle), the predicted PM peak hour volume-to-capacity (v/c) ratio would reach 1.20 by 2020. A v/c ratio of 1.20 is the City's maximum arterial level of service standard. Other screenlines' v/c ratios for the 2020 PM peak hour include: <ul style="list-style-type: none"> --approx. 0.80-0.84 in both directions on Avenues near Seneca St.; --approx. 0.90 for eastbound traffic near 9th Ave in Denny Triangle; --approx. 0.93 for eastbound traffic near 6th Ave in the Commercial Core. In the studied corridors of Denny Way, Stewart St., Olive Way and Howell St., 13 of 38 intersections in the AM peak hour are projected to 	<ul style="list-style-type: none"> At Screenline 8, eastbound PM peak hour traffic is projected to be approximately 1.3% greater than the 2020 Baseline Condition (Alt. 4). Predicted v/c ratio of 1.13 by 2020, 0.07 less than predicted for Alternative 1. Nearly the same as Alt. 1. Nearly the same as Alt. 1. Nearly the same as Alt. 1. In the studied corridors, 8 of 38 intersections in the AM peak hour are projected to experience operating conditions at 	<ul style="list-style-type: none"> At Screenline 8, eastbound PM peak hour traffic is projected to be approximately 2.3% greater than the 2020 Baseline Condition (Alt. 4). Predicted v/c ratio of 1.12 by 2020, 0.08 less than predicted for Alternative 1. Nearly the same as Alt. 1. Nearly the same as Alt. 1. Nearly the same as Alt. 1. In the studied corridors, 8 of 38 intersections in the AM peak hour are projected to experience operating conditions at 	<ul style="list-style-type: none"> At Screenline 8, eastbound PM peak hour traffic is projected to be approximately 41% greater than <i>existing conditions</i>. Predicted v/c ratio of 1.11 by 2020, 0.09 less than predicted for Alternative 1. Nearly the same as Alt. 1. Nearly the same as Alt. 1. Nearly the same as Alt. 1. In the studied corridors, 10 of 38 intersections in the AM peak hour are projected to experience operating 	<ul style="list-style-type: none"> At Screenline 8, the estimated effect is between 2% and 8% greater than the 2020 Baseline Condition, based on comparison to Alts. 1 and 3. At Screenline 8, the estimated effect on v/c ratio is between 1.12 and 1.20 by 2020, based on comparison to Alts. 1 and 3. Nearly the same as Alt. 1. Nearly the same as Alt. 1. Nearly the same as Alt. 1. In the studied corridors, the estimated effect is likely to be between 8 and 13 intersections

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative	Preferred Alternative
<p>experience operating conditions at LOS E or F.</p> <ul style="list-style-type: none"> In the studied corridors, 19 of 38 intersections in the PM peak hour are projected to experience operating conditions at LOS E or worse. Travel Times: For the 2020 PM peak hour, westbound Stewart St. would be approximately 6 minutes slower than the 2020 Baseline Condition. However, travel times would be 3 minutes faster westbound on Denny Way and one minute faster eastbound on Olive Way. Transit Service: --North of Seneca Street screenline: Similar to the 2020 Baseline Condition (Alt. 4). 	<p>LOS E or F.</p> <ul style="list-style-type: none"> In the studied corridors, 19 of 38 intersections in the PM peak hour are projected to experience operating conditions at LOS E or worse. For the 2020 PM peak hour, westbound Stewart St. travel time would be slightly faster than the 2020 Baseline Condition. Travel times would also be 5 minutes faster westbound on Denny Way and 2 minutes faster eastbound on Olive Way. <p>-- North of Seneca Street screenline: Similar to the 2020 Baseline Condition (Alt. 4).</p>	<p>LOS E or F.</p> <ul style="list-style-type: none"> In the studied corridors, 22 of 38 intersections in the PM peak hour are projected to experience operating conditions at LOS E or worse. For the 2020 PM peak hour, westbound Stewart St. travel time would be approximately 3 minutes slower than the 2020 Baseline Condition. Also, travel times would be 3 minutes faster westbound Denny Way and approximately one minute slower eastbound on Olive Way. <p>-- North of Seneca Street screenline: Similar to the 2020 Baseline Condition (Alt. 4).</p>	<p>conditions at LOS E or F. This would be 8 more than under existing conditions.</p> <ul style="list-style-type: none"> In the studied corridors, 17 of 38 intersections in the PM peak hour are projected to experience operating conditions at LOS E or worse. This would be 12 more than under existing conditions. For the 2020 Baseline Condition PM peak hour, westbound Stewart Street travel time would be approximately 9 minutes slower than <i>existing conditions</i>. Also, travel times would be nearly 14 minutes slower westbound on Denny Way, and 2 minutes slower eastbound on Olive Way. <p>-- North of Seneca St. screenline: Nearly the same level of delay in the AM peak hour as existing conditions. Modest increase in transit delay could occur, on 2nd, 3rd and</p>	<p>operating at LOS E or F in the AM peak hour, based on comparisons to Alts. 1 and 3.</p> <ul style="list-style-type: none"> In the studied corridors, the estimated effect is likely to be between 19 and 22 intersections operating at LOS E or F in the PM peak hour, based on comparisons to Alts. 1 and 3. Likely comparable to the range between Alts. 1 and 3. <p>--Similar to Alternative 1.</p>

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative 4 th Avenues.	Preferred Alternative
<p>--Olive/Stewart corridors: The cumulative amount of travel time spent by transit vehicles in these corridors would increase by 10% and 24% in the AM and PM peak hours, respectively.</p> <p>--Denny Way screenline: Similar (2% less) to the 2020 Baseline Condition (Alt. 4).</p> <p>• Transit Layover: Slightly less impact than the 2020 Baseline Condition (Alt. 4). Potentially, 5 existing layover locations displaced.</p>	<p>--Olive/Stewart corridors: The cumulative amount of travel time spent by transit vehicles in these corridors would decrease by 1% and 15% in the AM and PM peak hours, respectively.</p> <p>--Denny Way screenline: Transit delay notably greater (21%) than the 2020 Baseline Condition (Alt. 4).</p> <p>• Slightly less impact than the 2020 Baseline Condition (Alt. 4). Potentially, 5 existing layover locations displaced</p>	<p>--Olive/Stewart corridors: The cumulative amount of travel time spent by transit vehicles in these corridors would decrease by 4% in the AM peak but increase by 25% in the PM peak hours.</p> <p>--Denny Way screenline: Sum of AM & PM peak hour transit delay approximately the same as Baseline Condition. However, this occurs with a 28% (18-minute) improvement in the AM peak hour and 18% (20-minute) degradation, compared to the 2020 Baseline Condition (Alt. 4).</p> <p>• Similar impact to the 2020 Baseline Condition (Alt. 4). Potentially, 10 existing layover locations displaced.</p>	<p>--Olive/Stewart corridors: The cumulative transit travel time in these corridors would increase by 40% in the AM peak and 45% in the PM peak hour, compared to <i>existing conditions</i>.</p> <p>--Denny Way screenline: Total minutes of transit delay projected to increase by 34 minutes (115%) in the AM peak hour and 68 minutes (168%) in the PM peak hour, compared to <i>existing conditions</i>.</p> <p>• Worst-case transit layover impact: future development by 2020 could displace 10 existing Metro layover locations.</p>	<p>--Olive/Stewart corridors: Likely comparable to the range between Alternatives 1 and 3.</p> <p>--Denny Way screenline: Difficult to predict the effects of the Preferred Alternative due to the variation in findings for Alts. 1, 2 and 3</p> <p>• Similar to Alts. 3 and 4. This Alternative includes an idea for a bonus or flexibility related to the provision of transit layover space on-site.</p>

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative	Preferred Alternative
<ul style="list-style-type: none"> • Queuing (lane back-up) problems are predicted at several locations, mostly similar to the 2020 Baseline Condition. However, fewer queuing impacts on Olive Way for the eastbound PM peak, compared to the 2020 Baseline. <p>PARKING Impacts</p> <ul style="list-style-type: none"> • Future residential and employment growth would increase overall parking demand, for approximately 19,500 to 23,750 spaces, depending upon the amount of commuters that choose to use transit rather than automobiles. • An estimated supply of approximately 17,005 off-street parking spaces would be provided with future development. • Approximately 7,137 existing off-street parking spaces would be displaced by 	<ul style="list-style-type: none"> • PM peak hour impacts would be generally similar to the Baseline Condition, but with fewer queuing impacts on Olive Way than Alternative 1 or the Baseline Condition. • Nearly the same as Alternative 1. • Nearly the same as Alternative 1. • Same as Alternative 1. 	<ul style="list-style-type: none"> • PM peak hour impacts would be generally similar to the Baseline Condition, except conditions would be slightly worse along Stewart Street and somewhat improved along Denny Way, Olive Way and Howell Street. • Slightly less than Alternative 1. • Slightly less than Alternative 1. • Approximately 180 more spaces displaced than Alt. 1. 	<ul style="list-style-type: none"> • Queuing problems for some traffic movements would occur at a greater majority of intersections along Stewart, Denny Way and Olive Way, compared to <i>existing conditions</i>. • Slightly more than Alternative 1. • Nearly the same as Alternative 1. • Approximately 410 more spaces displaced than Alt. 1. 	<ul style="list-style-type: none"> • Likely comparable to the range between Alts. 1 and 3. • Similar to Alternative 1. • Similar to Alternative 1, assuming that, even with elimination of commercial parking requirement, private developers will continue to provide parking in their projects at an amount similar to what is currently required. • Similar to Alternative 1.

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative	Preferred Alternative
<p>development through 2020, largely in the Denny Triangle and edge of Belltown.</p> <ul style="list-style-type: none"> • Competition for on-street parking spaces would likely increase, especially in the areas of concentrated future development. <p>WATER UTILITY Impacts</p> <ul style="list-style-type: none"> • An additional 6.3 to 7.1 million gallons per day of water demand if full buildout was achieved, a 24-25% increase over buildout of existing zoning. Less than 1 percent of total city water demand. • No significant adverse infrastructure capacity impacts identified. Two existing minor deficiencies relating to fire flows can be corrected over time. • The typical location of water meters within public rights-of-way makes accessibility and repair costly and difficult. <p>SEWER & STORMWATER UTILITIES Impacts</p> <ul style="list-style-type: none"> • Future development could occur in a denser manner 	<ul style="list-style-type: none"> • Same as Alternative 1. • An additional 5.7 to 6.4 million gallons per day of water demand if full buildout was achieved, a 12-13% increase over buildout of existing zoning. Approximately 0.5 percent of total city water demand. • Less potential for adverse impacts than Alternative 1. • Same as Alternative 1 • Similar to Alt. 1, with slightly greater sewage 	<ul style="list-style-type: none"> • Slightly more probable impact than Alternative 1. • An additional 5.4 to 6.0 million gallons per day of water demand if full buildout was achieved, a 6% increase over buildout of existing zoning. Approximately 0.25 percent of total city water demand. • Less potential for adverse impacts than Alternative 1. • Same as Alternative 1. • Similar to Alt. 1, with slightly greater sewage 	<ul style="list-style-type: none"> • Somewhat greater impact than Alternative 1. • An additional 5.4 to 6.0 million gallons per day of water demand if full buildout was achieved. • No impacts identified. • Same as Alternative 1. • Similar to Alt. 1, with slightly lesser sewage 	<ul style="list-style-type: none"> • Similar to Alternative 1. • Similar to Alternative 1. • Similar to Alternative 1. • Same as Alternative 1. • Similar to Alternative 1.

Alternative 1 High End Height and Density	Alternative 2 Concentrated Office Core	Alternative 3 Residential Emphasis	Alternative 4 No Action Alternative	Preferred Alternative
<p>and generate more total sanitary sewage volume than development under current zoning.</p> <ul style="list-style-type: none"> • By 2020, peak sanitary sewage flows in the Denny Triangle would be approximately 3,750 gallons per minute. • Better stormwater controls required with future development would reduce peak stormwater volumes, thus helping to avoid or minimize the risk of overflows during major storm events. • No significant adverse sewer/ drainage infrastructure or capacity impacts identified. • Worst-case additional sewage volume from full buildout would represent approximately 0.75 percent of treatment plant annual average daily flow. 	<p>volumes in the Denny Triangle.</p> <ul style="list-style-type: none"> • By 2020, peak sanitary sewage flows in the Denny Triangle would be approximately 3,822 gallons per minute, 1.5% greater than Alt. 1. • Similar to Alt. 1. • Similar to Alt. 1. • Worst-case additional sewage volume from full buildout would represent less than 0.5 percent of treatment plant annual average daily flow. 	<p>volumes in the Denny Triangle.</p> <ul style="list-style-type: none"> • By 2020, peak sanitary sewage flows in the Denny Triangle would be approximately 3,805 gallons per minute, 1.5% greater than Alt. 1. • Similar to Alt. 1. • Similar to Alt. 1. • Worst-case additional sewage volume from full buildout would represent less than 0.2 percent of treatment plant annual average daily flow. 	<p>volumes in the Denny Triangle.</p> <ul style="list-style-type: none"> • By 2020, peak sanitary sewage flows in the Denny Triangle would be approximately 3,616 gallons per minute, 3.6% less than Alt. 1. • Improvements will occur even under the No Action Alternative. • No impacts identified. • No additional impacts from this No Action Alternative. 	<ul style="list-style-type: none"> • Similar to Alternative 1. • Similar to Alternative 1. • Similar to Alternative 1. • Similar to Alternative 1.

Significant Unavoidable Adverse Impacts

Population and Employment

No significant unavoidable adverse impacts are identified for any of the alternatives. Over the long term, the alternatives could have differing impacts on the number and composition of Downtown households and Downtown employees, but none of these impacts are identified as significant unavoidable adverse impacts.

Housing

Under all alternatives, large public and private subsidies would be required to meet ambitious targets for housing preservation and production. If these subsidies are not available, some buildings currently providing affordable housing may be lost and other potential housing opportunities may not be created.

In spite of the number of programs currently available to assist households earning less than 30% median annual income with housing, some households with employees in new Downtown Seattle office buildings and hotels would have difficulty finding affordable housing to meet their needs in King County. They would need to live in overcrowded conditions, pay more than 30% of their income for rent, or commute from lower-priced housing outside of King County. Those few households not able or willing to make these choices could potentially become homeless.

The TDC program would be eliminated under Alternative 1 and the Preferred Alternative. The TDC program would no longer be available to projects in some portions of the Denny Triangle DOC2 zone under Alternatives 2 and 3. However, under the Preferred Alternative, increased heights for residential use in the Denny Triangle should help offset losses in residential capacity due to elimination of the TDC program, especially in those areas where height for commercial uses remains the same.

Land Use

Under all alternatives, if forecasted development occurs, land uses in the study area would be significantly transformed by the increased density of residential and commercial development. This transformation is interpreted to be consistent with the City's Comprehensive Plan and neighborhood plans for the study area, and is not interpreted to be a significant unavoidable adverse impact.

Similar to existing conditions, some City of Seattle landmarks, some existing housing and some buildings containing human service uses might be demolished. This could occur under any of the alternatives, including the No Action Alternative, and is not interpreted to be a significant unavoidable adverse impact.

Urban Design: Height, Bulk and Scale

Additional height and bulk enabled by proposed zoning changes would add incrementally to the scale of development, resulting in greater differences from the development authorized by existing zoning. This increase in the scale and intensity of development would have the greatest impact in the Denny Triangle and transition areas between separating Downtown commercial zones and from less intensive residential and mixed-use neighborhoods.

Urban Design: Streetscape and Pedestrian Amenity

Under all the alternatives, future development will reduce solar access to the pedestrian environment and increase the physical enclosure of the street level environment.

Urban Design: Parks and Open Space

Under all the alternatives, the per capita amount of public open space available for use by Downtown residents and employees will diminish.

Views and Aesthetics

Additional height and bulk enabled by proposed zoning changes would add incrementally to the potential future impairment or blockage of views from some areas, predominantly portions of the Capitol Hill (south of Denny Way), Pike/Pine and First Hill neighborhoods.

Climate—Shadows and Wind

None are identified.

Transportation

Without mitigation, future development through the year 2020 would generate additional traffic volumes and increase congestion in portions of Downtown, most notably in the Denny Triangle area. Much of this impact would occur with or without zoning changes. However, if Alternative 1, ~~or~~ Alternative 3 or the Preferred Alternative is implemented, congestion in the northeastern Denny Triangle could be approximately 5-10 percent worse than under the other alternatives, including the 2020 baseline condition (Alternative 4 - No Action). Under all the alternatives considered, additional congestion will likely increase overall travel times on Denny Way, Stewart Street and Olive Way, including transit travel time. Implementation of mitigation strategies, at the City's discretion, would likely improve overall transportation conditions, so that a portion of the impacts of traffic congestion could be avoided.

Parking

Additional development over the long term would contribute to increased commuter vehicle trips to and from the Downtown study area, and increased parking demand.

Energy

With implementation of recommended mitigation strategies, significant unavoidable adverse energy impacts are unlikely to occur.

Water Utility

None identified.

Sewer and Stormwater Utilities

None identified.

Mitigation Strategies

A range of possible mitigation strategies for key topics analyzed in this EIS is summarized below. Most of these mitigation strategies are not considered mandatory actions that must be taken if any of the alternatives are chosen. However, the City should consider implementing several strategies to avoid or reduce negative consequences that may occur over time with future development Downtown, as identified in this EIS.

Land Use

- **Residential Character.** Rezones of some areas to promote residential uses could encourage the type of residential character envisioned in some of the Downtown neighborhood plans.
- **Human Services.** A variety of measures are proposed that would encourage the retention of existing buildings currently housing human service agencies and the development of new space for human service agencies, including the development of a human services bonus or TDR program.
- **Historic Preservation.** The City currently has a number of programs in place to help preserve City Landmarks. The City could take a number of measures to direct those resources in ways that would help protect the most threatened structures, such as increasing priority for using incentives in commercial development that contribute most directly to landmark preservation.

Housing

- **Funding for Low-Income Housing.** The City could undertake a number of different measures to increase the amount of floor area that would be subject to the low-income housing bonus program, including increasing the maximum floor area limit, or applying the program to DMC zones. Under the Preferred Alternative, the low-income housing bonus program that applies in DOC 1 and DOC 2 zones is extended to DMC zones proposed for increases in the maximum commercial density (FAR). Furthermore, in the Preferred Alternative, residential projects developing to the proposed maximum bulk and height limits would, for the first time, contribute to affordable housing resources.
- **Capacity for residential development.** A number of changes to Downtown's zoning scheme are identified, to ensure that housing remains a viable component of development Downtown after twenty years. Under the Preferred Alternative, in almost all zones, heights are increased for residential use, and provisions like the transfer of commercial density from housing sites in DMC areas also contribute to increased residential capacity.
- **Housing for larger households.** Potential strategies are defined to encourage the development of housing for families with children and other larger households. These include: incentives for units with multiple bedrooms, design review guidelines focused on designing open spaces to meet the needs of families with children, and the development of Downtown facilities for children.

Urban Design

- **Height, Bulk and Scale.** A variety of strategies for addressing bulk issues are identified, including: restrictions on alley vacations; better coordination between height and density limits to ensure desired building forms; density limits and/or additional bulk controls on residential use; special bulk controls in sensitive transition areas and/or areas where more residential character is desired; and provisions conditioning height increases to achieve desired development conditions.
- **Pedestrian and Streetscape Amenities.** Strategies for improving pedestrian circulation and street-scape conditions are identified (refer to the Draft EIS), especially for areas expected to experience substantial growth.

- **Parks and Open Space.** Potential mitigation strategies include funding key open space improvements by: pooling open space contributions generated through requirements and incentives for individual projects; adding provisions to increase the participation of commercial and residential development in addressing increased demand for public open space; and providing public investments in open space with priorities placed on areas where substantial growth is anticipated.

Views and Aesthetics

Potential mitigation strategies range from:

- exempting the Downtown area and vicinity from consideration of view impacts as currently directed under SEPA; to
- preparing a comprehensive view protection strategy that would identify critical views and the protective measures to be employed.

Transportation and Parking

Potential mitigation strategies include the following (Appendix B of this Final EIS includes additional discussion of some of these strategies):

DEMAND REDUCTION STRATEGIES

- **Transportation Demand Management (TDM) Strategies.** Continue and strengthen the use of TDM strategies. The City and other public agencies should continue to promote (and require as possible) greater implementation of TDM strategies, coordinated through worksites. The following TDM strategies should be promoted:
 - ◆ Discounted transit passes (e.g., Flex Pass)
 - ◆ Promotion of other alternative modes (walking, biking)
 - ◆ Increased telecommuting
 - ◆ Business use of vans
 - ◆ Carsharing
 - ◆ Preferential parking for carpools/vanpools
 - ◆ Guaranteed ride home
 - ◆ Enhanced computerized ridematching database and mapping services
 - ◆ Parking cashout (discontinuing parking subsidies and providing incentives for alternative modes)
 - ◆ Enhanced real-time transit information via Internet and on-street kiosks.
 - ◆ FlexCar and residential-based bus pass incentives.
- **Transportation Management Association (TMA).** The City should promote formation of a TMA by Downtown stakeholders to aid in future TDM planning activities.
- **Area-specific rezones.** The City could pursue area-specific rezones to reduce trip generation.
- **Encourage development of residential and retail uses.** Height and density changes that promote the development of residential units and retail space in Downtown neighborhoods help mitigate the transportation impacts of future development. By locating residences near employment, much of the demand for automobile and transit trips to work is met by walking (or other modes) instead. According to the 2000 Census, approximately 35-40% of the workers who live in or near Downtown Seattle walk to work. Non-work trips would also be more likely to occur via walking or other modes if there is a variety of land uses serving Downtown residents. This is especially likely in dense urban

neighborhoods where parking is scarce. Promoting residential and retail uses help mitigate the transportation impacts that are projected to occur under all scenarios.

MITIGATION FUNDING STRATEGIES

- **Transportation mitigation program for Downtown.** The City should develop a comprehensive approach to defining transportation mitigation requirements for projects in Downtown or portions of Downtown. A transportation mitigation program could include defining a set of improvements to address significant adverse impacts, and a mechanism by which new development and redevelopment would contribute a fair share toward transportation system improvements. These improvements could address impacts to all mode choices, including roads, transit facilities, bicycle, pedestrian and ride-sharing programs. A transportation mitigation program could provide more certainty and clarity for Downtown property owners and developers, and greater certainty that significant transportation impacts would be remedied over the long term.
- **Explore new mechanisms to expand transit service.** Downtown Seattle is projected to gain many new jobs by 2020 regardless of changes to height and density regulations. This growth will require significant investment in new transportation capacity. Relying solely on adding roadway capacity and parking facilities as mitigation will become increasingly expensive and impractical. Exploring new mechanisms to allow use of mitigation funds to expand transit service might prove to be more effective than traditional mitigation strategies, especially in Denny Triangle. Public-private partnerships could be used to leverage developer contributions to fund transit service. Reliance on single-occupant-vehicles imposes costs on developers of building parking garages. Investing in transit instead would allow developers to avoid these costs while also supporting public goals of less reliance on automobiles and more pedestrian-friendly neighborhoods. Increasing transit access to buildings would also make them more attractive to tenants. Partnerships should create incentives that encourage participation of most or all of the property owners within transportation services zone. All property owners within the zone would benefit from public and private investments in transportation services oriented to the zone.

MOBILITY STRATEGIES

- **Define physical improvement options that would enhance the capacity of the transportation network.** A comprehensive set of physical improvement options or specific improvement projects could be identified, and related to a transportation mitigation program. This could include previously-identified capital improvement projects, new capital improvements and/or changes (such as lane restriping or designation changes) that would make better use of existing rights-of-way. It could also include projects needing additional right-of-way, such as adding travel lanes or turn lanes to streets, and/or pedestrian/bicycle-oriented improvements, transit facilities, and improvements such as grade-separation of selected intersections. Lane modifications could also include changes to better accommodate transit vehicles and reduce transit delay. The Transportation section of Chapter 3 discusses options for Stewart Street, Howell Street, Olive Way and Denny Way.
- **Curb lane management.** Locate loading zones in alleys or on side streets, and locate access drives (preferably right-in and right-out only) on side streets rather than key arterials. Consider time-of-day restrictions on use of loading zones and pick-up/drop-off zones to avoid peak hour conflicts
- **Retiming traffic signals to optimize corridor traffic flow.** This is a long-term operational strategy best implemented within the context of the entire Downtown street network, and on an ongoing periodic basis as actual changes in traffic volumes and patterns are experienced. More funding would allow more frequent updates to signal timing to better meet changing demands and travel patterns.

- **Funding for additional staffing of the City's Traffic Management Center.** More funding would allow the City to increase staffing and better utilize the capabilities of its traffic management center, including providing quicker signal timing responses to incidents, special events or other fluctuations in day-to-day traffic flows.

PARKING STRATEGIES

Other possible mitigation strategies that could be pursued:

- **Financial mechanisms.** Influence parking demand through financial mechanisms, such as taxes or other user fees.
- **Reduce parking requirements.** Lower the minimum and maximum parking requirements in Downtown, to encourage transit and carpool modes and discourage single-occupant-vehicle commuting by employees. The Preferred Alternative proposes to eliminate the minimum commercial parking requirements, while maintaining current maximum limits.
- **Area-specific rezones.** The City could reduce potential parking demand and trip generation through area-specific rezones.

Energy

To mitigate identified impacts, a combination of mitigation strategies should be selected from the following range of possible strategies, or other strategies not yet identified.

- **Implement recommendations of City Light's Capacity Plan:** Complete City Light's Capacity Plan in 2005 and implement the recommendations that result from that Plan.
- **Strategically address high-energy-demanding uses:** A combined land use and energy strategy could be developed to address impacts of new large loads or staged new large loads in the Downtown.
- **Incorporate LEED into the Downtown Density Bonus program:** Incentives or requirements to use the LEED system's Green Building energy efficiency strategy could promote better energy conservation in future development. In response to the City Council's Resolution 30280, City staff have discussed integration of sustainable building incentives into the building permitting process, and integration of the LEED system into the Downtown density bonus system. The LEED system could be required for participation in the Downtown Density Bonus program as a mitigation strategy to help offset impacts on the electrical system.

A particular threshold of performance in the energy category could be established. Consistent with the City's own internal sustainable building policy, this requirement could be set as a minimum achievement in energy efficiency.

A minimum overall LEED performance could also be set in order to capture other benefits of the program, such as mitigating increased demands on water and wastewater infrastructure, reduction of stormwater impacts, and mitigation of global climate effects. If this was implemented, a development project would go through the certification process administered nationally by the US Green Building Council. A copy of the certification package could be submitted to the City to endorse the required participation in the program. Since LEED certification is not fulfilled until after construction, a strategy would be needed to handle projects that did not meet performance targets when built.

- **Incorporate LEED into Land Use Code, Design Review, or Building Code:** Alternatively, the City could seek to incorporate elements of the LEED system into the Land Use Code, the design review guidelines, and potentially the Building Code. Measures and tools developed as part of LEED would be required or encouraged to be met before a project receives its land use approval. For example, the Downtown design guidelines could be amended to include guidelines on floorplate

design, encouraging designs that would allow natural light to intrude to the center of buildings, potentially reducing the amount of lighting required during the day.

- **More efficient design of buildings' electrical systems:** Developers could be required to design their buildings' electrical services so that their average monthly power factor is no less than 0.97. The present financial penalty for having a power factor below 0.97 could be increased to encourage installation of better equipment and/or power factor correction equipment.
- **Coordination with the building permit process:** DPD and City Light will continue their efforts to work with developers during the pre-application process, before issuing building permits.

Water Utility

In response to an existing shortcoming of development regulations, a potential mitigation strategy is:

- Implement code changes to require future development to locate water meters in on-site spaces (rather than public rights-of-way), to improve accessibility and avoid needless utility maintenance work within public rights-of-way. This would also contribute to better metering of water use and greater cost-effectiveness in the City's utility operations.

Chapter Five

Response to Comments on the Draft EIS

CHAPTER FIVE

RESPONSE TO COMMENTS ON THE DRAFT EIS

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This chapter includes written comment letters that are reproduced beginning on page 5-35, and City staff's responses to identified comments within those letters. The letters include those comments that were received during the official comment period on the Draft EIS. The responses below generally identify the topic of the written comment, and seek to clarify or expand upon the analysis presented in the Draft EIS, for topics relevant to SEPA environmental impacts.

Letter 1

Washington State Department of Community, Trade and Economic Development

1. Thank you for your comments and recommendations for mitigation strategies.
2. Your recommendations to take steps to preserve existing affordable and market rate housing resources and create additional units are noted.
3. Your recommendations regarding open space are noted. Currently, Downtown office developments are required to provide specified amounts of open space for use by building occupants, which can be accommodated on rooftops or in other locations on the project site, or, under special circumstances, as public open space off-site. Additional commercial floor area can also be gained through bonuses for projects providing various types of open space for general public use. Residential development is also required to provide specified amounts of common recreation area for use by building residents. In the Denny Triangle, special provisions allow residential and mixed-use projects to add floor area above current height limits provided that contributions are made to an amenity fund to be used for public open space improvements in the neighborhood.

The amount of additional space anticipated under these requirements given growth projections assumed in this analysis is provided in Appendix J of the Draft EIS. Under the Preferred Alternative, the amount of additional open space anticipated would be most similar to conditions under Alternative 1.

4. Thank you for your comments and recommendations regarding transportation impact mitigation.
5. Thank you for your comments. Please see the response to Letter 2.
6. Thank you for your comments regarding growth management, community preservation and development. Please see Chapters 1 and 2 of this Final EIS for further discussion of alternatives.

Letter 2

Washington State Office of Archaeology & Historic Preservation

1. Thank you for your comments on preservation of historic buildings and properties, and suggested mitigation strategies. Prior to investigation of the alternatives in the Draft EIS, incentives for landmark preservation in the Downtown Code were reviewed, including landmark transfer of development rights (TDR), and the Downtown Bonus and TDR provisions were recently amended to increase the effectiveness of these tools in areas where landmark structures would be most threatened by development pressures. Among the outcomes of these revisions was the creation of a City-sponsored TDR bank that enables the City to purchase and bank TDRs from the owner of a designated landmark structure who may wish to sell them before a private party is available to purchase them for a new project. Furthermore, if landmark TDRs are available in the bank, new projects exceeding certain floor area thresholds would be required to purchase the TDRs to gain a specified amount of the added floor area. While the City does not currently offer specific protections

to undesignated structures, provisions for within-block TDR enable any existing structure to transfer unused development rights to another site within the same block as an incentive to maintain a variable scale of development in an area.

Historic preservation is an important aspect of planning for the future of Downtown. Decisionmaking processes will continue to consider the input of preservation professionals and local preservation entities.

Letter 3

King County Water and Land Resources Division – Daryl Grigsby

1. Your comments regarding the effects of certain alternatives on the Transfer of Development Credits (TDC) program are noted. The information on outstanding funding amounts related to TDC is also acknowledged. Please see Chapters 1 and 2 of this Final EIS for further discussion of alternatives. The discussion of impacts is revised to acknowledge that an additional impact of eliminating the program would be the loss of funds the County and other agencies have earmarked for amenities in the Denny Triangle neighborhood in exchange for participation in the TDC program. Under the Preferred Alternative, the proposed changes in the height limits in the Denny Triangle would result in the termination of the TDC program.
2. Thank you for your comments regarding pending projects considering development rights transfers.

Letter 4

King County Department of Transportation – Metro Transit Division

1. Thank you for your comments. Your comments throughout the letter addressing smart growth and transportation mitigation strategies are noted. It is agreed there is a public interest in managing transportation demand and fostering transit using a variety of strategies. Over the past several years, the Seattle Department of Transportation has developed transportation plans and strategies for the Center City to move more people using transportation modes such as bus, light rail, monorail, ferries, streetcars and bicycle and pedestrian networks within the Center City. A key piece of this work is the Center City Access Strategy which presents multi-modal transportation improvements that accommodate projected growth Downtown and meet the City's Comprehensive Plan goals.
2. In order to provide for a meaningful comparison of impacts among the alternatives, the EIS compared the effects of 20 years worth of growth. For this time period, the differences among the alternatives in terms of population and employment growth are not expected to significantly vary. The real estate consultant report concludes that employment growth will be determined largely by factors other than zoning, related to larger economic trends.
3. The Draft EIS includes assumptions about growth in South Lake Union as part of its analyses for transportation and energy impacts. It also implicitly assumes that employment and residential growth will occur as was projected for growth management and regional traffic analysis purposes at the time of the transportation analysis.
4. Your comments on the extent of the transit study in the EIS are noted. It is acknowledged that several corridors, in addition to Stewart Street and Olive Way, provide significant transit service. The Seattle Department of Transportation (in consultation with Metro King County) is developing a plan for Seattle's future transit network including important transit corridors and transfer points. The plan has identified an "Urban Village Transit Network (UVTN)" that is the backbone of the City's transit

network and will deliver the highest quality transit services in the city. Performance standards are associated with this network.

5. Your comments on the challenges of serving the Denny Triangle with sufficient transit are noted. The Seattle Transit Plan being developed by the Seattle Department of Transportation identifies transit service needs to address future growth projections. The Center City Access Strategy includes a detailed transit network to address the entire Center City area. It is acknowledged that current Metro revenue projections will not be sufficient to meet future transit demand associated with growth projections under all alternatives.
6. Your comments regarding strategic needs for maintaining or improving transit service are noted. It is acknowledged that reducing travel delay for transit, effective routes into/out of the northern CBD and high-capacity transit access are important needs that will require significant resources. In addition to the transit priority options presented on Draft EIS pages 3-191 through 3-193 (for an updated version see the Mitigation Strategies section at the end of Chapter 4 in this Final EIS), Seattle Department of Transportation has developed additional options for mitigating future transit delay. These strategies can be found in the Center City Access Strategy and supporting reports and plans. SDOT will continue to work with King County Metro to develop and implement these measures within the Center City.
7. Thank you for the updated information on layover spaces. Your interest in maintaining effective layover space in the north Downtown area is noted. Layover space is an important street use, and potential incompatibilities should be identified and avoided as possible. To address this issue, the Seattle Department of Transportation and King County Metro have begun a north Downtown Seattle bus layover study to develop interim and long-term plans for managing existing bus layover spaces, for accommodating service growth and future bus layover requirements. The Preferred Alternative requests consideration of an incentive in the Land Use Code for commercial developments that would accommodate layover space on a development site.
8. As part of Downtown Seattle, the Denny Triangle's streets are designated using Downtown's system for pedestrian requirements, amenities and street level uses. Some of the streets in the Denny Triangle have Class I pedestrian requirements, some have Class II requirements, and some are Green Streets with special requirements. The required sidewalk widths range from 12 feet to 18 feet in width. It is possible that pedestrian requirements could be upgraded as part of code changes associated with this proposal. Your suggestions for fostering more pedestrian walkways, thoroughfares and open space are acknowledged.
9. Your suggestions for parking-related strategies, including deleting parking minimums, simplifying parking reduction processes, a transportation mitigation fund, and adjusting current allowable reductions, are noted. The Preferred Alternative would eliminate minimum parking requirements for non-residential uses. No minimum parking requirement currently exists for residential uses. Maximum parking requirements also exist in the zones being considered for zoning changes.
10. Your suggestions for incorporating transportation in height bonuses are noted. The types of public benefits provided through floor area incentives reflect a prioritization resulting from major policy decisions that were based on considerable public input. The most recent Council actions modifying the Bonus and TDR programs have established the provision of low-income affordable housing and child care facilities as the highest priority for use of development incentives in Downtown. Other high priority items include provision of public open space and landmark preservation. The Preferred Alternative does include an addition to the existing transit facilities bonus for transit tunnel station access, to expand it to include access to all fixed-rail systems and for construction of transit layover

facilities. Improved provisions regarding bicycle facilities are also included in the Preferred Alternative. Adding new incentives which could ultimately compete with these other public benefits would require decisionmakers to balance competing policy objectives.

11. Your preferred approach to mitigation strategies, including developers as constructive partners, is noted. Please see the response to comment 9 above, regarding parking regulations. The Preferred Alternative does offer incentives to encourage housing in new development as suggested in your comment. Also, see new text in mitigation strategies for Transportation (under Demand Reduction Strategies) regarding the role of mixed-use development in mitigating transportation impacts from future development. Further discussion of the potential for public-private partnerships is also presented (see the Mitigation Strategies section at the end of Chapter 4 of this Final EIS).
12. Please see Chapters 1, 3 and 4 of this Final EIS for further discussion of the Preferred Alternative and recommended transportation mitigation strategies.
13. Thank you for your comments.

Letter 5

Seattle Planning Commission

1. Figure 1 on page 1-3 of the Draft EIS provides the clearest portrayal of the boundary of the Belltown neighborhood and the study area (shown in three different shading patterns). Differences among the alternatives' development patterns in Figure 17 are hard to spot due to the graphics' small size, but the figure allows for visual comparisons on one page. Figures 18 through 24 provide additional textual and visual information that clarifies differences among the alternatives.
2. Thank you for your comments. None of the studied alternatives are a specific package of zone changes meant to achieve all of the Mayor's objectives. The document was prepared in response to neighborhood plan proposals for accommodating growth targets established for the Downtown area in the city's Comprehensive Plan, adopted in 1994. Decisionmaking processes will determine what changes, if any, occur. However, please see Chapter 1 of this Final EIS for further discussion of a Preferred Alternative.
3. Thank you for your comments on the recommended features of a Preferred Alternative. See Chapter 1 of this Final EIS for further discussion of the recommended alternative for adoption.
4. Your comments on mitigation strategies are noted. The mitigation strategies discussions in each section of Draft EIS Chapter 3 are suitably detailed in describing the options that could be employed to address the identified impacts. For example, see pages 3-102 through 3-105 in the Draft EIS. This level of detail is more than sufficient to meet the SEPA requirements for a non-project EIS. Further, the Preferred Alternative discussed in this Final EIS represents a set of actions that incorporates several of the suggested mitigation strategies.
5. Discussion of the TDC program is provided in Chapter 3 of the Draft EIS, where the relative impacts of the four alternatives on the program are discussed in the Housing (pages 3-18, 19) and Urban Design sections, and in Appendix J, where the dollar value of funds generated for amenities in the area is presented based on projected residential development expected to take advantage of the option for increased height. Established as a pilot program in late 1999, the TDC program is relatively new and was adopted at the beginning of an economic downturn. Consequently, there has been little development activity of any sort to provide a meaningful evaluation of the market's response to the

program. Several projects have, however, explored the use of TDC, three of which have active permit applications, and one of these projects now under construction has increased floor area through the purchase of conservation credits. Further, as part of the interlocal agreement between the City and County, the County has already expended funds for public amenity improvements in the Denny Triangle, and has committed additional resources for amenities once development credits are purchased.

6. Chapter 2 of the Draft EIS (also Chapter 2 in this Final EIS) includes detailed discussion of the background, rationales and approaches for each of the alternatives. The Relationship to Plan and Policies discussion in Chapter 3 of the Draft EIS essentially is a presentation of the pros and cons of the alternatives with respect to the Comprehensive Plan and neighborhood plan goals. Draft EIS Appendix H presents more plan and policy analysis. Further derivation of pros and cons for the sake of decisionmaking would be helpful, but is not necessary in this EIS. Also, it risks overly reducing the numerous complexities within each topic that may make simple pro/con comparisons difficult. Please see Chapters 1 and 2 of this Final EIS for further discussion of the Alternatives, including a Preferred Alternative.
7. This comment touches on several “bigger-picture” topics related to commercial and residential growth. The specific questions suggest that precise analysis is possible on those topics. However, the complex and intertwined nature of the subject matter encourage a more qualitative level of response. Please refer to the Relationship of Plans and Policies discussion in the Draft EIS, page 3-61, and to Appendix H, for further discussion

The comment’s first premise is that this EIS should assess the impact of what happens if the analyzed development does not occur in Downtown Seattle. Strictly speaking, this topic is not within the purview of the EIS, which analyzes the impacts of what happens if the growth does occur in Downtown. More specifically, the analysis explores how different zoning scenarios might differently accommodate 20 years of growth, and impacts related to those differences. The EIS analysis tends to contradict this comment’s underlying assumption that different choices among the alternatives might result in growth shifts away from Downtown to other neighborhoods or regional cities. The real estate consultant’s analysis for this EIS indicates that the contemplated changes in zoned height and density are not expected to alter 20-year growth projections for Downtown.

Identifying and supporting findings of zoning-related impacts such as regional or intracity shifts in projected growth would require much more analysis than is possible within the scope of this EIS, and would likely remain speculative in nature. Please see the responses to comments 8 and 9 of this letter, and discussion in Chapter 3 of this Final EIS.

The analysis indicates that all of the contemplated growth can be accommodated within Downtown through 2020. However, it is interesting to note that the Alternatives do have different implications for the long-term capacity of growth Downtown. Among the alternatives, a range of approximately 26-30 years worth of residential growth could be accommodated, and a range of approximately 37-48 years worth of commercial growth could be accommodated under the zoning studied for the Alternatives. Alternative 1 would result in the greatest level of commercial capacity (48 years) but the least level of residential capacity (26 years). Under the Preferred Alternative in the Final EIS, changes to employment and residential capacity would be expected to fall roughly between those identified in the Draft EIS for Alternatives 1 and 2. The EIS findings on long-term capacity generally suggest that the City should begin to plan for “what happens next” in accommodating Downtown growth after 2020, particularly for residential uses.

The Draft EIS described ranges of possible Downtown residential and employment growth: roughly 11,000 to 17,500 new households and 50,000 to 70,000 new employees by 2020 (see pages 3-6 to 3-8 in the Draft EIS). Supporting the acceptability of those estimates are the use of multiple sources (including Puget Sound Regional Council forecasts), a perspective based on decades of Downtown real estate market trends, and an understanding of the trends affecting residential and employment growth in Downtown. The high end of these ranges should represent an optimistic yet reasonable maximum of potential growth Downtown by 2020. This relatively aggressive growth rate was assumed to ensure that the environmental analysis would be valid in terms of adequately disclosing impacts. It is unlikely that 20-year population or employment trends will dramatically vary from the ranges studied in the EIS, but if employment and household growth occurs in the lower end of the ranges, the impacts on Downtown would be somewhat less than the identified maximum impacts.

Additional requested analysis about housing markets, including markets for family-oriented uses is beyond the scope of this EIS.

8. It is acknowledged that the achievement of population and employment growth projections in Downtown will be influenced by many factors related to macroeconomic trends, demographic trends, real estate market and financial trends, as well as private sector choices about development and public sector choices related to planning, economic development and regulations.
9. The primary implications of the Draft EIS findings relate to the Alternatives' varying impacts on Denny Triangle's future commercial and residential development. Alternative 3, for example, would accommodate more residential development than Alternative 1, providing approximately four years worth of additional residential growth capability if the capacity is fully used. Alternative 3 would also reorient zoning in certain portions of the study area to better encourage that some areas develop as "residential enclaves." On the other hand, zoning choices in Alternative 1 would tend to promote more of a commercial character to the land use pattern of the Denny Triangle, which would more greatly emphasize its role as an employment center. Changes under the Preferred Alternative would most closely approximate Alternative 2.

See the response to comment 7 in this letter regarding growth shifts. The potential that growth may occur in South Lake Union or Northgate should not be assumed as a negative impact on Downtown, or vice-versa. All of the urban centers inside and outside the City have growth targets, and it may take decades for those areas (including Downtown) to reach their full growth potential. Even if studies of growth shifts might be worthwhile, there would be numerous "push" and "pull" factors involved (both are cited in this comment) as well as uncertain implications of macroeconomic factors and private sector decisionmaking factors about development. The net results would inevitably contain a lot of speculation. This sort of study is beyond the scope of this EIS.

Whatever the selected zoning strategy is, Seattle's goals and policies indicate it should not place the Downtown Urban Center in a non-competitive position for growth compared to other areas inside or outside the City. The zoning should be established consistent with those policies so that the intended outcome for future Downtown growth is supported.

With respect to the TDC program, King County indicates that the elimination of the program (which would occur under the Preferred Alternative) could have an appreciable impact on the ability to preserve open space outside the urban center (see the responses to the letter from the King County Water and Land Resources Division for further discussion).

10. The Draft EIS analyses are the best source to rely upon for evaluative discussion of the alternatives' housing impact implications. Two timeframes are considered—20 years of growth (2000 to 2020), and the long-term.

As noted on page 3-19, over 20 years about 45,385 new housing units would need to be built in the region to accommodate new households attracted by new Downtown jobs. An extended forecast based on an ERA economic study suggests a 20-year demand for approximately 17,500 (40%) of these new housing units in Downtown Seattle. To illustrate possible distribution of that growth, the City's Comprehensive Plan growth "planning estimates" suggest that approximately one-half of Downtown's residential growth over 20 years would occur in those neighborhoods that are outside the EIS study area (Pioneer Square, International District and Belltown). The EIS analyses conclude that proposed zoning changes would not alter the projected 20-year demand for commercial or residential uses under any of the alternatives. Therefore, there is no evidence to conclude that 20-year housing demand would be affected within Downtown neighborhoods or that there might be shifts in residential growth or demand.

Over the long-term, prospective residential growth demands could have positive implications for the ability of Pioneer Square, International District and Belltown to achieve additional housing growth. If there is sustained long-term demand for Downtown housing (likely related to Downtown employment growth), increasingly limited availability of sites with residential development capacity is likely to encourage residential development in those neighborhoods outside the EIS study area. Comparatively lower land values in some of those areas would also possibly contribute to that growth trend. It would be logical to assume that lower land values would also attract the interest of non-profits and other affordable housing developers toward further development in those neighborhoods.

For quantitative evaluation, refer to Tables 16 and 17 in the Draft EIS (page 3-18). These show the maximum potential Downtown residential development capacity, including the neighborhood areas within Downtown but outside the EIS study area. Table 17 compares the residential development capacity to the projected number of new households that could be generated by buildout of redevelopable commercial properties Downtown. This illustrates much more potential demand for housing than can be satisfied Downtown, and that neighborhoods including Pioneer Square, International District and Belltown possess a bit more than one-half of the potential residential development capacity Downtown. This information seemingly bodes well for the prospects of demand for future housing development in all parts of Downtown.

11. Regarding the likelihood of housing development occurring in DOC 1 and DOC 2 zones, the analysis in the Draft EIS reflects the real estate consultant's assumptions that property owners in the future will seek to maximize development opportunities for both uses, where possible. While commercial development will likely be the primary choice for development in these zones, in situations where the permitted zoning envelope allows additional development potential beyond what is required to accommodate the maximum permitted density of commercial use, the assumption is that developers will increasingly seek to maximize the value of their sites by including other uses, like housing. Examples include a few hotel/condominium proposals currently in the permitting process.
12. The Draft EIS Housing section already analyzes potential impacts on existing subsidized housing (see page Draft EIS page 3-22, "Potential loss of housing to redevelopment" regarding Alternative 1) and illustrates a range of potential Downtown bonus-based resources generated by 20 years of development (see Table 18 on Draft EIS page 3-21).
13. Regarding edge impacts on housing and smaller scale development in Belltown, in the Chapter 3 *Urban Design -- Height, Bulk and Scale* section, the Draft EIS describes the relative bulk and scale

impacts of the four alternatives on sensitive transition areas, identified on Figure 19, which include the southern and eastern edges of Belltown.

14. Thank you for your comments. Please see Chapters 1, 3 and 4 of this Final EIS for additional discussion of the Preferred Alternative, which is intended to fulfill the height and bulk objectives expressed by the Mayor.
15. The discussion of impacts on historic resources in the Draft EIS includes consideration of structures that are not currently designated as landmarks, in three paragraphs plus an accompanying table. Given the nature of the statements made in those paragraphs and the fact that the information was presented, the Draft EIS did adequately identify and consider those impacts. These structures are listed on page 3-52 of the Draft EIS. See the response to comment 1 in Letter 9 below for a list of 12 other buildings identified by Historic Seattle that are located within the study area.

The sources used to identify these structures include neighborhood plans, where “icon” buildings and “character buildings” of special interest to the community were identified, a survey of buildings in the Denny Triangle conducted as part of The Seattle Commons/South Lake Union Plan Final EIS that identified “buildings or sites likely to meet Landmarks or National Register criteria,” and a list by the City of “buildings or sites of community importance that may meet Landmarks or National Register Criteria.” Altogether, 21 structures not currently designated as Landmarks were identified by these sources. Impacts of the various alternatives on structures that accommodate affordable housing are addressed under Housing impacts (see Draft EIS pages 3-22 through 3-27).

16. Comments noted. Impacts on the costs of land are outside the scope of environmental impacts required to be reviewed under SEPA. The impacts on “sensitive transition areas,” including the Pike Place Market and Belltown are discussed in Chapter 3 of the Draft EIS, under “Urban Design.” A specific location in this area at First Avenue and Virginia Street was also modeled to illustrate potential impacts of the different alternatives in this area.
17. The Preferred Alternative presented in this Final EIS would continue to support the concept of transitions due to the arrangement of zones with zones stepping down in intensity toward the edges of Downtown, and mixed commercial zones located between the more intensive core zones and the less intensive residential zones. See Chapters 1, 3 and 4 for additional discussion of the Preferred Alternative.
18. Comments noted. The response to these comments lies in describing the nature of the alternatives, and noting the pertinent Draft EIS impact text and the discussion of mitigation strategies. Alternative 3 in the Draft EIS provided a strategy for better achieving residential environments than would be possible under Alternatives 1, 2 or the No Action Alternative. These latter alternatives would not possess zoning characteristics that would particularly contribute to the achievement of desirable residential areas. The impact analysis on Draft EIS pages 3-90 through 3-98 indicated these comparisons among the alternatives. Other portions of the Height, Bulk and Scale analyses further indicate the physical circumstances that, particularly in the Denny Triangle, would tend to work against street environments desirable for residential development. Subsequently, the Mitigation Strategies section on Draft EIS pages 3-102 through 3-105 provide a variety of strategies that could be adopted for those purposes. It is agreed that the selection of strategies to achieve such goals should be intentional in the way that height, bulk and scale would work, and that design guidelines could be beneficial.

The Preferred Alternative would accommodate residential use particularly in portions of the DMC zone where raising height limits for residential use without increasing commercial density limits, and

a new provision allowing the transfer of commercial development rights from sites committed to the development of housing, may encourage more properties to be developed with residential and mixed-use buildings. The additional height, along with improved controls on building bulk may also encourage slimmer building types. Impacts on light/shadow, sense of enclosure and similar concerns about massing may be addressed during Design Review of individual proposals, and/or could be the subject of mitigation strategies that could be selected by decisionmakers.

19. Because the perception of differences in development scale between the alternatives is minimal from many vantage points, the graphics in the Draft EIS focused on presenting a broader overview to illustrate variations in the impacts of the Alternatives, which most significantly was the number and location of projects rather than differences in their overall size. Within the constraints of budget, the Draft EIS did present street level views and perspectives from nearby viewpoints. This Final EIS, plus other materials likely to be presented to the public and decisionmakers, will contain additional graphic information intended to represent view and aesthetic interests.
20. Assessing impacts of alley vacations at a detailed level in an analysis of this nature is complicated because each case requires special review resulting in specific conditions addressing the particular impacts of a vacation at a particular location. Both the conditions and an individual project's response to them are difficult, if not impossible, to anticipate. The analysis in both the Draft and Final EIS assumes that, consistent with past development practices, under certain conditions, some large sites will be created through alley vacations, influencing the overall scale of development possible. Under various zoning schemes, development of a certain size and configuration will be accommodated on these sites, which will have certain generalized impacts on the surrounding area.
21. The purpose of the Draft EIS was to evaluate the impacts of proposals developed to implement goals and policies established through the Downtown Neighborhood Planning Process. Pages 3-124 and 3-125 of the Draft EIS (as well as some others on pages 3-102 through 3-105) describe a variety of strategies that could aid in shaping pedestrian and open space environments. The specific objectives guiding the development of the Preferred Alternative in the Final EIS are presented in Chapter 1 of this Final EIS. See Chapters 1 and 3 of this Final EIS for additional discussion of how the Preferred Alternative relates to these topics.
22. Comments noted. The Draft EIS on pages 3-124 and 3-125 identifies a variety of possible open space planning strategies, several of which require future research and analysis or are future possible actions unrelated to this proposal. Due to the finding that no mitigation measures are required as mandatory actions for this EIS, it is not necessary to conduct a detailed assessment of these or other innovative open space strategies. While the value of additional research and planning for open space is acknowledged, it is beyond the scope of this EIS to develop measures of open space demand/need, other than the goals currently established in the Comprehensive Plan and the Department of Parks and Recreation's *Complan*.
23. Please see the response comment 5 in this letter.
24. Comment noted. The Urban Design and Views and Aesthetics sections of this EIS comprise a reasonably detailed set of analyses that address the relevance of visual open space and the impacts of the studied alternatives. More detailed analysis of visual open space and effective strategies for better public and private open space is beyond the scope of this EIS, but would be a worthwhile task for future planning. See Chapters 1, 3 and 4 and Appendix C of this Final EIS for additional discussion of the Preferred Alternative. The Preferred Alternative includes strategies for encouraging slimmer buildings and better controlling building bulk. If adopted, this should benefit the streetscape

pedestrian environment, the broader visual scenic environment as experienced at various viewpoints and overall livability of the Downtown environment.

25. Based on updated information from City Light, ongoing capacity planning currently indicates that a new substation serving Downtown would be needed after 2020. City Light's capacity planning will continue in 2005 and be updated over time.
26. Additional detailed assessment of water and sewer system infrastructure needs and funding is beyond the scope of this EIS. The Water Utility and Sewer/Stormwater Utilities sections of the Draft EIS identified only a limited number of utility issues, for which the impacts of the alternatives are likely to be minor. Therefore, additional analysis is not warranted for the purposes of this EIS. However, Seattle Public Utilities continues to explore the long-term needs of its systems.
27. The Department of Planning and Development has compiled 2000 U.S. Census data for the City's Urban Centers and Urban Villages, at www.cityofseattle.gov, including "journey to work" and automobile ownership data. The data confirm expectations that Downtown residents are less likely to own an automobile, are somewhat more likely to use transit, and are much more likely to walk to work than residents in other parts of Seattle. A majority of the households in the Downtown Urban Center did not own an automobile in 2000, and the average vehicles available per household was 0.5. This is similar to the assumption used for the parking analysis of 0.63 vehicles per household that was based on the 1990 U.S. Census. Almost one-quarter of the Downtown households used public transit to commute in 2000, while 36% walked to work. Only about 16% of the Downtown households worked outside the City of Seattle.

These data suggest that Downtown residency enables a considerably greater proportion of residents to avoid using an automobile for commuting to and from work, compared to the rest of Seattle. This helps Downtown residents contribute less per-capita to congestion on the regional transportation network, and represents a more efficient pattern of residential growth than suburban-style growth.

As described in the Draft EIS, the commuting choices of Downtown employees are assumed to be consistent with the Puget Sound Regional Council's "mode share" information in its 2020 travel demand model. This model projects that in 2020 about 33% of Downtown-oriented trips will be made using transit modes, compared to the estimated 20% in current conditions.

28. The precise location of alley vacations is not predicted in this EIS. Impacts of alley vacations are evaluated on a case-by-case basis. Presumably, an alley vacation would not be approved unless conditioned to ensure that the project would not result in significant adverse impacts. If alleys were eliminated, the loading and access functions they provide would need to be provided in other configurations. Depending upon how streets and buildings are designed and the levels of passing traffic, different configurations could contribute to additional congestion on City streets and/or additional potential for conflicts with pedestrians and other vehicles.
29. The current Downtown zoning is restrictive in the treatment of principal-use structured parking. Principal-use garages for long-term parking are prohibited in much of the study area, and are only permitted as conditional uses in the Denny Triangle area and along the edge of Interstate 5. Conditions for approval address impacts on traffic and pedestrian circulation.

The Draft EIS addresses the potential impact on streetscape character of above-grade structured parking accessory to other uses (see discussion of impacts on residential character in Chapter 3 Urban Design – Height, Bulk and Scale and impacts on streetscape and pedestrian amenity in Chapter 3 Urban Design – Pedestrian Amenities and Open Space). The presence of parking is especially an

issue in the DMC zones and for residential development in all zones, in part because the floor area at or above grade that is occupied by parking does not count as chargeable FAR in these instances. Therefore, there is no incentive to minimize the impacts of parking on the streetscape by locating it below-grade where it is exempt from floor area calculations. In the Preferred Alternative, however, long-term commuter parking located at or above grade would count as chargeable floor area in those DMC areas where commercial density limits would be increased. Furthermore, eliminating the minimum parking requirement may reduce the amount of parking provided in future structures.

Where parking is provided at or above street level, it is subject to development standards based on the pedestrian street designation that applies to streets abutting the project site. Parking at street level must be separated from the street by another use along the frontages of streets designated as Class I Pedestrian Streets and Green Streets, and for portions of the frontage of streets designated Class II Pedestrian Streets. On all floors above street level, parking must be screened. In the Preferred Alternative, residential parking provided above grade on larger sites would need to be separated along some portions of the street frontage by another use.

30. Thank you for your comments. Please see Chapters 1, 3 and 4 of this Final EIS for further discussion of the Preferred Alternative.

Letter 6
Belltown Community Council – John Pehrson, John Lombard

1. Thank you for your comments on alternatives for zoning in the studied portion of Belltown, and zoning regulations affecting bulk and scale. Specific provisions in the Preferred Alternative that address the issues related to the bulk of residential structures in Belltown include maximum limits on floor sizes above specified elevations and maximum limits on the width of facades.
2. Thank you for your comments. Please see Chapters 1-4 of this Final EIS for further discussion of alternatives, including the Preferred Alternative in Chapter 1.
3. Thank you for your comments.

Letter 7
Denny Triangle Neighborhood Association

1. Thank you for your comments on the intent of the Denny Triangle Neighborhood Plan.
2. Thank you for your comments on the relationship of this proposal to the 2001 Downtown TDR and Bonus system changes.
3. The recommendations in the Draft EIS for Alternative 1 are taken directly from the Denny Triangle Neighborhood Plan, to the extent that the plan provided specific information. Height increases of 100 feet were recommended throughout the area, and base and maximum FAR increases to 7 and 14 respectively were proposed for the DOC 2 zone. While specific FAR limits were not identified for the DMC zone, the plan indicated that the increases should be similar in relative magnitude to those for DOC 2, so the base FAR was increased from 5 to 7 and the maximum FAR increased from 7 to 10. This assumption is consistent with recommendations made by the Advisory Committee reviewing changes to the bonus and TDR programs that were to be considered in conjunction with recommended height and density increases. While the plan does call for increasing potential for commercial development, it also specifies objectives to “encourage a mix of low, moderate and

market rate affordable housing throughout the neighborhood with project specific mixes of commercial and residential development,” and to “encourage a 'residential enclave' of predominantly residential development along key green streets ...”

4. Analysis of the Draft EIS alternatives suggests that the proportionally higher increase in proposed commercial density relative to height in some zones would not likely remedy concerns about buildings that appear excessively bulky. The Final EIS includes proposals for a relationship between height and density increases and treatment of building bulk that will address this issue.
5. Thank you for your comments on Alternative 2.
6. Thank you for your comments on Alternative 3.
7. Thank you for your comments on the TDC program. In addition to allowing increased height for residential and mixed-use development and providing a mechanism for channeling resources to fund public amenities in the Denny Triangle, the program also resulted in upzoning approximately four acres of land from DMC 240' to DOC 2 300' to accommodate increased employment growth, consistent with Denny Triangle Plan proposals. The TDC program was created as a pilot project, and is scheduled to be reviewed to determine whether it should be extended or terminated in July 30, 2005. Under the Preferred Alternative, the TDC program would be terminated.
8. Thank you for your comments.

Letter 8

Downtown Seattle Association – Kate Joncas

1. Thank you for your comments on the scope of the alternatives and ongoing “Center City” planning topics. This EIS reflects up-to-date consideration of the status and needs of Downtown.
2. Thank you for your comments regarding transportation investments and Downtown as a continuing growth center. The traffic modeling used in the Draft EIS assumed the presence of major transportation improvements (except the proposed streetcar) to accommodate significantly greater transit ridership in the future.
3. The Draft EIS strove to provide a balanced evaluation of impacts on streetscape and pedestrian amenity (see pages 3-112 to 3-114 and 3-119 to 3-121). This included listing several positive impacts that would occur with future development, such as widening of sidewalks, additional Green Street and street tree improvements, and development of continuous street-level uses. Similarly, adverse impacts were carefully described to provide a balanced and accurate depiction of the impacts. Descriptions of differences in building bulk and arrangement among alternatives aid the reader in visualizing the conditions at or near street level, including solar access and relative openness of the physical setting. Also, please see the response to comment 2 of your testimony in the transcript from December 15th, 2003, regarding potential impacts of bulky buildings on street-level environments.

A review of the Draft EIS text reveals that it does not use “worst-case” terminology (or similar wording) in a biased manner with regard to any alternative. The Draft EIS was carefully worded to maintain objective comparisons among the alternatives, because none of the alternatives was treated as a preferred alternative in the Draft EIS.

4. Thank you for your comments. Please see Chapters 1 and 2 of this Final EIS for further discussion of alternatives.

Letter 9 Historic Seattle

1. Thank you for your comments on historic preservation, and the list of buildings with potentially significant historic value. The Draft EIS analysis did consider non-landmark buildings in the analysis (Please see the response to comment 15 in Letter 5 above). Of the 40 structures identified on the list you provided, 12 are located in the study area and not identified in the Draft EIS (Centennial Building, Chamber of Commerce, Diller Hotel/Porter-Davis, Fifth Avenue Court, Foster and Marshall Building, IBM Building, Maritime Building, Norton Building, Rainier Tower, Second and Pike Building, Securities Building, and the YWCA). The Lyon Building was evidently designated as a landmark structure since the list was compiled.
2. Comment noted. Currently, development in DOC 1 and DOC 2 zones can gain the first FAR above the base FAR and 25% of the additional floor area beyond this threshold through landmark TDR. For projects that build to the maximum FAR, this could equate to 35% of the floor area above the base FAR in DOC 1 and 40% of the floor area above the base FAR in DOC 2. Furthermore, the recent TDR amendments enable the City to “bank” development rights from landmark structures, and require projects to purchase landmark TDRs that are available in the bank to gain specified amounts of floor area above the base FAR.

A further protection to designated landmark structures is the existing provision that prohibits projects from altering landmark structures (in ways that exceed base FAR) without Landmark Board approval. Under the Preferred Alternative, raising the maximum FAR limits while retaining the current base FAR limit in DOC 1, DOC 2 and some DMC areas will create the potential for more landmark TDR to be used in future projects. Furthermore, in other DMC areas, landmark TDR remains as an option for increasing floor area above the base FAR while other non-TDR options have been eliminated.

Letter 10 League of Women Voters

1. Thank you for your comments. The Comprehensive Plan has recently been reviewed for 10-year update, and the nearby areas are further included in “Center City” planning work that is considering the functions and interactions of Downtown with its surrounding neighborhoods. Impact review has already occurred or is underway for the cited transportation projects. Rather than make the completion of this EIS contingent upon other extended planning efforts, the preferred course is to complete the EIS review so that the current proposal can be decided upon in a timely manner. The Draft EIS already has provided much evaluation that characterizes the zoning alternatives’ relationship to the current Downtown planning and policy framework. The Preferred Alternative advances those specific recommendations considered in the Draft EIS process that are consistent with growth management objectives and will help to achieve goals and policies for Downtown development that were recently reaffirmed through neighborhood planning.
2. Thank you for your comments on zoning and the TDC program. Chapter 2 of this Final EIS describes the context of other zoning- and bonus-related changes that were made over the last several years. Some of the amendments to the Land Use Code in 2001 that implemented neighborhood plan proposals, including the revised bonus and TDR provisions, were adopted with the anticipation that changes to height and density limits would be considered and resolved through the Draft EIS process.

3. All the alternatives are assumed to accommodate the same projected demand for housing in the study area—forecasted to be roughly 7,500 units. Changes to the height and density limits in the different alternatives by themselves are not expected to affect demand. What will be built over the next 20 years or so will be influenced more by demand for commercial space and housing than by the maximum zoning capacity.

What the zoning changes could alter is the ultimate capacity for future residential development. For example, changes that create more zoned development capacity could theoretically accommodate the demand for housing over a longer period—say over a 40-year period rather than the 20-year timeframe examined in the EIS. In the Draft EIS Land Use section, Table 24 compares how the changes under the various alternatives affect residential capacity, which ranges from a low of 8,490 units in an Alternative 4 scenario to a high of 14,595 units in Alternative 3 where recommended zoning changes and use of TDC are assumed.

Another difference between the alternatives that affects housing is the amount of resources generated for affordable housing programs through the bonus and TDR provisions used by commercial development. Given the various ranges between base FAR and maximum FAR limits on commercial density, the alternatives require use of these programs to different degrees. Over 20 years, it is estimated these funds could be leveraged to produce approximately 2,675 subsidized units in Alternative 1, 3,225 units in Alternative 2, 2,775 units in Alternative 3, and 2,025 units in Alternative 1. These units would not necessarily be built in the study area, but would be located within Downtown.

4. Thank you for suggestions to further investigate mitigation strategies for accommodating low-income and affordable housing. The Final EIS and the Preferred Alternative are intended to initiate a broader look at housing conditions in the larger Center City area. Additional mitigation strategies may include extending options to locate housing funded by Downtown programs in adjacent areas outside Downtown where development costs would be less, allowing for more effective use of dollars generated by the housing bonus program. An additional mitigation measure proposed under the Preferred Alternative is a provision allowing greater heights for residential projects opting to contribute to an affordable housing fund. Currently, residential development is not subject to any provisions addressing impacts on affordability
5. Please see Chapters 1 through 4 of this Final EIS for further discussion of alternatives addressing residential development.
6. Thank you for your comments on height, bulk and impacts on the pedestrian experience. Along with adverse impacts, the Draft EIS noted several positive impacts on streetscape and pedestrian amenity. Please see Chapter 1 of this Final EIS for further discussion of the Preferred Alternative.
7. Thank you for your comments supporting smooth transitions in scale and density between different zones. Please see Chapters 1, 3 and 4 of this Final EIS for further discussion about the Preferred Alternative.
8. Thank you for your comments on parks and open space impacts. Decisionmakers will consider several strategies to mitigate significant adverse impacts on this element of the environment. Following the Final EIS, additional work undertaken in the broader context of the Center City will address strategies for better connections between Downtown and open space resources in adjacent areas.

Letter 11

People for Puget Sound

1. Thank you for your comments on open space impacts.
2. The City's goals for open space in relation to population in the Comprehensive Plan and the Department of Parks and Recreation *Complan* are generally discussed in terms of households. For Urban Centers, including Downtown, the Comprehensive Plan also includes goals for the employment population. Currently, almost 75% of Downtown households are single persons living alone. The average household size in Downtown is 1.34 persons per household. The Draft EIS acknowledges that Downtown currently does not meet open space goals, and will not likely be able to meet them in the future. Certainly, it is unlikely that the amount of open space will double in the next 20 years, given the cost of land and availability of sites. While expanding the supply and quality of public open space resources is a priority, other strategies are also considered, such as:
 - enhancing the public street environment as an urban amenity in Downtown neighborhoods;
 - taking fuller advantage of the perception of openness provided by views out of Downtown; and
 - improving connections to and increasing the use of existing open space resources within Downtown and adjacent areas.
3. Thank you for your comments on stormwater impacts. The SEPA review process predicates the need for impact mitigation on the presence of significant adverse impacts that are attributable to the proposal. This EIS concludes that there would be no such significant adverse impacts on stormwater and therefore no mitigation is necessary. Future development would be required to provide stormwater control facilities meeting regulatory requirements. Those regulations require facilities that have substantive benefits in water quality and quantity control, particularly when compared to uncontrolled runoff from impervious surfaces that are present at many of the future development sites. While features such as green roofs, infiltration and porous pavement would provide benefits, their inclusion is not specifically warranted as stormwater impact mitigation by the findings of this EIS.

Letter 12

1,000 Friends of Washington

1. Thank you for your comments.
2. Thank you for your comments on housing impacts. Please see Chapter 1 of this Final EIS regarding how the Preferred Alternative responds to housing objectives.
3. Thank you for your comments on pedestrian, bulk and scale impacts. Decisionmakers will consider a range of strategies to address potential adverse impacts.
4. Thank you for your comments on traffic impacts and the need for transportation mitigation. Refer to Chapter 4 in this Final EIS for additional mitigation strategies that clarify transit-oriented mitigation funding methods and the role of housing in aiding transportation mitigation.
5. Thank you for your comments supporting reductions in minimum and maximum parking requirements as a mitigation strategy.

6. Thank you for your comments on open space impacts and suggested mitigation strategies. Decisionmakers will consider several strategies to address potential adverse impacts. Current requirements for residential and office developments to provide open space or common recreation area for the use of project occupants, and incentives to provide public open space features similar to those you identify would be retained in all alternatives.

Letter 13
Michael Baker

1. Thank you for your comments. It is agreed that context is important to the discussion of the alternative height and density arrangements that are possible within Downtown Seattle. Perhaps most importantly, this includes the physical, political, legal, historical and regional contexts affecting Downtown. Comparisons to other cities' experiences could be helpful as well. Effective visualization of the relative amounts of change is also of interest. Please see Chapters 1, 3 and 4 of this Final EIS for further discussion of the Preferred Alternative.
2. Thank you for your comments. Inevitably, in publicly discussing complex zoning and policy issues, a level of precision is lost while an opportunity for the public to voice their opinions, interests and concerns is gained. Often, the opportunity to discuss precise quantitative data is limited in public meetings. Additional public meetings will occur as DPD moves forward with "Center City" planning efforts. Please review the Draft and Final EIS for additional information that illustrates the alternatives and their implications in quantitative and qualitative terms.
3. Your comments touch on some of the pertinent interests to be considered by decisionmakers, summarized as: what are the purposes and projected outcomes of regulatory changes, and how would those fit in with growth management policies and the public interest? The Draft EIS should be considered in the context of the larger planning effort that it serves. Primarily, the EIS is a tool for evaluating proposals that were developed as part of an extensive neighborhood planning process. While summarized in the document, much of the rationale upon which the recommendations are based is discussed more fully in the plans themselves.
4. The Draft EIS extensively analyzed components of the "built environment" that are the most important aspects of the environment in highly-developed Downtown. The elements related to the natural environment—Water, Earth, Air Quality, Plants and Animals among others—were considered for review during "scoping" of the document, but eliminated due to lack of probable significant adverse impacts in the Downtown study area. Given the complexity of the subject matter, it may be difficult for the reader to interpret the relative level of impacts, but in general that is determined by comparing the impacts of the alternatives to Alternative 4, which is a "No Action" alternative (e.g., what would happen if the existing zoning continued over the next 20 years). See Chapter 4 of this Final EIS for an impact summary table comparing the alternatives.
5. Thank you for your comments on urban character issues. This EIS is one aspect of the City's ongoing planning efforts that seek to make the best policy and regulatory choices to guide Seattle's growth. Please see Chapters 1 through 4 of this Final EIS for further discussion of alternatives.

Letter 14
Marshall N. Brown

1. Thank you for your comments. Please note that the study area does not include South Lake Union or lower Queen Anne, and includes only the portion of the Denny Regrade (Belltown) that is nearest the Downtown Commercial Core.

Letter 15
Jonathan Dubman

1. Thank you for your comments. You touch on several of the interrelated topics relevant to possible zoning changes—including the function of height limits and transitions, building bulk, views, Downtown housing, growth management, transportation and historic preservation.

Letter 16
Robert F. Hintz

1. The Draft EIS included analysis in Chapter 3 and Appendix H of the relationship to Comprehensive Plan policies. The analysis does not identify any Comprehensive Plan goals or policies that need to be modified in order for the zone change alternatives to occur. This suggests that even with such changes, the Downtown zoning system would remain consistent with the current goals and policies of the Comprehensive Plan.

Letter 17
Douglas Howe

1. In the Draft EIS, Alternative 1 assumed an increase in the base FAR for the DOC2-300 zone from 5 to 6, but not an increase from 5 to 7 in the DMC zone. Chapter 1 of the Final EIS includes discussion that clarifies the rationale for the changes proposed in the Preferred Alternative.
2. Thank you for your comments on Alternative 2. Your summary mischaracterizes the text at page 2-15. In reference to the DMC zones peripheral to the office core, Chapter 2 of the Draft EIS notes, “...where it is desirable to balance residential and employment growth and maintain a gradual transition between the concentrated development intensity in the office core zones and surrounding neighborhoods...” It does not indicate that commercial development should be discouraged in favor of residential development. The Draft EIS Chapter 2 characterization of the Downtown Mixed Commercial zone reflects an interpretation that the “Mixed Commercial” zone should accommodate a mixture of residential and commercial uses and should provide transition to less dense surrounding areas.
3. Thank you for your comments on Alternative 3. Please see Chapters 1 and 2 of this Final EIS for further discussion of alternatives.
4. Thank you for your comments on the Transfer of Development Credits (TDC) program. Notwithstanding value judgments about the worth of the TDC program, the alternatives’ varying effects on the operability of the TDC program represent an adverse impact on a current land use regulatory program. Please see the text of Letter 3 from the King County Water and Land Resources Division.

5. Thank you for your comments on urban design and height/bulk/scale. It is agreed that good building design is an essential need. Flexibility for better tower design is part of the rationale for increasing height limits. This would address the criticism that recent projects' bulk were caused by too-constraining height limits in the Land Use Code. Even though these projects were subject to Design Review, the constrained height limits still encouraged bulkier floor plates to achieve the maximum permitted density. The Draft EIS found that with the proportions of added height and density in some of the alternatives, the same issue of bulky appearance would not be resolved. The Preferred Alternative provides a new choice that will provide more flexibility in height to achieve better building forms that will have more aesthetically pleasing distribution of bulk.

Letter 18
William Justen

1. Thank you for your comments on Alternative 1 and the need for increased density Downtown. Please see Chapter 1 of this Final EIS for discussion of the Preferred Alternative.
2. Thank you for your comments on Downtown residential growth as a form of traffic mitigation. As discussed in response to comments of the Seattle Planning Commission, U.S. Census data from 2000 indicate relatively low automobile ownership by Downtown residents and a considerably higher rate of walking to/from work than residents in other areas of the city. The EIS analyses reflect an understanding of that phenomenon. Refer to Chapter 4 of this Final EIS for an additional mitigation strategy that clarifies the role of residential growth in aiding transportation mitigation.
3. The analysis in the Draft EIS does not dispute the beneficial effects of Downtown housing with regard to transportation. However, the magnitude of this impact needs to be considered in light of the overall composition of Downtown's household and employment population. In 2000, there were 11,361 households compared to 174,528 jobs Downtown, and increases in employment continue to outpace housing growth. The more relevant issue may be the relationship between actions that increase future employment growth Downtown (such as proposals for increasing commercial density limits) and efforts to increase the supply of housing. Please see Chapter 1 of this Final EIS for a discussion of the Preferred Alternative's approach to actions that would promote both residential and employment growth, to maximize the benefits of a mixed-use development pattern, including the transportation benefits cited in your letter.

The off-street parking analysis does not exaggerate future parking demand, because it appropriately calculates residential and employment-related parking demands. The residential parking demand was based on 1990 U.S. Census-based automobile ownership rates that are relatively consistent with 2000 U.S. Census data. The employment-related parking demand accurately embodied regional mode share projections that account for the entire spectrum of transportation choices made by all areas throughout the region, including Downtown. In other words, it takes into account the travel behavior of Downtown residents and employees.

4. Proposals for increasing commercial density limits were based on an assumption that additional development capacity would be needed to accommodate potential job growth Downtown. For analysis purposes, the Draft EIS assumed a relatively ambitious rate of growth to provide a sufficient assessment of the potential impacts that could occur over 20 years under different growth scenarios. The Draft EIS did conclude that the zoning under all alternatives, including existing conditions, could accommodate even an ambitious rate of growth that might occur over 20 years.

As is demonstrated in the Draft EIS analysis, increasing height and density limits does not necessarily ensure the maximum generation of revenue for housing through the bonus programs. If growth levels are significantly below those anticipated and demand for office space is low, it is possible that projects would not be built to the permitted maximum FAR limit, which under some scenarios allows projects over 1,000,000 square feet on full-block sites. Under such circumstances, and coupled with proposals for increases to the base FAR limit, the use of housing bonuses may actually be less.

5. Your comments endorsing Downtown high-rise housing development as an amenity that could help attract additional office development are noted. Regarding the desirability of encouraging high-density high-rise residential towers, the Preferred Alternative in this Final EIS focuses on identifying the conditions that will optimally attract residential development, including locations and the relative intensity of commercial development allowed in the area. Please see Chapter 1 of this Final EIS for more information.
6. If so little office development is anticipated in the future, such significant increases in commercial development densities throughout the study area would seem unwarranted. Such a scenario raises the concern that residential development would be less likely to occur in areas where property owners might be more inclined to hold onto property in anticipation of accommodating high-density commercial development at some point in the distant future. The Preferred Alternative seeks to provide a balance by increasing opportunities for the highest-density commercial development in the areas that are clearly best suited to that use, and accommodating residential development in other areas while not precluding employment growth in those areas.
7. Depending on the location, height limit increases of 50% may actually be less than those proposed in some alternatives. For example, in Alternative 1, heights are proposed to be increased by 100 feet throughout the Denny Triangle, which is more than a 50% increase in areas where current limits are 125 feet and 160 feet. If the intent for the increases is to encourage taller and more slender residential towers, height limits above 600 feet may be unnecessary. As a comparison, in Vancouver, B.C., a city often cited for successfully achieving this building type, the maximum height limits generally range between 320 to 450 feet.
8. Thank you for your comments on the “planned community development” (PCD) process. The minimum site size of a PCD is currently 55,000 square feet in DOC 1 and 100,000 square feet in other Downtown areas where it is permitted. The purpose of establishing the PCD process was to allow added flexibility for major development on large sites or areas of Downtown to accommodate projects providing major public benefits, such as significant public open space, and to coordinate development over a larger area to enhance benefits beyond what might otherwise be achieved. These benefits might include a wider range of uses in the area, accommodating a needed public facility, providing for a better massing of development to achieve specific urban form objectives, preserving landmark structures, etc. At a little over one-third the area of a typical square block, a site of 20,000-25,000 square feet would likely be insufficient in size to accommodate the type of tradeoff between flexibility and public benefit intended. As an alternative that would better address flexibility for certain situations, changes to combined lot provisions could be considered.
9. Thank you for your comments on preferring to let the market determine the balance between employment and residential growth. If the public is to consider making substantial public investment in residential infrastructure in some Downtown areas, it may be desirable to have the assurance provided by certain land use regulations that enough housing to warrant the investment will actually occur in the area.
10. Thank you for your comments.

Letter 19
Alan Kurimura

1. Thank you for your comments.

Letter 20
Jack McCullough, letter #1

1. Thank you for your comments. Chapter 2 of the Draft EIS and portions of Chapter 3 characterized the relationship of the alternatives to the applicable neighborhood plans. The maximum height and density increases specified in these neighborhood plans were incorporated into Alternative 1. Please see Chapter 1 of this Final EIS regarding the Preferred Alternative.
2. Thank you for your comments on upper level setbacks and the need for design flexibility. Increases to the height limits are proposed, in part, to provide more flexibility for the massing of structures. The Preferred Alternative also proposes maximum floor sizes for high-rise residential structures and limits on façade widths as a simpler approach for addressing the bulk of development.
3. Downtown Seattle, already the largest employment center in the region, makes sense as a primary focus of the cited transit systems. It is not clear that funding for such systems will have been ill-spent if no zoning changes occur. Downtown's growth targets reflect the presence of these transit improvements. Providing additional capacity for growth in Downtown could aid in reinforcing the value of such transit systems.
4. Thank you for your comments. Please refer to neighborhood plan-related discussion in Chapter 2 of this Final EIS.
5. Thank you for your comment on the impacts of Alternative 3 and buffers. This comment mischaracterizes the findings of the EIS with respect to jobs. The Draft EIS at page 3-11 indicated that if all redevelopable sites in the Urban Center were built out over the next 40 to 50 years, Alternative 1 would accommodate approximately 33,000 more employees than Alternative 3. This translates to approximately 48 years of future employment growth capacity under Alternative 1 compared to approximately 38 years of employment growth capacity under Alternative 3. This illustrates the range of potential long-term differences in zoned capacity under the studied alternatives. Please see the response to comment #21 in this letter regarding transitions (or "buffers") in DMC zones.

It should be pointed out that the Downtown neighborhood plans also emphasize accommodating substantial increases in the Downtown housing supply, with a goal for adding over 15,000 units by 2014. This goal far exceeds the number of housing units likely to be funded through the commercial incentive programs, estimated to be between 2,025 and 3,225 units depending upon the alternative. Meeting this goal will require substantially more opportunities for accommodating housing development than can be produced through incentives for commercial development.

6. Thank you for your comments on the topic of "mandatory mixed-use" buildings under Alternative 3. The provision proposed in Alternative 3 makes mixed-use "mandatory" only in the sense that projects opting to develop above the base FAR would be required to include residential use on the site. Commercial development in the DMR/C zone under Alternative 3 would be permitted to build up to the base FAR of 5 without housing.

7. Thank you for your comments on the cost of slender residential buildings. Please see Chapter 1 of this Final EIS regarding recommended provisions to encourage slender buildings. Also, please see the response to comment 3 in Letter 8 (Downtown Seattle Association) regarding the pedestrian environment. Decisionmakers will need to provide a balance, weighing actions that could potentially increase building cost against measures to ensure the quality and livability of the urban environment.
8. Your comments on market-related perspectives about growth, development costs, and the need for incentivizing strategies rather than restrictive mitigation strategies are noted. Estimates of potential diversion of growth to other neighborhoods or jurisdictions are speculative and difficult to evaluate meaningfully (see the response to comment 9 below, and the responses to comments 7-9 in Letter 5 from the Seattle Planning Commission).
9. Your perspectives about growth, comparative costs of development and related project decisionmaking cited in this comment are noted. However, as reinforced by the findings of a real estate consultant study, the Draft EIS notes that *“the number of employees Downtown will instead be driven by economic forces larger than the Downtown real estate market. Factors such as the regional and international growth industries most likely to seek Downtown office space, interest rates, the availability of funding for new development projects, and the regional transportation network are more likely to influence the amount of new Downtown office development than zoning changes.”* The economic cycles in this region and their evident effect on “boom-bust” development cycles demonstrate these influences on development trends.

At the level of 20-year growth projections for a large area, it is reasonable to assume a certain level of residential and employment growth and study its effects among four alternatives. This is particularly helpful in order to gauge the comparative impacts among the alternatives for several elements of the environment. Estimations of potential differences in total amounts of growth over 20 years based on shades of differences in zone regulations would be rather speculative, and might obscure comparisons of impacts among the alternatives. Considering that Alternatives 1, 2 and 3 consist primarily of increases in allowable height and density (in Alternative 3 only for the DOC 1 and DOC 2 zones), these alternatives should increase the attractiveness of Downtown for development rather than decrease it. (Also see the response to comment 20 in this letter.)

It should also be noted that the objectives of the proposals evaluated in the Draft EIS are not solely focused on promoting employment growth Downtown. They also emphasize creating conditions conducive to housing development. The various alternatives explore different approaches for balancing how both job and housing growth can be accommodated.

10. Thank you for your comments on the TDC program. Notwithstanding value judgments about the worth of the TDC program, the alternatives’ varying effects on the operability of the TDC program represent an adverse impact on a current land use regulatory program. Refer to Letter 3 from the King County Water and Land Resources Division. The program has already resulted in the expenditure and commitment of funds by King County for public amenities in the Denny Triangle, as well as an interlocal agreement committing the County to include significant public open space as part of the redevelopment of a major property holding, Convention Place Station, in the area.
11. The EIS does not base its assessment of housing impacts in Chapter 3 on the premise of a 1-for-1 jobs-housing balance. The cited discussion is located on pages 1-7 and 1-8 of the Draft EIS under the heading of “Major Issues to be Resolved.” The discussion poses policy questions rather than certainties on the topic of priorities for employment and residential growth. The discussion does not promote a 1-for-1 job/housing balance. Rather, it poses two possible policy choices: one that would

“expand Downtown’s role as employment center,” and the other that would “promote a balance between both employment and housing growth.” Under this latter point, the discussion notes the presence of housing as well as employment growth targets for Downtown, and the possible need to ensure sufficient housing capacity. In reality, these are not “either/or” propositions, and “balance” should be interpreted as only a relative term.

12. The EIS does not assume a premise that “Downtown workers should live Downtown.” With regard to low-income housing, this comment mischaracterizes findings on page 3-23 of the Draft EIS. The text identifies that under Alternative 2 a greater proportion of employee households (of all incomes) could theoretically find housing Downtown if all development capacity was used, and that this reflects “*a decrease in the number of potential Downtown workers and an increase in the number of potential housing units.*” Therefore, the Draft EIS already provides the clarification this comment requests. On the same page (3-23) of the Draft EIS, it is noted that under Alternative 2, “*more resources could be available to meet demand for housing for the lowest-income households than under Alternative 1. New office and hotel projects contributing to the Downtown Bonus program would provide funds that could leverage other public and private funds to create housing to serve these populations.*”
13. This comment mischaracterizes the nature of the analysis on page 3-18 and 3-20 of the Draft EIS. The reference on page 3-18 compares the number of households generated by Downtown commercial employment at maximum commercial buildout to the maximum number of housing units at maximum residential buildout in Downtown. This illustrates that future Downtown commercial growth is likely to generate much more demand for housing than able to be satisfied within Downtown under any of the alternatives.

This comment narrowly defines Downtown as only an employment center, whereas City policy also defines a residential housing role for Downtown (refer to Draft EIS Tables 8 and 9, pages 3-6 and 3-7). The fact is that a certain proportion of households that work Downtown will prefer to live Downtown, and some proportion of those households might not be able to locate suitably priced housing in Downtown, now and in the future. The fact of demand for housing Downtown (as witnessed in Belltown and other neighborhoods) does not reflect an assumption that “employees in an urban center should live in that urban center.” Creating opportunities for Downtown workers to live Downtown is regarded as a positive aspect that, ultimately, could help alleviate transportation impacts related to work commute trips.

14. This comment assumes that mixed-use projects are limited to projects that include both residential and commercial uses in the same structure. Several built or proposed mixed-use developments in Seattle include housing and commercial uses in separate structures. The consultant’s analysis concluded that over time, developers would seek to maximize return on properties by full utilization of the development potential for both commercial and residential use on a site. This conclusion is applicable to all of the studied alternatives, not just Alternative 3. Refer to Draft EIS Appendix G for modeled project data.
15. For all alternatives, the assumption was that development would be built to the maximum density limits, and the amount of funding generated for affordable housing was based on what proportion of the floor area above the base FAR would be gained through the housing bonus program. The consultant indicated this was a reasonable outcome under all scenarios. The fact that a major office project currently under construction is being built to the existing maximum FAR without the benefit of height and density increases and fully participating in the housing bonus program lends support to the validity of this assumption. The cited differences in base FAR definition among the alternatives were intentional, as part of the analytic process.

The approach employed in the Draft EIS analysis does include comparisons that are based on a consistent set of assumptions. If it were necessary to suggest that Alternative 3 “overstates” housing production because the need to use more bonus area makes a project more costly (another assumption), it would be equally important to suggest that Alternative 1 overstates the situation. This is because it assumes all projects will build to the proposed higher maximum FARs, which one could argue may not be the case if the cost of the bonus was considered unreasonable relative to the expected return for the project.

16. The housing mitigation strategies (page 3-28 of the Draft EIS) address measures to increase funding for affordable subsidized housing through the bonus program for commercial development, as well as measures for enhancing conditions for market-rate housing production.
 - For affordable subsidized housing through the bonus program, no proposals would require a reduction in proposed development densities. The additional use of bonuses would be achieved by maximizing the use of housing bonuses for gaining additional floor area above the base FAR, which could include maintaining the base FARs at current levels while allowing increases in the maximum FARs.
 - To increase opportunities for market-rate residential development, one strategy identified is to rezone areas for primarily residential use, which would result in reduced commercial densities. There are no instances where commercial development densities are recommended to be reduced below current levels and use of the housing bonus increased.
17. Thank you for your comment on exploring family-oriented amenities and schools as an incentive.
18. Your perspectives about growth, comparative costs of development and related decision-making are noted. This comment overstates the assumptions made for the analysis. It may also overstate the portability of commercial demand and development choices within the region. Certain affinities to Downtown locations exist for certain business sectors (for example, law offices attracted by proximity to courts). Also, this comment discounts the increases built into the action alternatives. Given that Alternatives 1, 2 and 3 consist primarily of increases in permissible height and density (in Alternatives 2 and 3 only for the DOC 1 and DOC 2 zones), they should conceptually increase the attractiveness of Downtown for development rather than decrease it. Please see the responses to comments 8, 9 and 20 in this letter for additional discussion, and refer to Chapter 1 of this Final EIS for description of the Preferred Alternative.
19. Your comments on bonus costs affecting maximization of density are noted. However, it appears they conflict with neighborhood plans' rationales for increasing density. Increasing the supply of subsidized housing was one of the primary justifications for height and density increases. Not utilizing the full density would reduce the financial resources generated for affordable housing, resulting in fewer subsidized units.
20. This comment assumes that some of the alternatives to significantly increase height and density Downtown would generate “dislocation” of Downtown development to other Seattle neighborhoods or cities in the region. Given other commentary in this letter, this is likely directed at Alternatives 2 and 3, in which fewer areas of Downtown would be increased in height and density than in Alternative 1. An underlying assumption of this comment is that anything less than the maximum zoning change will generate impacts. However, the normal orientation of SEPA review is to evaluate impacts by comparing to the No Action Alternative, which is Alternative 4. Using this approach, all of the other alternatives would represent significant increases in permissible height and density, which should increase the attractiveness of Downtown for development rather than decrease it.

Therefore, potential “dislocation” of development to other areas based on differences in zoning is not a supported finding, nor is it an impact of the alternatives.

Further, the regional growth strategy promoted through GMA calls for the creation of other employment centers and continued investments to improve transit access to these areas. As the region continues to grow and the job base increases, it is unreasonable to assume that Downtown will continue to maintain the same percentage of regional employment growth as it has in the past. The efforts of the GMA are to ensure that most growth occurs in the already urbanized area of the region, within designated centers like Downtown where it can be best accommodated.

21. The Downtown Urban Center Plan was adopted in 1999 and the goals and policies for the Downtown Urban Center are now included in the Neighborhood Planning Element of the Comprehensive Plan. These goal and policies were largely drawn from the Downtown Land Use and Transportation Plan, originally adopted in 1985, which was reviewed and reaffirmed through the neighborhood planning process. The concept of providing for transitions in Downtown areas appears in several policies in the Comprehensive Plan, including those related to establishing height and density limits, and the intent of specific zones.

In particular, the Downtown Mixed Commercial (DMC) zone is described as suitable for areas “*that provide a transition in the level of activity and scale of development.*” (DT-LUP4). DT-UDP4 states that height limits are regulated to “*provide transition to the edges of Downtown to complement the physical form, features and landmarks of the areas adjacent to Downtown.*” In DT-UDP5, transition is specifically identified as a criterion for determining appropriate height limits, with the direction to “*generally taper height limits from an apex in the office core toward the perimeter of Downtown, to provide transitions to the waterfront and neighborhoods adjacent to Downtown.*” While what constitutes an appropriate transition is debatable, providing a transition between high-density Downtown areas and less-intensive adjacent neighborhoods is still a legitimate matter. The Draft EIS Figure 19 entitled “sensitive transition areas” identifies how the current zoning and height limits have been defined to accommodate transition between the study area and adjacent neighborhoods.

22. The City’s SEPA Ordinance discusses Height, Bulk and Scale impacts at SMC 25.05.675G. The policy background text indicates “*The purpose of the City’s adopted land use regulations is to provide for smooth transition between industrial, commercial, and residential areas, to preserve the character of individual city neighborhoods and to reinforce natural topography by controlling the height, bulk and scale of development.*” Further, “*However, the City’s land use regulations cannot anticipate or address all substantial adverse impacts resulting from incongruous height, bulk and scale...Similarly, the mapping of the City’s zoning designations cannot always provide a reasonable transition in height, bulk and scale between development in adjacent zones.*” These observations and policies supporting compatibility of height, bulk and scale provide a foundation for discussing impacts in the Draft EIS. Your comment on the Design Review process and impact mitigation is noted. However, Design Review only applies to the existing zoning context. It does not address situations where changes to height and density are being considered that would introduce a different scale of development within an area.
23. Nine alley vacations have been approved in Downtown over the last 10 years, including the IDX Tower site, 700 Olive, Stewart Place and Grand Hyatt/Washington State Convention Center expansion. Given that bulk is controlled through a floor area ratio in Downtown, and the total amount of floor area allowed is determined by site size, vacating alleys to create large full-block sites does allow a much larger scale of development to be introduced into an area than would otherwise occur if public rights-of-way were maintained in public use. One of the arguments for increasing building

height limits has been to allow more design flexibility to correct the bulky appearance of recent projects like the IDX Tower and 700 Olive, both of which were granted alley vacations.

The alley vacation review process allows a range of impacts and public benefits to be considered, and a final decision to achieve a high priority public benefit, such as the preservation of a landmark structure, may allow for a tradeoff permitting a bulkier-appearing building. While there are potential positive benefits that can be achieved through the approval process for alley vacations, there may be limits to how extensively issues of building bulk can be addressed if the height limits and density limits are established based on a development pattern set by the existing platting of private parcels and public rights-of-way. There may also be limits if the relationship between the height limits and the density limits is such that design flexibility is severely constrained for a maximized development (in terms of floor area) on a large site created by the alley vacation.

24. Your comments on the need for incentives to promote the development of slender residential buildings are noted. As noted with other descriptions of bulk characteristics, “slender” is a relative term. The zoning for much of Belltown includes development standards to limit the bulk of residential towers, making them more slender than some high-rises built in other Downtown zones that are not subject to these standards. These regulations limiting tower size have not prevented these buildings from being built within the current height limits of 240 feet. What constitutes “slender” towers will need to be defined, as well as how best to achieve them in a manner that makes development economically feasible. See Chapters 1, 3 and 4 of this Final EIS for further discussion of the Preferred Alternative.
25. Your comments on the difficulties of requiring limited floorplates for slender office buildings and the potential effect on development decisions are noted.
26. Your opposition to extending DMR development standards to other Downtown areas as mitigation is noted.
27. Your comments on the mitigation strategy of converting residential floor area to chargeable FAR are noted. Legitimate concerns about the potential bulk of residential buildings have been raised by City staff and the public, because these structures are not subject to the same controls as other permitted uses. The condition could potentially be exacerbated in situations where development sites “max out” permitted commercial densities, then add residential use to increase overall project floor area and bulk. If the maximum density limits expressed in the commercial FAR and height limits imply a certain predictability regarding the potential scale of Downtown development in a particular area, future projects that substantially exceed these limits due to floor area exemptions may result in unanticipated impacts. Downtown plans and policies seek to promote residential development, but not at all costs; there are also policies addressing desirable conditions to promote livability and a high-quality physical environment that need to be taken into consideration.
28. Your comments on the mitigation strategy of overlays for transition areas are noted. Please see the response to comment 21 above regarding the background and policy basis for “sensitive transition areas.”
29. Under existing provisions, (SMC 23.49.011A2a), street-level retail sales and service or entertainment uses continue to be bonusable features in certain mapped locations allowing floor area increases for the first FAR above the base FAR in DOC 1 and DOC 2 zones. In DMC zones, the option to bonus this space is still available at mapped locations. Elsewhere, the fact that the space occupied by certain street level uses, including retail, is exempt from floor area calculations is in effect a bonus that is not available to development in zones outside of Downtown. When the retail bonus was

initially established, it was at a time when providing street level uses was regarded as a financial risk for a project. As Downtown continues to evolve as a dense, pedestrian-oriented environment, providing such uses will become less risky and may no longer warrant a public bonus, especially in light of the desire to support higher-priority public benefits. It should also be noted that residential projects within Downtown, and all developments in Pioneer Square and the International District, provide street-level uses without the benefit of a bonus.

30. The Downtown Code states in Section 23.49.011.A1f. *“Except as otherwise provided in this subsection A2f, not less than five (5) percent of all floor area above the base FAR to be gained on any lot, excluding any floor area gained under subsection A2a or A2c of this Section, shall be gained through the transfer of Landmark TDR, to the extent Landmark TDR is available. Landmark TDR shall be considered ‘available’ only to the extent that, at the time of the Master Use Permit, application to gain the additional floor area, the City of Seattle is offering Landmark TDR for sale, at a price per square foot no greater than the total bonus contribution under Section 23.49.012 for a project using the cash option for both housing and child care facilities.”* Currently, the City has not acquired any Landmark TDR that would be subject to the provision cited above.
31. As described in the responses to comments 5 and 20 of this letter, the suggested job “dislocation” or dispersal impacts are not identified impacts of any Alternative. Further, the suggestion that 30,000 jobs would need to be accommodated in Seattle neighborhoods or other cities as a result of selecting a particular alternative is based on an erroneous interpretation of the findings.
32. Thank you for your comments on eliminating minimum parking requirements but not parking ceilings. To promote greater transit use, the Preferred Alternative proposes elimination of the commercial parking requirement, while maintaining the maximum limits on the amount of parking that can be provided.
33. The parking analysis indicates that future development would likely provide considerably more parking than the amount lost from existing parking facilities, including short-term parking, assuming existing types of parking requirements continue, or developers would choose to provide parking at amounts currently required to meet tenant demand. The alternatives do not include restrictions that would hinder market-driven provision of parking supply.
34. The suggested analyses of project costs brought about by a potential LEED requirement (a sustainable design approach) and its relationship to regional competitiveness in attracting new development are beyond the scope of this EIS. Any potential cost analysis would need to carefully specify what timeframe and context would be assumed. Sustainable design advocates generally conclude that the LEED approach results in net benefits with regard to long-term cost performance of buildings, including with regard to their occupants.

Letter 21
Jack McCullough, letter #2

1. Thank you for submitting the extensive list of potential code changes intended as a menu of options, as well as their supporting goals and assumptions.
2. Your recommendations for enhancing the Design Review process via design departures are noted.
3. Your recommendation for eliminating or simplifying upper level setbacks and coverage limitations is noted. See Chapter 1 of this Final EIS for discussion of the Preferred Alternative.

4. Your recommendation for modifying “access-to-parking” standards is noted. Current provisions seek to direct loading activities off alleys and locate vehicular access to on-site parking to locations with the least impact on pedestrian circulation.
5. Your recommendations for providing transitions in scale are noted. One concern about provisions that address an issue like transition is that they provide a high degree of predictability. Provisions that introduce flexibility that may result in unintended consequences could be counterproductive.
6. Your recommendation for allowing more transfer and “stacking” of floor area is noted. Concerns about the relationship between the maximum densities allowed and the height needed to accommodate permitted floor area are important to address. Height limits even as high as 700 feet may not be adequate to accommodate development that can be as dense as 20 FAR, and allowed to become denser through the additional stacking of floor area from nearby sites.
7. Your recommendations for greater flexibility to achieve slender residential towers are noted. With proposed height limits as high as 700 feet, there may not be a strong incentive to develop a slender tower in order to go even higher. In Vancouver, B.C., a city often cited for successfully achieving taller, slender residential towers, the typical height for such towers is 320 feet, with 450 feet allowed in some areas. See Chapter 1 of this Final EIS for discussion of the Preferred Alternative.
8. Your recommendation for easing Energy Code requirements is noted. However, the Washington State Energy Code requirements for residential buildings are established by the RCW as both a maximum and a minimum. The City of Seattle does not have the authority to make modifications to these requirements (DPD, 2004).
9. Your recommendations for providing more residential- and family-oriented amenity bonuses are noted. Currently, the bonuses are limited for use by commercial developments. The bonus provides an incentive of added floor area for projects incorporating features or participating in programs that are intended to mitigate the impacts resulting from increased employment densities. While there may be a logical extension to include features that benefit Downtown residents, since some percentage of them are likely work in these new developments, it may be more direct and defensible to look to residential development to contribute, either through incentives or requirements, to features used by the residential population. See Chapter 1 of this Final EIS for discussion of the Preferred Alternative.
10. Your recommendation for easing other construction code requirements is noted.
11. Your recommendations for open space bonusing are noted. Current provisions allow bonuses for open space provided off-site, and also allow the open space requirement for an office project to be met by providing public open space at an off-site location. The TDC program in the Denny Triangle allows contributions to an amenity fund to generate resources for open space acquisition. Provisions for open space TDR also allow floor area increases for projects that purchase development rights from sites that are to be improved as public open space. Difficulties potentially hindering use of these incentives include lack of available sites and the need to coordinate with multiple development projects to gain sufficient resources for open space acquisition and improvements. For any single project, the expense is likely too great relative to the bonus gained.
12. Your recommendation for restoring and enhancing the retail bonus is noted. Please see the response to comment 29 in Letter 20 above.

13. Your recommendation for providing a “free” additional 2 FAR for additions to existing development is noted. However, many of these projects, including the one cited, were built under earlier Codes, when the base FAR was as high as 10, so have benefited from relatively more “free” FAR than projects built more recently. Also, with certain uses exempt from FAR calculations, like housing and street-level retail, there are opportunities to accommodate additional development without the need to use bonuses.
14. Your recommendation to eliminate SEPA transportation mitigation authority in Downtown is noted. The planned public transit system improvements, transportation management plans (TMPs) and parking limitations will provide significant assistance in addressing Downtown congestion impacts. However, it is not necessary or advisable for the City to eliminate mitigation authority, as elimination of authority would not in itself improve any impact condition. This approach would negate the potential for SEPA authority to be used in a coordinated, positive fashion to achieve targeted physical improvements to Downtown's street network. See Chapter 4 of this Final EIS for the summary of transportation mitigation strategies put forward for consideration by decisionmakers.
15. Your recommendation to consider additional increases in density (20 FAR in DOC1, 16 FAR in DOC 2 and 13 FAR in DMC) is noted. The Draft EIS alternatives included the specific increases that were proposed in the various Downtown neighborhood plans. See Chapter 1 of this Final EIS for discussion of the Preferred Alternative.
16. Your recommendation for linking density increases to proximity to rail transit is noted. However, the suggested proximity of four blocks from rail transit would encompass most of the Downtown area. It has been the intent of Downtown zoning to reflect the accessibility to transit in establishing the maximum allowable densities in an area.
17. Your recommendation for eliminating minimum parking requirements is noted.
18. Your recommendation for restoring the short-term parking bonus is noted. Short-term parking remains a bonusable item under current regulations. Providing short-term parking within a mapped area abutting the retail core can be used to increase floor area in a project for the first FAR above the base FAR (see SMC 23.49.011A2a). However, the bonus for short-term parking is based on providing additional parking in excess of the amount otherwise required, and the elimination of the minimum parking requirement in the Preferred Alternative makes it more difficult to distinguish the public benefit provided by this incentive if it is used only to satisfy the demand for short-term parking generated by the project itself.
19. Your recommendation for increasing the allowable maximum distance for off-site parking in Downtown is noted.
20. Your recommendation for allowing housing TDRs to be generated from sites outside Downtown is noted. Downtown neighborhood plans have emphasized a desire to focus the benefits of Downtown development incentive programs on Downtown neighborhoods. In addressing issues like this, consideration also needs to be given to the zoning where housing resources outside of Downtown are located. Since the transfer involves unused commercial development potential, many structures outside of Downtown are located in zones with little or no allowances for commercial use. Further, cheaper land values outside of Downtown may make available TDRs from these locations more attractive than more costly TDRs in from housing structures in Downtown neighborhoods, where housing resources are more likely to be threatened by greater pressures for commercial development. In any case, proposals that potentially contribute to an oversupply of available TDRs can also weaken the program.

21. Your recommendation to allow the housing bonus value to float is noted. To some degree, it is unlikely that development will occur until demand has reached the point that rents rise to the levels that were used to initially establish the value.
22. Your recommendations regarding the Planned Community Development tool are noted. Please see the response to comment 8 in Letter 20 above. Because of the significant variations in development densities that can occur on portions of a PCD area, and the need to establish a clear public benefit to sanction the extra flexibility, it is not likely that this would be approved at the administrative level.
23. Your recommendations for increasing the flexibility for using TDRs are noted. See Chapter 1 of this Final EIS for discussion of the Preferred Alternative.
24. Regarding two half-blocks between Pine and Union, these blocks, located in the retail core (DRC) zone, were not included in the Draft EIS study area, but now have been included in the Final EIS study area (refer to analysis in Chapter 4).

Letter 22
Steve Mooney

1. Thank you for your comments.

Letter 23
Tony Puma

1. Thank you for your comments. Please see Chapter 1 for further discussion of the Preferred Alternative.
2. Thank you for the suggested strategy regarding slender towers and rooftop open space.

Letter 24
Greg Smith

1. Thank you for your comments on possible height bonuses and other provisions for residential buildings. Please see Chapter 1 of this Final EIS for further discussion of the Preferred Alternative, which addresses these topics in various ways. Please note that within the study area, residential towers with floor sizes of 15,000 square feet or less are not currently subject to upper-level development standards. Also, proposals that increase the supply of TDRs may contribute to an oversupply and diminish the effectiveness of the program to address the most critical priorities for its use, including the protection of existing affordable housing structures, landmark buildings and the provision of new public open space resources.
2. See response to comment 24 in Letter 21 above.
3. Thank you for your comments recommending broader Center City planning. Other city planning efforts are underway to evaluate possible changes in the southern portion of Downtown, including Pioneer Square, Chinatown/I.D. and adjacent areas. Please see Chapter 1 of this Final EIS for further discussion of the Preferred Alternative.

Letter 25
John Smith

1. Thank you for your comments.

Letter 26
Scott Species

1. The Draft EIS predominantly consists of cumulative impact analysis, wherein the overall effects of growth over 20 years are compared under different zoning scenarios, including the No Action Alternative. This approach helps identify the overall net impacts of different zoning compared to retaining the existing zoning. The example in this comment pertains more closely to construction-level impacts that are too speculative to identify at this level of SEPA review.
2. The prospect of studying Air Quality was reviewed during scoping for this EIS. However, this element of the environment was not included in the EIS Scope due to a lack of probable significant adverse impacts. This conclusion was reached based in part upon data from the Puget Sound Regional Council and Puget Sound Clean Air Agency websites. These sources include the PSRC's "*Destination 2030 Metropolitan Transportation Plan for the Central Puget Sound Region*" and the Clean Air Agency's 1998 *Annual Data Summary* and February 2001 monthly air quality summary report. The projections in these data indicate that carbon monoxide and three other modeled pollutants (VOC, NOx and particulates) are expected to dramatically decrease at least through the 2020 timeframe, despite predicted increases in traffic and congestion.
3. The prospect of studying noise, toxic/hazardous materials and risk exposure was reviewed during scoping for this EIS. However, these elements of the environment were not included in the EIS Scope due to a lack of probable significant adverse impacts attributable to the alternatives.
4. Your suggestion for a light and glare study of City street lighting is noted. However, there is a lack of probable significant adverse impacts attributable to the alternatives.
5. Thank you for your comments. The Comprehensive Plan does set goals for open space in different types of urban environments to help determine where additional facilities are desirable, but it does not establish specific requirements. The zoning requirements for open space in the Land Use Code are at a finer level of detail than Comprehensive Plan goals and policies on public open space.
6. This EIS is the means of identifying and mitigating potential significant adverse impacts on the environment. No issues are identified as "deferred." To the extent that the public and agencies identify substantive topics of interest, they are addressed in this Final EIS. The SEPA environmental review process does not contemplate the sort of extended studies suggested in this comment. The relative performance of Downtown zoning will be evaluated over the long-term by the City.
7. Thank you for your comments.
8. Thank you for your comments on transition in height, bulk and scale.

Letter 27
Richard Stevenson

1. Thank you for comments and proposals regarding policy objectives for the DOC 2 and DMC zones and appropriate height and density limits for these areas. As stated in the Comprehensive Plan, the Downtown Office Core 2 (DOC 2) zone was established to provide “*areas adjacent to the office core appropriate for office expansion and where a transition in density to mixed-use areas is desirable.*”

The Downtown Mixed Commercial (DMC) zone was established to provide:

Areas adjacent to the office core, office expansion areas and retail core that provide a transition in the level of activity and scale of development. Areas designated DMC are characterized by a diversity of uses. The DMC land use district is intended to:

- *Permit office and commercial use, but at lower densities than in office areas;*
 - *Encourage housing and other uses generating activity without substantially contributing to peak hour traffic; and*
 - *Promote development diversity and compatibility with adjacent areas through a range of height limits.*
2. Through provisions established in the TDR program for transfers of development rights from affordable housing structures, landmark buildings, and open space, commercial development rights can be transferred within the DMC, DOC 1 and DOC 2 zones. While under current provisions TDR is not used to create new housing projects, it has been an effective tool to help preserve existing housing resources, and has been used to secure funding for several low-income housing structures in the Denny Triangle. Please see Chapter 1 of this Final EIS for discussion of the Preferred Alternative, which includes additional TDR provisions.
 3. Raising the maximum FARs can increase the amount of floor area in a project gained through bonuses. The degree to which this increase exceeds current conditions depends on whether the base FAR is increased as well, and to what extent relative to increases in the maximum FAR, and whether or not developers build to increased maximum limits.
 4. Your comments recommending elimination of upper level setbacks and coverage limits are noted. Please see Chapter 1 of this Final EIS for discussion of the Preferred Alternative.
 5. Thank you for your comments on the prospective benefits of your proposals.

Letter 28
Roger Wagoner

1. Thank you for your comments. They touch on some of the important matters to be considered by decisionmakers.
2. Please see Chapter 1 of this Final EIS for additional information on the Preferred Alternative.

Letter 29
Irene Wall

1. Chapter 2 of the Draft EIS described overall objectives of the studied alternatives, and documented the background of how the proposal came about, as an outgrowth of neighborhood planning in

Downtown. Please see Chapters 1, 2 and 3 of this Final EIS for additional discussion of alternatives, objectives and the public interest.

2. The cited Comprehensive Plan amendment concepts were tabled in 2004. The South Lake Union item cited would not have incorporated that neighborhood into the *Downtown* Urban Center. Projections of employment and/or residential growth for neighborhoods and sites outside Downtown will remain relevant to those particular areas. Downtown is subject to its own residential and employment growth trends and projections, which contribute to the need for planning and zoning analysis. Please refer to Chapters 1 and 3 of this Final EIS for further discussion of the Preferred Alternative and growth issues.
3. The topic of cumulative impacts on energy systems was discussed on page 3-208 of the Draft EIS. Recent updated information from City Light indicates that a new substation is projected to be needed to serve the study area after 2020, several years later than indicated in the Draft EIS. City Light is addressing and monitoring the Downtown and South Lake Union system relationships and necessary improvements.
4. According to the parking analysis for the Draft EIS (see Table 61 on DEIS page 3-199), there would not be a net loss of off-street parking. Rather, off-street parking would increase considerably under any of the alternatives. While approximately 7,000 to 7,500 existing parking spaces would be eliminated by future development, that development would provide an estimated 17,000 spaces to serve new commercial and residential uses. Depending upon how successful efforts are to encourage transit use, the projected demand for parking could exceed the supply by approximately 2,500 to 6,750 spaces in the year 2020. However, this exceedance does not account for potential choices by parking providers to build more parking to satisfy demand. Transit capacity will depend upon the funding choices made over the next 16 years, but several modes of transit are expected to be available.

Regarding the location of parking in a structure, the Draft EIS did identify a potential impact on streetscape and residential character due to parking on floors above street level. This is particularly an issue with residential development, because above-grade parking accessory to residential use does not count as chargeable FAR, so there is no incentive to provide it below grade, as there would be for commercial development. Parking above grade must be screened, and there are special screening standards, including screening by another use (such as retail) along the street front, that apply to parking located at street level. These standards vary according to the pedestrian designation of a street (see the response to comment 29 in Letter 5 above).

5. Thank you for your comments that suggest linking Downtown height and density increases to additional private investment in urban villages outside Downtown.
6. Thank you for your comments that suggest linking height and density increases to provision of needed amenities. This already occurs under the existing bonus system. Additional floor area for commercial uses above a "base limit" is gained by obtaining bonuses through which developers provide or contribute to the production and preservation of affordable housing, public open space, landmark preservation, human services, childcare and other public benefits. The TDC program also involves providing or contributing to a fund for public amenities in the Denny Triangle. The Preferred Alternative includes additional provisions that will aid in funding affordable housing and other needs, including provisions allowing residential development to build to proposed height limits only if projects contribute to affordable housing mitigation.

7. Thank you for your comments suggesting contract rezones as a mechanism for securing public benefits. A contract rezone typically occurs for one site at a time, with a contractual aspect that specifies the responsibilities of the applicant and the city. It allows customized conditioning that would apply to each site depending upon its unique characteristics and impacts. Conceptually, supposing an alternative comprised of site-by-site contract rezones was possible, it would be likely to considerably slow down the development review process and project decisionmaking for Downtown building proposals. Each proposal would be subject to individualized review and negotiation of zone characteristics and conditioning, and each would require Council decision processes. Such a system would not likely be feasible or advisable. It would contradict the concept of having systematic zone categories and regulations applicable within defined areas.
8. Thank you for your comments on zoning concepts and zoning as an incentive. Please see Chapters 1, 3 and 4 of this Final EIS for additional discussion of the Preferred Alternative. The Draft EIS did consider other approaches to promoting residential development, including the rezoning of some areas in Belltown and the Denny Triangle to less intensive residential designations in Alternative 3. Existing incentive programs have been successful in generating resources for a variety of public benefits that have contributed to the livability and vitality of Downtown, including landmark preservation and the production and preservation of low-income housing. Incentives developed to capture benefits during periods of strong economic activity cannot be adequately evaluated during economic lulls in the real estate market.
9. The suggested type of cost/benefit analysis is not required by the City's SEPA Rules and is beyond the scope of this EIS.
10. Thank you for your comments on view protection and alley vacations.
11. Based on the conclusions in the Draft EIS, creating building forms similar to those described as "Vancouver style" would require additional regulatory strategies. Please see Chapters 1 and 4 of this Final EIS for discussion of the Preferred Alternative, which would be comparatively better than current regulations in encouraging slimmer building profiles. Choices made following this EIS process will determine what specific packages of zoning changes are considered by decisionmakers, perhaps directed at bulk controls that will influence the shape of Downtown buildings. This will influence the net result, in terms of building bulk and open space character of future development.
12. Thank you for your comments on protecting low-income and subsidized housing.

Letter 30
David Williams

1. Thank you for your comments.



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DEPARTMENT OF COMMUNITY,
TRADE AND ECONOMIC DEVELOPMENT
128 - 10th Avenue SE • PO Box 42525 • Olympia, Washington 98504 • (360) 725-4000
Dept. of Design
Construction & Land Use

January 8, 2004

Ms. Diane Sugimura, Director
Department of Planning and Development
City of Seattle
700 Fifth Avenue, Suite 2000
Seattle, Washington 98104-5070

RE: Proposed downtown height and density changes.

Dear Ms. Sugimura:

Thank you for sending the Washington State Department of Community, Trade and Economic Development (CTED) the draft environmental impact statement (DEIS) for proposed amendments to Seattle's development regulations that we received on November 19, 2003. We recognize the substantial investment of time, energy, and resources that these documents represent.

We especially like the following:

- We applaud the initiative to allow more density, activity, and investment in downtown Seattle. The Growth Management Act (GMA) calls for urban growth served by efficient multimodal transportation, economic development that is consistent with planning, and affordable housing for all segments of the population. By encouraging infill development and allowing additional investment in the core of the city, these proposed changes to Seattle's development regulations are likely to support achievement of these GMA goals.

Seattle has already done a great deal to prepare downtown for an increase in development potential. Downtown is the most prominent urban center in the state, benefiting from vibrant economic and social activity and diverse land uses. It is served by major public infrastructure, and additional investments continue to be made to ensure that people are able to live, work, and access downtown. Development regulations allow a mixture of uses and a pedestrian-oriented environment. Given that this groundwork is in place, an increase in density could be very positive for the community.

- We commend the City of Seattle for the thoroughness of its draft environmental impact statement (DEIS). The document takes an in-depth look at the impacts and trade-offs of the

four alternatives (including no action) considered. Of particular use to decision-makers is the consideration the document gives to mitigating measures for the undesired impacts of each alternative. These and other measures will be essential in the effort to balance the many aims of community and economic development.

We have the following comments and suggestions you may wish to consider as you evaluate these and future proposed amendments. Intensification of downtown development could accomplish a number of GMA goals. However, good community planning calls for striking a balance among the full spectrum of community goals. We strongly support examining the mitigating measures identified by the DEIS, and others, that address impacts of increased height and bulk, in the spirit of balancing the desire to accommodate density with the need to maintain a quality environment.

1

In addition, several potential impacts strike us as particularly important to mitigate:

- The DEIS is clear that intensification of development could endanger downtown's supply of affordable housing and housing resources. We urge Seattle to provide and leverage the funding, and to take other steps, as necessary to preserve existing affordable and market rate housing and housing resources downtown, and to create additional units in all price ranges.
- The DEIS points out that under any of the scenarios (including the no action alternative) downtown is not meeting the comprehensive plan goals for open space. We acknowledge that, in general, intensive development is likely to represent the highest and best use of land in this area. Nonetheless, in order to foster livability downtown we advise the city to plan for public open space in the area and carefully weigh the impacts of additional development on its availability. Also, given that public open space within downtowns consists largely of the sidewalks and streets, we strongly recommend the continuation and expansion of efforts to improve the interface between pedestrians and vehicles such as road crossings, the addition of pedestrian amenities including street trees and furniture, and strengthening policies requiring development to be pedestrian and transit oriented.

2

In addition to the mitigation measures proposed in the DEIS the city could consider meeting the intent of the comprehensive plan by facilitating creation of areas that serve as open spaces within and on top of buildings. In a highly urban environment, structured public, semi-public, and private spaces such as lobby atriums and rooftop gardens could help to meet the intent of the open space goal, bring trees and plants into the city, and even help to reduce the stormwater impacts of additional development. We suggest that methods to foster such practices be considered, including review of development regulations to identify and consider removing regulatory barriers to such practices, and working with developers through regulatory, voluntary, and/or incentive-based approaches. For more information, the City of Seattle's own Office of Sustainability & Environment is an excellent resource (and may already have provided input on this DEIS). In addition, a number of organizations, including Green Roofs for Healthy Cities (<http://www.greenroofs.ca/grhcc/index.html>) and Project for Public Spaces (<http://www.pps.org/>), provide information and resources related to urban open spaces and rooftop gardens.

3

- As proposed in the DEIS, the transportation impacts of additional development should be mitigated through fostering transit and alternative travel modes. We are particularly impressed with the Transportation Demand Strategies proposed for transportation and parking impacts, and support the creation of a Transportation Management Association of downtown stakeholders (DEIS, page 1-29). Among many excellent sources for information regarding tools for transportation-efficient development, *Strategies and Tools to Implement Transportation*, prepared for the Washington State Transportation Commission, September 2003, is a current and exhaustive resource.
- We support the suggestions made in a letter to Seattle dated December 2, 2003, from Gregory Griffith of the Department of Archaeology and Historic Preservation regarding preserving historic assets in the area.

In summary, we encourage the city to continue to move forward in selecting a preferred alternative, and strongly advise that an appropriate package of mitigation strategies be adopted simultaneously. Throughout this and other planning processes, we advise you to consider downtown Seattle both as the heart of the state's largest urban center, and as a cluster of neighborhoods in their own right (as acknowledged through the neighborhood planning process). Due consideration should be paid to ensuring that the area will function well both as a regional center and at the neighborhood level. While continuing to foster development in the area, we suggest that to the extent possible GMA and community goals be implemented at a fine-grained level within neighborhoods. This approach may call for additional mitigation measures, or possibly some reduction of development intensity. We argue that regulations that foster both development as well as key elements of neighborhood livability, cultural heritage, housing affordability, and social diversity can and should be a part of the continuing development of downtown.

Congratulations to you and your staff for the good work these proposals embody. If you have any questions or concerns about our comments or any other growth management issues, please call me at (360) 725-3048, or Ike Nwankwo at (360) 725-3056. We extend our continued support to the City of Seattle in achieving the goals of growth management.

Sincerely,



Elliott Barnett
Assistant Planner
Growth Management Services

EB:lw

cc: Gordon Clowers, Planner, City of Seattle
Ike Nwankwo, Technical & Financial Assistance Manager, CTED



STATE OF WASHINGTON

OFFICE OF COMMUNITY DEVELOPMENT
OFFICE OF ARCHAEOLOGY & HISTORIC PRESERVATION

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501

(Mailing Address) PO Box 48343 • Olympia, Washington 98504-8343

Phone (360) 586-3067 FAX (360) 586-3067 Web Site: www.oahp.wa.gov

December 2, 2003

Ms. Diane Sugimura
City of Seattle Dept. of Planning and Development
700 Fifth Avenue, Suite 2000
Seattle, Washington 98104-5070

In future correspondence please refer to:

Log: 120203-07-KI

Re: Downtown Height and Density Changes DEIS

RECEIVED
DEC 04 2003
LOCAL GOVERNMENT

Dear Ms. Sugimura:

The Washington State Office of Archaeology and Historic Preservation (OAHP) is in receipt of the Draft Environmental Impact Statement (DEIS) regarding the above referenced proposal. From the document, I understand that the Seattle City Council is considering adopting three alternatives that will increase allowable maximum heights and densities of buildings in several downtown zones including the Denny Triangle, Commercial Core, and Belltown.

In response, review of the DEIS by OAHP staff leads to our support of the height and density changes in concept. This support is derived from our understanding that the proposed changes are intended to foster expanded activity and uses (including residential) in the target neighborhoods. However, we strongly maintain that implementation of increased heights and densities should not come at the expense of historic properties in these neighborhoods. Historic properties (buildings, structures, districts, sites, and objects that are 50 years of age and older) are increasingly rare in these areas and already under intense development pressures. Therefore, I recommend that adoption of increased downtown height and density changes also be accompanied by commensurate protective mechanisms for historic properties. We recognize that the DEIS identifies several mitigation strategies. We also support these strategies but reiterate that mitigation measures should be implemented in tandem with proposed height and density changes. In addition, it should be noted that protective measures be considered for more than already designated City Landmarks and National Register of Historic Places properties. Properties potentially eligible for designation (for City and/or National Register designation) should be identified (inventoried) upon program implementation and receive protection from any proposed application of increased heights and densities. It is also recommend that local historic preservation entities and preservation professionals be invited to participate in the increased height and density program design and implementation. Such participation in the program implementation by the preservation community should help to avoid conflicts in the long-term and streamline the development process.

Thank you for the opportunity to review and comment on this proposal. Should you have any questions, please feel free to contact me at 360-586-3073 or gregg@cted.wa.gov.

Sincerely,


Gregory Griffith
Deputy State Historic Preservation Officer

Cc: Karen Gordon
Ike Nwankwo, Growth Management ✓





King County

Water and Land Resources Division

Department of Natural Resources and Parks

King Street Center

201 South Jackson Street, Suite 600

Seattle, WA 98104-3855

206-296-6519 206-296-0192 Fax

RECEIVED
FEB 04 2004

Dept. of Design
Construction & Land Use

January 28, 2004

Diane Sugimura, Director
Department of Planning and Development
700 Fifth Avenue, Suite 2000
Seattle, WA 98104-5070

Dear Director Sugimura:

I am writing to record the King County Department of Natural Resources and Parks comments on the Draft Environmental Impact Statement (DEIS) for Downtown Height and Density Changes dated November 2003. The city's efforts to increase housing opportunities in the downtown area are to be commended. These efforts will help the region achieve our growth management goals and create vibrant urban centers. However, we are concerned that the alternatives considered in the DEIS will have potential negative impacts on the King County Transfer of Development Rights (TDR) Program.

In April 2000, the City of Seattle and King County forged a regional partnership to transfer rural residential density into the Denny Triangle pursuant to an interlocal agreement unanimously adopted via King County Ordinance No. 13794. This partnership achieves a number of mutually beneficial policy goals, including focusing growth in urban areas and limiting growth in rural areas, as well as protection of drinking water quality in the Cedar and Tolt River Basins, and protecting salmon habitat. The Washington State Growth Management Act (GMA) directs development to urban areas discouraging inappropriate conversion of undeveloped rural land into sprawling, low-density development, and encourages the conservation of productive forest lands and productive agricultural lands.

Adopted Countywide Planning Policies direct jurisdictions in King County to implement programs and regulations to protect and maintain the rural character of rural, farm, and forest lands, and to direct growth to cities and urban centers. Rural and agricultural production district areas in the County are recognized as containing important Countywide public benefits such as forestry, agricultural resources and salmon habitat. Finally, under provisions of the Endangered Species Act (ESA) the County and the City share a strong interest in the preservation of salmon habitat.

1

Diane Sugimura
January 28, 2004
Page 2

In our current partnership, lands near Seattle's two protected watersheds, the Cedar and Tolt, will be protected; ensuring continued high-quality drinking water for the region. Priority rural sending sites include areas with endangered species habitat, open space/regional trail access, and wildlife corridors. Finally, housing supply and choices in downtown Seattle will grow, directly supporting Seattle's Comprehensive Plan and the Denny Triangle's neighborhood plan.

Alternatives in the DEIS propose to increase residential and employment opportunities to meet growth targets. While we applaud these proposals, they also eliminate or severely reduce the receiving capacity of the Denny Triangle neighborhood to accept density from the rural area. Alternative One eliminates the King County TDR Program, and Alternatives Two and Three shrink the potential receiving area within the Denny Triangle.

1

As a commitment to improve the livability of the Denny Triangle neighborhood, King County has earmarked \$500,000 in local funds for public amenities. Under the terms of the Denny Triangle Interlocal Agreement, King County has already transferred \$100,000 to the City of Seattle Design of Greenstreets. The remaining \$400,000 in local funds plus a \$432,000 Federal Transit Administration grant will be transferred to the City when development rights are transferred into the Denny Triangle.

As cited in the DEIS, there are at least six Denny Triangle projects considering accepting development rights. Two transfers, using a combined total of 51 rural development rights, are scheduled for completion in the next few months. Unfortunately, these projects will evaporate if density and height limits are increased without maintaining the current requirement to acquire rural development rights.

2

Thank you for your consideration of our comments. Please let me know if you have any questions or would like to discuss our comments.

Sincerely,



Dafyl Grigsby
Division Director

cc: Pam Bissonnette, Director, Department of Natural Resources and Parks (DNRP)
Bob Burns, Deputy Director, Department of Natural Resources and Parks (DNRP)
Mark Sollitto, Manager, Transfer of Development Rights Program, Water and Land
Resources Division, DNRP



King County Department of Transportation
 Metro Transit Division
 201 South Jackson Street
 Seattle, WA 98104-3856

February 27, 2004

Dennis Meier
 City of Seattle
 Department of Planning and Development
 700 Fifth Avenue, Suite 1900
 Seattle, WA 98104-5070

RE: City of Seattle Downtown Height and Density Changes DEIS

Dear Mr. Meier:

This letter provides comments from the King County Metro Transit Division on the Department of Planning and Development's (DPD) Height and Density Limit DEIS. We generally support increases to height limits and density, but all alternatives generate significant impacts on the ability of transit to serve the community. We recommend that the City develop a plan to mitigate the transportation impacts of population growth and develop transit-friendly infrastructure in order to ensure transit continues to be a viable form of transportation.

Heights of buildings are only one component of smart growth, which can be defined as a type of development with the goals of minimizing dependence on auto transportation, reducing air pollution, and preserving open space by channeling dense, pedestrian friendly, mixed-use growth into existing communities. A comprehensive program is needed that does not simply increase heights, but also makes public transportation a feasible alternative to the car, develops mixed-use communities (especially emphasizing housing), and encourages development in urban areas. These comments specifically address how the City can make public transportation more viable in the future, as a healthy public transportation system is vital to dense urban-core communities.

The role of the developer has often been overlooked in discussions about smart growth, but the high rise building and high rise developers do more for transportation demand management than many other available mechanisms by significantly increasing density. Developers have been calling for increased density through fewer restrictions on height limits and are calling for increases above those in Alternative 1. This creates an excellent opportunity to link public interest in reduced traffic congestion with the interests of developers to increase building heights. This link can be created by forming incentives to encourage property owners to invest more fully in the transportation system and their tenants, and by creating an environment in which transit can flourish.

1

Because the DEIS holds population and employment constant across alternatives, it does not identify the actual impacts of adding additional height and density. The analysis addresses only redistribution of density within the downtown area, holding totals constant. And by excluding evolving nearby activity centers from the analysis, the DEIS does not discuss the cumulative impacts of adding density to the Denny Triangle and South Lake Union. For these reasons we are focusing our comments on the general conditions that need to be met for transit to succeed with meeting increased transportation demands under any of the proposed land use changes.

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Our suggestions for a successful transit system are organized into two categories related to creating the link between public and developer interests: transit impacts and market-based incentives. Primary concerns include the following: level of transit service and layover space required to serve increased numbers of riders; increased transit delay; reductions in available layover spaces; the importance of incorporating market-based incentives, parking policy changes and transportation bonuses to support increases in heights and housing; and mitigation of the impacts of increased density and congestion.

Transit Impacts

The transportation study only addresses two corridors in relation to transit impacts: Stewart Street and Olive Way. Much of the regional transit service uses these corridors, but local Seattle neighborhood services use other corridors. The selected screenlines (Denny Way and north of Seneca) begin to address the local service, but may not give a comprehensive picture of the level of service and consequent impacts on congestion.

4

Existing and Planned Transit Service Issues

Given the projected amount of growth, servicing the Denny Triangle area will be difficult under all scenarios with current levels of transit service. The amount of transit service needed to serve Downtown Seattle's projected demand in the future is greater than can be provided under current Metro revenue projections. Planned and current transit infrastructure in downtown is not currently focused on the Denny Triangle portion of the study, where much of the population and employment growth is projected to occur. Current light rail and monorail plans bypass the Denny Triangle area. Future light rail expansion will supplant bus service in the downtown transit tunnel eventually resulting in elimination of tunnel service to Convention Place Station. Planning needs to begin now for serving the new populations and funding the new service given tight budgetary constraints.

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Serving an expanded high-density office core in the Denny Triangle would be extremely difficult with existing transit service. Currently, express buses from the I-5 express lanes, I-90 and I-5 south corridors enter the CBD at the south and work their way north. Except for the bus tunnel, transit operation through the CBD is slow and unreliable, decreasing the attractiveness of transit to points north of the commercial core. Seattle's Center City Circulation Study would put buses serving Seattle neighborhoods north and south of the CBD on Third Avenue, requiring passengers to transfer or walk a significant distance to reach the Denny Triangle area. When South Lake Union development is added to the equation, these challenges are magnified.

To provide similarly attractive services to the Denny Triangle from these corridors, either (1) the travel delay and variability need to be reduced through priority or separation from traffic to allow existing routes to serve both north and south downtown areas, (2) separate routes need to be provided entering the CBD at the north, or (3) a high capacity transit connection is needed that places a station in the area where density will increase. Any of these options would require significant resources.

Transit Delay

The three change alternatives cause more delay due to congestion at the transit screenlines identified in the DEIS than the baseline, and rising congestion increases transit operating costs. Given the projected increase in congestion across all alternatives, the City must make it a priority to reduce the impacts of increased congestion on transit by investing in additional transit only lanes or corridors, transit priority at additional stop lights, queue jumps, increased parking restrictions near bus stops, etc. There is some mention of possible mitigation measures for transit, but the chosen mitigation measures should aggressively address the delay issues and be co-developed and coordinated with Metro.

Reductions in Available Layover Space

A large number of regional and local bus routes begin and end service in the north Downtown Seattle area. It is critical for efficient transit system operation (e.g., reliable schedules and maintenance of cost-effective operating costs) that layover space is provided as close as possible to the beginning and end of the service portion of a route. As noted in the DEIS, increased density and development in the Denny Triangle and/or Denny Regrade areas will make it increasingly difficult for Metro to maintain existing and/or accommodate new, on-street layover space, on an interim and/or long-term basis, due to competing curbspace uses and Green Streets objectives. At the same time, additional service provided to the area will result in increased layover needs.

There are a number of side streets in the Study Area that have been designated as Green Streets and that are currently utilized for on-street layover. The City needs to decide whether layover spaces are incompatible with a Green Street designation. If layover is determined to be incompatible with Green Streets, then we (the City and KCM) need to develop a plan and a written agreement to address this issue prior to the City adopting standards to redevelop these streets. If some streets morph into Green Streets and transit layover is incompatible, then other streets must morph into other uses compatible with transit layover. If transit layover is compatible with Green Streets, then we need to develop an agreement stating this and acknowledging that transit is part of the Green Street concept.

All the alternatives result in reductions to both current and potential layover sites with the no-change alternative causing the most significant decrease in current and potential layover sites. On-street layover information found in Figure 34, "Potential Future Layover On-Street Layovers," is outdated and should be updated in the FEIS to reflect current and potential layover spaces (see Attachment 1). In consideration of the updated layover and Green Streets information, the FEIS should include recalculations of layover impact data for all alternatives including no-change.

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Lastly, the FEIS needs to address how existing layover spaces will be protected and new spaces provided that would preserve cost effective transit service for the CBD. The City must be willing to demonstrate a commitment to KCM to maintain and/or replace on-street layover spaces until additional interim and/or long-term layover facilities are available to replace those spaces lost through anticipated development and transit service growth in the north Downtown Seattle area.

7

Other Issues

- Improve pedestrian amenity requirements in the Denny Triangle by making them comparable to downtown Seattle.
- Develop incentives for narrower buildings to increase opportunities for pedestrian walkways, thoroughfares and open space.

8

Market-Based Incentives

The proposed alternatives do not address parking issues and do not incorporate transportation-specific height bonuses. The DEIS outlines many traffic and congestion impacts resulting from future employment and residential growth; the transportation height bonuses and parking policy changes recommended below can be used to mitigate these impacts. In addition to the parking and height bonus suggestions, we follow with a preferred approach.

Parking Issues

The current parking minimum reflects an inflated supply of parking, especially for future years. We recommend allowing the market to determine the number of parking spaces below the maximum through the following measures:

- Remove or substantially decrease the parking minimum [Spillover parking problems could be problematic, but given the high proportion of metered parking and the availability of almost no free parking, spillover effects would not likely be significant in the downtown. More people may choose to park in outer communities, but this would simply put upward pressure on parking prices in those areas, thus discouraging more people from driving.]
- Simplify the process used to take advantage of reductions below the parking minimum
- Include a reduction in parking requirements in exchange for contributions to a transportation mitigation fund (additional if some contribution is already required), pedestrian/bike improvement fund, transportation program fund, or other purpose
- Increase the percentage reduction (greater than the current 15 percent) in parking construction if residents in addition to employees are given free bus passes for at least five (5) years.

9

Incorporating Transportation in Height Bonuses

The transportation bonuses outlined below expand available bonuses, mitigate the impacts of increased development on transit, and further transportation concurrency (tying development and transportation together). Expanding the types of bonuses available would increase the likelihood of a developer taking advantage of a bonus, would better incorporate market incentives in the

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development code, and would encourage positive amenities through market forces rather than prescriptive standards.

Suggestions to incorporate transportation include:

- *The Zero Traffic Building* – If a building incorporates all of the items below, or a combination sufficient to significantly reduce trips generated to and from the building then the developer has the ability to build up to the maximum FAR. Contributions to the Area-Wide Transit Service Fund and the Mitigation Fund would be weighted more heavily than other bonuses due to the higher impact on improving the transit operating environment.
- *Transportation Incentive FAR Bonus* – Height bonuses in exchange for offering transportation incentives to employees and/or residents beyond what is normally required in a Transportation Management Programs (TMP).
- *Transportation Infrastructure* – Bonus FAR for building transportation infrastructure focused on alternative modes like showers, lockers, permanent bicycle storage, contributions to a Bikestation, Flexcar parking spaces or incentives, and/or pedestrian amenities. The City of Portland has incorporated this incentive structure in its code.
- *Commercial Bonus* – Developers get more commercial space for including residents in their transportation program and get increasing amounts for increased commitment (at least a five-year commitment).
- *Area-Wide Transit Service Fund* – Height bonuses for contributing to area-wide transit service fund, pedestrian/bike improvement fund, or transportation program fund. This could pay for some of the needed transit service in the Denny Triangle.
- *Mitigation Fund* – We support development of a Transportation Mitigation Program as described in the DEIS and as currently exists with the Bank of America Tower.
- *Improving Density* – The City currently incorporates height bonuses for creating a public open space, constructing a hillclimb assist, shopping corridor, or transit tunnel station access. It would be beneficial to expand this definition to include provision of transit layover space, sidewalk improvements, striping a bike lane, surface bus stop improvements, or others at a specific level of monetary commitment.
- *Incentives to Unbundle Residential Parking* – Encourage building owners and managers to charge for leases and parking separately. This idea would especially work in mixed-use developments.

Preferred Approach

The preferred approach would see the developer as a constructive partner with mutually compatible objectives. Specific components of the approach would include:

- No parking required for commercial, retail, or other non-residential. The developer would decide the amount of parking below the maximum required for each development.
- Offer increased heights in exchange for investments in transportation because developers have an economic motivation for increasing heights and encourage the Zero Traffic Building.

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- Place significant energy on creating an Area-Wide Transit Service Fund, funded by developer contributions, to help fund service in areas with less extensive service (e.g. Denny Triangle).
- The City's Circulation report anticipates transit will carry almost all growth in future trips to the Seattle CBD. Given the limited availability of additional transit funds and the significant growth in transit trips, encourage housing within or proximate to high rise development as a strong form of traffic mitigation.

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Recommendations

The preferred alternative would increase maximum height limits above the current guidelines (similar to Alternative 1 or higher) and would be part of a program aimed at improving the operating environment for transit and incorporating housing by creating residential friendly zoning (as in Alternative 3). The preferred alternative would allow more height above the base through bonuses to increase density and would expand allowable bonuses to incorporate more extensive transportation bonuses so developers commit to the community by providing housing, transportation benefits, or public amenities in exchange for increased height.

12

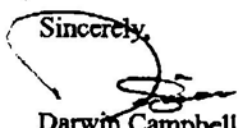
Metro hopes to actively participate in a broader process to ensure we can both maximize transit use to the downtown, and effectively deliver the transit services that new development will require. A healthy public transportation system is essential to creating a thriving urban community. The chosen alternative needs to be part of a comprehensive program that not only increases heights, but also increases the viability of public transportation.

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To discuss further, please contact Sharon Slebodnick, Senior Transit Planner, Transit Route Facilities, at 206-684-1321; Rob Fellows, Senior Transit Planner, Service Planning, at 206-684-1449; or Sunny Knott, Transit Planner, Market Development, at 206-263-6397.

Thank you for the opportunity to comment.

Sincerely,


Darwin Campbell
Acting General Manager
King County Metro Transit

Attachment

cc: Jim Jacobson, Deputy General Manager, KC Metro Transit
Eric Gleason, Manager, Service Development, KC Metro Transit
Sharon Slebodnick, Senior Transit Planner, Transit Route Facilities, KC Metro Transit
Rob Fellows, Senior Transit Planner, Service Planning, KC Metro Transit
Sunny Knott, Transit Planner, Market Development, KC Metro Transit

ATTACHMENT 1
PAGE 1

Current On-Street Transit Layover

Count:	Direction of Travel:	On Street:	Side of On Street:	Side of Intersection:	Cross Street:	Transit Agency:
1	Southbound	2nd Ave	West	Nearside	Lenora St.	METRO
2	Northbound	8th Ave	East	Farside	Blanchard St.	METRO
3	Northbound	8th Ave	East	Farside	Westlake Ave.	METRO
4	Southbound	9th Ave	East	Nearside	Pine St.	METRO
5	Southbound	9th Ave	West	Nearside	Stewart St.	METRO
6	Eastbound	Battery St.	South	Nearside	4th Ave.	METRO
7	Westbound	Bell St.	North	Farside	7th Ave.	METRO
8	Westbound	Bell St.	North	Farside	6th Ave.	METRO
9	Westbound	Bell St.	North	Farside	8th Ave.	METRO
10	Westbound	Bell St.	South	Farside	7th Ave.	METRO
11	Westbound	Bell St.	South	Nearside	6th Ave.	METRO
12	Westbound	Bell St.	North	Nearside	6th Ave.	METRO
13	Westbound	Bell St.	North	Nearside	5th Ave.	METRO
14	Westbound	Bell St.	South	Farside	6th Ave.	METRO
15	Westbound	Bell St.	North	Nearside	7th Ave.	METRO
16	Eastbound	Blanchard St.	South	Nearside	2nd Ave.	METRO
17	Eastbound	Blanchard St.	South	Farside	5th Ave.	METRO
18	Eastbound	Blanchard St.	South	Farside	6th Ave.	METRO
19	Eastbound	Blanchard St.	South	Nearside	7th Ave.	METRO
20	Eastbound	Blanchard St.	North	Farside	7th Ave.	METRO
21	Eastbound	Blanchard St.	North	Nearside	8th Ave.	METRO
22	Eastbound	Blanchard St.	South	Farside	1st Ave.	METRO
23	Westbound	Lenora St.	North	Farside	7th Ave.	METRO
24	Westbound	Lenora St.	North	Farside	6th Ave.	METRO
25	Westbound	Lenora St.	North	Nearside	5th Ave.	METRO
26	Westbound	Lenora St.	North	Farside	5th Ave.	METRO
27	Westbound	Lenora St.	North	Farside	3rd Ave.	METRO
28	Westbound	Lenora St.	North	Farside	4th Ave.	METRO
29	Westbound	Lenora St.	South	Farside	5th Ave.	METRO
30	Westbound	Lenora St.	North	Nearside	6th Ave.	METRO
31	Westbound	Lenora St.	North	Nearside	2nd Ave.	METRO
32	Westbound	Lenora St.	North	Nearside	7th Ave.	METRO
33	Westbound	Lenora St.	North	Nearside	4th Ave.	METRO
34	Southbound	Minor Ave	West	Nearside	Stewart St.	METRO
35	Eastbound	Olive Way	West	Nearside	9th Ave.	METRO
36	Eastbound	Olive Way	South	Nearside	Terry Ave.	METRO
37	Westbound	Stewart St.	North	Nearside	Boren Ave.	CT
38	Westbound	Stewart St.	North	Nearside	Yale Ave N.	CT
39	Westbound	Stewart St.	North	Nearside	Minor Ave.	CT
40	Eastbound	Virginia St.	South	Farside	2nd Ave.	METRO
41	Eastbound	Virginia St.	South	Nearside	3rd Ave.	METRO
42	Eastbound	Virginia St.	South	Farside	4th Ave.	METRO
43	Eastbound	Virginia St.	South	Nearside	4th Ave.	METRO
44	Northbound	Warren Pl.	East	Farside	1st Ave.	METRO

N:\Zones\Layover\Tabular List of NCBD Terminals

Prepared By: Daniel Well, Metro, 3/1/2004

ATTACHMENT 1
PAGE 2

Potential On-Street Transit Layover

Count:	Direction of Travel:	On Street:	Side of On Street:	Side of Intersection:	Cross Street:
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1	Eastbound	Virginia St.	North	Nearside	2nd Ave.
2	Eastbound	Virginia St.	South	Farside	3rd Ave.
3	Eastbound	Virginia St.	North	Farside	3rd Ave.
4	Eastbound	Virginia St.	North	Farside	5th Ave.
5	Eastbound	Virginia St.	North	Nearside	6th Ave.
6	Eastbound	Virginia St.	South	Nearside	Westlake Ave.
7	Westbound	Lenora St.	South	Farside	7th Ave.
8	Westbound	Lenora St.	South	Farside	6th Ave.
9	Westbound	Lenora St.	South	Farside	4th Ave.
10	Eastbound	Blanchard St.	South	Nearside	4th Ave.
11	Eastbound	Blanchard St.	South	Farside	7th Ave.
12	Eastbound	Blanchard St.	South	Farside	8th Ave.
13	Westbound	Bell St.	South	Farside	8th Ave.
14	Westbound	Bell St.	South	Farside	4th Ave.
15	Westbound	Bell St.	South	Farside	3rd Ave.
16	Eastbound	Battery St.	South	Farside	2nd Ave.
17	Eastbound	Battery St.	North	Farside	3rd Ave.
18	Eastbound	Battery St.	South	Farside	5th Ave.
19	Westbound	Wall St.	South	Nearside	5th Ave.
20	Westbound	Wall St.	South	Farside	3rd Ave.
21	Westbound	Wall St.	South	Nearside	2nd Ave.
22	Southbound	5th Ave.	East	Farside	Wall St.
23	Southbound	5th Ave.	East	Farside	Battery St.
24	Northbound	Westlake Ave.	West	Farside	Denny Way
25	Westbound	John St.	South	Farside	Westlake Ave.
26	Westbound	John St.	South	Nearside	9th Ave.
27	Southbound	9th Ave.	East	Nearside	Denny Way
28	Southbound	9th Ave.	West	Nearside	Denny Way

N:\Zones\Layover\Tabular List of NCBD Terminals

Prepared By: Daniel Wells, Metro, 3/1/2004



City of Seattle Seattle Planning Commission

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Marty Curry,
Executive Director
Barbara E. Wilson,
Analyst

February 27, 2004

Dennis Meier
Department of Planning and Development
City of Seattle
700 Fifth Avenue
Seattle, WA 98104

Seattle Planning Commission Comments on the Downtown Height and Density Changes DEIS

Dear Mr. Meier:

The Planning Commission appreciates the opportunity to contribute its comments on the Downtown Height and Density Changes DEIS. This is a complicated set of issues, and we applaud the work of DPD staff in developing and analyzing the alternatives and in assessing potential impacts. We also appreciate the extension of the comment period and additional opportunity through the February 24 public forum to hear from the public.

It appears that the alternatives are designed to present different configurations for increased height and density and their impacts, without necessarily representing four distinct fully developed packages. Hence, the Planning Commission has not taken a position on the alternatives at this point, and is looking to the Final EIS to provide a thorough description and rationale for more refined alternatives with detailed analysis of impacts and mitigation measures

Overall Comments

In general the DEIS document is clear, straightforward and well written. It provides a very good summary with tables that present a comparison of the four alternatives that is easy to understand. The report also makes good use of graphics except for the initial massing map showing all four alternatives – this shows barely any perceptible differences among the alternatives. Maps in the document leave some confusion about the actual boundaries between study area and Belltown and where the transition is between them. **The Final EIS should provide a clear map that shows the boundaries of the study area as well as boundaries of the adjacent neighborhoods.**

Given the Mayor's recent call for more density (doubling the downtown population targets) in the Center City and taller slimmer buildings, it is not clear whether the range of alternatives presented in this document is expected to achieve that goal. The Final EIS should more explicitly describe the Mayor's proposal and address the extent to which these ideas can be incorporated into the existing four alternatives. **The Final EIS should also reference how well these alternatives achieve the Comp Plan goals of concentrating growth in the center city.**

Department of Planning and Development, 700 5th Ave Suite 2000; PO Box 34019 Seattle WA 98124-4019
Tel: (206) 684-0433, TDD: (206) 684-8118, Fax: (206) 233-7883
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The range of alternatives does a fairly reasonable job of bracketing the possible scenarios and in identifying possible impacts. However, Commissioners note that it would be helpful to have an alternative that encourages housing and job creation while providing more open space and a livable environment. **The preferred alternative that we assume will be presented in the Final EIS should strive to draw the best features from several alternatives and pay close attention to the livability of the areas where residential development is encouraged.**

3

Overall the mitigation section is not very strong or detailed. This may reflect the nature of the proposals, but **the Final EIS should be expanded to provide more detailed analysis of the potential methods for mitigating identified impacts. It should also discuss more explicitly the public benefit that is achieved with each of the alternatives.**

4

Finally the Transfer of Development Credits (TDC) program discussion is somewhat confusing. **The Final EIS should provide a more thorough assessment of the experience of the TDC program and discuss its future potential based on the actual experience the City has had with it and how it would work in the proposed alternatives.**

5

Underlying Assumptions; Overall Approach

The City's Comprehensive Plan, King County and the region goals share a growth management strategy based on the premise that more density of jobs and housing in the core cities is critical to preserving open space, limiting additional sprawl and reducing the growth of traffic congestion. As the region's primary urban center, downtown Seattle plays an important role in accommodating future growth and density. An additional assumption of the City's Comprehensive Plan is that urban centers will be safe, attractive pedestrian oriented environments with housing that serves a broad range of incomes and a wide variety of services within walking distance of residences.

6

The Final EIS should provide a clearer description of the overall approach represented by each of the alternatives – e.g. residential enclaves versus more mixing of commercial and residential uses, including an analysis of the pros and cons of each of them in reaching Comp Plan and neighborhood plan goals. This should include a clear indication of the City's approach and commitment to providing the services and amenities that are essential to dense in-city residential living. It should also discuss how the alternatives contribute to the overall balance among housing, jobs and amenities within the City's densest urban center.

The Final EIS also should provide a more detailed discussion of the implications of these various alternatives on the other urban centers and villages in Seattle and in the region. For example, if this additional commercial and residential development does not occur in downtown Seattle, what is the impact regarding the demand for density and growth in other urban centers, in lower density neighborhoods in Seattle, and in other areas in the region? What is the impact of significantly increasing housing supply downtown on housing prices and affordability? Are the projected housing and commercial development targets realistic in terms of projected demand for commercial/office space and housing? The Final EIS should address these issues, with more analysis of the market for housing, including the market for families with children and related services such as schools.

7

Specific Comments

Population and Employment

This section provides a thorough background in population and employment trends as well as projections for future growth. **The Final EIS should acknowledge the uncertainties of projections for both population and employment growth in the downtown core, noting the variety of factors that influence actual growth over time.**

8

Final EIS should also address the implications of increased capacity for both employment and residential population in the downtown core. What impact does this have on other urban centers within the Center City or nodes in other urban centers? What is the projected impact of increasing employment and housing in South Lake Union (and potentially in Interbay) on the potential for concentrating development in downtown, or current efforts to promote more housing and commercial development in Northgate? Also, does the elimination of the Transfer of Development Credits (TDC) program have an appreciable impact on regional goals to preserve open space outside the urban centers?

9

Housing

The background data is well presented and provides a clear understanding of the current housing situation. While the Commission basically agrees with the notion of concentrating housing and jobs in the downtown area, **the Final EIS should provide a thorough assessment of the implications of various alternatives for neighborhoods such as Pioneer Square, the International District and Belltown, some of which are below their housing targets. This should include meeting overall housing targets and for meeting housing affordability goals.**

10

The Final EIS should also assess the likelihood that housing will be built in the DOC 1 and 2 areas, versus all commercial development – and the implications of these various scenarios. The point here is to go beyond what the zoning might be to assess the likelihood of achieving the intended goals of getting both residential and commercial development in the DOC 1 and 2 areas.

11

The Final EIS should also carefully assess the alternatives' impact on existing subsidized housing and on the future ability to maintain a balance of housing types (i.e. serving different income levels; attracting different types of households) as is sought in downtown neighborhood plans as well as the Comprehensive Plan. In particular, the resources leveraged through the Downtown Bonus program should show a range, rather than what will be available if all sites re fully developed (Table 19).

12

Finally the Final EIS should provide a more specific analysis of how smaller scale housing in Belltown is affected (or not) by larger scale residential and commercial development, particularly along the boundaries between these areas.

13

Land Use

Overall the section is thorough in its description of existing conditions and of the various alternatives. As noted in the overview statements, these alternatives do not seem to reflect the Mayor's recently stated goal of taller, thinner buildings that would provide visual open space in this very dense part of the city.

14

The DEIS does not do an adequate job of identifying and considering the impacts of the alternatives on historic buildings. It also understates the number of buildings that are eligible for City landmark designation. **The Final EIS should provide a amore detailed analysis, drawing on previous studies such as the Metro Tunnel EIS for buildings on Third Avenue, Allied Arts' Terra Cotta Building inventory, Historic Seattle's inventory of historically significant buildings, and the recent Monorail DEIS. It should also document which of these buildings provide affordable housing, a fact which is not reflected in the DEIS.**

15

The Final EIS should more thoroughly address potential effects of high density development (with higher heights, and more bulky structures) directly adjacent to lower scale mixed-use areas such as the Pike Market and Belltown. This section should also include an analysis of the impact on land costs and parking created by these alternatives. Finally, maps of the alternatives should show mixed use/residential development in adjacent areas to provide a more accurate context (e.g. development along Western Avenue in Belltown).

16

In general the Commission supports the use of transition zones and urges that these be provided between intensive commercial/retail uses and residential and related uses in the preferred alternative(s). **The Final EIS should examine the alternatives regarding how these transitions are handled.**

17

Height, Bulk and Scale

Greater height and density can be a good thing, since it helps the City achieve its urban village strategy as well as City Comprehensive Plan and regional growth management goals to concentrate housing and employment in key urban centers. However, it needs to be done in a way that produces the intended results of livable communities.

The Final EIS should describe how the various alternatives would achieve residential areas that create a desirable street environment, which is influenced by street width and block lengths as well as height, bulk and scale of the buildings. This issue merits particular scrutiny in the Denny Triangle area where key streets are fairly narrow and blocks are longer than in other areas of downtown. The impacts on light and shadow and the sense of enclosure and how they affect a potential residential environment should be considered. As noted elsewhere, alley vacations should also be considered for their impact on the scale of development and the resulting street environment.

18

Design flexibility is critical to successfully creating an overall street environment that is attractive and accommodates residential as well as office/commercial uses. For example, changes in the land use code need to be intentional in the relationship between height, bulk, and scale to preclude unintended negative impacts on existing uses or creating an uninviting environment, particularly in areas where a residential environment is intended. Design guidelines, particularly for the Denny Triangle neighborhood, could be helpful in dealing with these issues.

As noted in the general comments, the graphics do not show clearly the differences among the alternatives regarding height, bulk and scale. **The Final EIS should include illustrations showing different perspectives including street level views, views along major corridors, and perspectives from nearby view points.**

19

Pedestrian Amenities and Streetscape

Particularly in dense urban settings, the streetscape is often the primary pedestrian amenity and has a significant influence in creating a "pedestrian friendly" environment. Alley vacations are an issue and have an impact, particularly in residential areas and for pedestrian environment. **The Final EIS should include a more detailed discussion of the impact of alley vacations in these areas.**

20

In calling for more housing and employment density, the proposed changes in the Land Use Policies the DEIS should address the public benefit that should be derived from increasing the allowable height and density. This should include, at a minimum, creating a healthy and attractive pedestrian streetscape environment, providing community centers, schools, and other public and private services that are typical of urban centers. The Commission notes that the Denny Triangle is an area where the pedestrian environment will be shaped significantly by future development. This calls for clear guidance for development and how it can help create this pedestrian environment. **The Final EIS should contain a discussion of tools that might be explored to leverage resources to provide these services and amenities with the development as it is occurring.**

21

Parks and Open Space

The Planning Commission has long held the position that the City needs to commit to providing more parks and open space in the downtown area as the residential population increases. If the City really wants livable residential communities, open space must be treated as more than making the streets attractive. Particularly if the City does decide to double the target for the downtown residential population, it must make a serious commitment to adding open space for what would become the region's densest urban center. This should be considered as part of the public benefits that must be achieved with increased density and development.

The DEIS alternatives do not adequately address open space demands and needs of the projected residential population that would be permitted under these scenarios. While it does acknowledge that current and project open space will not meet the projected needs, it fails to identify in detail reasonable open space needs. If families are encouraged to live downtown, then recreational facilities and active open spaces will be needed to serve children.

22

In the Final EIS this section should be expanded to identify and assess more innovative and creative ways of providing open space and of mitigating open space impacts that would (or might) result from the various alternatives. This should include a more detailed analysis of the types of open space, parks and recreational facilities that are needed if more families live downtown and how these needs could be met through existing and new resources.

Finally, the DEIS does not analyze the effect of eliminating or reducing use of the TDC in providing resources for open space in the region as well as part of TDC developments. **The Final EIS should address this more explicitly.**

23

Views and Aesthetics

Views and visual aesthetics are important issues in downtown Seattle, with designated view corridors as well as many opportunities for glimpses of both near and distant vistas. **The Final EIS should include a**

24

more detailed analysis of the notion of visual open space (e.g. through taller, slimmer buildings) and ways to get more effective use of both public and private open space associated with developments. This will be critical to successfully achieving a livable residential environment in the downtown area.

24

Energy

The DEIS states that a new substation serving downtown needs to be energized by 2012, in order to provide for a service need date of 2015. The realistic likelihood of that happening in anticipation of future growth needs to be assessed (versus being built in response to actual development demand). The DEIS also references a new capacity plan to be prepared by the end of 2004 – how this will be incorporated into the Final EIS should be addressed.

25

The Final EIS needs to provide a more detailed assessment of infrastructure issues that result from these changes to more development capacity. What additional upgrades would be necessary or likely? This should include impacts on water and sewer system, both of which are aging systems in much of downtown and adjacent old neighborhoods. This assessment also needs to address funding to meet these needs.

26

Transportation

The Final EIS needs to address the implications of adding significant residential population to the downtown core, with a specific focus on assumptions about auto ownership and travel behavior of both future residents and workers (including the rationale for such assumptions).

27

The Final EIS should also address the potential impacts on local transportation of alley vacations in the Denny Triangle area and other areas where significant development is anticipated, within the context of projected traffic increases due to the increased residential and employment populations.

28

Parking

The DEIS does a good job of describing current conditions, projected changes in supply and demand. The underlying assumption is that given this is the downtown core, the goal is to reduce demand for commuter parking, rather than trying to meet potential demand. Impact mitigation is described in less detail, but does seem to cover the range of strategies for reducing demand and allowing the market to address adding to the supply of parking.

29

What is not addressed is the physical design and street environment impacts of structured parking, particularly if it is not screened at street level. **The Final EIS should address the impacts of above grade parking, particularly at the ground-floor level. Consideration should be given to requiring all such structures to have street-front retail/commercial uses.**

Concluding Comments

We urge you to address these issues and concerns in the Final EIS, and to expand it as necessary to more clearly articulate and address the implications of the Mayor's proposal for even more density. We also

30

Seattle Planning Commission

03/01/04

Page 7

encourage you to more explicitly address in the Final EIS how this more limited focus on height and density fits into the larger Center City focus as it takes shape.

The Planning Commission looks forward to continuing to work with DPD and the community in moving forward with alternatives that find the appropriate balance between the important goals of concentrating density in our center city and ensuring that this area is a safe, attractive and exciting place to live and work. Please don't hesitate to contact us if you have questions or wish to further discuss our comments.

Sincerely,

A handwritten signature in black ink, appearing to read "John Owen". The signature is stylized with a large, looping "J" and "O".

John Owen
Chair

CC:

Diane Sugimura, DPD

John Rahaim, DPD

30

Belltown Housing and Land Use Subcommittee

January 13, 2004

Gordon Clowers
Department of Planning and Development
City of Seattle
700 5th Avenue, Suite 2000
Seattle, WA 98104

Subject: Downtown Height and Density Study

Dear Mr. Clowers:

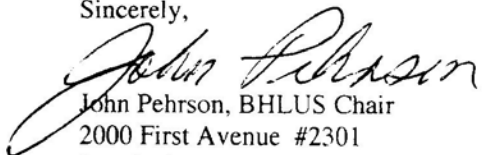
I am writing on behalf of the Belltown Housing and Land Use Subcommittee (BHLUS) of the Belltown Community Council on the Draft Environmental Impact Statement for the subject study. We took a position on this study in our letter dated 2/11/02 to Mary Jean Ryan (which is attached) and want to reiterate that position now.

The bulk and scale allowable for residential use by the DMC-240 zoning in south Belltown is a great concern to us. Changing that to DMR/C-240 as proposed in Alternative #3 is consistent with the rest of Belltown and is recommended. Further, we believe that the zoning restrictions of DMR/C-240 that result in a "wedding cake" design are overly constraining. We would welcome more latitude for the building architects and the design review board, while maintaining limits on upper level bulk and scale, and would be pleased to work with you on these matters.

As outlined in the reference letter, we would oppose vigorously the application of the Alternative #1 to south Belltown. This alternative increases the allowable bulk and scale of residential developments that is totally out of keeping with our neighborhood. The changes for south Belltown in Alternative #1 were not requested by our Belltown Neighborhood Plan or the plan of the Downtown Urban Center Planning Group.

We have appreciated the opportunity to work with you and Dennis Meier on these issues over the past 2 years. You have been very helpful and responsive to our questions.

Sincerely,



John Pehrson, BHLUS Chair
2000 First Avenue #2301
Seattle, WA 98121
206-441-9913
pehrsonj@halcyon.com

cc: Honorable Greg Nickels, Mayor, City of Seattle
Honorable Jan Drago, President, Seattle City Council
Honorable Peter Steinbrueck, Chair of Land Use and Planning Committee
Diane Sugimura, Director, Department of Planning and Development
John Rahaim, Director of Planning
Dennis Meier, Department of Planning and Development

Jhp 1/10/04

Belltown Housing and Land Use Subcommittee

c/o John Lombard, Chair
2415 Second Avenue, #733
Seattle, WA 98121

February 11, 2002

Ms. Mary Jean Ryan
Director, Strategic Planning Office
City of Seattle
600 Fourth Avenue, Room 300
Seattle, WA 98104

RE: Phase II Amendments to Downtown Development Regulations

Dear Ms. Ryan:

On behalf of the Belltown Community Council and its Housing and Land Use Subcommittee, I am writing to communicate our unanimous recommendations on the second phase of amendments to development regulations for downtown.

We support changing the Downtown Mixed Commercial (DMC) zone in the southeast portion of Belltown To Downtown Mixed Residential/Commercial (DMR/C), as proposed in Alternative 3 ("Residential Emphasis") in the Draft Environmental Impact Statement (DEIS) for the proposed amendments. We would like the city to explore extending this proposed change to all of the DMC zone in this part of Belltown. (Alternative 3 would apply it from Virginia to Lenora from 1st to 3rd Avenues, and between Virginia and Blanchard on 4th and 5th Avenues. The extension we propose would also include 2nd Avenue and the east side of 1st Avenue from Virginia to Stewart.)

This action would decrease the maximum floor-to-area ratio (FAR) for commercial development from seven to five in this part of the DMC zone. Even more important, it would reduce the physical bulk of residential developments there--lot coverage would be restricted by progressively greater amounts at heights of 65, 85, 125 and 240 feet. Successful high-density residential neighborhoods need access to light and space, which are lost when high-rise buildings are allowed to cover entire lots with no setbacks or variation, as can be seen in recent developments along Western Avenue. Without the DMR/C zoning, new residential developments could build to the maximum allowable height in southeastern Belltown with only limited restrictions on bulk, since residential use is not subject to the FAR limit. In addition to restricting lot coverage, we believe the city should explore creating incentives for more slender residential high-rises downtown, perhaps similar to those it recently established for commercial buildings.

We strongly oppose the change that is proposed in Alternative 1 in the DEIS ("High End Height and Density Increases") for this same part of the DMC zone in southeastern Belltown. This alternative would increase the maximum floor-to-area ratio for commercial development from seven to ten and the maximum height of developments

from 240 to 312 feet in this zone. This proposal is contrary to the goal of the city, the Belltown Community Council and the Belltown Neighborhood Plan to make Belltown an attractive location for the greatest concentration of residents in Seattle. It would exaggerate the problems with the existing DMC zone described above. It was not proposed by the Downtown Urban Center Planning Group or any other citizen body. It was included by city staff in Alternative 1 in the DEIS to test the impacts of maximum increases in height and density across all of the zones that might have changes proposed in the second phase of amendments to the downtown development regulations. We would fight any such proposed change for Belltown.

2

We recognize that there are potential advantages to increasing the allowable height and density of developments in the downtown core and parts of the Denny Triangle, particularly as a means of increasing incentives to support affordable housing, open space and landmark preservation in the downtown area. We support that goal. Our comments are targeted only to the part of the proposed amendments that would apply within the boundaries of Belltown, as defined in our neighborhood plan.

3

Thank you for the opportunity to comment on the DEIS. We would especially like to thank Dennis Meier of your office for attending two meetings of the Belltown Housing and Land Use Subcommittee (BHLUS) to discuss the alternatives in the DEIS and how they might affect Belltown. Dennis was consistently helpful, fair and professional in all of his interactions with us. If you have any questions about this letter, please contact John Lombard, at (206) 256-1508 or jlombard2415@earthlink.net, through February, or John Pehrson, at (206) 441-9913 or pehrsonj@halcyon.com, after February.

Sincerely,

Original signed by

John Lombard
Chair, BHLUS

Members:

Joan Algarin	Valerie Heide Mudra
Karen Anderson-Bittenbender	Sarah Lewontin
Mark Baerwaldt	Jerry Jordheim
Zander Batchelder	John Pehrson
Dick Cleveland	Barbara Sheldon
Julia Decruz	Blaine Weber
Sylvia Fisher	Hal Weeks
Carolyn Geise	

cc: Honorable Greg Nickels, Mayor, City of Seattle
Honorable Peter Steinbruck, Chair, Seattle City Council
Honorable Judy Nicasio, Chair, Land Use Committee
Honorable Nick Licata, Chair, Neighborhoods, Arts and Civil Rights Committee
Honorable Richard McIver, Chair, Housing, Human Services and Community Development Committee

DENNY TRIANGLE NEIGHBORHOOD ASSOCIATION

February 27, 2004

Ms. Diane Sugimura, Director
Department of Planning & Development
City of Seattle
700 Fifth Avenue, Suite 2000
Seattle, Washington 98104-5070

DEPARTMENT OF DESIGN
CONSTRUCTION AND LAND USE

FEB 27 2004

RECEIVED

Re: Downtown Height and Density Draft EIS

Dear Ms. Sugimura:

We are writing to provide general comments on the Downtown Height and Density Draft Environmental Impact Statement ("DEIS").

As you are probably aware, the Denny Triangle Plan was completed in 1998 and approved by City Council in 1999. The Denny Triangle Neighborhood will help the City of Seattle achieve its growth targets, set at the time of planning, of 23,000 new jobs and 3,778 new housing units by 2014.

The Denny Triangle Plan's top priority is to change the zoning and bonus system to allow for significant increases of height and density. The Denny Triangle represents the largest developable area for office expansion in downtown Seattle and as such, the Denny Triangle DOC 2 zone is intended to take the higher, taller office buildings and DMC zones are for commercial mixed-use buildings. Our goal is clearly stated. We seek to increase the commercial development capacity and attract commercial development to the Denny Triangle and leverage it to create moderate and low-moderate income level housing and open space.

The Denny Triangle Plan also calls for reducing or relaxing upper level setback requirements in order to avoid the proliferation of bulky "wedding cake" shaped buildings. The plan was carefully crafted and balanced so that employment expansion will be achieved while also creating the resources for affordable housing and open space. The increased height and density allows for better utilization of land so that City is assured of achieving all of its goals for jobs, housing and open space without risk of realizing just one of those goals at the expense of another.

1

The Denny Triangle has worked with the City in good faith and waited a long time for its plan to be implemented. In 2001, the downtown TDR and Bonus program was amended as "Phase One" of a 2-phased plan. Phase One included changing previously bonusable items to requirements and it was agreed that the cost of housing bonus and TDR would be raised from approximately \$13 to \$22 per buildable square foot. In exchange for these changes (increased costs to development), the City promised that the Downtown Urban Center Planning Group's (DUCPG's) Plan and Denny Triangle Plan to increase the height and density would be implemented as Phase 2. Unfortunately, in these interim couple of years, we not only missed the opportunities that come with a good, strong economic cycle but by having only the Phase One amendments to the Bonus & TDR provisions implemented, this has actually served as a material disincentive to development. **The Denny Triangle Plan needs to be implemented this year!**

2

The Final EIS should consider greater height and density. We recognize that the DEIS Alternative #1 was drafted as a composite plan. It doesn't clearly represent the Denny Triangle Plan and the DUCPG or downtown plan. Given that fact, and given the changes that have occurred in our City with the passage of time, the EIS should consider greater height and density. Current height and density restrictions unwisely restrict opportunities to guide the development where it is desired and restricts opportunities for additional housing and open space. The increased height limits will allow for office uses contemplated by the Comp Plan and bring about taller, thinner buildings. The Denny Triangle has always been intended to accommodate future employment growth and is envisioned to be a commercial district that includes residential. Increasing height and density promotes more efficient office buildings as well as mixed-use projects that could include combinations of uses such as office, residential, retail and open space. Additionally, the EIS needs to investigate greater height and density in order to make the best use of the investments in mass transit. None of the alternatives offer adequate density to support the new public transportation projects and this just doesn't make sense given the enormous investment being made on transportation.

3

The EIS should address changes to the current setback requirements. The Denny Triangle seeks changes that will allow for greater design flexibility as it relates to upper level setbacks. Current requirements add costs and result in bulky, "look-alike" buildings that aren't pedestrian friendly or in keeping with an exciting urban environment.

4

The Denny Triangle opposes Alternative #2 as this alternative runs counter to the Neighborhood's Plan and risks squandering the City's and Denny Triangle's ability to realize its potential to achieve future employment and housing goals.

5

The Denny Triangle strongly opposes Alternative #3. This alternative constitutes a downzone. This is diametrically opposed to The Denny Triangle Plan and the DUCPG Plan. The City cannot afford to lose the employment that comes with the commercial development potential in our neighborhood and the significant housing resources that are generated from the commercial development.

6

In summary, the Final EIS should honor the neighborhood plans and planning process. There has been and remains unprecedented consensus for implementing the increased height and density and other components as set forth in the Denny Triangle and DUCPG Plans. The height and density increases need to happen now so we are prepared for the next economic cycle. It is important to note that the Denny Triangle Neighborhood is on record as having stated its support of the TDC program as being conditional to implementing the Triangle's Plan. The TDC program has not been used and may never be used. The Denny Triangle Neighborhood's support was strictly subject to that program not preventing, interfering or delaying, in any way, with the implementation of the Denny Triangle's plan for increasing height and density. We want the existing TDC Plan eliminated and the Denny Triangle Plan implemented.

7

The Denny Triangle embraces density and wants new jobs and affordable housing for downtown. Years of thoughtful, deliberate effort went into drafting the Plan and into making recommendations for bonuses and TDR's to ensure consistency with the Comp Plan and Growth Management Act. We actively participated in the collaborative planning efforts between the City, the Downtown Urban Center Planning Group, and the Advisory Committee and have remained faithful stewards of the Triangle and DUCPG Plans. We ask the City keep faith with the Neighborhood Plans and to be bold and innovative in considering how best to increase the height and density in Downtown without being limited to what has been identified in Alternative #1 in the DEIS.

8

Thank you for your consideration.

Sincerely,



Dana Bollinger, President
Denny Triangle Neighborhood Association

Cc: Denny Triangle Neighborhood Association Board of Directors



Mission Statement:
To champion a healthy, vibrant urban core.

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Downtown Seattle Association

January 29, 2004

Diane Sugimura, Director
City of Seattle Department of Planning and Development
700 Fifth Avenue, Suite 2000
Seattle, 98104

RECEIVED
FEB 02 2004

Dept. of Design
Construction & Land Use

Dear Ms. Sugimura,

Thank you for the opportunity to respond to the Downtown Height and Density Study, Draft Environmental Impact Statement.

In general, we do not feel that the DEIS options went far enough to meet the neighborhoods' vision for high quality, dense, urban Downtown neighborhoods. In particular, since completing the Downtown Urban Center Plan in 1998, there have been significant changes in Downtown and the economy. The neighborhoods and community have been discussing new ideas and goals, with a bigger vision for the Center City. This vision was expressed at the "Thinking Boldly About the Future" Forum sponsored by the Mayor in November. We are concerned that because this DEIS is responding to 1998 conditions, it will become an obstacle to achieving our goals for our neighborhoods.

One of the most interesting changes since 1998 is the growing emergence of the concept of the "urban center", a collection of unique urban neighborhoods that stretches from South Lake Union to South Downtown. Recently we have seen projects in South Lake Union start construction, and the development of innovative new ideas for South Downtown. In addition, many developers and policy makers are examining Vancouver B.C.'s development policies to see what we might apply here in Seattle.

Probably the biggest change is the billions of dollars in new transportation investments for Downtown, including light rail, heavy rail, streetcar, monorail and the Viaduct. To take full advantage of these investments, we need to develop a new and bigger vision for the growth of Downtown.

When the five Downtown neighborhoods collaborated in 1998 on the Downtown Urban Center Plan, we structured our plan to accommodate the estimated growth allocation numbers we received from the City. The growth allocations that were the basis for our plan were just that—allocations. They were based on regional growth we thought we might get, not on the growth we wanted to attract in order to keep Downtown a vibrant, urban place. At the time, we all discussed that we would like to see greater density than we

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were required to accommodate by the City in some neighborhoods, particularly Denny Triangle.

Our vision for Downtown was to be more like Vancouver, which is now home to 100,000 residents, compared to our current 20,000. We also viewed Downtown as a growing center for employment, which supports growth management goals and protects Seattle neighborhoods from unwanted and inappropriate commercial development.

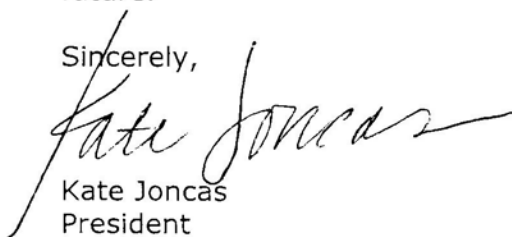
The neighborhoods and DSA still strongly support the original Downtown Urban Center Plan priorities for housing (particularly affordable housing) and job growth. We still strongly believe that regional job growth should be focused in Downtown to reduce sprawl. The reality is that Downtown will always be more expensive to develop than a green field, so if we want the development, we will have to be proactive and offer incentives, as envisioned in the plan.

Finally, given all the recent positive community discussion about density, it is very concerning to see high-density development in the DEIS equated to a poor quality pedestrian environment. Some of the best pedestrian environments in the world are in dense urban areas, and this is the vision the DUCPG group had when making its plan. In addition, the so-called "maximum growth" option is labeled as the worst-case scenario—yes, this is the technical term, but used in this context implies that growth is bad.

We propose that the City consider a two-pronged approach to moving forward. It is clear that new options to encourage appropriate growth are needed, and that development of some of these options is beyond the scope of this DEIS. DSA would like to partner with the City to explore some new ideas.

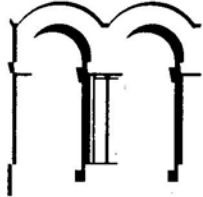
Second, we encourage City staff to be creative; to see what we can do within the framework of the options identified in this DEIS to increase height and density in Downtown beyond what is currently identified. The neighborhoods are anxious to develop new tools to help us move into the future.

Sincerely,



Kate Joncas
President

HISTORIC SEATTLE



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GARY GAFFNER

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PAMELA ZYTNIKI

February 26, 2004

Gordon Clowers
Department of Planning and Development
700 5th Avenue, Suite 2000
Seattle, WA 98104-5070

RE: DEIS on Height and Density Changes in Downtown Seattle

by facsimile and mail

Dear Mr. Clowers,

Historic Seattle, chartered by the City of Seattle in 1974 to preserve our city's built heritage, wishes to provide comments on the draft environmental impact statement addressing potential height and density changes downtown generated by your office.

While Historic Seattle, and the preservation community nationwide, have embraced increased urban density as an antidote to sprawl and a number of other highly significant issues, we are concerned that this investigation of impacts be as thorough as possible. We ask that the historic resources potentially impacted by alterations in current zoning are properly recognized within your investigation.

The current list of potential landmarks should be expanded to include information gathered through the environmental impact study process generated by a number of projects downtown. Historic Seattle volunteers and staff have assembled the attached list of potentially eligible landmark buildings and districts mentioned in EIS documents. Please add these to the list of potentially eligible properties within the commercial core, Belltown, and the Denny Triangle area already mentioned in your document.

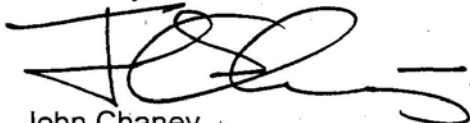
Also, raising height and density limits downtown will, of course, place even more pressure on owners of landmark and potential landmark buildings to maximize the economic opportunities of the site through demolition and new construction. While this is already a threat in most any part of Seattle where the zoning envelop exceeds the height and density of existing older structures, the economic benefits of teardowns are highest within your study area.

Incentives to offset the gap between rehabilitation projects and new construction need to work especially well within this zone. As a part of the mitigation for changes in zoning downtown that intensify existing pressure to demolish, the Transfer of Development Rights program, which was altered in 2001, should better provide funding for rehabilitation projects. The current percentage of TDR funds (no more than 25% of credits generated through this program) may be inadequate to offset impacts.

2

We thank you for the opportunity to comment on this study, and as always, are open and willing to contribute to any discussion related to our historic built environment.

Sincerely,

A handwritten signature in black ink, appearing to read 'John Chaney', with a stylized flourish at the end.

John Chaney
Executive Director

**Additional downtown area buildings that are potentially significant and are not
City of Seattle Landmarks**

Baillaergeon	1200 Second Avenue	
Catholic Seamen's Club	2330 First Avenue	
Centennial Building	1900 Fourth Avenue	
Central Building	810 Third Avenue	
Chamber of Commerce	215 Columbia Street	
Compton Lumber	2315 Western Avenue	
Davenport Apartments	420 Vine Street	
Devonshire Apartments	420 Wall Street	
Diller Hotel/Porter-Davis	1220 First Avenue	
Fifth Avenue Court	2132 Fifth Avenue	
Foster and Marshall	720 Second Avenue	
IBM Building	1200 Fifth Avenue	
Labor Temple	2800 First Avenue	
Lexington-concord Apts.	2402 Second Avenue	
Lewiston Hotel	2205 First Avenue	
Lyon Building	607 Third Avenue	(NRHP listed)
Maritime Building	911 Western Avenue	
Mayflower Park	405 Olive Way	
Medical Dental Building	509 Olive Way	
MGM/Blu Canary	2331 Second Avenue	
Norton Building	801 Second Avenue	
Old Spaghetti Factory	2800 Elliott Avenue	
Pacific Lincoln-Mercury	601 Westlake Avenue North	
Pacific Telephone & Telegraph		

Pathe	2325 3rd Avenue
Rainier Tower	1301 Fifth Avenue
Rivoli Apts.	2127 Second Avenue
Roq la Rue Gallery	2312 Second Avenue
Scargo	2205 First Avenue
Seattle Trust	804 Second Avenue
Second & Pike Building	
Securities Building	1904 Third Avenue
Skyway Luggage	2501 Elliott Avenue
Terminal Sales Annex	1931 Second Ave
Two Bells Tavern	2315 Fourth Avenue
Union Livery Stable	2200 Western Avenue
University Women's Club	1105 Sixth Avenue
Vance Building	1402 Third Avenue
William Tell Hotel	2327 Second Avenue
Woolworth's	1418 Third Avenue
YWCA	1201 Third Avenue

Numerous hotels and apartment buildings, especially in Belltown.



THE LEAGUE OF WOMEN VOTERS OF SEATTLE

Statement for the Public Hearing February 24, 2004, on the Draft Environmental Impact Statement on Downtown Height and Density Changes published by the City of Seattle Department of Planning and Development November 2003

The League of Women Voters of Seattle has studied and acted on downtown land use issues for over 20 years. We were actively involved in the development of the Downtown Plan adopted in 1985 and in the City's 1994 Comprehensive Plan. We continue to follow the City's land use plans and regulations with an eye to preserving and enhancing our vision of a most livable city. We offer the following comments on the Downtown Height and Density Changes Draft EIS prepared by the Department of Planning and Development:

Relationship of Proposed Changes to the Growth Management Act and City of Seattle Comprehensive Plan

The League of Women Voters of Seattle acknowledges and endorses the state and city goals of directing growth to urban areas, reducing sprawl, and accommodating increased density of commercial and residential buildings in the study area of downtown Seattle. We learn from the DEIS that current zoning—Alternative 4—is adequate to accommodate the employment and residential growth projected through the year 2014 under the Comprehensive Plan adopted in 1994. We question whether substantial changes in zoning, such as those proposed in Alternatives 1, 2, and 3, should be undertaken before the Comprehensive Plan is thoroughly reviewed and updated to address the following 20 years from 2014 through 2034.

Major changes are underway in areas close to the study area such as the waterfront, port properties in North Bay, the SODO area, South Lake Union and the East Pine/Pike and Madison areas. A broader look at the entire downtown and the nearby areas cited above should be undertaken as part of the required, once-a-decade review of the City Comprehensive Plan. These other areas could provide opportunities for residential growth, including affordable housing. Their residents could work downtown, provided that good public transportation is available.

Major transportation projects like the Viaduct/Waterfront plan, the monorail, and the bus tunnel closure for light rail should be reviewed for their impacts on the study area, and all of downtown, before substantial changes are made in downtown zoning.

Changes Recommended by Downtown Neighborhood Plans

Many of the changes in zoning, height limits and bonuses recommended by downtown neighborhood plans have already been addressed by the City and were adopted in 1999 and in 2001. It may be premature to change the rules substantially again before we know how the recent changes are working. We question the elimination of the Transfer of Development Credits program under Alternative 1. This program has the potential to

encourage residential development and provide funds for amenities in the Denny Triangle.

2

Areas Needing More Thorough Analysis of Impacts and Possible Mitigation Strategies in the Final EIS:

Housing

The League supports the goal of increasing the amount of housing in the study area. Table 25, "Downtown Development Scenario 2000-2020," projects the number of potential residential units under each alternative. We see that the totals for all four alternatives are quite similar, ranging from 7,315 under Alternative 4 (no action) to 7,640 under Alternative 2. We question the tradeoff of a few more residential units for the substantial increases in height and density proposed in Alternatives 1, 2, and 3.

3

We urge that the Final EIS include a more thorough review of the possible mitigation strategies listed on page 3-28, because we recognize that the challenge of finding funding for low-income and affordable housing in the study area will be great under all four of the alternatives. Current incentives fall short of meeting the real financial costs of creating low-income and affordable housing downtown. More attention should be given to meeting the housing and service needs of families with children who do or might live downtown.

4

The rezone proposed in Alternative 3 to DMR/C for a Residential Mixed Use Area with reductions in FAR looks promising and should be reviewed more intensively in the Final EIS. We support some clustering of residential uses in order to provide more of a feeling of living in a neighborhood. In addition, we propose that the Final EIS include a review of a new provision for limiting the density of residential buildings in the study area

5

Height, Bulk and Scale

The Comprehensive Plan's goals and policies for the Downtown place a special emphasis on the quality of the pedestrian environment. The increases in height and bulk proposed in Alternatives 1 and 2 (and in Alternative 3 for the Commercial Core) would negatively affect the pedestrian experience with taller, bulkier buildings towering over the narrow streets and sidewalks in the study area. The Final EIS should more thoroughly review these negative impacts. Do the tradeoffs of increased space for jobs and housing outweigh the negative impacts on the pedestrian experience, on aesthetics and ultimately on the livability of the city?

6

The League supports zoning and policies included in the 1985 Downtown plan that require a smooth transition in scale and density of development from areas of greatest height and density to areas of lower height and density. Alternative 1 includes unacceptably abrupt increases in height, bulk and scale along the edges of sensitive transition areas.

7

Open Space and Parks

This Draft EIS exposes the current and future inadequacies in the amount of open space and parks available to residents and employees in the study area under all of the

8

alternatives. The Final EIS should explore the "other possible mitigation strategies" outlined on page 3-125. Since the likelihood of adding major open space in the study area in the foreseeable future seems remote, attention should be given to improving the pedestrian connections between downtown and nearby major open spaces, such as the waterfront, the Seattle Center and South Lake Union. Increasing height and density without significantly addressing the already inadequate amount of open space in the study area is not acceptable.

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Thank you for this opportunity to present the comments of the League of Women Voters of Seattle.

Presented by Nancy Bagley
Past President



February 26, 2004

Dennis Meier
Seattle Department of Planning and Development
City of Seattle
700 Fifth Avenue, Suite 2000
Seattle, WA 98104-5070

RE: Downtown Height and Density Changes DEIS

To Dennis Meier:

Thank you for the opportunity to comment on the Downtown Height and Density Changes Draft Environmental Impact Statement, dated November 2003. Following are our specific comments:

1. While we support the idea of concentrating growth in the core of the city to reduce sprawl, traffic congestion and other negative environmental impacts, we strongly feel that new development in downtown must result in an increase rather than a reduction of open space, especially green space. We applaud the city's effort to follow the Vancouver, B.C. model of creating a livable, walkable and dense downtown but note that only half of the equation is implemented by the DEIS alternatives. Open space for public enjoyment and livability is integral to the success of Vancouver and will be equally important for Seattle. Even more crucial is green space. Green space will improve the downtown habitat base (terrestrial insects, birds, etc.), cleanse and reduce stormwater flows to the existing Combine Sewer System, as well as provide clean flows to Elliott Bay from surface water runoff and reduce the heat island effect in the concrete built environment. The city should include incentives or requirements for green roofs, green infiltration strips around buildings, as well as porous pavement, and "leaky stormdrains." Instead of reducing open space as a result of zoning changes, the City must ensure a significant increase in open and green space.

2. Open space calculations for residents in downtown, in the DEIS, are based on "thousands of households." We feel that the calculation should instead be based on "thousands of residents," which would put the standard inline with open space and parkland targets for other cities. If the downtown open spaces are calculated on a "per 1000 residents" basis, the City is seriously lacking in public open space under current conditions. Further, if the population of downtown doubles in the next 20 years from 33,000 to 66,000, then open space, and especially green space must also double, at a minimum.

MAIN OFFICE

911 Western Avenue, Suite 580
Seattle, WA 98104
(206) 382-7007
fax (206) 382-7006
people@pugetsound.org

NORTH SOUND

407 Main Street, Suite 201
Mount Vernon, WA 98273
(360) 336-1931
fax (360) 336-5422
northsound@pugetsound.org

SOUTH SOUND


1063 Capitol Way South, Suite 206
Olympia, WA 98501
(360) 754-9177
fax (360) 534-9371
southsound@pugetsound.org

3. The DEIS does not adequately address stormwater treatment as part of the rezoning strategy. Existing stormwater regulations encourage reduction of flows to the stormdrain system in order to prevent combined sewer overflows into Elliott Bay. We encourage much more emphasis on on-site retention and treatment of stormwater, through the use of green roofs, infiltration strips, porous pavement, reuse and other methods. If buildings are allowed to become even bulkier and larger in scale, and local populations are increased, then provision needs to be made (as part of this EIS process) to reduce the environmental impacts of contaminated stormwater from these densely populated urban areas. West Point and other treatment facilities do not adequately treat toxins in stormwater – infiltration and other engineered solutions on-site will.

We need more open space and green space for our residents and for the health of Elliott Bay and Lake Union.

If you have any questions, please contact me at (206) 382-7007 X215. Thank you for your consideration of our comments in the EIS process.

Sincerely,



Heather Trim
Elliott Bay Project Coordinator

January 30, 2004

1000 Friends of Washington
1617 Boylston Avenue, Suite
200
Seattle, WA 98122
206) 343-0681 phone
206) 300-8218 fax

Dave Russell
President

Board of Trustees

Fran Abel

Langley

Dia Armenta

Bainbridge Island

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James Ellis

Dick Ford

Virginia Gunby

Joe King

Lucy Steers

Ms. Diane Sugimura, Director
Department of Planning and Development
City of Seattle
700 Fifth Avenue, Suite 2000
Seattle, WA 98104

Dear Ms Sugimura:

Thank you for the opportunity to comment on the City of Seattle's Downtown Height and Density Changes Draft Environmental Impact Statement (DEIS). We applaud the city for the time and energy that have gone into development of this analysis. The Growth Management Act (GMA) encourages residential and employment growth in urban areas, and we feel that increasing heights and densities in downtown Seattle could assist that goal. We especially support:

- The level of detailed analysis that went into this DEIS. We applaud you for the thoroughness of this work, identifying potential impacts as well as mitigation strategies. The development of four alternatives and the detailed comparison between them is very useful in understanding the complexity of the issues involved.
- The development of mitigation strategies in this DEIS provides a range of ways to decrease potential impacts of this proposed increase in development. These strategies are well thought out and will be essential to maintaining the existing character of downtown Seattle in spite of increased development.
- The forward thinking of this development proposal to allow increased development in downtown Seattle. The GMA encourages development in urban areas that provides a mix of housing for all income levels, adequate transportation and economic development consistent with planning. This DEIS has done an exemplary job of examining the potential benefits and impacts of each alternative on housing, transportation and land use.

As you move forward with this process and select a preferred alternative, we have a few concerns that we encourage you to consider. Our concerns are as follows.

- The DEIS is fairly clear about the potential loss of affordable housing stock and potential loss of opportunity to build additional affordable housing. We urge you to ensure the preservation of existing affordable housing and implement zoning, financing tools and other incentives to provide additional affordable housing for all income levels in downtown Seattle.
- We encourage you to select an alternative that provides for a substantial residential element in the downtown area. A mix of housing and employment is important to provide for a vibrant and mixed-use center that will continue to make Seattle a wonderful city. Maintaining existing residential character is

essential, and the use of rezones to promote residential uses in some locations could be beneficial as mitigation to the proposed increases in commercial bulk.

- We encourage the implementation of design standards that will ensure pedestrian amenities and pedestrian-scale design to help mitigate the increase in bulk and scale of development in downtown Seattle. As an example of this issue, the DEIS identifies minimal development standards for the enhancement of pedestrian amenities in the Denny area as a potential problem that could lead to the development of a primarily commercial district.
- The DEIS identifies traffic as a problem in the study area that will increase with more intense development. We encourage the implementation of transportation mitigation strategies in conjunction with new development to reduce the impacts. We applaud the development of detailed transportation demand management strategies as part of the DEIS and encourage their implementation. Providing for more housing downtown will help mitigate the additional traffic.
- The potential loss of some parking has been identified as an impact of all of the alternatives. We support the mitigation strategy to reduce the minimum and maximum parking requirement in the study area. This tactic would allow demand to create the necessary amount of parking rather than providing unnecessary supply and would encourage the use of transit and carpooling.
- All of the alternatives, including the do nothing alternative, identify the amount of open space as inadequate with the goals of the GMA. We encourage the implementation of a requirement that developers provide public open space, which could be in the form of a pocket park, atrium or rooftop garden, among other alternatives. Intense development is most likely the best use of land in the study area, but open space can exist in unusual forms and even within buildings.

Thanks to the city staff for all of your hard work on this proposal. We support moving forward with the process of identifying a preferred alternative for the proposed change in height and density limits for downtown Seattle. We encourage the balancing of residential and employment growth in the city, as it currently is the largest employment center but also consists of many important residential centers as well. We believe that adoption of the increased height and density limits, with the right mitigation strategies, will provide for positive, well-planned growth in Seattle and the region.

If you have any questions, please feel free to contact Sydney McComas or Tim Trohimovich both at (206)343-0681 or e-mail: sydney@1000friends.org or tim@1000friends.org.

Sincerely,

Sydney McComas
Urban Policy Advocate

Gordon Clowers - Downtown EIS

From: "Michael Baker" <michael@bobcanhelp.com>
 To: <gordon.clowers@seattle.gov>
 Date: 2/25/2004 4:31 PM
 Subject: Downtown EIS

Hello Gordon,

I was at the public review meeting last night, Feb. 24, and after reflecting on the process, I wanted to pass along a few observations.

I occasionally attend these kinds of meetings because of a professional interest in business and sustainability, though I do live in Seattle, also, and am invested in its growth as a resident.

My experience with the city meetings I've been to, as meetings, has been mixed. I'm glad to see that the city is reaching out to involve citizens in its process, but in general the presentations suffer from a lack of clarity, in scope and in goals. Generally, the public is promised that their "input" will be weighed, but the weighing mechanism is rarely in view. Further work on defining the scope of a meeting, and the specific goals of the meeting itself (rather than that of the whole process), would be helpful.

To take last night as an example: I arrived about 15 minutes late, and apparently I missed the primer presentation on the jargon that would be used throughout by various speakers. I know many of the people there were, of course, familiar with FAR ratios and their relationship to building height, but I was not. I had to go back and study up, which I'm happy to do. It's just a point of courtesy, generally, not to speak publicly in acronyms.

To begin from the beginning, there was a booster intro from a real estate professional, and then Diane quoted the Mayor at some length, and then the discussion began in earnest. The speaker largely referred, in illustrating the difference between alternatives, to maps on foam core that were useless to anyone more than 10 ft. away. I gathered that our discussion was going to revolve around two factors: FAR numbers and height increases. At no point were these numbers placed in context, so that the listener could visualize the relative baselines of density/height (though Portland and Vancouver were frequently cited as examples, numbers weren't connected to either). Further, increases in height were not linked, for clarity, to mention of the existing height limits.

Context is terribly important in communicating meaningfully. As we were being asked for input on these two factors, specifically, I was wondering what the baselines are. I mean, apparently these are the primary drivers in managing growth. What are the extremes, for example, of height/density? What is clearly an option to shy away from: You don't want to look like Hong Kong, do you? What height/density ratios have come to signify a city of a certain size? What are the ratios for cities known for vibrant downtowns?

Also, some forms of communication just communicate better. A discussion of percentage-height-increase needs a visual model to illustrate the change in the skyline from a few viewpoints.

At the point that I left, the speaker had just asked us whether we preferred mixed office/residential development or residential enclaves. Again, this seemed to lack context. I mean, I ***prefer*** to be wealthy and drive an electric Maserati. I'm no engineer, but it seemed to me that development of specific areas for specific purposes would require different support infrastructure that would weigh for or against the feasibility of a project. Building residential enclaves, for instance, would seem to offer economies of scale, and opportunities for clustering infrastructural support. However, I imagine that's open to debate, which I didn't hear any of.

It struck me as really very peculiar that the cost/benefit ratios to these decisions were not being overtly discussed, and from the relevant viewpoints. I welcome hearing what developers' think is feasible, in conjunction with the opinions of advocates for low income housing.

All I really heard were the usual representatives saying the usual things, based upon their interests, and not interacting meaningfully. The presenters, meanwhile, had little data, or meaningfully presented data, to offer us in distinguishing between Alternatives #1 - #4. After all, why stop at an extra 100' in height? Why not give Mr. Selig

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credit for foresightedness and establish a 950' ceiling? Clearly there are parameters being set, but I was not informed of the reasons for these parameters. Do metropolitan residents demand more height? Do developers make that much more money? Is it simply a question of meeting limited geographic area?

2

In sustainability, we're asked to consider what we want, what the specific desired outcome is, and backcast from there. I don't get the sense that this EIS draft is about that. I certainly can't tell what the proposed changes are "for" in terms of a real, future downtown. It seems to want to be congruent with a notion of growth, but it doesn't seem to offer real opportunity to direct that growth. Some of my concerns are outside the scope (I think) of the draft, such as the ramifications of this kind of growth for the surrounding communities, or the question of why simply building tall residential towers is enough to convince people to live in them. Nothing I heard last night made me think anyone would move off the Issaquah plateau to live downtown.

3

Still, for an EIS, there seemed precious little said about the impact of growth in general on the environment, adjusted or otherwise. Again, I think a base rate should be established. It's not clear to me that Seattle can sustain the population it has, long-term, without environmental degradation in key areas.

4

I am for a vibrant downtown that doesn't close up at 5:30pm. I just arrived back in town after three years in San Francisco, which has that kind of density-driven lifestyle in spades. Of course, I can't help but note that San Francisco isn't over-fond of tall towers, bulky or slender, and certainly not for residential use. That's not why people move to San Francisco (and I'd think you could ask the same thing of why people move to Seattle).

Secondly, a good portion of the vibrancy has to do with a thriving network of support-service small businesses, such as restaurants, bars, and corner stores, which don't tend to "live" in towers' shiny first-floor retail spaces. The Palomino might; a local bistro doesn't.

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Thirdly, I note that San Francisco's population density isn't a function of height increases. Obviously that results in the real estate costs we're all aware of. But again, what precisely is the cost/benefit ratio? What's optimal? People have not stopped moving to the Bay Area, after all. And we have yet to test our current tall buildings in our anticipated large earthquake.

To come back to the beginning, the key points here are scope and clarity. And context. For future meetings, I'd like to leave knowing succinct answers to these questions:

1) Why are we here today? What do we hope to accomplish by having this meeting? What are the means by which these goals will be accomplished?

2) What is the context of the process we're involved in? What is the stage of the process we're treating? What is our next step?

Thanks very much for this opportunity to respond,

MICHAEL BAKER

Gordon Clowers - City Height Limits

From: marshall_n_brown@hotmail.com
To: <gordon.clowers@seattle.gov>
Date: 11/12/2003 10:15 PM
Subject: City Height Limits

Please consider this a very firm opposition to any change to the greater Seattle downtown height limits, especially the Regrade, lower Q.A. and South Lake Union which would impugn or diminish the view of or from The Space Needle. The Needle IS Seattle in the World's eye, worth more in commerce than 100 skinny skyscrapers or condos, low income or not, or 100 city council members or mayors. Any who would change the Needle's "presence" should be tarred and feathered and ridden out of town!

Marshall N Brown
2961 36th Ave S
Seattle WA 98144

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Gordon Clowers - Public Comment on Draft EIS for Downtown Height and Density Changes

From: "Jonathan Dubman" <jon@dubman.com>
To: <gordon.clowers@seattle.gov>
Date: 1/29/2004 1:50 AM
Subject: Public Comment on Draft EIS for Downtown Height and Density Changes

This Draft EIS is an thorough study of an important issue for the future of our city. I do not take issue with the analysis, but would like to make some general comments. Overall, I am encouraged by the discussion of easing the limits on building heights downtown and in other areas where appropriate. There are many lessons to be learned from the fantastic success of downtown Vancouver in the same 14 years since Seattle passed the outdated and counterproductive CAP Initiative.

While it is certainly possible to build a wonderfully livable city with buildings no more than six stories (witness Paris), I favor moving in the direction of letting the market determine building heights, while retaining city oversight of architectural design, street frontage, etc. Alternative 1 is most appealing to me on this basis.

Raising height limits now will help preserve the opportunity for residential infill later if and when the market demands it. More housing downtown and in areas where the infrastructure can support it takes the long-term pressure off future upzoning in single-family neighborhoods such as my own (Montlake). It's not clear to me that upzoning would have a negative effect on the affordable housing problem; to the extent that we help foster a pedestrian-friendly, livable city where more people can live and work in close proximity, fewer people will need to own a car, and less structured parking will ultimately be necessary, thus contributing to lowering the cost of living in Seattle or at least helping to counter an upward trend.

Having grown up in a wonderful part of Chicago where 50 story skyscrapers were built among 3-story historic townhouses, I believe that Seattle's zoning overemphasizes the benefits of gradual transitions of development height and density. The Chicago neighborhoods (Near North / Streeterville / Gold Coast) are dense, dynamic, and full of character, with interesting views of and from the structures and streets.

I favor zoning changes that would encourage narrower building footprints, perhaps with a taller structure, to preserve views, provide better views from within the structure, provide a more interesting streetscape and skyline. My main concern in this process, aside from the obvious (providing adequate transportation infrastructure), is the preservation of the most historic structures, some of which are protected by existing historic designations, but many of which are not. A young city like Seattle ought to hold on to the best examples of what little history it has.

Jonathan Dubman
2014 E Calhoun St.
Seattle, WA 98112

1

Gordon Clowers - 24 Feb Meeting on Code Changes for The "New Downtown Area".

From: Bob Hintz <rfhintz@att.net>
To: <gordon.clowers@seattle.gov>
Date: 2/20/2004 9:47 PM
Subject: 24 Feb Meeting on Code Changes for The "New Downtown Area".

Why isn't this matter being considered based upon and following appropriate modifications to Seattle's Comprehensive Plan?

R. F. Hintz

1



TOUCHSTONE CORPORATION

January 30, 2004

Dennis Meier
City of Seattle Dept. of Planning and Development
700 Fifth Avenue, Suite 2000
Seattle, WA 98104-5070

Re: Downtown Height and Density Changes DEIS

Dear Mr. Meier:

Thank you for the opportunity to comment on the Downtown Height and Density Changes DEIS ("DEIS"). I am President of Touchstone and a downtown resident.

Touchstone is the developer of a number of projects in the downtown neighborhood, including 9th and Stewart Life Sciences, Fifth and Bell, Stewart Place, and Westlake Plaza. We are also active participants in the Denny Triangle Neighborhood Association and helped to prepare the Denny Triangle Neighborhood Plan.

Our interests as downtown residents, neighbors and property owners are to ensure that the Denny Triangle Neighborhood Plan is implemented, and that downtown height and density changes are approved to fulfill downtown's critically important role as the region's employment center.

Our comments on the DEIS follow:

Alternative 1. Touchstone generally supports Alternative 1. Its height and density increases are consistent with the Denny Triangle Neighborhood Plan, and will contribute to the area's attractiveness for office, biotech, and residential development. We note one significant omission, however. The Denny Triangle Neighborhood Plan (see Figure 6) recommended increasing base FAR from 5 to 7 in the DMC zone, and from 5 to 6 in the DOC2-300 zone. The description of Alternative 1 (see Table 2) does not reference this base FAR increase. We request that the Final EIS incorporate that base FAR increase, as proposed by the Denny Triangle Neighborhood Plan, into the Alternative 1 proposal.

If the failure to include the base FAR increase was intended, then the Final EIS should disclose that the proposed Alternative 1 would result in a drastic increase in the cost of development. At p. 2-13 of the DEIS, it is stated that "the provision that now allows a wider range of bonus choices to be used to gain the first FAR above the base FAR in the DOC1 and DOC2 zones would be eliminated." Currently, that first FAR can be gained through the provision of on-site amenities and other project-enhancing public benefit features. As proposed, Alternative 1 eliminates that option and requires the first FAR above the base to be purchased outright, at \$22 per foot! Unless Alternative 1 includes the base FAR increase

envisioned in the Denny Triangle Neighborhood Plan, we would strongly oppose this proposed change. At the least, it should be fully discussed and its impacts disclosed in the Final EIS.

1

Alternative 2. Touchstone strongly opposes Alternative 2. Alternative 2, in essence, proposes to ignore all of the major recommendations of the Denny Triangle Neighborhood Plan. The Final EIS should acknowledge that if Alternative 2 is adopted, the Denny Triangle Neighborhood Plan would be eviscerated. Touchstone urges the City Council to support the neighborhood planning process, and to repudiate Alternative 2. At page 2-15, the author of the DEIS suggests that Alternative 2 proposes no changes to the DMC zone in the Denny Triangle because it is "desirable" to discourage commercial development in favor of residential, and to maintain a gradual transition to the surrounding residential neighborhoods. The author neither identifies the source of this value judgment, nor does the author acknowledge that this value judgment is inconsistent with the neighborhood consensus that supports Alternative 1.

2

Alternative 3. Touchstone even more strongly opposes Alternative 3, which amounts to a downzone of much of the Denny Triangle. Not only is this inconsistent with the Denny Triangle Neighborhood Plan, it is also inconsistent with long established City policy to encourage downtown as the employment center of the region. It is difficult to understand why vast public resources would be expended to develop mass transit facilities to bring employees downtown, if the City were then to proceed to discourage employment growth downtown. The Final EIS should acknowledge this inconsistency and analyze its impacts.

3

TDC Program. The Draft EIS identifies the termination of the TDC program as an adverse impact of Alternative 1. The Final EIS should revise this evaluation. The TDC program, while fine in theory, is of virtually no value in the real world. It has never been used, and is never likely to be used. It is too costly and cumbersome. Thus, its loss is not an adverse impact.

4

Height, Bulk and Scale. The Draft EIS at numerous locations suggests that implementation of Alternative 1 will result in larger and more bulky buildings, and at least implies that this is an adverse impact to residential character and the downtown aesthetic environment. This evaluation is superficial, and should be refined in the Final EIS. While allowing greater height and density will surely result in larger buildings, it does not follow that these larger buildings will adversely affect the residential character or downtown aesthetic environment. Cities like New York and Chicago have succeeded in creating dynamic downtowns that include large buildings. The answer is not to crimp on size, as the author of the DEIS suggests. Rather, the answer is to utilize the design review process and to amend the land use code to allow greater design flexibility so that buildings can energize the street and the cityscape, rather than become a blot upon them. This is fully possible with good design.

5

Thank you for considering these comments.

Sincerely,

Touchstone Corporation



Douglas Howe, President

SAMIS LAND CO.

208 JAMES STREET, SUITE C SEATTLE, WA 98104
TELEPHONE: (206) 622-3363 FAX: (206) 622-4918
E-MAIL: samis@samis.com

February 27, 2004

Mr. Dennis Meier
City of Seattle
Department of Planning and Development
700 5th Ave., Suite 2000
Seattle, Washington 98104-5070

Re: Comments to the Draft Environmental Impact Statement dated November 2003,
2003 Downtown Height and Density Changes

Dear Mr. Meier:

Our company owns 22 properties in the downtown core area of Seattle. Some of these properties we have owned for more than 60 years. A healthy and vital downtown core is extremely important to the success of our properties and our tenants. Job growth and a significant increase in residential development in the downtown core are essential to a healthy and vital downtown neighborhood. We wholeheartedly support increases in height and density but do not believe that Alternative 1 in the DEIS goes far enough to allow for the appropriate density in the downtown core. Of course we need to have height and density that is appropriate for our downtown core but Alternative 1 will not allow projects with similar height and density as many of our existing buildings.

1

Increased density in our downtown core is not just a local issue. With increased density downtown we reduce the pressure for growth in our suburban and open-space areas of the region. Encouraging growth in our downtown is the best way to utilize our investments in public transportation. In November of 2003, just three months ago, the Puget Sound Regional Council directed a survey of citizens across the central Puget Sound region to gauge attitudes and opinions about quality-of-life, and an indication of the region's priorities. Nearly 1000 citizens in our four county area were surveyed and the results show some well-informed opinions; 79% favor encouraging growth over limiting growth, and 67% favor focusing growth within already developed areas.

Specific comments to the DEIS:

The document does not recognize, as it should, that downtown residential growth is actually a form of traffic mitigation and reduced parking demand. Page 3-191 in the paragraph titled "Reduce Trip Generation Through Area-Specific Rezones", it states "For example, future development of residential uses might generate fewer overall vehicle

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trips than office development on the same properties.” The statement that residential development “might” generate fewer overall trips than office development certainly shows a lack of understanding of the downtown resident. A significant attraction to living downtown is to be close to one’s job. A great proportion of the downtown residents commute by walking or taking a bus to their place of employment. Therefore placing residents near their location of employment is traffic mitigation. On page 3-198, the discussion of Off-Street Parking exaggerates the parking demand because those downtown residents working downtown that do own cars either park their car at their work location or their home location not both. We believe a survey of parking and commuting patterns of downtown residents would show a trend of declining automobile ownership and a corresponding decline in the number of resident commuters using automobiles and parking. This does not only apply to low income or affordable housing but, as an example, a redevelopment project on Fourth and Pike successfully sold 24 residential condominium units without any parking with some of the units costing over \$2 million each. Just in the last few years we have observed a major shift in automobile dependence of the downtown resident.

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We believe the growth in jobs downtown estimated in the DEIS from the year 2000 to the year 2020 is too high and that the development capacity in the downtown core is greater than described in the DEIS. This also means that the impacts from the projected job growth will be less than described in the document over this period of time. Our rationale for this conclusion is as follows: We are already four years into that 20 year period and the current inventory of vacant office space is 5.6 million square feet. This equates to the 15.8% vacancy in the total downtown office inventory of 35.6 million square feet. Assuming 250 square feet per occupant yields a job capacity of 22,500 jobs, we expect it could take eight years to absorb this capacity and office space. In addition, the planned construction of the new Washington Mutual Tower and King County office building could add another 1 million square feet of vacant office space in the core and add another year or two to absorb all of the vacant office space. This does not mean we do not need increases in height and density in the core. We need to utilize the precious little land we have in the downtown core to the greatest extent possible and by increasing the height and density we have a great opportunity when development does occur to create funds through the FAR bonus system for affordable housing. With government funds becoming so precious, this may be the best opportunity over the long-term to fund this much needed housing.

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While this inventory of office space is being absorbed over the next eight to ten years, one of the best ways is to stimulate growth and develop an attractive, safe, and vital downtown core is to encourage housing in high-rise high density structures. In fact, if a significant amount of this housing is developed it could attract job growth from outside of the region and absorb the office inventory more quickly.

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Recommendations:

1) Increase the maximum FAR in DOC-1 to 20, in DOC-2 to 16 and in DMC to 13. The DMC zoned properties actually offer more opportunities for development than the DOC zones and are extremely important to the long-term growth of the downtown core. As proposed in the DEIS, make available 75% of the FAR bonuses only by affordable housing TDR, payment to an affordable housing fund, or the development of affordable housing. This is the best opportunity to develop a true housing mix downtown. The remaining 25% should be gained only through landmark TDR or a contribution to fund offsite development of public open-space in the downtown core or to fund the maintenance and enhancements of existing public open-space downtown. We believe on-site amenities will be market driven and do not provide the broader community benefit of the bonus opportunities described above.

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2) To encourage more attractive and slender buildings with better proportions we recommend height increases of 50% over the existing height limitations in the code rather than 30% proposed height increases of Alternative 1.

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3) We believe the PCD (planned community development) process could provide some excellent design opportunities but has been underutilized because of the minimum land area requirement. We recommend that requirement be reduced to 25,000 sq. ft.

8

4) Try not to regulate the balance between employment and residential growth in the core but let the market determine what happens in the future. Right now high-rise residential development is needed for many reasons to make this a thriving downtown core, and then commercial development will follow. We also expect more development projects with mixed-uses of office and residential.

9

5) Act quickly! The increases in height and density should be adopted before the end of this year so that development that is being planned over the next several years can be better than it would be with the current land-use regulations.

10

This is a great opportunity to adopt the downtown core land-use regulations that will shape growth well beyond 2020. We look forward to being an active participant in making our downtown a greater place.

Sincerely,



William J. Justen
Managing Director, Real Estate

WJJ/

February 28, 2004



Corporate Administration
4601 Sixth Avenue South
Seattle, Washington 98108
Tel (206) 624-3215 Fax (206) 624-0377

Diane Sugimura, Director
Seattle Department of Planning & Development
700 5th Avenue, Suite 200
Seattle, WA 98104

RECEIVED
MAR 02 2004

Dept. of Design
Construction & Land Use

Re: DEIS on Downtown Height & Density Changes

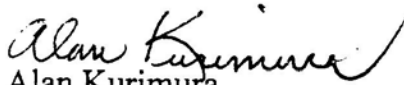
Dear Director Sugimura:

Uwajimaya strongly supports the Downtown Urban Center Plan priorities for housing and employment in downtown and its adjacent neighborhoods. Increased height and density are needed to encourage more housing and job creating uses. The City can and should do more than is presented in the four alternatives covered by the DEIS.

Tax payers are investing hundreds of millions of dollars in several transportation alternatives (to the single occupant vehicle) which will link downtown with other parts of the region. The City should encourage and support development which will create the housing and employment opportunities for users of these transportation investments.

Uwajimaya encourages the City to consider the Downtown Seattle Association's two-pronged approach.

Sincerely,


Alan Kurimura
Vice President

Cc: Greg Nickels, Mayor
Members, City Council

1

McCULLOUGH HILL EIKSO KRETSCHMER SMITH

A Professional
Service Corporation

John C. McCullough
2025 First Ave., Suite 1130
Seattle WA 98121-2100
206-448-1818
206-727-2391 direct
206-448-3444 fax
jack@mhfs.com

DEPARTMENT OF DESIGN
CONSTRUCTION AND LAND USE

JAN 30 2004

RECEIVED

January 30, 2004

Dennis Meier
Department of Planning & Development
City of Seattle
700 Fifth Avenue, Suite 2000
Seattle, Washington 98104-5070

Re: Downtown Height and Density Changes EIS

Dear Mr. Meier:

We are writing to provide comments on the Downtown Height and Density Changes Draft Environmental Impact Statement (the "EIS"). We address both general policy issues relating to the proposal and specific comments on the EIS below.

Policy Issues

Several policy issues were identified at the public hearing on the EIS in December 2003. These include the following:

1. **None of the alternatives goes far enough in providing additional density, height and design flexibility in the downtown core.** Even EIS Alternative 1 fails to establish downtown densities consistent with applicable Neighborhood Plan goals and appropriate in light of infrastructure investment in the area. Without additional height and density, higher building costs downtown will increase sprawl by making it cheaper to build in outlying neighborhoods when land and other costs are less. 1
2. **The EIS should address the need for greater design flexibility.** Design requirements such as upper level setbacks have added unnecessary building costs and tend to create buildings with similar massing. Design review has made many existing development standards unnecessary. 2
3. **The EIS should investigate the benefits of greater height and density in making best use of investments in mass transit.** None of the alternatives offers adequate density or height commensurate with the regional investment in transportation infrastructure. Light rail, the monorail and buses are most effective in areas with dense urban cores. The billions invested in the monorail, light rail and the bus tunnel will be ill-spent without greater downtown density. 3

4. The EIS should honor the neighborhood planning process. The Denny Triangle Neighborhood Plan – which was adopted in the previous decade – should be implemented as quickly as possible. The constituent groups in the Triangle unanimously support the Plan.

4

5. Downzoning the Denny Triangle means fewer jobs and less affordable housing: Alternative 3 proposes to downzone large areas of the Denny Triangle to create more of a “residential” emphasis and to provide “buffers” for Belltown. Alternative 3 would sacrifice 30,000 jobs downtown over the next 20 years and create less housing. “Buffers” inside the Downtown core would prove counterproductive and harm the most important job production location in the entire Northwest.

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6. Mandatory mixed-use is unnecessary and will not work: Alternative 3 proposes to require some sites in the Denny Triangle to provide mixed office/housing development on the same lot. High-density downtown mixed-use projects are too difficult to finance and develop.

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7. Slender residential buildings can be attractive, but the Code should not penalize property owners to promote them: Slender residential buildings cost much more to build per-square-foot, which translates to higher rents and increases sprawl by making such buildings uncompetitive in the greater Seattle marketplace. The EIS is wrong to suggest that building bulk adversely affects the pedestrian environment – New York and Chicago are proof this is not true.

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Specific Comments

We also offer the following specific comments on the EIS:

Overview

The EIS approaches the prospect of Downtown development over the next 20 years with a clear sense of inevitability. It does not question whether or to what extent development – both residential and commercial – will occur Downtown, but assumes the demand is there to be molded and regulated. In this, the EIS suffers from the lack of a regional, even City-wide, perspective. In the last development cycle, for example, the increased cost of and restrictions on Downtown property resulted in over 50% of new commercial development occurring *outside* the Downtown. Increased restrictions will only exacerbate this trend. But the EIS does not consider the entirely predictable – and documented – market reactions to increasing regulation in the Downtown area. As a result, the real impacts of Alternative 3 (which actually downzones areas of the Downtown) and of many “mitigating” measures discussed in

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the EIS are not evaluated. These impacts will be reflected in the inevitable work of market forces to redirect new development to areas in Seattle and the region where it is less expensive and easier to achieve. Dispersal of development to areas where it cannot readily be served by transit and rail and where it will tend to impact neighborhoods will lead to a host of additional impacts. None of these impacts is addressed in the EIS.

8

It is also a limitation of the EIS that its inventory of mitigating measures focuses predominantly on new *restrictions*, rather than new *incentives*. Incentives, which will attract new and different kinds of development to areas, should play a larger role in the City's review of alternatives. New restrictions will only discourage development, and tend to divert it – as noted above – to the many areas in the region where it is easier and less expensive to accomplish.

Employment

- The EIS assumes (e.g., at 3-9) that the zoning changes proposed in each alternative are "not likely to change the amount or type of Downtown employment over twenty years." This assumption ignores the potentially significant impacts that zoning regulations have on the comparative cost of development in different sub-markets in the region. Increasing height and density will often have the effect of decreasing per-square-foot costs of development; likewise, increasing FAR bonus values will increase such costs. Development restrictions, like floorplate limits, parking ceilings and other bulk restrictions, will alter the relative attractiveness of Downtown locations in comparison to sites in other Seattle neighborhoods or suburban cities. By assuming away this relationship between zoning regulations and market decisions regarding development location, the EIS ignores a whole host of impacts. In particular, the EIS ignores the significant likelihood that the lower densities, increased costs and unviable development restrictions of Alternative 3 will make other regional sites more attractive in comparison to Downtown, and therefore result in increased sprawl.
- Another consequence of this improper assumption is that it allows the EIS to conclude, in effect, that the four alternatives are essentially neutral as to job production over the next 20 years. For the reasons noted above, this is unlikely to be the case.

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Housing

- **TDC Program.** The EIS implies that the loss of the TDC program in Alternative 1 would be an adverse "impact." It is improper to suggest that the loss of a program that have never been used (nor may never be used), is

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"adverse." The EIS acknowledges that the TDC program has never been used, but suggests that this owes to "lack of understanding or interest" on the part of developers, or the intervention of an adverse economic cycle. The EIS concludes that it is "too early to tell" if the TDC program will ever bear fruit. It is therefore speculative to suggest that the loss of the program is an "adverse" impact.¹

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- **"Jobs/Housing Balance":** The EIS assumes that a principal goal of Downtown planning under the Comprehensive Plan is to achieve a "jobs/housing balance" within the Downtown urban center. See, e.g., EIS 1-7, 1-18. The Comprehensive Plan does not support this assumption, and in fact this assumption is inconsistent with the Plan and the applicable Neighborhood Plans, which assume that Downtown will be the principal employment center for the region. It is inappropriate for the EIS to base its assessment of housing impacts on this premise.

11

- **Low-income Housing.** From the erroneous premise that Downtown workers should live Downtown (noted above), the EIS concludes (for example) that Alternative 2 results in superior housing impacts, as compared to Alternative 1. EIS 3-23 (Alternative 2 results in a 13% increase over Alternative 1 in the proportion of low-income households that could supposedly find housing Downtown.). The EIS should note that this is the case because Alternative 2 produces fewer jobs Downtown, not because Alternative 2 creates a significantly larger inventory of affordable housing.

12

- **Housing Demand.** The EIS appears to treat Downtown housing demand as a function of household desire, suggesting that in each alternative there is likely to be a certain percentage of households that desire to live Downtown and are unable to. EIS 3-18, 3-20. There is no legitimate research to support this conclusion. Furthermore, it reflects an erroneous policy assumption that employees in an urban center should live in that urban center (see above: Jobs/Housing Balance). While this case might be argued for some urban centers, Downtown is specifically intended under the Comprehensive Plan to be an employment center that provides jobs for residents throughout the region. The City and the region are investing billions of dollars in transportation infrastructure to ensure that Downtown jobs are accessible to residents throughout the region

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¹ In truth, the TDC program has not been used because it does not offer benefits to offset its substantial costs. This equation is unlikely to change, so it is equally unlikely that a project will ever be developed under the TDC program.

- **Mixed-use Projects.** The EIS assumes that the regulatory requirements of Alternative 3 – which mandate some mixed-use buildings in certain DMC zones – will produce more housing than other alternatives in the same zone. This assumption ignores the other factual observation made in the EIS – that such mixed-use buildings have not been successful Downtown. The market will not respond to such regulatory mandates, if they are not viable. As a result, the EIS overstates the amount of housing that would likely be produced in such DMC zones under Alternative 3.

14

- **Affordable Units.** It is initially unclear how Alternative 3, which would result in 8 million fewer square feet of office space Downtown, could result in the production of 325 more low-income housing units than Alternative 1. EIS 3-25. Upon closer inspection, it appears that the EIS achieves this result by adopting different baseline assumptions for the two alternatives. These assumptions – which are not mandated by the policy underpinning for either alternative – have the effect of understating low-income housing production in Alternative 1 and overstating its production in Alternative 3. For example:

- The EIS assumes that DOC-1 base FAR will not increase in Alternative 3, an assumption which automatically increases the funds available for low-income housing by 10%.
- The EIS assumes that Alternative 3 – in which development is more expensive, owing to the 10% increase in bonus costs – will nevertheless produce 715,000 s.f. more floor area in DOC-1 than will Alternative 1 over the next 20 years.

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For purposes of advising the ultimate policy decisions the City needs to make, the EIS should be updated to include comparisons between alternatives based on a consistent set of assumptions.

- **Mitigation Strategies.** The discussion of housing mitigation strategies in the EIS focuses on measures that would either increase the cost of development, reduce development densities, or both. EIS 3-28. These strategies have not been evaluated in a market context, to determine whether such increased regulatory restrictions would actually produce more affordable housing – or as is more likely the case, reduce the economic feasibility of projects altogether.

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- **Residential Amenities.** The role of residential amenities (e.g., schools, play areas) in attracting families and larger households Downtown (EIS 3-29) is an important incentive that should be further explored.

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Land Use

- **20-year Development Model.** The long-term development model discussed in the EIS assumes that each alternative will result in the development of the same amount of total office space Downtown over 20 years. This assumes that the alternatives are neutral in their potential effects on how the market allocated commercial development between Downtown and other areas in Seattle and the region. This assumption is not supported in the EIS. In fact, it is more likely that alternatives that accommodate higher-density development opportunities at lower cost will tend to attract more commercial development to the Downtown in the long-term, as compared to alternatives that focus on lower-density, higher-cost development.

18

In other words, the EIS leaves one with the conclusion that zoning is irrelevant over a 20-year cycle – that production of new office and residential space is purely dictated by demand. EIS 3-9. This fails to account for the regional nature of demand. The EIS does not look at this issue (i.e., capture rates for new development within the Downtown, as compared to other areas in the region); the EIS analysis is only a capacity analysis.

- **Maximization of Density.** It should not be assumed that developers will maximize office floor area allowed under the Code. EIS 3-48. While this has been the case in past years, the 80% increase in per-square-foot costs for floor area bonus (from \$13 to \$22 per s.f.) in 2001, together with the significant increase in vacant space and tightening of underwriting standards, indicates that developers may avoid full-FAR development to avoid the cost of bonus square footage or to bring projects to market more rapidly. Most other office markets in the region do not impose such fees on additional square footage, and Downtown developers must compete against these markets.
- **Regional Impacts.** The EIS limits its review of land use impacts to a small fraction of the developable area of the City. It tends to focus on the perceived "adverse" impacts of density, without considering the inevitable impacts associated with the dislocation of Downtown development to areas elsewhere in the City and the region. If commercial office demand is not satisfied in Downtown, where it can best be served by regional rail and transit, it will occur in Seattle neighborhoods and suburban communities, which lack similar transportation infrastructure. Alternative 1 minimizes these impacts to other neighborhoods and communities, but this fact is not addressed in the EIS.

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Height, Bulk & Scale

- The EIS asserts that the DMC zone was created to promote a “desired transition area.” EIS 3-83. From this, the EIS develops a new concept of “sensitive transition areas” in order to justify certain conclusions relating to the potential “impacts” on these “sensitive” areas under Alternative 1. This assessment has no basis in the Comprehensive Plan or in the Denny Triangle Neighborhood Plan. If the EIS is attempting to draw conclusions from assumptions about legislative intent in the City Council’s adoption of the LUTP in 1985, those conclusions have been superseded by multiple Plan and Code changes in the intervening years. 21
- The EIS makes much of alleged “bulk” impacts in certain areas of Downtown, but offers no foundation for such “impacts” in the City’s SEPA Ordinance. In fact, the SEPA Ordinance presumes that the use of the City’s design review process will mitigate such “impacts.” 22
- It is inappropriate for the EIS to suggest that alley vacation approvals may lead to adverse bulk and scale impacts Downtown. Relatively few alley vacations have been concluded in the Downtown in the last decade, and in cases where approvals have been granted, they are inevitably site- and project-specific approvals, subject to additional layers of design review and conditioning. It is not legitimate to draw broad-based conclusions from such few examples.² Further, where such alley vacations have been approved, they have also been used to accommodate unique site conditions (e.g., landmark buildings) or to mitigate building massing issues through increased site utilization. None of these considerations is discussed in the EIS. 23
- “Slender” residential buildings cannot merely be mandated by Code, and the EIS is correct to focus on incentives to promote the development of such buildings (such as height bonuses). EIS 3-102. Slender residential buildings will be substantially more expensive to construct, and therefore less able to compete in the market against residential product developed in other Seattle neighborhoods and nearby suburbs. As a result, it is less likely that the market will produce such buildings Downtown, unless compensating benefits (such as additional height) are provided. 24

² Nor is it clear that the concept of “prohibiting” alley vacations in certain areas (EIS 3-104), which would require one City Council to limit the legislative discretion of a future City Council, is even legally possible.

- "Slender" office buildings pose a more critical problem. Market demand for office space typically dictates a minimum floorplate size of 20,000 square feet or more. Such floorplates are readily provided in office developments in other Seattle and regional locations; and if Downtown buildings cannot meet this threshold, they will not be able to compete in the regional market. As such, new buildings – if subject to floorplate limits – are unlikely to be built Downtown. The same problems inhere in the EIS's suggested "mitigation" for height and bulk: creating obstacles to "large-floor-plate structures extending to the prescribed height limit." EIS 3-103. This "mitigation" is a formula for diverting Downtown development to outlying areas. 25
- We strongly discourage the propagation of DMR development standards in other areas Downtown as a mitigation measure. EIS 3-102. 26
- The concept of converting residential floor area to "chargeable FAR" space would be a major step backward in Downtown planning. EIS 3-103. Such a step would run counter to the strong policies of the Downtown Plan and its Neighborhood Plans, and would significantly undermine the prospect of increased residential development in the long-term. The EIS offers this "mitigation" measure without any consideration of its impacts on housing creation Downtown or its relationship to plans and policies. 27
- Development "overlays" for newly-minted "sensitive transition areas" will only reduce the likelihood of development in these areas. For this reason, it would be a mistake to assume that such overlays would produce superior development. 28

Urban Design

- The EIS should acknowledge the important role played by the retail bonus in the development of active pedestrian environments. Changes to the retail bonus scheme in 2001 were not based on an evaluation of its usefulness in this regard. Ultimate proposals in 2004 should consider restoring this bonus more broadly throughout the Downtown. 29
- The EIS (at B-3) assumes that 5% of necessary bonuses must be obtained from Landmarks TDR, if available. It is not clear that this is the manner in which the Code is presently being applied. 30

Transportation & Parking

- For Alternatives 2 and 3, the EIS should acknowledge the City-wide and regional effects of dispersing development that would otherwise occur 31

Downtown under Alternative 1. This amounts to more than 30,000 jobs, which means that some 8 million square feet of office space would need to be accommodated in Seattle neighborhoods and suburban cities – where transit ridership levels are only a fraction of that Downtown.

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- The EIS should consider eliminating the minimum parking requirements for commercial uses Downtown. Parking ceilings, however, should not be lowered, since to do so would make Downtown projects significantly less competitive with other regional markets (where such parking ceilings do not exist).

32

- The anticipated loss of parking lots and structures near the retail core underscores the need to promote the development of new short-term parking supplies accessible to this critical shopping area. Ultimate proposals should examine both the permitted uses and bonus structure of the Code to ensure this will occur.

33

Energy

- The EIS should evaluate the new project costs imposed by requiring LEED improvements or certification for Downtown buildings, and the effect of such increased costs on the ability of Downtown to attract new development (in comparison to other regional markets, in which such additional costs are not imposed).

34

We appreciate the opportunity to provide these comments on the EIS.

Very truly yours,



John C. McCullough

JCM:amc

McCULLOUGH•HILL•FIKSO•KRETSCHMER•SMITH

2025 First Ave., Suite 1130
Seattle WA 98121-2100
206.448.1818
206.448.3444 fax
mhfs.com

MEMORANDUM

February 27, 2004

TO: Diane Sugimura
John Rahaim

FROM: Jack McCullough

RE: Further Comments on Downtown EIS

Working with a group of Downtown owners, developers, residents and architects, we have prepared a list of more specific suggestions for the preparation of a package of Code amendments to modify and implement EIS Alternative 1. They are attached.

The current Downtown EIS examines four broad alternatives to future development in the Downtown core. Many commenters have suggested that Alternative 1 – which most closely reflects the approved Neighborhood Plans – still does not go far enough to ensure that the next cycle of development Downtown will embody the goals and objectives of these Plans.

Of course, the Draft EIS alternatives are necessarily stated at a level of some generality, and cannot at this early stage incorporate every possible Code change that may be reflected in a final, adopted ordinance. It is appropriate now, however, to begin to identify those additional improvements and modifications to specific Code language that will help to ensure that the final package of amendments best implements the Neighborhood Plans.

What follows is a list of such possible Code changes. It is intended as a menu of options and designed to help inform the preparation of an ultimate package of proposals for consideration by the City Council. This list reflects many of the comments made during the two Draft EIS hearings held in December 2003 and February 2004, and is based on the following goals and assumptions:

- This current Code revision exercise is directed by, and intended to implement, the City's adopted GMA Comprehensive Plan and the Neighborhood Plans for the Downtown.
- The Downtown will soon be the hub of billions of dollars of new high-capacity regional transit systems. Thus, attraction of regional jobs is a key goal of these Plans; but so should be a significant increase – even a doubling, as suggested by the Mayor – in the Downtown residential population.
- Bringing more residents of all income levels Downtown will depend upon offering a broader and more complete palette of services and amenities to serve them, including usable open space, neighborhood-level shopping opportunities, and even schools.
- The low-income housing bonus provisions adopted in 2001 should be preserved, but also strengthened in key ways, by broadening the geographic scope of the program, making the payment program more flexible, and ensuring an adequate supply of amenities to serve all residential populations.
- The City this year should complete the work begun in 1999, to properly rezone key sites in the Pike/Pine corridor so as to help assure their redevelopment in the next cycle.
- Regulatory prohibitions may help prevent certain kinds of development, but ultimately cannot *attract* the positive development projects the Downtown needs. Instead, incentives should be the key elements in this package of Code amendments, and those incentives should be *market-based*.

1

Improve Urban Design

<p>Enhance the Design Review Process</p> <ul style="list-style-type: none"> • Broaden the range of design departures to include new elements, such as height. • Clarify the Downtown design guidelines to ensure that departures are granted for good design, not in exchange for other "benefits" 	<p><i>The Downtown DRB has had a commendable record in the last decade, and has earned the opportunity to address a broader range of departures.</i></p>	<p>2</p>
<p>Eliminate Needless Upper-Level Standards</p> <ul style="list-style-type: none"> • Eliminate or simplify the following bulk and dimensional standards of the Code: <ul style="list-style-type: none"> ◦ Upper-level "setbacks" and coverage limitations ◦ General setback formulas 	<p><i>These standards tend to promote a uniformity of design and penalize development on smaller sites.</i></p>	<p>3</p>
<p>Modify the Access-to-Parking Standards</p> <ul style="list-style-type: none"> • Revise the hierarchy of locations to access for parking, emphasizing curbcuts on streets of least pedestrian importance, but preserving alleys for service and loading functions. 	<p><i>Principal building entrances and loading areas don't mix well. Driveway entrances at the street make projects more attractive for residents and employees.</i></p>	<p>4</p>
<p>Provide for a Transition in Scale</p> <ul style="list-style-type: none"> • Create an optional "transition overlay" on sites located between zones (DOC-1, DOC-2, DMC) in Downtown, to reduce bulk impacts: <ul style="list-style-type: none"> ◦ <u>Split-zoned Sites</u>: Allow height and density to be moved around freely on large (e.g., full block) split-zoned sites. Height and density could be increased on 	<p><i>Split-zoned sites can pose a particular challenge for addressing changes in scale. Providing additional flexibility for these and other transition sites would be a useful design tool.</i></p>	<p>5</p>

<p>the less-intense side of the block (above nominal zoning limits on that portion of the site), as long as overall development intensity and height does not exceed that permitted on the site as a whole.</p> <ul style="list-style-type: none"> o <i>Single-zoned Sites:</i> On uniformly-zoned sites located on a boundary with another zone, allow height and density increases equal to half the difference between the two adjoining zones. 		5
<p>Create a More Interesting Skyline</p> <ul style="list-style-type: none"> • To create a more interesting skyline, allow floor area to be transferred from sites within three blocks and "stacked" on top of existing height limits, up to 750' in DOC-1, 600' in DOC-2 and 400' in DMC-240, subject to a dispersal criterion (e.g., "stacking" could not occur within three blocks of another "stacked" site in the same zone). 	<p><i>Uniform height limits create a "ceiling" on the skyline. Allowing height to be "stacked" in a limited way within a small area will tend to create skyline diversity without increasing underlying density.</i></p>	6
<p>Promote Slender Residential Towers</p> <ul style="list-style-type: none"> • Provide height bonus for slender residential towers (see below) 	<p><i>The importance of this goal is discussed below.</i></p>	7

Promote Residential Development

<p>Allow TDR from Residential Sites</p> <ul style="list-style-type: none"> • Allow transfer of unused development rights from residential project sites to other sites within Downtown. 	<p><i>Even limited to the 25% bonus tier, this measure would help jump-start future Downtown housing.</i></p>
<p>Promote Slender Residential Towers</p> <ul style="list-style-type: none"> • Promote the development of slender residential towers by eliminating height limits for "slender" residential buildings in DOC-1, DOC-2 and DMC zones. "Slender" residential towers will have different meanings in different contexts, depending upon lot size, block size, and adjoining development. 	<p><i>Because "slender" residential buildings are more expensive per-square-foot to build, they will not be able to compete in the greater Seattle market – and therefore will not be built – without significant incentives. In all cases, slender should focus on the area above 85', allowing the potential for base-level office.</i></p>
<p>Provide Energy Code Relief</p> <ul style="list-style-type: none"> • Relieve Downtown residential buildings from the obligation to comply fully with the new Energy Code. 	<p><i>Downtown housing reduces regional energy costs in many ways. Recognizing these regional savings, energy code relief will make Downtown housing more affordable and more attractive.</i></p>
<p>Provide Residential Amenity Bonuses</p> <ul style="list-style-type: none"> • Provide new bonuses for critical residential amenities, like supermarkets and schools. (See the discussion below.) 	<p><i>Since such bonuses benefit housing at all income levels and since few of these opportunities will arise, this bonus could be offered in all bonus tiers.</i></p>
<p>Provide "Kid-Friendly" Amenity Bonuses</p> <ul style="list-style-type: none"> • Use the bonus program to create incentives for kid-friendly housing projects, such as those with play areas or a family-oriented unit mix. 	<p><i>Modifications to the open space bonus program could help to achieve this goal.</i></p>

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<p><i>Restore the Childcare Production Bonus</i></p> <ul style="list-style-type: none"> • Restore childcare production as an independent bonus item in all bonus tiers. 	<p><i>Lack of a childcare production option will preclude new private-sector childcare operations Downtown. Since this bonus benefits housing at all income levels, this bonus could be offered in all bonus tiers.</i></p>	<p>9</p>
<p><i>Provide Other Code Relief</i></p> <ul style="list-style-type: none"> • Relieve Downtown residential buildings, particularly "slender" ones, from the obligation to comply fully with certain provisions of other construction Codes. 	<p><i>"Slender" residential buildings are more expensive per-square-foot to build, and will not compete in the greater Seattle market without Code flexibility, such as on certain exiting requirements.</i></p>	<p>10</p>

Make Downtown More Attractive for Residents and Families

<p>Create More Usable Downtown Open Space</p> <ul style="list-style-type: none"> • Use the open space bonus to provide for a major neighborhood open space bonus category, to be generated by contribution to a minimum 20,000 s.f. public open space within three blocks of a project site. • Allow office and residential buildings to provide required open space off-site, within three blocks of the site, as part of a major neighborhood open space. 	<p><i>Focusing open space contributions on neighborhood-wide opportunities will provide benefits throughout the area.</i></p>
<p>Provide a Bonus for Open Space Capital Projects</p> <ul style="list-style-type: none"> • Establish an open space bonus for capital improvements to existing Downtown parks and open spaces within three blocks of the project site. 	<p><i>In some areas, improvements to existing open spaces will be more critical and feasible than the creation of new ones.</i></p>
<p>Provide a Bonus for Open Space O & M</p> <ul style="list-style-type: none"> • Provide a new bonus for costs of operation and maintenance of a publicly-accessible open space. 	<p><i>Improving operation and maintenance of an open space, whether existing or new, can immediately make it more usable to local residents and employees.</i></p>
<p>Restore and Enhance the Retail Bonus</p> <ul style="list-style-type: none"> • Restore bonus for retail, restaurant and entertainment uses at street level; increase geographic scope of bonus; restore bonus for upper floor retail space. • Create new bonus category for supermarket use (minimum 20,000 s.f. store); allow supermarket to be 	<p><i>The loss of this bonus, which was eliminated in passing in 2001, will be a major detriment to Downtown and its residential and pedestrian environment. It <u>must</u> be restored and its scope expanded to include new areas in the Denny Triangle. As noted above, the supermarket bonus</i></p>

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developed off-site and up to two blocks outside of Downtown boundary, but not within five blocks of the Pike Place Market.	<i>will benefit all housing Downtown.</i>
<i>Redevelopment of Existing Sites</i> <ul style="list-style-type: none"> Some Downtown sites (e.g., Bank of Cal) have potential redevelopment areas, but little available or affordable FAR. Provide "free"2 FAR (in addition to existing development) to spur redevelopment, if improvements are made to street-level uses. 	<i>This measure could help to re-energize pedestrian streets in the DOC-1 area south of the retail core, by triggering pedestrian-friendly development that would not otherwise occur.</i>

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Make Efficient Use of High-Capacity Transit to Attract Regional Employment

<p><i>Eliminate Unnecessary Mitigation Authority</i></p> <ul style="list-style-type: none"> • Amend the Seattle SEPA policies to eliminate further mitigation authority for transportation impacts Downtown for all uses. 	<p><i>Several billion dollars will be spent in the next decade on new transportation infrastructure Downtown. Physical "mitigation" by individual projects continues to be impractical and unnecessary. In addition to public transit infrastructure, transportation management plans (TMPs) and parking limitations provide the most significant traffic-related mitigation, and both are already required by Code.</i></p>	<p>14</p>
<p><i>Increase Densities Consistent with the Neighborhood Plan</i></p> <ul style="list-style-type: none"> • Increase maximum density to 20 in DOC-1, 16 in DOC-2 and 13 in DMC. Increase base FAR levels accordingly. 	<p><i>These densities are consistent with the Neighborhood Plan and are necessary to support Downtown's new mass-transit and transportation infrastructure.</i></p>	<p>15</p>

<p>Link Density to Infrastructure Corridors</p> <ul style="list-style-type: none"> Allow density increases within four blocks of high-capacity rail transit (light rail, monorail, streetcar). 	<p><i>This new infrastructure will provide the spines along which new development can grow.</i></p>		16
<p>Eliminate Minimum Parking Requirements</p> <ul style="list-style-type: none"> Eliminate minimum parking requirements. 	<p><i>Minimum parking requirements have already been eliminated for residential uses, and are unnecessary for office uses in some cases.</i></p>		17
<p>Restore the Short-term Parking Bonus</p> <ul style="list-style-type: none"> Restore the bonus for short-term parking in areas near retail shopping. 	<p><i>Like the retail bonus, this bonus was lost in 2001. Yet with the likely loss of many surface parking lots near the retail core in the future, there is more need than ever to preserve parking opportunities for Downtown shoppers.</i></p>		18
<p>Promote New Parking Garages</p> <ul style="list-style-type: none"> Increase maximum distance for off-site parking from 800' to 1600' Downtown. 	<p><i>This may help promote the construction of a limited number of new garages for Downtown parking.</i></p>		19

Promote Low-Income Housing

<p>Expand the Scope of Low-Income Housing Production</p> <ul style="list-style-type: none"> • Allow housing TDRs to be generated from sites outside Downtown but within the Center City. 	<p><i>Downtown land is too expensive to be the sole opportunity for low-income housing production. Nearby sites in the Center City will provide more low-income housing in locations still accessible to all critical services.</i></p>	<p>20</p>
<p>Allow the Housing Bonus Value to Reflect Market Conditions</p> <ul style="list-style-type: none"> • Allow the housing bonus value – which was set at the height of the boom market – to float to reflect market conditions. 	<p><i>This measure would not reduce the level of resources available to low-income housing, but help to ensure a steadier and more predictable flow of financial support.</i></p>	<p>21</p>

Make the Land Use Code More Understandable and Flexible

<p><i>Make the PCD (Planned Community Development) Tool More Flexible and Streamlined</i></p> <ul style="list-style-type: none"> • Allow PCDs in all Downtown zones. • Reduce minimum PCD area to 40,000 s.f. • Increase regulatory flexibility with PCDs beyond existing list of departures (to include height) and to provide flexibility under other codes (e.g., building, energy, etc.). • Allow administrative approval of PCDs. 	<p><i>Broadening the availability of this tool and streamlining its process will make it an attractive option for new and creative Downtown projects.</i></p>
<p><i>Make the Use of TDRs More Flexible</i></p> <ul style="list-style-type: none"> • Eliminate limits on TDRs within-block and between zones (in DOC-1, DOC-2 and DMC). • Allow transfers from low-income housing, landmark and open space sites of both base FAR and the opportunity to provide bonuses to the base FAR. • Allow transfer of unused base FAR from residential sites throughout downtown 	<p><i>Making the more flexible use of such TDRs available within limited portions of the bonus tiers will spur the production of low-income housing and other development. Providing the opportunity to build bonuses on low-income housing TDR will strongly promote the use of this important bonus.</i></p>

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Complete the Pike/Pine Corridor

<p><i>Adopt Zoning to Promote the Redevelopment of the "Missing Link" in the Pike/Pine Corridor.</i></p> <ul style="list-style-type: none">• Complete the originally-intended rezone of the two half-blocks between Pine and Union (east of 2d Avenue) to DMC, in order to promote redevelopment of key sites in this critical corridor between the Market and the retail core.	<p><i>The two half-blocks between Pine and Union (east of 2d Avenue) were originally planned and reviewed for DMC zoning in 1999 under the current Downtown Plan, but were not rezoned. Some zoning changes were made in 2001, but not enough to ensure redevelopment. Now is the time to complete the rezoning of these sites, since redevelopment is unlikely occur without such strong policy and Code support.</i></p>
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24

Gordon Clowers - Downtown height/density proposals

From: "Steve Mooney" <smooney27@hotmail.com>
To: <gordon.clowers@seattle.gov>
Date: 2/5/2004 5:44 PM
Subject: Downtown height/density proposals

I'm not sure if you're the right person to send written comments to regarding the downtown density proposal, but your name was on the website, so I figure you'd at least know whom to forward it to.

I write to comment in favor of increased residential density downtown. A denser downtown means a more lively downtown, less regional traffic, and a more sustainable region. I believe the market can best choose the ratio of offices to residential units and therefore support Alternative 1 most, followed by Alternative 3.

Thanks.

Steve Mooney
1800 Boylston Ave #204
Seattle, WA 98122



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Downtown DEIS / Height and Density Changes

WE WANT TO HEAR FROM YOU!

If you have comments about the Downtown Draft Environmental Impact Statement, please let us know:

I WOULD LIKE TO SUPPORT ALTERNATIVE #1,
WITH THE PROVISION THAT THE ADDITIONAL HEIGHT
BE USED ONLY FOR HOUSING & NOT ADDITIONAL
OFFICE DEVELOPMENT. MY INTEREST IS SPECIFICALLY
WITHIN THE DMC ZONE WHICH IS A TRANSITION
ZONE.

ALSO, WORK AT BULK FORMULAS THAT REWARD
SKINNY TOWERS & ROOF TOP OPEN SPACE, EVEN IF
PRIVATE.

1

2

(Optional)

Name TONY PUMA

Affiliation _____

Address 94 PIKE ST. #39 Zip 98101

E-mail _____ Day phone 617.7862

Return this form to:

Gordon Clowers • Department of Planning and Development • 700 5th Avenue, Suite 2000
PO Box 34019 • Seattle, WA 98124-4019
Fax (206) 233-7883 • E-mail gordon.clowers@seattle.gov

GREGORY BRODERICK SMITH
REAL ESTATE

January 30, 2004



Dennis Meier
Department of Planning & Development
City of Seattle
700 Fifth Avenue, Suite 2000
Seattle, Washington 98104-5070

Re: Downtown Height and Density Changes EIS

Dear Mr. Meier:

We are writing to provide comments on the Downtown Height and Density Changes Draft Environmental Impact Statement (the "EIS").

1. We endorse the suggestion in the EIS that new incentives, like height bonuses, be used to promote the development of slender residential buildings Downtown (page 3-102). We suggest that the Final EIS consider specific incentives for slender residential buildings, such as:
 - A 40% height bonus for buildings with residential floors not greater than 10,000 square feet.
 - The ability to transfer unused commercial FAR from residential sites that use small floorplates.
 - Elimination of upper-level setbacks and coverage limitations for slender residential buildings.
 - These incentives should be applied in all zones throughout the Downtown.
2. The Final EIS should review alternatives for transitional height increases for the perimeter of the DRC zone, where it borders zones of greater height and density.
3. We encourage the City to take a broader look at the overall Center City, and examine new development alternatives for areas, like the South Downtown, that are likely to attract much new development in the next decade.

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We appreciate the opportunity to provide these comments.

Sincerely,

GREGORY BRODERICK SMITH REAL ESTATE

Greg Smith
Chief Executive Officer

810 THIRD AVENUE
SEATTLE, WA 98104-1620
MAIN 206.262.2880
FAX 206.262.2889

Gordon Clowers - My Comments about Building Great Downtown Neighborhoods Public Forum

From: "John Smith" <johnsmith1022@hotmail.com>
To: <gordon.clowers@seattle.gov>
Date: 2/26/2004 2:21 PM
Subject: My Comments about Building Great Downtown Neighborhoods Public Forum

Dear Mr Clowers

I work in the S Lake Union area and go through the Belltown area N of Pike Place market daily.

DCLU or whatever their new name is should be ashamed of itself for permitting the developers to rape and ravage the land so badly. The supermassive, tall buildings near Western, south of Mercer and the abomination coming up on Thomas and Minor should never be approved. Over development is not a good thing except for the developer and DCLU.

Overcourse developers have to develop and DCLU has to "support" it's customers so there's a lot of justifying each others' existence and conflict of interest there.

A developer puts up an abomination then moves on. He does not have to stand in it's shadows everyday (because the dang thing blocks out all the sun/daylight. He just rapes the land then moves on to the next victim (opps, I meant "project.")

JS

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Gordon Clowers

Land Use Planner

Dept. Planning & Development

City of Seattle

Feb. 27 2004

Atten. Downtown Seattle Draft EIS

There doesn't appear to be any Cumulative Effects analysis. It might analyze say, travel times at key intersections during peak hours at levels of predicted service when one or more lanes are closed for months at a time when a new development has its construction equipment on-site and construction is in progress. A concern under this scenario might be violations of the Clean Air Act. Which reminds me -- -- why wasn't there a Air analysis included in the Draft EIS ? City air isn't exactly the cleanest air and I'd appreciate to know just how bad the air's going to be getting in yearly increments as well as under worst case day scenarios. I walk everyday.

I want to express my disappointment at not finding any analysis for environmental health issues ... NOISE, TOXIC/HAZARDOUS MATERIALS, and RISK EXPOSURE.. I'd be grateful if I could be given that data. This is another area where a Cumulative Effects Analysis could provide useful information for a "livability index

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I would like to request an analysis of the current City-owned street - lighting system under a light & glare study. I hear the poles we use today are a glare and shadow hazard for both pedestrians and motor vehicle operators and that there are better street light systems than ours.

4

I'm not too happy about seeing the dire forecast for any public open space. Isn't there a requirement from the City's Comp Plan for Public Open Space? I hope the Open Space TDR idea gets put in the winning alternative. I understand trees, shrubs, grasses can actually help clean the air. If we're adding thousands of new jobs and thousands of residents, I'd like to think that the city can do better than 1.8 -2.2 acres for new designated park open space.!

5

Could you include a section for how deferred issues that were raised by the public and/or regulatory agencies will be addressed and describe the proposed temporal and spatial scales that will be used analyzing these issues. I think the traditional EIS process and expected results of any mitigation is a "one-time event " (i.e., results from intensive research, modeling, and other computations or expert opinions are analyzed, the analysis of potential environmental impacts is prepared, mitigation measures are identified, and a document is released for public review). Unfortunately, this process does not account for unanticipated changes in environmental conditions, inaccurate predictions, or subsequent information that might affect the original environmental protections. Is this how the City see s it's itself moving "Toward a Sustainable Seattle" Will there be performance measures to monitor the predicted success expected and to validate this success of the winning alternative that gets put into Code language ?

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I favor a necessary review for the Bonus Credit \$ value that developers have to pay to buy extra square footage. This review should be codified and done every 3-5 years or else tie it to a growth yearly index .

7

I'm more than a little worried about the transitional boundary and the bulk and mass differential between two vastly differently scaled neighborhoods. This pertains especially to the Denny Triangle and the Cascade neighborhoods. How will the City be dealing with this dilemma? Re-reading some of the mitigation strategies of Height/Bulk/Scale in section C, page 102, leads me to believe, some of these will be necessary to accomplish a compatible relationship to the natural environment , existing buildings, and proposed buildings and the streetscape. I'd be appreciative if the City could control bulk to a reasonable extent. I 'd like to see taller, more slender buildings.

8

Thanks

Scott Species
1814 Minor Ave. # 202
Seattle, WA. 98101

3

CLISE PROPERTIES, INC.



PROPERTY MANAGEMENT
REAL ESTATE DEVELOPMENT

Diane Sugimura, Director
Department of Planning & Development
City of Seattle
700 Fifth Avenue, Suite 2000
Seattle, Washington 98104-5070

DEPARTMENT OF DESIGN
CONSTRUCTION AND LAND USE

FEB 27 2004

RECEIVED

Re: Downtown Height and Density Changes EIS

Dear Ms. Sugimura:

We are writing to provide comments on the Downtown Height and Density Changes Draft Environmental Impact Statement (the "EIS").

It is critical that the commercial nature of the Downtown Office Core 2 ("DOC-2") and Downtown Mixed Commercial ("DMC") zones be preserved for the expansion of Downtown's commercial core. The DOC-2 zone needs to provide for the future capability of headquarters type users like Nordstrom and Washington Mutual. The DMC zone needs increased height and density as an adjunct to the DOC-2 zones.

Proposal

1. **Height.** Allow for increases in maximum height in DOC-2 zones up to 650 feet, and in DMC-240 zones up to 400 feet. These height increases could be area-wide.
2. **Density.** Provide for increases in allowable density as follows:

<i>Zone</i>	<i>EIS Alternative 1</i>	<i>New Proposal</i>
DOC-2	13-14 FAR maximum	16 FAR maximum
DMC	10 FAR maximum	13 FAR maximum

Again, these proposed density increases could be area-wide or could focus on localized sites within each zoning designation area. Increased densities will help to attract thousands of new jobs to Downtown Seattle.

3. Provide for the ability to transfer commercial development rights within the DMC and DOC-2 zones. This important part of the Denny Triangle Neighborhood Plan will help create open space and housing.

4. **New Bonuses.** By increasing the maximum FAR, new bonus tiers could be created. This additional FAR bonus value could be allocated to a range of important public benefits, including low-income housing, open space and neighborhood amenities. 3
5. **Building Design.** Eliminate restrictive building regulations, such as upper-level setbacks and coverage limitations. These regulations, which predate the City's Downtown design review process by a decade, promote uniformity in the massing of Downtown buildings. The design review process tends to foster improved and imaginative design, and provides more flexibility than the current Code. 4

Benefits

The potential benefits of these proposals will be significant for the Downtown, for Seattle as a whole and for the region in general. These benefits include:

- Increased employment production Downtown;
- Promotion of new residential development;
- More efficient use of existing and proposed mass transit options;
- Greater production of low-income housing;
- Provision of more open space Downtown;
- Enhanced building design;
- Increased tax revenue;
- Optimal use of new infrastructure, including several billion dollars in high-capacity transportation improvements Downtown. 5

In conclusion we ask that the Department of Planning and development take quick action in processing the DEIS and the resulting legislation. We believe it is critical to Seattle's future economic viability as well as the city's livability that these common sense changes be made to reflect our new urban vision of the city

Sincerely,



Richard H. Stevenson
President and COO

The Power to Change
The Power to Build

January 20, 2004

City of Seattle
Department of Planning and Development
700 Fifth Avenue, Suite 2000
Seattle, Washington 98104



Attention: Diane Sugimura, Dennis Meier

Subject: Downtown Height and Density Changes DEIS

Dear Diane and Dennis:

During the preparation of the Downtown Urban Center Plan, the urban village neighborhoods and the Downtown Urban Center Planning Group worked diligently with city staff to envision how downtown could continue to sustain its growth as the pre-eminent urban center for the region. At the same time, the citizen and professional planners wanted to ensure that downtown would also become a fabric of communities accommodating diverse interests, values, and needs. The underlying framework of land use policies and regulations controlling private investment throughout Seattle is very complex, and for downtown, this complexity can be burdensome to everyone involved in the design and development of projects, whether commercial or residential. The 2001 amendments to the bonus and TDR code provisions were a welcome start to the daunting task of addressing this complexity.

The current prospect of changing downtown height and density provisions of the code is another building block of what many hope will be a continually evolving process. The DEIS provides a valuable snapshot of conditions ranging through all of the usual environmental "elements", and also the important factors of real estate economics and pedestrian amenities. The market's response to public regulations over a long time period is very difficult to parse. So, the DEIS helps us to understand the relationships between the variables and how they may combine to form the "big picture".

The analysis indicates that there are few major differences between the alternatives. It appears the most significant choice is between in the degree of scale between the office orientation of the "High End" Alternative 1 and the "Residential Emphasis" of Alternative 3. Probably the most alarming of the few "significant unavoidable adverse impacts" revealed is the decline of public open space, per capita, under all alternatives.

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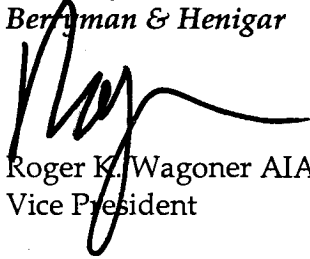
So, while the DEIS provides an excellent source of information regarding current and possible future conditions in the downtown, it leaves the decision-makers with an important question: *No matter which of the alternatives is selected, how will the City proceed with needed changes to land use, transportation, design, public services, and other investment strategies, policies, and regulations in order to foster the quality of community development to which we aspire?*

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I hope that the FEIS will be more assertive in identifying a "preferred alternative" that includes a strategic approach to linking the regulation of private development with public investment and community development funding so that the downtown can grow, but in such a way that the neighborhoods will also continue to be replenished.

2

Sincerely,
Berryman & Henigar



Roger K. Wagoner AIA, FAICP
Vice President

GORDON CLOWERS - IWALL COMMENTS DEIS DOWNTOWN ZONING

From: "irene wall" <iwall@serv.net>
To: <Dennis.Meier@seattle.gov>
Date: 2/29/2004 11:03 PM
Subject: IWall comments DEIS Downtown Zoning
CC: "Tom Rasmussen" <Tom.Rasmussen@seattle.gov>, "David Della" <David.Della@Seattle.gov>, "Jean Godden" <Jean.Godden@seattle.gov>, "Jan Drago" <jan.drago@seattle.gov>, "Jim Compton" <Jim.Compton@seattle.gov>, "Nick Licata" <nick.licata@seattle.gov>, "Peter Steinbrueck" <peter.steinbrueck@seattle.gov>, "Richard Conlin" <richard.conlin@seattle.gov>, "Richard McIver" <richard.mciver@seattle.gov>

I R E N E W A L L

February 29, 2004

Mr. Dennis Meier
City of Seattle Department of Planning and Development
700 Fifth Avenue, Suite 2000
Seattle, WA 98104-5070

Re: Comments on DEIS for Downtown Height and Density Changes

Dear Dennis:

The *bulk and scale* of the DEIS itself portends the "supersizing" of downtown Seattle envisioned under Alternative 1 yet the final EIS should expand to include analysis of other alternatives to achieve the underlying goals leading to these proposals. Additionally the final EIS should clarify what those underlying goals are and what the public interest is in achieving them. Given that the projected employment and housing growth targets can be met under Alternative 4 (existing zoning), what is compelling a reconsideration of downtown zoning at this time? In other words, what is the purpose and need for the proposal and what public benefits will result?

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The final EIS should address the overall capacity of development in downtown in light of proposed amendments to Seattle's Comprehensive Plan to incorporate the WOSCA site and South Lake Union (SLU) into the downtown urban center and to change land uses in the Interbay area. According to the December 2003 report by the Seattle Office of Policy and Management, SLU alone is expected to accommodate 23,000 new jobs and 11,000 new housing units. These represent a significant percentage of the total goals for downtown. What need is there for additional height and density incentives in any other areas downtown under these circumstances?

2

The FEIS should also address how simultaneous growth in SLU and other areas downtown will affect the need for capital investment in electrical substations and transmission/distribution facilities. The DEIS states that a new substation to serve downtown is needed by 2012. Will this be the new SLU substation or will the projected growth require more than one new substation to serve downtown?

3

Please clarify the net loss of off-street parking spaces under the alternatives and whether or not there is sufficient transit capacity and routes to meet the demand for displaced cars. Are current development regulations sufficient to prevent the first floors of new buildings from becoming garages rather than below grade parking?

4

The DEIS identifies many important and unresolved issues of public policy for managing growth in Seattle. The relationship between downtown growth and meeting growth (jobs and housing) goals in other areas of the city needs to be considered. There are many under performing areas of Seattle, particularly in the East/Central, Southwest and Southeast sectors. The FEIS should consider an alternative which provides height and density increases for downtown properties in exchange for developer investment in urban villages outside downtown which are not meeting their employment and housing goals under the

5

Comprehensive Plan. This way the engine of downtown development is harnessed for citywide benefits.

5

Similarly, the FEIS should identify an alternative which links the proposed height and FAR increases to the provision of needed amenities such as significant parcels of downtown open space or accommodating monorail stations within the footprint of new developments.

6

The proposed broad upzones contemplated, particularly Alternative 1, will constitute a major grant of increased value/wealth to owners of downtown parcels. At the same time, the DEIS identifies many issues and goals related to "livability" and "quality of life" impacts which come with increased density. The mechanism of a contract rezone provides for a balancing of benefits between private development interests and the public realm. The FEIS should include an alternative, which evaluates the use of contract rezones as a means of securing public benefits in proportion to the value of the increased development capacity. If the overall goal of these proposals is to jumpstart further economic activity downtown, contract rezones have the additional benefit of providing more certainty that the development activity will occur within a specific timeframe.

7

The DEIS provides an interesting timeline from 1999 of increasing TDR, TDC and outright zoning changes which were provided as an incentive to housing development downtown, yet the Denny Triangle area has only achieved 8% of its targeted 20 year growth in housing since 1994 despite having huge opportunities for mixed commercial and housing development. That history suggests that zoning incentives are insignificant motivators compared to market forces and calls into question the necessity of any such upzones to achieve housing production goals. It may make more sense to downzone areas in the Regrade to produce "human scale" buildings and brownstone style developments and use deferred property taxes to provide incentives for moderate income housing in that area if necessary. These upzones appear to be too crude an instrument to secure the variety of development desired downtown including housing for families, and the types of institutional and recreation uses which families with children need.

8

The Final EIS should provide more analysis of the costs/benefit of the proposals, including an estimate of the private economic value of the increased development capacity provided under these rezone scenarios and new revenue to the city resulting from the increased development capacity as well as the cost in public infrastructure for the alternatives. This cost/benefit analysis will inform discussion of implementing development impact fees in Seattle, an item on the work agenda for the Department of Planning and Development.

9

General Comments:

The view protection chapter suggests that eliminating SEPA view protection entirely from downtown development as a possible mitigation. I entirely disagree with this approach! Instead the long delayed DCLU work program to finish the SEPA view protection study begun in 2001 should be completed and specific protections for views of the skyline and natural features should be instigated for conditioning MUPs and for possible downzones. All of the view impact mitigation identified on page 3-146 and 3-147 should be implemented. Similarly the long delayed review of street and alley vacation policies should be completed before any more alley or street vacations are granted.

10

Some of the figures in the Appendix K are missing from the PDF files posted on the website. This should be corrected.

The notion that the proposed FAR and height changes will result in "Vancouver style" development has been debunked in the DEIS but need to be made explicit in the Final EIS because public officials are still suggesting in public comments that skinny towers with lots of open space will result from these changes. This appears to be entirely false.

11

These rezones should be conditioned to protect existing low income housing from being lost to redevelopment, particularly where there is a history of public subsidy of these rental units.

12

Thank you for the opportunity to comment on this DEIS which is a very informative and provocative document.

Sincerely,

Irene Wall

c: City Council

Gordon Clowers - Feedback on Downtown Development: Studying Possible Changes

From: "David Williams" <dfw23@hotmail.com>
To: <gordon.clowers@seattle.gov>
Date: 1/23/2004 11:33 AM
Subject: Feedback on Downtown Development: Studying Possible Changes

Hi Gordon, the web page at <http://www.seattle.gov/DCLU/Planning/Commdev/Downtown/default.asp> doesn't make it clear who we should contact with our input on the Downtown Development Studying Possible Changes to Height and Density Limits. Please forward my input to the appropriate person.

My Input: I support taller narrower residential towers in some or all of the downtown neighborhoods as a way to prevent the building of more broad and squat buildings and to increase residential density downtown. I support changes that will make the downtown neighborhoods more liveable.

1

Thanks,
David Williams
316 11th Ave E
Seattle, WA 98102
206-329-2009

Appendix A

Transcripts of Two Public Meetings and Responses to Comments

APPENDIX A – TRANSCRIPT OF TWO PUBLIC MEETINGS

Downtown Height and Density Draft Environmental Impact Statement Public Hearing Comments – December 15th, 2003

TESTIMONY

Richard Stevenson

I'm Richard Stevenson from Clise Properties, and we've been a part of the Denny Triangle and the Denny Triangle neighborhood for a long time. Specifically, I think Alternative 1 doesn't go far enough. The Downtown Core is the economic engine of Seattle. It's the best thing that we can do for our tax base. It's the best thing we can do for our environment, by creating jobs and housing closer to one area and have people like John who can walk to work, if you so choose. And we're also spending \$7 billion on public transportation which is all aimed at having public transportation move people in and out of the city, create jobs and homes in a dense area. And, you know, that has been sort of the long term goal of the City, to have this growth in the dense area.

But the reality of what's happened is in the last 6-7 years over 50% of the commercial office space has been in the Downtown or near-Downtown area, has been outside of the Downtown area. And the reason it's done that is for economics. You can build less expensive buildings that are smaller, that have as much parking as they want, and that may be fine for some neighborhoods and it may be great for the City. But, by inducing growth and development elsewhere, we aren't creating affordable housing, we aren't capitalizing on the public infrastructure, that we need, and we aren't, in my opinion, taking advantage of the best history of what Seattle and the future has to offer. The intent of the Denny Triangle Neighborhood Plan is to increase heights and densities so that we can have commercial office space moved around within a site, we can have the space that it was moved from, either for housing or for open space. When we created 1707 Seventh, we took commercial office space, moved it across an alley, and created 65 units of affordable housing. While doing that, we also left view corridors.

The other thing that I don't think the EIS addresses is the issue of upper level setbacks and the prescriptive code. Some of our newest and best buildings in Downtown Seattle are going to be the new Federal Courthouse, the public library, the new municipal campus, and none of those are written under the prescriptive code. That code says that when you go up a certain height you have to step the building back in,

and so you end up with all of these wedding cake looking buildings, which won't allow taller, thinner buildings, won't allow great architects to get together with developers and create interesting buildings that would then go before Design Review. And instead of having a specific descriptive code of how these setbacks should be created, we need to have a larger guideline of "what is good design" and "what's good for neighborhoods" so we aren't building these short fat towers that block views and squander land and don't create affordable housing.

So, to my way of thinking, any kind of a downzone is a horrible mistake. We need to have height limits which probably should exceed [Alternative] #1. I think that in order to incentivize commercial development in areas where we want it, you need to have an incentive. Currently, we would pay about \$23 a foot for about 60% of any commercial office building and that would go in the form of housing or TDRs. And that's fine. But if you're building outside of the Downtown core, you aren't paying for any of that. So you have expensive buildings on expensive land, with 60% of it paying about a 10% surcharge to build the space. And I would just suggest that, you know, they don't "pencil" when it comes to designing and building a building, and then having someone pay rent that will support that kind of expense. So we need to incentivize commercial development that—a byproduct of that commercial development is high-rise housing that may be market. It will also most definitely be affordable housing, and I think that middle strata, you know, which is pretty elusive, is workforce housing and that will come along with it. Thank you.

Lyn Krizanich

I am Lyn Krizanich. I'm from the Denny Triangle. I'm here tonight in place of Dana Bollinger, our current president. She couldn't be with us tonight, so I'm speaking on behalf of her, and of course our entire neighborhood association.

The Plan was completed in '98, the City Council approved it in 1999. Our Plan adopted the City of Seattle's targets of accommodating 23,000 new jobs and about 3,800 new residential units by the year 2014. In order to achieve these goals, our plan, our main priority, top priority was then and is now increasing height and density in order to encourage commercial development, leverage that development to create housing, and particularly for all income levels, but most especially for the low moderate and affordable housing where we have a large gap. The Denny Triangle Plan also called for reducing or relaxing upper level setback requirements.

As you know, we've waited a long time for a plan to be implemented. In 2001, the Downtown TDR and Bonus program was amended as Phase One in the step toward implementing the DUCPG or Downtown Plan and the Denny Triangle Plan. We've waited two years for Phase Two, which is increasing the height and density. Unfortunately, in the interim we not only missed the opportunities during a good strong economic cycle, but by having only those amendments to the Bonus and TDR provisions as Phase 1, it actually served as a disincentive to development.

So the Draft EIS Alternative #1 is a composite plan. It doesn't clearly represent the Denny Triangle or the DUCPG Plan. So we suggest that the EIS consider increasing height and density incentives outlined in Alternative #1 to produce significant quantities of new low-income housing Downtown and to accommodate more jobs. Current height and density restrictions restrict opportunities for additional housing and open space opportunities as well. Another reason for the EIS to investigate greater height and density is to make better use of the investments in mass transit, as Richard talked about, that are happening throughout the Downtown. The EIS should address the need for greater design flexibility, and again I'd like to echo on those comments that the current setback requirements have added unnecessary cost and created the blocky, thick look-alike buildings. In summary, the EIS should honor the neighborhood planning process, and we'd like to get prepared for the next economic cycle so the Denny Triangle can help bring new jobs and residents to Downtown.

Catherine Stanford

Hi, I'm Catherine Stanford and I am currently the chair of the Downtown District Council which represents the five neighborhoods that make up Downtown, and am also – have taken over the stewardship responsibilities of the Downtown Urban Center Plan, which process I also chaired. We really appreciate the opportunity to be able to comment tonight and also appreciate the fact that we are moving forward with this. I won't go into detailed history in the three minutes or so, but I do want to say that it was really in 1997 that we started to identify the issues that led to our land use proposal. And our land use proposal was really the cornerstone of our plan and our planning process. And that's one thing that I would really encourage in looking at the EIS also is, in thinking about these things, that they form a comprehensive whole. We can't talk about downzoning or changing land use in one area without taking a hard look at what impact that might have in another part of the plan. We, as Lyn mentioned, we went to the City Council and the Plan was adopted in 1999. And the Plan was really linked to accepting the Comp Plan

targets, and not only "accepting" but I would say "embracing," because it was a consensus that we built Downtown in looking at the Comp Plan growth targets particularly jobs and housing, and saying the Downtown is the area to accept those kinds of growth targets. And looking at that also, hopefully that would kind of work to support some of the outlying neighborhoods who didn't want that kind of density in their neighborhoods. The vision was again to accept it, it was the cornerstone of our Plan.

And really one of the things that we talked about was "Downtown is for everybody" and that's how we got to the low-moderate housing. There were a number of studies that we did that showed that there was funding for the kind of very low housing that was available, and that the market rate would take care of itself. And the critical piece is really for the "low and moderate" housing or the "working" housing. We do want to make a couple comments in that context, that a number of us were disappointed that the EIS, although it was identified as Alternative 1, was that the DUCPG Plan – that it didn't specifically include all of the elements of the Plan as it was proposed. And it certainly wasn't the intent to have the level of height that is shown along First Avenue in particular. And as Lyn mentioned, at the time the Plan was accepted by the City Council and then in 2001, Phase One was adopted with the understanding that Phase Two would come in a timely manner after that. Also as Lyn and Rich had mentioned, by not implementing Phase Two – that acted as a disincentive to developers. They really needed – again this is a comprehensive whole we were looking at with this, and all the pieces tie together. One of the things we talked about in the planning was that in order to meet these growth targets to fund low-moderate housing, that's 50-80% of median income, and to have quality development, we needed to attract quality developers and developments to the Downtown. And certainly, developers have a lot of other choices of places to go other than the Downtown area. And we wanted to make sure that they came to Downtown, that they were welcomed down here and even talked about "let's market Downtown as a great place to come and make developments." So, certainly with having disincentives of either downzoning or in the disincentive of not passing the Phase Two immediately, I don't think that particularly encourages development in the Downtown core. I encourage you to move forward with this process. I know that there are some other thoughts about some other things that we might do. But I think that let's move forward with this and get some zoning and changes in place so that we can start looking perhaps at other areas or other zoning or land use changes.

And John, I appreciate your comments about looking at the Center City. I think as you know and many of you in the room know, the

Downtown District Council has hosted forums over the last two or three years that brought the Center City neighborhoods together, and we certainly recognize as we did with the five neighborhoods during the Downtown planning process, that we have some real similarities with our needs, and looking at this as more "the urban center as an extended area." So I appreciate that that's part of the next steps to look at that. But I encourage you to move forward with this.

John Rahaim: Could I ask you just one clarification question? You said that you didn't anticipate – the DUCPG plan didn't anticipate – the height along 1st Avenue. Do you mean that the Alternative is showing a height that is too tall or too low on the waterfront?

Catherine Stanford: It was higher than what we had proposed for First Avenue.

Rahaim: You proposed a lower height than what Alternative 1 is showing?

Stanford: Right.

Rahaim: Thank you.

Kate Joncas

I'm Kate Joncas, president of the Downtown Seattle Association. We do not believe that the alternatives in this EIS went far enough to meet what was our neighborhood plan vision for high-quality dense neighborhoods in the future with jobs and housing appropriate to each neighborhood's needs and wants. We just don't think this went far enough to what our vision was when we were doing this. There have been significant changes since we started talking about this in 1997. I just went back to look and it has been since 1997 since we've been talking about this. And it's a completely different Downtown and I think that the community – not only Downtown but the community – has a different vision I think of what Downtown could be. And this reflects what we knew in 1997. You know, we're very supportive of that neighborhood plan, participated in it very strongly, with its priority for housing and jobs growth. We really wanted to have a plan that would help us concentrate regional growth in Downtown to prevent sprawl, to make it more attractive to develop in Downtown than in Bothell. And we don't think this DEIS goes far enough in helping us to do that in this environment that we have right now.

Think of what's happened. We weren't even thinking about biotech in South Lake Union then, we weren't thinking about the visions that we have seen about South Downtown and Pioneer Square and South Pioneer Square. We've had a lot of discussions with the community about learning from Vancouver. We talked about Vancouver a lot in our planning process. That was our model, in terms particularly in housing growth, much more dense than we are. And now the whole community has been talking about that. And the billions of dollars in transit that were beginning to be talked about then. So this is really a different environment. I think we need to think about "are we doing the kind of changes now to maximize all these opportunities that are happening, and into this different kind of environment?"

In reading the DEIS, actually I have to say, from our point of view of doing the neighborhood plan, it was very concerning to see density equated with a poor pedestrian environment. To make conclusions that if you increase density in the Denny Triangle, which was specified as "bulk," that would result in a lower quality pedestrian environment. That's clearly not what we were thinking about in our neighborhood planning process. We had a lot of discussions about "what are the best cities that you go to where you have a great pedestrian environment?" And we would think of London, and we'd think of San Francisco, and we'd think of Paris and we'd think of Vancouver, clearly much more dense cities than we [are]. So from our neighborhood planning view, density is absolutely equated with a much higher quality pedestrian environment. So we want to have that pushed back into the plan.

And Gordon, I know you were talking technically, but I can't tell you how difficult it was to hear you say that the "worst case maximum growth." To us that's the best case, we were absolutely looking - and I know that's a technical term in the plan - but to us that's the best case and not the worst case. So we have to be careful about how we talk about that.

Finally, in moving forward for this, a couple of things that we would like to discuss with you, and work into how we go forward. Let's take another look at the options presented. Do these recommendations really take us where we want to go in terms of the quality Downtown environment that we want for the future? Second, we want to continue to link job growth to affordable housing. We spent a couple of years talking about ways to get more affordable housing in Downtown, and we don't have a lot of incentives, we don't have TIFs, we can't make loans. But one way to do it is to allow developers to buy height, and put all that into a fund for affordable housing. We need thousands of units more affordable housing. So we need to link that to job growth,

and we want to continue that strong link in the plan. That's a really easy way, easier than others, to get that housing and we really need it.

And then last, I'd really like to move from reactive in planning, although I know that is part of the EIS structure, to proactive. Let's not talk about what growth we think is coming or that we expect, let's talk about what growth we want, and where we want to be, and "how do we use this tool that we have to get from here to there?" To have the kind of – not like [the growth] we think we're going to get or have to accept, but where do we want to be, and what we want it to look like. So, thanks for the opportunity to talk.

Jim Ferris

I'm Jim Ferris and I'm the executive director of the Housing Resources Group. We're a non-profit affordable housing organization that has been working in the Downtown neighborhoods since 1980. We have been very fortunate to have been using the TDR and housing bonus program over that time period, to serve the Downtown community with affordable workforce housing. Approximately 75-80% of the residents that live in HRG's buildings work Downtown, so they walk to work or they take the bus and get to their jobs. And we believe that that housing strategy has been really important to not only creating neighborhoods Downtown, but also creating a synergy between commercial development and residential development, and how those two are really inextricably tied.

I was just tallying up – I was trying to determine how many different affordable housing projects that we have been involved with that have used the program. We've actually used the TDR program five times, and probably one of the more notable TDR transactions that occurred is the Eagles Auditorium, where HRG and ACT Theater are actually – would coexist in the same building. And without the TDR program, that would not have been possible. We have recently completed two new-construction affordable housing projects in the Downtown, one in the Denny Triangle, in a neighborhood that was very embracing of affordable housing, as well as in the retail core, at the corner of Third and Pine. The project is known as the Gilmore. And that really talks about having synergy of affordable housing near jobs, and as soon as that project was completed, it only took as many times as we could schedule move-ins and using the elevator to get families and individuals into that apartment building. So, people want to live Downtown and people with lower-income jobs want to live Downtown as well.

So, we really see that the opportunity right now to do more now is evident. I would say that with the Gilmore project, the challenge that we have had, and the city has been very helpful in doing this, is that we have not been able to find a commercial development that is willing to buy our housing bonus that we have generated from that site, because of the lack of moving forward on this plan. We have been looking for a commercial developer for over 3.5 years, but until this program has been defined and implemented, many commercial developers, and especially office buildings in the Downtown neighborhoods, were unwilling to move forward until they saw that there was an incentive for them to actually create the office development and the retail development and the hotel development that would actually have an opportunity to purchase that housing bonus.

So, I would ask you to reconsider the alternatives, and I reiterate really what both Lyn and Kate have said that, Alternative 1 doesn't really get to the original Downtown Plan or the advisory committee's role, in which I participated. And I'd actually ask DPD to consider as we look at whatever alternative will move forward, is that we actually commit to doing that in 2004. That I think time is wasting, and that commercial development is still going to sit on the sidelines until this program has been defined, and I think we're losing the opportunity to create more jobs and more affordable housing Downtown until this program is actually implemented. So, thank you.

Joe Quintana

I'm Joe Quintana. I reside at 2053 41st Avenue East in Seattle. First, I want to thank the Mayor and the Department for actually bringing this up and finally getting underway with this. It's over-needed. And, one suggestion for improvement is that the EIS discuss the need and impacts in a larger context. Right now it's confined to the study area. And yet, it does not recognize under growth management or under just our own common sense, the unique role that Seattle plays under growth management in the entire region in terms of its jobs, housing and other development goals. In that discussion, I think you should consider a number of things. One is that the Growth Management Act and the other policies since then have always reflected the reality that it's either "you grow up or you grow out." And if we do not grow up in Downtown Seattle, given its unique place, we will grow out, increasing sprawl, increasing the environmental degradation, decreasing the effectiveness of mass transit, and lessening of opportunities for affordable housing for those that can't - don't have mass transit capabilities in particular.

On the flip side of that, I think that the EIS should discuss the context for why this is even being proposed. It basically says that it is, but it doesn't say it is being proposed for these reasons. And those would be the benefits, some of which I've outlined and others that exist that you're well aware of. Frankly, I think it should also discuss the various planning processes, rather than just enumerate them, discuss the various planning processes. How they occurred, including the neighborhood planning processes, like the much-referred-to Denny Triangle planning process, and the blood, sweat and tears that went into their development and why they should be honored.

And additionally, I think it should discuss the impacts - I know you can't go and study the whole thing - but just discuss the potential impacts outside the Downtown area, particularly on the neighborhood character of other neighborhoods in Seattle, if in fact height and density were not increased Downtown.

On another point, the density transfer of development credits [TDC], if there was a role of change. Frankly, as I read it, the assumptions in the DEIS are extremely liberal. At a very minimum, the "would" increase capacity by X number of units in Alternatives 2, 3 and 4 should at a minimum be "could" since experience to date suggests that number may well be zero. And, if the developers I know and talk to perhaps are right, it will be zero, that there's just not going to be any takers. And it's assumed that they will in fact be somewhere near that capacity, or it appears to be, as currently written. When in fact they may not realize that, and if not, then Alternative 1 looks less-has less impacts in terms of the affordable housing question, because almost all of the additional housing in [Alternatives] 2, 3 and 4 are a result of the TDC program as I read it, and beyond in some cases. So those are some of the specific comments. Lastly - it's not lastly since I wrote some other things - is the need for greater design flexibility. I don't know if the DEIS can specifically cover it, but it's certainly disgusting, because - ugly and expensive really shouldn't be an option, which is sort of what we are getting right now. And from the work of a number of us, we know that Design Review is a superior regulatory framework for this sort of activity.

And then lastly, I would say the mandatory mixed-use housing really is unnecessary, won't work, really hasn't worked in the areas where it's been tried. You know, we've had all sorts of Murphy's Law of unintended consequences, as I know the Department is well aware of. And so, trying to force it in an area like the Downtown area, with its unique role in job growth, and the ability, the proven ability in some areas already, through TDRs and other things to, you know, have

affordable housing, trying to force it you could very well visit those unintended consequences once again. So, thank you very much.

Adrienne Quinn

Thank you for the opportunity to present testimony tonight. My name is Adrienne Quinn. And I also wanted to thank City staff, in particular Gordon Clowers and Dennis Meier for several years of very hard work on this EIS. I know it was a monumental undertaking and many of us having been waiting for this whole process to conclude as much as seven years. So, we're looking forward to our neighborhood plans being implemented. I want to talk about two things. First, I wanted to put my comments in context and secondly I wanted to make three or four points about the EIS itself. First, I was the chair of the land use committee for the Downtown Urban Center Planning Group and as you probably know the Downtown Urban Center Planning Group was a coalition of all five Downtown neighborhoods. And the purpose of this was to make sure that all the five Downtown plans were coordinated, to make sure that we didn't have conflicts on borders and things like that. And so it was in that context that we developed our plan. That's why it is with some disappointment that I see comments in the EIS about impacts on Belltown from Downtown height and density increases. Because in the DUCPG plan we had a lot of provisions and a lot of thought went into making sure we didn't have those kinds of conflicts.

Secondly, the DUCPG plan was also done in the context of Growth Management Act and all of the Comprehensive Plan for Seattle. And so for that reason, I think it is very important that the EIS be amended for the Final EIS in the following way. I think that one of the primary things that is missing is a discussion about how these changes to the Downtown would affect all of comprehensive planning and all of growth in all of Seattle. Because you can't just look at the Downtown plan in isolation. So, for example, if Downtown is able to take on more development and the incentives are in the right place to take on more development, does that release pressure on other neighborhoods so that we can maintain the character of single-family neighborhoods throughout Seattle? Otherwise what we experience is lots being divided smaller and smaller, pressure to develop critical areas, and if we're able to have that housing and job growth Downtown, then we will fully implement the purposes of the Growth Management Act. Also, with regard to commercial development, if we don't have incentives to have commercial development in Downtown: we see what happened in Fremont for example, where we have several large structures along the – such as the Adobe buildings there – where we don't have the infrastructure to take care of commercial uses there, we don't have the

transportation, we don't have the other infrastructure, but we've created incentives to do very large commercial development outside of the Downtown core, and does that fit within the larger Downtown Seattle Comprehensive Plan? Another point that I think that you should consider and should be changed for the Final Environmental Impact Statement is building on some of the comments that John made at the beginning. I recognize this EIS was begun quite awhile ago, but since that time Sound Transit has received its funding, Monorail is moving forward, the Streetcar has gotten partial funding. So I don't think that the statements in the EIS currently that say automatically there is going to be adverse traffic impacts, still hold value. I think there needs to be a supplemental analysis in the Environmental Impact Statement to talk about Sound Transit, Monorail, Streetcar. Because if all of those transportation systems are put in place, then it is far more appropriate to have even a higher level of density Downtown, and we will not have those adverse impacts. And this again goes to my first point, which is it relieves impacts on other neighborhoods.

A third point I'd like to make is, right now, because only half of this plan has gone into effect, we are not seeing much development in terms of the 50-80% for low-income housing. Right now under the housing levy dollars, 50-80% levy dollars can only be used outside of Downtown because it was thought that the bonus and TDR money from Downtown would be able to be used to create those housing units Downtown. However, because we've only implemented half of the proposed neighborhood plan since 1999, we're not seeing that development going forward.

And finally, with regard to the TDC program, I see a lot of discussion with regard to the TDC program, and a couple of points I'd like to make with regard to the TDC program. First, though I believe it was well-intentioned at the time that it was developed, I think it's significant that no one has developed under that program. I also think it is significant that it was not part of the neighborhood plan and that the City has spoken strongly of getting feedback from neighbors and in fact the neighborhood plans have talked about creating low-income housing, and the TDC program doesn't really necessarily have benefits to Denny Triangle - it's for preservation of rural land in King County. So, I think in terms of consistency with neighborhood plans, it's far more important that we focus on: "is the neighborhood plan, and are the development proposals currently being considered?" and "does the EIS adequately consider how these programs will actually create the jobs and housing Downtown that the neighborhood plans have sought?" Thank you.

Jack McCullough

I'm Jack McCullough and I signed up on the sheet. I'll find something new to say here. I kind of feel, looking at this crowd, like I'm teaching at a college class here. Everyone's sitting in the back of the room, and the front seats are empty. I will be supplying some written comments later on, and tonight I just want to talk about three things, which actually all of them touched on already--History, Density and Opportunity.

Let's look back at history for a second. The Downtown Plan under which we're currently operating was initially adopted in 1985 after a three-year effort: it's called the Land Use and Transportation Plan. And in 1985 it represented about a 30% downzone in the major commercial development zones Downtown, over what had been possible pre-1985. Four years later, we saw another downzone, in the form of CAP, which was another approximately 30% downzone. So now we sit here in almost the year 2004 looking at permitted densities Downtown that are frankly less than half of what was possible 20 years ago. And what's happened this 20 years as you've heard and more recently is that we're investing 3-4 billion dollars or more in light rail and commuter rail to serve Downtown from the region, a billion and a half dollars for the Monorail, and all the other transportation infrastructure improvements that you've heard about. The density is something that -- you know, it's trite to say -- that people believe that growth management is a great thing as long as it's not in my neighborhood. But I think most people will agree that if density belongs anywhere in the region, it belongs Downtown. Downtown is just under 2% I think of the land area -- is that right Kate? -- [but] you find 40% of Seattle's jobs and 22% of its tax generation revenue.

You find HOV and transit penetration rates that are probably 7-8 times what you'll find anywhere else in the region. So if we're serious about trying to combat sprawl and create open space and protect our neighborhoods and protect other outlying communities -- then this is the place that density belongs. And we've had a lot of arguments about this infrastructure I mentioned. About light rail, monorail, and there've been pitched battles about whether to build many of these improvements. But those really have been resolved now. And so the big mistake for us would, after having seen those decisions made, be not to build the city that this infrastructure requires. And that is I think really the challenge the city faces today and is represented in this EIS. So from a density point of view, it really would be I think fundamentally wrong to look at downzoning any part of Downtown such as Alternative 3 discusses, and the EIS should really look at the impact that would have on shifting density, housing, jobs,

outside of the Downtown. Because that's what would happen into Seattle's neighborhoods and the suburbs.

And as you've heard tonight, Alternative 1 really doesn't even get us back to 1985, doesn't get us back to where we were 20 years ago, when we didn't have light rail, commuter rail, monorail on the horizon. So, I'd strongly suggest that we look at greater opportunities for height and density in the key Downtown [areas] – the Denny Triangle, the DOC1, and the DMC, the other key areas Downtown.

Finally, the third thing – Opportunity. Development Downtown is all about windows of opportunity. And the real enemies of a successful Downtown I would say are half measures and delay. The buildings that are built Downtown, that have been built, and that will be built in this next cycle will survive well into the 22nd Century. And so the real risk to us as a region is not that we build these buildings too big, or too dense or too tall. The real risk is that we don't build them big enough to serve the region from a long term point of view. And these development cycles that we see really only happen – although it feels like when we're in Downtown there's building going on all the time – these cycles only happen once every ten years. And so you have a limited window of opportunity when the stars between tenant availability and capital availability coincide to actually attract new investment to Downtown. And that is when you forge the changes that can make a new life in Downtown possible. And so you have to be ready to take advantage of those opportunities. My suggestion would be that the FEIS look at, therefore, exploring alternatives for enhanced density and height beyond what is set forth in Alternative 1. And secondly, that we all work with all deliberate speed we can. As we've heard tonight, if this measure is not enacted in 2004, then I'd think you run a serious risk of – the city will again as we did in 2001 – missing the opportunity to influence the next development cycle, which will mean we will be waiting another decade. Thanks.

John Pehrson

My name is John Pehrson. I'm the chair of the Belltown Housing and Land Use Committee. Everybody's broken the rules so far – nobody has been three minutes. But at least I'll use some charts. I want to use them because I made them in my basement and on the dining room table, with the help of Kinko's. And I'm kind of proud of them. I represent not only the Belltown Housing and Land Use Committee, but the Belltown Community Council. We took a position on this study about two years ago in writing and our position hasn't changed. We recently reviewed it this month and we still all felt the same. So I want to advocate that. First I want to say, about the City Center plan, this

is what Belltown is really working toward, what you said. Because we know more people will give us more security, more active streetfronts and more business. A great neighborhood, not one with bulky tenements, but a great neighborhood, and housing. And just to indicate that we walk what we talk, in the last year in Belltown there's only been four buildings of major consequence changed, all of those low-income housing. And we have two more on the burner now. So, you know, that's what we are all about.

Now in contrast to the other people who took a broad position, I'm going to take a narrow position, not because I'm a narrow person, but I'm representing Belltown. I think I talk loud enough that your recorder will hear me. What I'm talking about is a small corner of Belltown in the south part of Belltown that is currently zoned DMC 240'. It is proposed in Alternative 1 that that area be increased to 312 feet and with essentially no constraints on residential development, it would result in buildings that are 312 feet high and built essentially lot line to lot line. That is not the kind of Belltown that we want.

A few charts, and I will give you copies of all these. And you cannot see these, but maybe you can get the trend. That currently what's allowable in the square feet above 125 feet in height, in the DMC office is 8,000 square feet on a 20,000 square foot lot, 41% [coverage]. In DMR residential: 8,000 square feet on a lot that's 20,000 square feet. In DOC 2 Office: 8,000 square feet on a lot that's 20,000. In DMC for residential: 16,000 square feet or 82% is allowed. Interestingly enough, that's 82%. If the lot were just a little smaller like 15,000 [square feet], it could be 100%. The zoning currently allows you to build straight up on [a] 15,000 [square foot lot]. I live in a highrise that's on a 17,000 square foot lot. It happens to cover 41% of it. So this is what we currently allow. Now it's not theory, it not abstract. You can look around in Seattle right now. The Centennial Tower, which all of you know at 7th and Virginia, is built essentially from lot line to lot line with 16 feet space so they could put windows in. Envision, any of you who know Denny Terrace, have you seen Denny Terrace? It's at Melrose and Denny. This is a bad picture of it. Imagine it two or three times that high and that same width. So next time you drive across the freeway on that street look at Denny Terrace and say "wouldn't it be nice if it was two to three times as high?" That's what's being proposed. Again, it isn't abstract.

One more point. We are continually talked [about] here in Seattle and badmouthed in comparison to Portland and Vancouver. I see it about once every three months in the editorial page. In Portland,

residential development is subject to the same FAR as office is. In Seattle, it is essentially unconstrained. I just went up to Vancouver, and I didn't see blocky buildings like this in Bayshore. I saw small thin towers with a hundred feet in between them. So, if we think that's great, we're not heading that way. When I talked to the land use people in those two towns, both of their comments were, Seattle builds very bulky, dense, ugly buildings. Again it's not abstract, on the left is a view of the Cristalla that's being built right now, that's ¼ of a block. Next door the land is owned by one person, it's zoned the same way. You could get a building just like it. So the zoning now would encourage this kind of development in the current way. That's not exactly what we want in Belltown. I rode the ferry one day and with my camera took a picture of my area. I live in One Pacific Tower, there's Market Tower, Marketplace North, the Terminal Building, and I think you can see the Josephinum. If these were built, this is what it will look like in ten years. Now, we can wait that long, and then say, "we shouldn't have done that," or can we look ahead and see in our mind, what do we want to Seattle to be like and then lay out something. I don't necessarily advocate the wedding cake [approach to controlling bulk.] [TAPE ENDS] [Mr. Pehrson's comments concluded shortly thereafter. He supported bulk controls that would achieve view corridors and thinner building forms.]

Bob Klug

Dennis, John, Gordon, thank you. I am from Seattle City Light, and I just want to make a couple of comments. If you look on page 1-7 of the summary you'll see a very strong paragraph for a City document saying we absolutely need a substation in the Downtown area within the next ten years. Actually, it's less than that. And beyond that, we probably need three substations total in the north part of Seattle in that same time period, mindful that we haven't built one in the last twenty years. So this is a big undertaking. And it's a significant undertaking.

So here's the points I want to make tonight. One, we're probably going to see power densities in the Denny Triangle and South Lake Union that are greater than what exists in the CBD right now. The buildings that are being built use 2-3 times the power of a traditional office building and that's going to be a significant new development for Denny Triangle and the South Lake Union.

The other thing I want to point out is that on the substation, we are going to need a new substation location in the Denny Triangle area, and the question is, "how do you go about it?" And I want to throw your eyes north to Vancouver B.C. and have you look at a place

called Cathedral Square in downtown Vancouver where the substation is completely underground. And there is a city park on top of it. Now, City Light can't afford to build underground substations, so we're going to have to get some sort of cooperation from the community as a whole as how to go about funding this. And we can look to Vancouver as an example, and I'm not going to go into tonight how they went about it. But it was a partnership between the utility, the city and the development community. And it also fits the goals of the Downtown Plan as to how do you get more open space into a very compact area. Interestingly enough, they use the heat from the transformers to run the greenhouse on the site. So it is an ecologically sound design.

The other point I want to make here tonight is that we are strongly encouraging sustainable building design in every way possible. And I hope you work with our conservation staff and whomever else is available to see that that happens. And particularly now that we're looking at the possibility of an energy district in the Denny Triangle/South Lake Union area, as a way of reducing the heating and cooling loads on the new buildings that come into the area, as a way of leveling out the power demand. Because it's the peaks that create problems with the electrical system, it's when we have a very cold day or a very warm day that we need excess heating capacity or excess chilling capacity that it puts an exceptional strain on our system. So if we can level out those peaks we get a more reliable system that produces better power quality and helps everyone. So, when you go to design your new building for this area, think of building hydronic buildings that are heated and cooled by water that can be eventually connected to an energy district. Because this is the way of the future. Thank you.

Greg Smith

My name is Greg Smith. I reside at, offices at 810 Third Avenue, Suite 615. I have to say, I echo most of what I've heard before, so I'm not going to regurgitate it all. And I also echo what the gentleman said from Belltown, I think what Vancouver has done, has done taller buildings a little narrower to provide those view corridors that you're seeking in Belltown. I do think the one thing that's kind of an overall that we have to keep in mind, the one thing that Seattle doesn't have is more land and the one thing it is going to have is more people. And so we really need to take into consideration the concept of density in urban centers. This plan I think talks about, it works until 2020 after that it's not sure what's going to happen. That's 17 years from now. That's like the snap of a finger. We should be talking about creating a city that can handle growth for the next 50 years not the next 16 years. Therefore, I

think that all alternatives don't go far enough as far as creating density. So they should encourage higher heights, yet maintaining the view space, which we're seeing in other cities--Vancouver, San Diego. I did develop IDX Tower, I sold, I developed IDX Tower. I developed a permit for the site and sold it to the developer. I developed the Millennium Tower, which is the mixed-use building at Second and Columbia -- it's 20 stories. I do agree with the comments about providing more flexibility in design, because those buildings are dictated, the shapes of them are dictated by current code. And the architects' community, even the Design Review board will acknowledge that there is not enough opportunity to create interesting architecture that is what the public wants. I'd also like to include in this, the DOC 1 even though this deals a lot about DOC 1, DOC 1 as a zone is already developed, it's maxed, there's very few sites left in the DOC 1 core to develop. So though we're talking about an upzone of the Downtown office core, which is a good thing, it's already happened there. It's either going to happen north, or it's going to happen south of the city. I'd like to see this whole plan really look at from the University of Washington south down to South Downtown. I realize it doesn't. I see John smiling. So the one thing I do think it needs to focus on however is the Downtown Retail Core. This talks about zones that circle the Downtown Retail Core, which is also a zone that was created back in the Eighties. Property that we own there, for instance, is a property we'd like to create residential high rise, along the lines that have been discussed--higher, taller. Yet the zoning there is inadequate, it's outdated, it doesn't provide for us to create that residential density in that strategic area of the city. Now looking outside of this plan, this study area, I do think that we shouldn't just leave a donut hole in the middle, we should study the DRC zone as well, and really take under consideration what can happen there. I guess the last thing I think, about affordable housing, it's important to keep in mind that if we want affordable housing in this city, which we have to have, affordable housing is protected by increased density, because the less density you have in a land restricted area, the higher the prices of land are going to be and the less it becomes affordable. So we really need to keep that in mind when we're talking about land use policies. We should try to increase density, on a per-acre or per-square-foot basis as much as possible. That is the best friend to affordable housing. Thanks.

Irene Wall

I hadn't planned on making a comment, but since you've invited me I will. And I will be sending in some written comments as well. I can't help but thank you Kate for making that comment earlier in the

evening about wonderful cities that have great ambience for pedestrians. And you mentioned Paris. One thing about Paris is that there are no very, very tall buildings in the downtown of Paris and that does contribute to its wonderful ambience. I'm not suggesting that all tall buildings are bad things.

But the other kind of comment that I've heard all night is that somehow having very tall buildings in Downtown Seattle is going to save Snohomish County or eastern King County or Skagit. And until we really tighten up the connections between the willingness of the City of Seattle to accept more density, and there being big disincentives in other places to create sprawl, then I'm afraid that's a wonderful theory but we really haven't seen it borne out.

The other comment had to do with the requirement that the City has as a center city place to accept a great deal of density in the regional scheme of things. But we should also remember that we are not the only city center that is designated in the region's comprehensive plan. There are other cities too that are striving to see their sort of economic development agendas met. And we can kind of laugh and say Federal Way is not a real place and Lynnwood is not a real place yet. But, you know, they want to be real places. And as long as the city of Seattle desires to sort of be the "great sucking sound" for growth, they will be kind of shut out. So I think the development community has a bit of an obligation here to say "what is the greater regional requirement?" We do talk about the investments that we're making in transportation and it's true most of them still do lead to Downtown, but where are they coming from? They are coming from other potential regional centers where people already live. So I think we should bear that in mind before we try to accept the burden of all regional growth in Downtown Seattle. Thank you.

Downtown Height and Density
Comments on the Draft EIS at the Downtown Neighborhoods Forum
February 24th, 2004

TESTIMONY

Heather Trim - People for Puget Sound

We very much like the idea of increasing density in Downtown and going to the Vancouver B.C. model. But we'd like to (inaudible) [point out that] the amenities and the open space are reduced with all 3 alternatives. And, we are especially concerned about greenspace. If you're going to double the population of Downtown, then we need to double the amount of greenspace. The modeling, and I guess the previous zoning, are done on "per 1,000 households," where much of the standards used in the country are actually done on "per 1,000 residents." So we actually fall quite short, when using those kinds of standards.

And finally on stormwater, it's inadequate for us that you talk about "better stormwater controls will likely improve stormwater flow into the CSOs." We want to see better treatment and that would include infiltration, greenspace, porous pavement. So we would basically like to see that written into the document at this point, and more of a commitment to that at this point.

Lyn Krizanich - Denny Triangle, Clise Properties

Lyn Krizanich, co-chair of the Denny Triangle Neighborhood Planning process, and I work for Clise Properties. And I wanted to add that, having been engaged in this process for, well since 1996, the Denny Triangle Plan first of all it embraces increased density, and it has from the very beginning and how we did that, we crafted it very carefully. We want to be able to achieve our goals in both commercial, which means jobs, and employment as well as housing. We didn't want to achieve one of those at the expense of the other. So we would like to see the height and the FAR (the density) increased. What that does is that it gives you taller buildings and you use the land differently. It frees up the site so that what's remaining after you've taken your commercial development and put it in a taller building, which again allows for view and better building character and building tops. It leaves the rest of the property available for two things. Open space, which is critically important to livability for these neighborhoods with this density, and housing.

And specifically, the Neighborhood Plan was crafted to be compatible with the Downtown Urban Center Planning Plan of the other neighborhoods, to put the height and density primarily in the Denny Triangle and not in some of the other neighborhoods that didn't want the increased density and height. But specifically to make sure that we would get the affordable housing. And [we] have this gap that exists. There are some mechanisms for both the low-income housing and market rate housing - we welcome it all by the way - but we specifically crafted this so that it could be a win all the way across the board. And at the last hearing, there was an enormous amount of testimony for just that kind of scheme. And, as one of us who has been long at this, Catherine said [for] the stakeholders, "we're still here and we still want a Downtown that meets all of those needs."

John Rahaim: Thanks, Lyn. Yes, a question.

[Crowd member]: So which alternative do you propose?

Lyn: It has to be... None of these represent the DUCPG or the Denny Triangle Plan. The one that comes closest is [Alternative] Number 1, but it has some elements in there that frankly cause a little confusion, in putting some of the height in Belltown where it wasn't desired. But we think that actually we can do better. With the passage of time, I think we need to be bold. We need to look at what more we can do to get the jobs and housing that we want. So I'd say it's Alternative 1 with some changes and some extra height and density.

Pete Mills - Historic Seattle

Hi, my name is Pete Mills and I'm a council member with Historic Seattle. I speak primarily for myself, but Historic Seattle does support the increased density in the area. One thing I'd like [us] to consider in the Draft [EIS] is something that Gordon Price mentioned. I saw on the website that his presentation, it was really eloquent, it really made me very interested in potentially living Downtown. One of the things he mentioned was, as an ingredient to the success of your Downtown, would be diversity...diversity of tenure, diversity of buildings, diversity in use, diversity in several different areas. But diversity in tenure gives you a fabric of a community that is more livable. And that is really what I'd like to see in the Downtown and also included in the EIS. And Historic Seattle is submitting a letter with more specifics in it.

Nancy Bagley - League of Women Voters

Hi, I'm Nancy Bagley, and I'm representing the League of Women Voters of Seattle tonight. The League has studied and acted on Downtown land use issues for over 20 years. We were actively involved in the development of the Downtown Plan in 1985 and the 1994 Comprehensive Plan. We continue to follow the City's land use planning and regulations with an eye toward preserving and enhancing our vision of a most livable city. So, a few comments on the Draft EIS.

First, the proposed changes and their relationship to the Growth Management Act and the City of Seattle's Comprehensive Plan. We acknowledge and endorse the city and state goals of directing growth to urban areas, reducing sprawl and accommodating increased density of commercial and residential buildings in the study area of Downtown Seattle. We learned from the Draft EIS that current zoning, Alternative 4, is adequate to accommodate the employment and residential growth projected through the year 2014 under the Comprehensive Plan adopted in 1994. We question whether substantial changes in zoning, such as the substantial height and density changes proposed in Alternatives 1, 2 and 3, should be undertaken before the Comprehensive Plan is thoroughly reviewed and updated to address the following twenty years, from 2014 through 2034.

Major changes are underway, as we've already heard from Ms. Sugimura, in areas close to the study area, such as the Waterfront, port properties in North Bay, the SODO area, South Lake Union, and the east Pike/Pine and Madison areas. A broader look at the entire Downtown and the nearby areas cited should be undertaken as part of the required once-a-decade review of the city Comprehensive Plan. These other areas could provide opportunities for residential growth, including affordable housing. Their residents could work Downtown, provided public transit is available.

Major transportation projects, such as the Viaduct, the Waterfront plan, the monorail, the bus tunnel closure for light rail should be reviewed for their impacts on the study area, and all of Downtown before substantial changes are made in Downtown zoning.

Many of the changes in zoning height limits and bonuses recommended by the Downtown neighborhood plans have already been addressed by the City Council and were adopted in 1999 and in 2001. It may be premature to change the rules substantially again, before we know how the recent changes are working. We question the elimination of the Transfer of Development Credits program in some of the

Alternatives. This program has the potential to encourage residential development and provide funds for amenities in the Denny Triangle.

The following are areas that we think need more thorough analysis of impacts and possible mitigation strategies in the Final EIS. First, housing. The League supports the goal of increasing the amount of housing in the study area. But we look at Table 25 in the Draft EIS which projects the number of potential residential units under each alternative and we see that the totals for all four alternatives are quite similar, ranging from over 7,300 under Alternative 4 No Action, to over 7,600 units under Alternative 2. We question the tradeoff of a few more residential units for the substantial increases in height and density proposed in Alternatives 1, 2 and 3. We urge that the Final EIS include a more thorough review of the possible mitigation strategies listed in [Draft EIS] Chapter 3, page 3-28. Because we do recognize that the challenge of finding funding for low-income and affordable housing in the study area will be great under all four of the alternatives. Current incentives fall short of meeting the real financial costs of creating low-income and affordable housing in the Downtown. More attention should be given to meeting the housing and service needs of families with children that do or might live in Downtown.

The rezone proposed in Alternative 3 to DMR/C for a residential mixed-use area with reductions in FAR looks promising and should be reviewed more intensively in the Final EIS. We support a clustering of residential uses in order to provide more of a feeling of living in a neighborhood. In addition we propose that the Final EIS include a review of a new provision for limiting the density of residential buildings in the study area.

Under Height, Bulk and Scale, the Comprehensive Plan goals and policies for Downtown place a special emphasis on the quality of the pedestrian environment. The increases in height and bulk proposed in Alternatives 1 and 2, and in Alternative 3 for the commercial core, would negatively affect the pedestrian experience with taller and bulky buildings towering over the narrow streets and sidewalks in the study area. The Final EIS should more thoroughly review these negative impacts.

Do the tradeoffs of increased space for jobs and housing outweigh the negative impacts on the pedestrian experience, on aesthetics and ultimately on the livability of the city? The League supports zoning and policies included in the 1985 Downtown Plan that require a smooth transition in scale and density of development from the areas of greatest height and density to areas of lowest height and density.

Alternative 1 includes unacceptably abrupt increases in height, bulk and scale along the edges of sensitive transition areas.

And finally, open space and parks. This Draft EIS exposes the current and future inadequacies in the amount of open space and parks available to residents and employees in the study area under all four alternatives. The Final EIS should explore the other possible mitigation strategies outlined in [Draft EIS] Chapter 3, page 3-125. Since the likelihood of adding major open space to the study area in the foreseeable future seems remote, attention should be given to improving the pedestrian connections between Downtown and major nearby open spaces, such as the Waterfront, the Seattle Center and South Lake Union. Increasing height and density without significantly addressing the already inadequate amount of open space in the study area is unacceptable. Thank you for this opportunity to present our comments from the League of Women Voters.

William Justen

I'm William Justen, I've worked Downtown for 35 years and lived Downtown for 27 years. I walk to work, don't use a car, and I also represent Samis Land Company, it's a major property owner in Pioneer Square and the Commercial Core. I think Alternative 1 gets close but doesn't get far enough. We really need to take advantage, and contrary to the previous speaker, I don't think we should wait, that we've already lost much opportunity as we've developed or are developing the last parcels of land Downtown, this is the time we ought to take maximum advantage of that, to increase the density to accomplish the goals of a livable Downtown.

I think we need to increase the FAR and height in Alternative 1 with special attention to slender towers getting a bonus, probably 20% additional height for residential buildings over Alternative 1 that can be tall slender structures. So, I think Alternative 1 is close but not far enough.

As far as the Draft EIS goes, the concern I have is that it does not recognize Downtown residential use as a mitigating measure to traffic and parking, and I believe as a resident Downtown, and many of my friends that are, we really do consider living Downtown a form of mitigation. I walk to work, sometimes if I have to go further I'll take the free bus ride Downtown. I don't need two parking places, and the Draft EIS really anticipates a parking place for every new residence and a parking place for every new job. You don't need to double up. About 1/3 of the job growth in the Draft EIS, about 70,000 jobs, about 30% or so of that will really be coming from the new

residential growth Downtown. I don't think that was anticipated. So, the EIS really needs to look at this mitigating aspect on parking and transportation-traffic-for this Downtown population that is also coming as part of the growth. The growth is going to happen, this is where it should happen, and I'm very excited about the opportunity to make this city tall, slender, high-density and livable.

Tony Puma

I'm Tony Puma. I'm just clarifying a thought. The last two speakers talked about open space. There's a presumption that the increased density creates demand by that very density. The roof of this building and the roof of the building across the street are green. And this suggests that if you do have some sort of wedding cake kind of formula [for building setbacks], where there is a certain portion of the site that is horizontal at a higher level, and that that becomes a green space, that you're offsetting some of the demand that would occur at the ground floor, where it is most expensive to do (and in large measure falls to the public [sector] to do, as opposed to the private sector to do). So, in particular you might want to think about some sort of a formula that ties this sort of narrow slender tower that William described, with the provision for development of the other flat portion of the site, at whatever level, in order to capture that opportunity. And particularly when they're planning it. I find it ironic that you can't get on this roof.
[applause]

Tory Laughlin Taylor

I'm Tory Laughlin Taylor, affordable housing developer, and also serve on the Seattle Design Commission. I think several of the comments, and a concern of mine in this whole process in reviewing this Draft EIS is, it's really challenging to extricate pieces of (inaudible) [an effective strategy]. The fine tuning you need to get to is, there's an issue of height and bulk – sorry, excuse me, there's a "height versus bulk" issue really. I think there has been a general acknowledgement – and somebody mentioned what Gordon Price talked about – that a mitigating factor is getting taller but skinnier towers.

And I think that however we come out of this EIS process, we need to start getting that layer of detail in there, so that we start talking about the pronouncing of [different options, such as] you can get the additional height, maybe not in combination with additional bulk and width. That dovetails with the question of residential development versus and in combination with commercial development.

Because at least in this market you're really talking about two different footprints. And the commercial is going to tend to be a bulkier footprint in current demands versus residential. So I just look to getting that into our next level of analysis.

And then the other issue which I'll just touch on briefly is the issue of infrastructure needing to be enhanced. And I think there are ways that the city, and if already [doing so], to continue to coordinate the development of infrastructure, so that we're not talking about a development-by-development [approach which results in] the sometimes ludicrously expensive development of infrastructure.

John Pehrson

I'm John Pehrson with the Belltown Housing and Land Use Committee, a part of our community council. And we've taken a position on this relative to south Belltown, which is a part of the area covered. The DMC zone in that area puts essentially no constraints on bulk for residential development. And if you have, say, a 15,000 square foot lot, you have no constraints. You can build it from lot line to lot line up to the max height. This kind of development is visible in our area at 7th and Virginia at the Metropolitan Tower, and they're currently building the unit at 2nd and Lenora. So, we believe strongly that that should be changed. The emphasis on residential has gotten too far.

Other areas - we need some space between those towers, and other cities like Vancouver and Portland have restrictions on the distance between those towers. So, that's why we took a position for a change similar to Alternative 3. We would welcome less prescriptive things than the wedding cake approach now prescribed, but certainly something that limits the bulk in these areas.

John Fox

My name is John Fox. I'm the coordinator of the Seattle Displacement Coalition. We will be providing some written comments in a lot more detail before the 29th. Our organization participated in the process of developing the Downtown Plan twenty years ago. And I can't help but compare the process that we're going through now to the process the City went through twenty years ago.

That process at the time included a limited growth option, not just the status quo and then options that would add either varying amounts of office or residential. And there was a limited growth option which the City ultimately did not implement, which subsequently

led to the CAP Initiative that led to a lot of the limitations or provisions that we have that remain in the Code today. There should be, we believe, a limited growth option that assesses costs and benefits of actually reducing densities in Downtown and particularly the office core densities in the central core.

We're also struck by an absence of an assessment, a thorough assessment outside the core in the neighborhoods that ring the Downtown core, particularly with reference to transportation impacts, but also impacts on affordability. To the extent that the additional densities that are added Downtown (office densities) generate demand. And with only a portion of those folks living Downtown we believe, as was done 20 years ago, there needs to be a more thorough assessment of impacts on all our neighborhoods, both with respect to transportation and affordability, accompanying each of these alternatives.

Also there was in the process 20 years ago, the City hired Gruen and Gruen, to do a thorough cost/benefit analysis of the options, both again from the standpoint of added infrastructure and looking at both tax revenues that were generated for the City and then the budgetary costs that would be accompanying those options. It was a thorough assessment and we'd like to see a similar kind of assessment accompanying these options, to get a clearer understanding of what really the costs are, particularly the fiscal costs for the City of Seattle.

We also want to echo the concerns that the League has articulated. We had the opportunity of working with them on that plan 20 years ago, and some of the concerns about "why now?" when again, there are all these other things going on. We did very recently adjust the programs, the bonus programs, TDR and so on. Again, some concerns we have about acting now rather than sort of letting these other processes play out a bit.

The last issue is housing mitigation, and the document is wholly inadequate right now in terms of - I was pleased to see that the document did, and for the first time, acknowledge that the City has lost a substantial amount of low-income housing in Downtown. Twenty years ago the City as part of the Downtown Plan made a commitment to preserve 7,300 units of low-income housing priced at or below 50% of the median. They at that time also, there was also a multifamily housing task force, or it was a Downtown housing task force, to review the yearly numbers showing loss and increases across the range of housing units and then recommending changes or adjustments in the plan on a yearly basis. There was a demolition control ordinance that was part of that plan, an anti-abandonment law, a range of solutions that

are obviously not within the realm, or are not included here in the Draft. And there is a lot more – at least we have an acknowledgement – I think they identify 5,800 units, so we've fallen some 1,500 units short of the commitment we made 20 years ago to preserve what's left of the lower priced units. Obviously, one thing we would want is to be more aggressive in subsequent plans of addressing that failing. And unfortunately this document is even less adequate because we now are without some mechanisms we had following that plan, and now we are going ahead and adding density. So I again underscore the need to have much more aggressive regulatory approaches within the framework of what is legally acceptable, to ensure that we don't continue to lose housing in the face of these added densities you're prescribing.

Jim Ferris

Jim Ferris with Housing Resources Group. We're a non-profit affordable housing developer and manager. We've preserved or created approximately 1,600 units, about 25 different apartment projects around the Downtown area, and Capitol Hill and 1st Hill. What John was just describing about preservation and the amount of need for more incentives, the Housing Resources Group sees that the program as it originally existed did a lot to preserve historic buildings in neighborhoods like Downtown and Belltown in particular. And it was very successful in maintaining or trying to preserve the existing housing stock. Where we are 20+ years later is that Downtown has changed by virtue of the existing zoning to the point where it is very difficult to create new housing and down to the affordable housing stock because the land prices Downtown are extremely difficult and a challenge for non-profits to provide affordable housing in this environment.

Housing Resources Group is very encouraged about seeing something even more aggressive than Alternative 1 actually being looked at as mitigation to create affordable housing. Right now in the Downtown neighborhood, the housing levy is available to be used for housing for people earning below 50% of the median income. The Downtown growth targets for the people earning 50-80% of the median – and I'll be the first to say, 50% and below median income, we are not meeting those targets – where we have an even much bigger problem to solve is income loans for the 50-80% median.

And the Downtown TDR bonus program is the only tool available for affordable housing to be created. And so, HRG has been able to use the housing bonus program twice. Once at 8th and Stewart, Stewart Court, working in collaboration with Clise Properties, to develop housing next to their new office building. And we just finished the

renovation and construction at 3rd and Pine, the Gilmore project, which also has used the housing bonus program.

Our ability to do more affordable housing Downtown serving the workforce and earning 50-80% of median is not going to happen. We've created some changes to the zoning to create an additional cost to commercial developers of \$22 per square foot to help pay to mitigate for affordable housing. But there has been no change in zoning to allow commercial developers to build buildings to create those incentives, so we have an imbalance in the program right now, in our opinion. And until we see additional density in commercial development you will see no more affordable housing Downtown. So we encourage Alternative 1 and we encourage you to pass it through the Council this year, because we're losing the window of opportunity for more affordable housing to get built in the next real estate cycle. Thank you.

Jack McCullough

I'm Jack McCullough. I run a small business Downtown. Just three quick points. One is, the process we're in, just to underscore what Catherine said earlier, the process we're in is the culmination of something that started in 1994. This is one of the – this is really the last neighborhood plan that hasn't been finished in the City of Seattle. And so the reason we're doing it now is that we're finishing what we started when growth management started here in the city.

The second point was just to pick up on the one Jim just mentioned, which was the idea of market opportunity. Now, there was a code that the League mentioned adopted in 1985. And unfortunately, the development that occurred in the latter part of that decade was not affected by the code because the code was adopted too late and missed the opportunity to really maximally impact that. We saw code amendments Downtown in 1999 and 2001 but again we missed the opportunity to affect the round of development that occurred. Because these rounds of development only occur once about every 6 or 7 or 8 years, we missed the opportunity to affect that [last round].

We're sitting here in a point in history where we have the opportunity to affect a round of development that is going to start to occur in three years. And I think if we don't take this opportunity, then what we are doing is we are foregoing the chance to impact what the Downtown looks like in a favorable way probably for at least another decade.

And the final point I have is just to encourage John and the good folks in the Planning Department to do what the city has done best, really, in the code is to focus on incentives. You hear a lot about regulation, but the only regulation that is sure to work and the easiest one is to say "no" to something. The challenge is to try to forge a set of incentives – only, market-based incentives – in your regulations [that] will attract the kind of development that you want to see, not hold it off. So, hopefully in this next cycle we can do that, and we think we've got a good team to do it. Thanks John.

Gabriel Scheer

My name is Gabriel and I'm just here as a citizen and a resident. So I'm not representing anybody in particular. I just wanted to make my thoughts known on the proposals. I think Proposal [Alternative] 1 is heading in the right direction. I think that Vancouver and Portland set some really good examples. Downtown Vancouver with their soaring buildings, I think would be a wonderful thing to see in Seattle. I think we need to increase our density, because if we don't were going to end up like L.A. and sprawl all over the place and I don't want to see that.

And second to that, in terms of incentives and speaking to the comments we just heard. I think that incentives can be a wonderful thing if they're planned carefully. And I think in keeping with that, I'd like to see some of the incentives used to develop Downtown Seattle much further to try to be pedestrian friendly as she was talking about – the representative of the League of Women Voters – and trying to be environmentally friendly. Giving different FAR rules if you're using development of more green spaces either on green roofs or just down on the streetscapes themselves. Or stormwater mitigation, a variety of things can be used. And I think that incentives are a great tool, but they have to be used carefully. So those are my thoughts. I think we do need to increase the density, but let's do it well.

Dan Abramson

Hi, my name is Dan. I respectfully disagree with the League of Women Voters as far as it being time to wait. I think I understand those needs. But the fact that there is the Viaduct, Sound Transit, WSDOT, South Lake [Union] with Paul Allen and all that is exactly why Seattle needs to really look at their zoning. The zoning has been dating. And unfortunately, whether we like it or not, growth is happening. This is a great area, people are coming here, and managing it is a much better option than denying it.

The only thing that I'd ask on the EIS is that there is some consideration for the low-income and entry-level housing which is terribly sparse in this area. I think it provides a nice input to the community, with the first view. And so to mitigate the balance between commercial and residential, having some offset from commercial incentives to low-income housing in some designated areas or cluster homing would be a benefit to everyone.

Responses to Comments in Public Hearings

December 15th, 2003 Meeting

Richard Stevenson

1. Your comments endorsing greater density than studied under Alternative 1 are noted.
2. Your comments on the differing economic considerations of developing Downtown versus other areas are noted.
3. Your comments opposing the existing upper level setback requirements and endorsing design flexibility are noted.
4. Your comments opposing downzones and endorsing incentive-based approaches are noted.

Lyn Krizanich

1. Your comments supporting the commercial and residential objectives of the Denny Triangle Neighborhood Plan, and criticizing delays in decisionmaking on this zoning proposal, are noted.
2. Your comments endorsing greater height and density than studied under Alternative 1 are noted. The recommendations in the Draft EIS for Alternative 1 are taken directly from the Denny Triangle Neighborhood Plan, to the extent that the plan provided specific information. Height increases of 100 feet were recommended throughout the area, and base and maximum FAR increases to 7 and 14 respectively were proposed. While specific FAR limits were not identified for the DMC zone, the plan indicated that the increases should be similar in relative magnitude to those for DOC 2, so the base FAR was increased to 7 and the maximum FAR increased to 10. This assumption is consistent with recommendations made by the Advisory Committee reviewing changes to the bonus and TDR programs that were to be considered in conjunction with recommended height and density increases.
3. Your comments opposing the existing upper level setback requirements and endorsing design flexibility are noted.

Catherine Stanford

1. Your comments on the coordinated nature of the Downtown neighborhood plans, and the endorsement of housing objectives in those plans, are noted.
2. Please see the response to comment 2 by Lyn Krizanich, above, in this transcript discussion. Your comments disagreeing with the level of height increase in Alternative 1 for First Avenue are noted. Please see the response to comment 4 of your remarks, below.

3. Your comments on the need for additional regulatory changes to implement the neighborhood plans, the disincentives inherent in the current regulations, and encouragement to move forward with decisionmaking, are noted.
4. Pages 2-8 through 2-12 in Chapter 2 of the Draft EIS described how the Commercial Core Neighborhood Plan endorsed “super bonus” proposal changes with interim height and density increases that would have applied to the DMC 240’ zone along First Avenue. Further, it illustrates how the later Bonus/TDR Advisory Committee requested consideration of height and density increases in the DMC zones similar to those considered for other DMC zones. The comparable DMC zones in the Denny Triangle Neighborhood Plan were requested to be increased by 100 feet with no specific level of density increase requested. The formulation of Alternative 1 was, therefore, set according to the directions indicated by the neighborhood plans and subsequent advisory committees.

Kate Joncas

1. Your comments on the scope of the alternatives and other trends affecting the need to support Downtown development are noted. This EIS reflects up-to-date consideration of the status and needs of Downtown. The recommendations in the Draft EIS for Alternative 1 are taken directly from the Denny Triangle Neighborhood Plan, to the extent that the plan provided specific information. Height increases of 100 feet were recommended throughout the area, and base and maximum FAR increases to 7 and 14 respectively were proposed. While specific FAR limits were not identified for the DMC zone, the plan indicated that the increases should be similar in relative magnitude to those for DOC 2, so the base FAR was increased to 7 and the maximum FAR increased to 10. This assumption is consistent with recommendations made by the Advisory Committee reviewing changes to the bonus and TDR programs that were to be considered in conjunction with recommended height and density increases. While the plan does call for increasing potential for commercial development, it also specifies objectives to “encourage a mix of low, moderate and market rate affordable housing throughout the neighborhood with project specific mixes of commercial and residential development,” and to “encourage a “residential enclave” of predominantly residential development along key green streets ...”
2. The Draft EIS did not “equate density with a poor pedestrian environment.” Further, the mere presence of additional bulk in buildings does not automatically “equate with a much higher quality pedestrian environment.” In fact, the arrangement of building bulk next to sidewalks can greatly influence perceptions of comfort and pedestrian quality. Buildings that rise in sheer faces without setbacks or ground-level architectural treatments tend to create environments perceived as threatening or inhospitable, along with environmental effects such as excessive shading and downdraft winds directed onto pedestrians. However, if buildings are well-designed with good aesthetic treatments and well-designed arrangements of bulk, the impacts on the street-level environment may be effectively resolved.

The Draft EIS strove to provide a balanced evaluation of impacts on streetscape and pedestrian amenity (see pages 3-112 to 3-114 and 3-119 to 3-121). This included listing several positive impacts that would occur with future development, such as widening of

sidewalks, additional Green Street and street tree improvements, and development of continuous street-level uses. Similarly, adverse impacts were carefully described to provide a balanced and accurate depiction of the impacts. Descriptions of differences in building bulk and arrangement among alternatives aid the reader in visualizing the conditions at or near street level, including solar access and relative openness of the physical setting.

3. A review of the Draft EIS text reveals that it does not use “worst-case” terminology (or similar wording) in a biased manner with regard to any alternative. The Draft EIS was carefully worded to maintain reasonable, objective comparisons among the alternatives, because none of the alternatives was treated as a preferred alternative.
4. Your comments favoring a continued strong emphasis on addressing affordable housing needs, and recommending a look at the content of the alternatives, are noted.
5. Your comments favoring proactive planning are noted.

Jim Ferris

1. Your comments on the need and opportunity to do more for affordable housing development through code changes are noted.
2. Your comments endorsing larger changes than Alternative 1 and expeditious decisionmaking are noted.

Joe Quintana

1. Your comments endorsing additional height and density on the basis of growth management principles are noted. The Draft EIS did include discussion that evaluated the alternatives’ relationship to plans and policies, including those related to bigger-picture growth management concerns.
2. Chapters 1 and 2 of the Draft EIS discussed the context and reasons why the alternatives are being studied, as well as relationship to neighborhood planning.
3. Please see Chapter 3 of this Final EIS for additional discussion of this topic.
4. The Housing impacts discussion on Draft EIS pages 3-17 to 3-27 includes Table 16 that compares the housing capacity of the alternatives with and without the effects of TDC capacity. These quantitative findings primarily illustrate how maximum residential buildout capacities in the studied Downtown zones would be affected by the alternatives’ zoning. This type of calculation does not depend upon whether the TDC-related capacity is used for housing in the next 20 years or not. Further, the analysis of 20 years of residential growth does not require that any of the TDC-related capacity is used. So, the analysis is neither liberal nor in error when it provides that calculation of residential capacity.
5. Your comments on the need for design flexibility and in favor of Design Review are noted.

6. Your comments objecting to encouragement of “mandatory” mixed-use development are noted. The provision proposed in Alternative 3 makes mixed-use “mandatory” only in the sense that projects opting to develop above the base FAR would be required to include residential use on the site. Commercial development in the DMR/C zone under Alternative 3 would be permitted to build up to the base FAR of 5 without housing.

Adrienne Quinn

1. Your comments registering disappointment with the findings of impacts in Belltown, in light of coordinated planning of the neighborhood plans, are noted.
2. Please see Chapter 3 of this Final EIS for additional discussion of this topic.
3. The Streetcar concept is the only potential transit investment that was not explicitly considered in the Draft EIS transportation analysis. The presence of the Sound Transit and monorail systems were assumed in the study's mode split assumptions. While the Streetcar project is potentially beneficial for transit accessibility to/from South Lake Union, its presence is not likely to alter the findings of the EIS transportation analysis. Therefore, the validity of the adverse transportation impacts identified in the Draft EIS is not challenged by this comment, and no supplemental analysis is necessary.
4. Your comments noting lack of housing development as a result of regulatory shortcomings are noted.
5. Your comments noting lack of support for the TDC program are noted. The TDC program was structured to accrue benefits to the Denny Triangle in the form of streetscape improvements and additional housing development.
6. The recommendations in the Draft EIS for Alternative 1 are taken directly from the Denny Triangle Neighborhood Plan, to the extent that the plan provided specific information. Height increases of 100 feet were recommended throughout the area, and base and maximum FAR increases to 7 and 14 respectively were proposed. While specific FAR limits were not identified for the DMC zone, the plan indicated that the increases should be similar in relative magnitude to those for DOC 2, so the base FAR was increased to 7 and the maximum FAR increased to 10. This assumption is consistent with recommendations made by the Advisory Committee reviewing changes to the bonus and TDR programs that were to be considered in conjunction with recommended height and density increases. While the plan does call for increasing potential for commercial development, it also specifies objectives to “encourage a mix of low, moderate and market rate affordable housing throughout the neighborhood with project specific mixes of commercial and residential development,” and to “encourage a “residential enclave” of predominantly residential development along key green streets ...”. Please see Chapter 2 of the Draft EIS for additional description of the relationship of the alternatives to the neighborhood plan.

Jack McCullough

1. Your comments describing past changes in Downtown regulations and factors supporting additional density in Downtown are noted.
2. Your comments opposing Alternative 3 are noted. Please see the responses to comments in your letters (#20 and #21) in Chapter 5 of this Final EIS for further discussion.
3. Your comments on development cycles, long-term density needs, and the need for timely action are noted.

John Pehrson

1. Your comments about concerns with excessive building bulk and the need for effective bulk controls are noted.

Bob Klug, City Light

1. Your comments about the future need for additional substations are noted.
2. The Draft EIS indicated that expected power densities for many new developments would be greater than past traditional Downtown buildings.
3. The City recognizes that further City Light system planning and capacity analysis will likely alter the scenarios and types of improvements suggested in Mr. Klug's testimony.
4. Your comment reinforces the need for sustainable building design.

Greg Smith

1. Your comments endorsing additional density Downtown and a long-term perspective on growth needs are noted.
2. Your comments endorsing greater height and density to accommodate building design flexibility are noted.
3. Your comments that the DOC 1 zone is already fully developed, and the need for additional planning for areas north and south of Downtown, are noted. Additional Center City planning will continue to evaluate next steps for long-term growth needs.
4. Your comments on the Downtown Retail Core (DRC) zone are noted. Amendments to height provisions in the DRC zone adopted in 2001 did provide additional flexibility for increasing the base height of 85 feet to the maximum height of 150 feet in the zone, while also allowing a further 30% increase in height for residential and mixed-use projects along the western edge of the zone. Additional inclusion of rezones in DRC at this time is not anticipated within this EIS.

5. Your comments favoring density for the sake of accommodating affordable housing are noted.

Irene Wall

1. Your comments on the relationship of pedestrian qualities and building bulk are noted.
2. Your comments on challenges in achieving better regional growth management are noted.
3. Your comments endorsing a bigger-picture perspective on where and how much growth should occur and consideration of regional growth management purposes are noted.

February 24th, 2004 Meeting

Heather Trim – People for Puget Sound

1. Please see the responses to Comments 1 and 2 in your letter (#11) in Chapter 5 of this Final EIS.
2. Please see the responses to Comments 1 and 2 in your letter (#11) in Chapter 5 of this Final EIS.
3. Please see the response to Comment 3 in your letter (#11) in Chapter 5 of this Final EIS.

Lyn Krizanich

1. Your comments on the intentions of the Denny Triangle Neighborhood Plan, including its support of residential development, commercial development and open space, are noted.
2. Your comments encouraging adjustment of Alternative 1 with additional height and density, and changes to the Belltown elements of Alternative 1, are noted. Please see Chapter 1 of this Final EIS for discussion of the Preferred Alternative.

Pete Mills

1. Your comments describing the benefits of diversity, including diversity in housing, uses and building types, are noted.

Nancy Bagley – League of Women Voters

1. Please see the responses to Comment 1 and other comments in your letter (#10) in Chapter 5 of this Final EIS.

2. Please see the responses to Comment 1 and other comments in your letter (#10) in Chapter 5 of this Final EIS.
3. Please see the responses to Comment 1 and other comments in your letter (#10) in Chapter 5 of this Final EIS.
4. Please see the responses to Comment 2 and other comments in your letter (#10) in Chapter 5 of this Final EIS.
5. Please see the responses to Comments 3, 4 and other comments in your letter (#10) in Chapter 5 of this Final EIS.
6. Please see the responses to Comment 5 and other comments in your letter (#10) in Chapter 5 of this Final EIS.
7. Please see the responses to Comment 6 and other comments in your letter (#10) in Chapter 5 of this Final EIS.
8. Please see the responses to Comments 6, 7 and other comments in your letter (#10) in Chapter 5 of this Final EIS.
9. Please see the responses to Comment 8 and other comments in your letter (#10) in Chapter 5 of this Final EIS.

William Justen

1. Your comments, encouraging additional height and density above Alternative 1, with special attention to bonuses for slender towers, are noted. Please see Chapter 1 of this Final EIS for discussion of the Preferred Alternative.
2. Please see the responses to Comments 2 and 3 in your letter (#18) in Chapter 5 of this Final EIS. The EIS analysis did not assume two parking places for Downtown residents that are also Downtown employees. Instead, it accurately accounted for reduced residential parking demand from Downtown residents as well as levels of employment-based parking demand.

Tony Puma

1. It is acknowledged that different arrangements of bulk on a site may create opportunities for open space features on above-ground rooftop or plaza spaces. This could potentially be included in the codes as a bonusable feature. Please see Chapters 1, 3 and 4 for further discussion of the Preferred Alternative.

Tory Laughlin Taylor

1. Your comments about the need to start identifying more detailed options for height and bulk controls are noted. This Final EIS provides additional information that seeks to illuminate the

choices and tradeoffs that are inherent in making Downtown zoning changes. Regarding commercial and residential development, in some cases it may be possible to develop these two types of uses in separate towers within the same development.

2. Your comments in favor of coordinated development of infrastructure are noted. The Draft EIS identifies a number of strategies that could be employed to improve the transportation and street system to handle projected congestion, as well as with regard to electrical infrastructure.

John Pehrson

1. Your comments about concerns with residential building bulk and the need for creative, effective bulk controls are noted. Please see Chapter 1 of this Final EIS for discussion of the Preferred Alternative.

John Fox – Seattle Displacement Coalition

1. Your interest in including a limited growth option is noted. The EIS provides required environmental review for a set of rezone proposals based on already-adopted neighborhood plans. The purpose and parameters of the environmental review process are quite different from broader Downtown planning efforts that occurred for the 1985 Downtown Plan. The EIS includes the required analysis of a “No Action” Alternative addressing what would happen if no zone changes occurred. SEPA does not require other inclusion of limited growth options.
2. Additional analysis of the alternatives’ transportation impacts in an extended area surrounding Downtown would be overly speculative and is beyond the scope of this EIS.

Regarding housing affordability, it is beyond the scope of this EIS to speculate on affordability trends in Seattle neighborhoods as a result of growth. Further, the projection and study of future growth is not in itself an impact of the alternatives. The EIS was oriented to identifying the differences in impacts that would arise with the same amount of growth in Downtown areas under different zoning requirements. The potential impacts of future growth have already been analyzed in documents such as the environmental review for the City’s 1994 Comprehensive Plan which introduced the Urban Village strategy.

3. SEPA does not require a cost/benefit analysis of the alternatives as suggested in this comment. Such an analysis would be beyond the scope of this EIS. The analysis does indicate financial implications in some of its findings, such as differences in projected funds generated for housing under the alternatives.
4. Your concerns regarding the need to make changes in Downtown zoning are noted.
5. Your concerns regarding protection of housing resources are noted. It is the intention of City policy to maintain and enhance housing resources particularly for below-median income households. Numerous programs and policies are in place to encourage those objectives. The

Draft EIS included numerous possible mitigation strategies that could be employed to provide greater housing protections. The Preferred Alternative described in Chapter 1 of this Final EIS also includes mitigation strategies related to housing. Decisionmakers will consider the implications of the alternatives on housing resources.

Jim Ferris

1. Your concerns regarding the ability to develop affordable housing in Downtown are noted.
2. Your concerns regarding the need for changes in zoning to spur additional development of residential and commercial buildings are noted.

Jack McCullough

1. Your comments on the timing of this process are noted.
2. Your comments encouraging the use of market-based incentives in development regulations are noted.

Gabriel Scheer

1. Your comments favoring greater density and Vancouver-style building forms are noted.
2. Your comments endorsing careful use of incentives, pedestrian-friendly streetscapes and environmentally-friendly development strategies are noted.

Dan Abramson

1. Your comments on the need to proceed with zoning reform to address growth and change are noted.
2. Your concerns that low-income and other affordable housing opportunities should be more available, and that housing-oriented regulatory provisions should be included in some areas are noted.

Appendix B

Discussion of Transportation Demand Strategies

DISCUSSION OF TRANSPORTATION DEMAND MANAGEMENT STRATEGIES

Transportation demand management (TDM) strategies enhance transportation system capacity to move people and goods. TDM strategies should expand the choices available to downtown workers and residents and they should provide encouragement and incentives to use transportation modes other than single occupant vehicles. Effective management of parking supply will enhance the effectiveness of TDM programs by sending price signals that encourage transit use, bicycling and walking.

Expand Choice

Strategies that expand trip choice make alternatives to automobile trips easier to use (such as increased transit service, and physical infrastructure changes) and remove barriers to use of transit, carpools, bicycles and walking (such as providing means for mid-day trips and emergency rides home).

Improve Transit Service

More people will opt to use transit if the service is frequent, reasonably fast, and reliable; easy to use; and information is easy to access and understand. Establishing and meeting standards to achieve these aims will make transit a more obvious choice for more trips. Transit priority treatments, clear route designations, and real time information at transit stops, make transit a better choice.

Bicycle Improvements

In addition to providing bike lanes, routes, bicycle wayfinding, and paths, improvements to support bicycling include amenities at trip destinations such as secure bicycle parking for commuters, shower and locker facilities, short-term bicycle parking for non-work trips, and access to space for minor repairs. Establishing a connected network of bicycle through downtown and adjacent neighborhoods will encourage greater use of bicycles.

Car Sharing

Car sharing organizations such as Flexcar, provide access to automobiles on an hourly basis. Car sharing eliminates the need to drive (or maintain) a private vehicle for occasional short trips. It also provides a cost-effective alternative to maintaining fleet vehicles for many businesses. Carsharing can be especially attractive in neighborhoods with diverse land uses, serving business and employees during the day, and residents during evenings and weekends.

Guaranteed Ride Home

Programs that provide a ride home in the event of illness, emergency, or unexpected need to work late, encourage ridesharing and transit use by eliminating concerns about unexpected or emergency transportation needs.

Walking

Maintaining and improving the pedestrian-friendly environments encourages people to choose walking for many trips. Residential and retail development will be essential to establishing walking as a major travel mode.

Ridematching

Ridematching services help people establish and expand carpools and vanpools using secure computer databases that match commuters with others who work and live in the same areas.

Alternative Work Schedules

Encouraging employees to adopt compressed work schedules reduces the burden on the transportation system by shifting trips to the off-peak hours and eliminating up to 20% of an employee's commute trips.

Telecommuting

Allowing employees to work from home or another location (such as a neighborhood telework office) reduces commute travel. Telecommuting can be a valuable TDM tool even if performed on a part-time or temporary basis.

Encourage Mode Shift

In addition to providing the means to make different choices and removing barriers to choice, TDM programs must also make people aware of the options that are available.

Bicycling Encouragement

Programs to encourage bicycling typically include information on commuting equipment, route selection and bicycle maps, information on end-of-trip facilities (parking, showers, and lockers) as well as skills training for urban bicycling.

Discounted Transit Passes and Financial Incentives

Financial incentives are a means to encouraging commuters to try a different form of travel to work. They can also promote mode shift where parking prices are low compared to the price of transit.

Parking Pricing/ Parking Cash-Out

In situations where employers pay for parking, offering a payment in lieu of free parking (parking cash-out) is a way to provide a financial incentive without eliminating an employee benefit

Transportation Cost Analysis

People tend to underestimate the costs of automobile transportation and overestimate its convenience. Conversely, people tend to overestimate the costs of other transportation choices and underestimate their convenience. Simple analysis tools help people recognize how much time and money they are spending on transportation and

demonstrate how much money and time they can save with currently available alternatives.

Manage Parking Supply

Parking management is one of the most powerful tools available to manage transportation demand. Abundant commuter parking holds parking prices down, which encourages drive-alone trips that add to congestion and reduce overall mobility. TDM efforts should seek ways to meet transportation demand with the smallest practicable amount of structured parking. TDM efforts should also seek to use existing parking spaces in ways that maximize their economic growth potential.

Land Use Code requirements and conditions can promote parking management in ways that support TDM:

- Low (or no) minimum parking requirements
- Parking maximums where appropriate
- Bicycle Parking requirements based on land use (short- and long-term)
 - Link bicycle parking requirements to land use (rather than a ratio of bicycle parking to automobile parking)
 - Develop requirements for short term and long-term bicycle parking.
 - Draft bicycle parking design guidelines (location, access, security, etc.)

Implementing TDM Programs:

The City of Seattle works with other government agencies, businesses, developers, and transit service providers to implement TDM programs. The City and its TDM partners should continue, strengthen, and expand the breadth of TDM programs

Commute Trip Reduction Networks

Existing business networks exist to promote TDM through Commute Trip Reduction (CTR) programs. Employers with 100 or more peak-period commuters at a single work site are required by law to implement CTR programs. The City of Seattle contracts with King County Metro Transit to facilitate CTR programs in SLU.

Business Associations

CTR programs geared toward larger businesses typically don't reach small employers. Working through business associations is another way to reach more employers.

Neighborhood Organizations

In mixed-use neighborhoods, working with residential and community organizations can support TDM strategies such as shared parking, car sharing, and ride sharing.

Transportation Management Associations

Transportation Management Associations (TMAs) can provide a variety of parking management and TDM services to large and small businesses. Typical functions include ridesharing promotion and facilitation (ride matching and parking); bicycle promotion and bicycle parking programs; transit pass sales and distribution; and marketing to increase mode choice awareness.

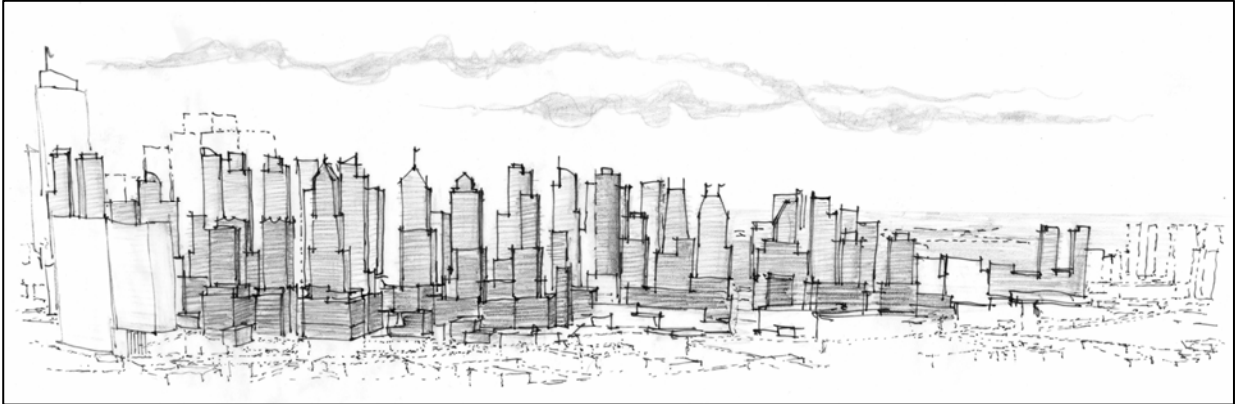
Area-wide goals and performance monitoring

Explore use of area-wide performance standards, in place of building-based or employer-based standards. Alternative approaches may reduce the costs of monitoring and compliance with land use requirements. Area-wide goals and monitoring would likely require the coordination of a TMA or similar organization.

Appendix C

Seattle Urban Form Study – Otak, Inc.

Seattle Urban Form Study



Submitted to:
City of Seattle
Department of Planning and Development

October 11, 2004

Prepared by:
Otak, Inc.
117 S. Main Street
Suite 400
Seattle, WA 98104
(206) 224-7221



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Appendices

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- B. Downtown Height/Density EIS Excerpts, Comparison of Future Conditions
- C. DMC Building Prototype Assumptions
- D. DMR Building Prototype Assumptions
- E. DOC2 Building Prototype Assumptions

Introduction

The City of Seattle is now considering changes to its downtown development standards that regulate building height and density. The expected environmental impacts of increasing building height and density in the downtown are described in the *Draft Environmental Impact Statement for Downtown Height and Density Changes*, November 2003. The EIS describes the impacts of three “action” alternatives and one “no action” alternative in accordance with the State’s Environmental Policy Act (SEPA), which also complies with the National Environmental Policy Act (NEPA). Please refer to Appendix A for EIS excerpts.

This Downtown Urban Form Study is intended to supplement the findings included in the EIS, with further consideration regarding how development regulations singularly and cumulatively impact urban form. The purpose of this work is to highlight the inter-relationship between development regulations, design guidelines, and types of building structures they support. The supplemental findings included in this study focus on residential high-rise structures and take into account four recent development prototype projects, innovative regulations applied in other cities, and feedback from local Seattle developers, architects and building officials.

The body of this report is organized into four sections. Main sections include:

- Introduction
- Seattle’s Current Development Standards
- Interviews with Local Development Experts
- High-Rise Regulations in Other Cities
- Synthesis of Findings

If you have any questions regarding this report, please contact Dennis Meier, City of Seattle, Department of Planning and Development at (206) 684-8270 or dennis.meier@ci.seattle.wa.us, or Todd Chase, Otak, Inc. at todd.chase@otak.com

Seattle's Current Development Standards

The City of Seattle's existing development standards provide development regulations with respect to allowed uses, building height, density, setbacks, and related considerations. Under existing zoning, residential structures in the Downtown EIS study area are not subject to density limits, and development standards do not specifically address overall building bulk or urban form. The Draft EIS for Downtown Height and Density Changes identify four alternatives for changing allowed building heights and densities. Excerpts from the Draft EIS that summarize existing and potential building heights and densities for each EIS alternative are included in Appendix A.

This urban form study builds upon the information presented in the Draft EIS with more specific findings from four actual development projects:

- ***The Metropolitan Tower (DOC 2-300')*** – an example of a large residential project recently built in the DOC 2 zone. This is considered a good example of maximizing allowed development in a zone without density limits nor substantive bulk controls for residential development.
- ***Cristalla (DMC 240)*** – a new project that is under construction, and permitted with maximum allowed density and little control over residential density limits or building bulk.
- ***McGuire (DMR 240)*** – Recent example of high-rise development built in Belltown's DMR 240 zone district. Development density and bulk controls are regulated through upper-level lot coverage reductions and maximum building floor plates.
- ***2200 Westlake (DMC 160)*** – This mixed-use project is now under construction as a primarily residential project. It will have multiple structures with housing, retail, hotel and parking areas. A noteworthy example since it illustrates how current development standards apply to an entire block that is redeveloping with multiple buildings rather than a single structure.

These projects are illustrated in Figure 1. Specific development characteristics are described in Table 1. Current development standards that apply to these four projects are identified in Table 2.

It should be noted that in addition to the development standards and regulations that apply to downtown development projects, downtown developers and designers must comply with the Downtown Design Guidelines administered by a design review board.

Figure 1. Seattle High Rise Housing Projects Designed Under Current Regulations



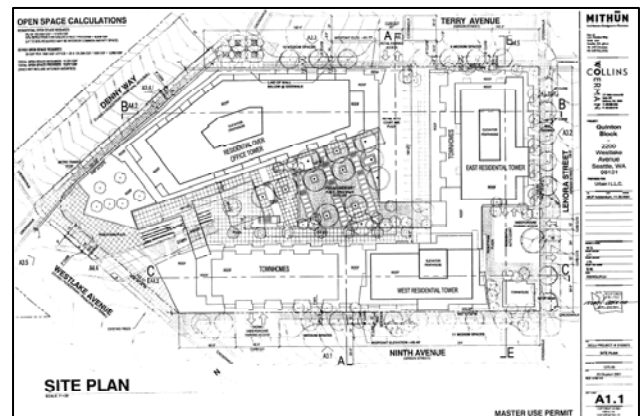
**Metropolitan Tower (DOC 2-300')
Seattle, Washington**



Cristalla (DCM – 240')



McGuire (DMR 240')



2200 Westlake (DMC 160')

Table 1
Summary of Case Study Projects
Downtown Seattle Urban Form Study
Summary of Case Study Projects, Development Program

	Metropolitan Tower	Cristalla	McGuire	2200 Westlake
Address	1942 Westlake Ave	2033 2nd Ave	2512 Second Ave.	2200 Westlake
Zone	DOC 2 300	DMC 240	DMR 240	DMC 160
Year Built	2001	Under Construction	2000	Under Construction
Developer	Continental-Bentall LLC	Cristalla LLC	Harbor Properties	Urban I, LLC
Architect	Callison Architecture	Weber+Thompson	Hewitt Architects	Mithun Architects
Lot Size	24,960 Sq. Ft. (.57 acres)	19,440 Sq. Ft. (.45 acres)	25,440 Sq. Ft. (.58 acres)	111,679 Sq. Ft. (2.56 acres)
Gross Sq. Ft.	538,339	391,016	338,548	902,478 (includes parking structure)
Net Rentable Sq. Ft.	326,182	251,122	219,619	500,000 +/-
Number of Units And Average Size	366 units Range in Unit Size: 511-1458 SF Avg. Unit Size: 1031 SF	186 units Range in Unit Size: 603-2819 SF Avg. Unit Size: 1300 SF	272 Units Range in Unit Size: 465-1171 SF Avg. Unit Size: 895 SF	5 Building/Mixed-Use Development includes: 160 Room, 5 Star Hotel 47,000 Sq. Ft. Grocery Store 261 Condominium Homes (1,800 SF per Unit) 39,000 Sq. Ft. of Shops, Restaurants, Luxury Spa 5,700 Sq. Ft. Full Service Bank East Residential Tower - 11 Levels (950 SF per Unit) West Residential Tower - 12 Levels (1,300 SF per Unit)
Number of Stories	31 (373'-8" HT)	23 + 3 bsmt. (240')	25 (343' & 4' parapet = 347')	Retail Sales & Service - 2 levels (91,500 GSF) Mixed- Use Tower/Admin. Office - 6 levels (134,596 GSF) Mixed-Use Tower/Residential - 5 levels (86,982 GSF) East Residential Tower - 11 levels (96,029 GSF) West Residential Tower - 12 levels (111, 775 GSF) Residential Base - 3 levels (58,783 GSF)

Table 1 (cont.) Summary of Case Study Projects
Downtown Seattle Urban Form Study
Summary of Case Study Projects, Development Program

	Metropolitan Tower	Cristalla	McGuire	2200 Westlake
Parking	386 stalls	228 stalls	233	781 stalls
Retail and/or Office	Retail	Retail	both	Both
Multiple Bldgs. on Same Lot?	No	No	no	5
Recreation Requirement	18,303 Sq.Ft. Resident lounge/garden terrace/pool/spa	13,969 Sq. Ft. Lobby, 6th floor, roof	12,619 Sq. Ft.	12,617 Sq. Ft.
Construction Class	Reinforced Concrete	I-FR	Structural Steel	
Site Plan?	No	Yes	no	Yes
Elevation Dwg?	yes - Westlake Alley view	yes	no	
Tower Floor Plate	Levels Street to P7 (0 to 71'-4") Floor plates are 23,200 SF Levels P8 to P31 (71'-4" to 220'-8") Floor plates are 15,484 SF Roof level is the same as a typical floor plate - 15,484 SF	At Grade: 19,440 SF From Grade to Floor 6: 18,270 SF Floor 7-22: 16,160 SF Floor 23: 13,650 SF	0-65': 25,440 SF 66-85': 14,256 SF 86-125': 12,980 SF 126-240': 7,990 SF	North Tower Level 1: 16,563 SF Retail/Hotel North Tower Level 2: 12,069 SF Hotel North Tower Levels 3-9: 9,661 SF each Hotel North Tower Levels 10-18: 7,970 SF each Residential NT Roof houses the majority of the HVAC equipment: 7,970 SF West Tower Level 1: 8,742 SF Residential and 13,898 SF Retail West Tower Level 2: 7,402 SF Residential and 11,704 SF Retail West Tower Levels 3: 10,066 SF Residential West Tower Levels 4-12: 10,055 SF each Residential WT Roof: 10,065 SF South Tower Level 1: 5,038 SF Residential and 4,650 SF Retail South Tower Level 2: 12,940 SF Residential South Tower Level 3: 11,363 SF Residential South Tower Level 4-15: 9,113 SF Residential ST Roof: 9,113 SF
Range	511-1458 SF	603-2819 SF	465-1171 SF	Averages
Average Unit Size	1301 SF	1300 SF	895 SF	East Tower: 950 SF West Tower: 1300SF North Tower: 1800 SF

Table 2 Summary of Current Development Regulations Applied to Case Study Projects
Downtown Seattle Urban Form Study
Summary of Case Study Projects, Zoning Regulations

	Metropolitan Tower	Cristalla	McGuire	2200 Westlake
Zone	DOC 2 300	DMC 240	DMR 240	DMC 160
Max. Height	300 ft (15' above max.height is allowed for stairs and elevator Penthouses and Mechanical Equipment) see note 1	240 ft (see note 2)	240 ft (see note 2)	160 ft (see note 2)
Floor Area Ratio	Base FAR: 5, Max FAR: 10 (residential uses are not subject to density limits and is not counted in FAR calculations)	Base FAR: 5, Max Far: 7 (residential uses are not subject to density limits and not counted in FAR calculations)	Base FAR: 2 Max FAR: 5 (residential uses are not subject to density limits and not counted in FAR calculations)	Base FAR: 5, Max Far: 7 (residential uses are not subject to density limits and not counted in FAR calculations.
Open Space	see note 3	see note 3	see note 3	see note 3
Lot Coverage	Generally, 100% lot coverage allowed up to 125 feet. Any structure with less than 15,000 gsf floor plate is exempt from upper level limits. Above 125 feet, buildings with floor plates over 15,000 sq. ft. are subject to coverage limits in areas along "street frontages."	Generally, 100% lot coverage allowed up to 125 feet. Any structure with less than 15,000 gsf floor plate is exempt from upper level limits. Above 125 feet, buildings with floor plates over 15,000 sq. ft. are subject to coverage limits in areas along "street frontages."	0-65' - 100% 66-85' - 55% 86-125' - 50% 126-240' - 40%	Above 125 feet, buildings with floor plates over 15,000 sq. ft. are subject to coverage limits in areas along "street frontages."
Floor size	floors above 125 ft – max size 80% of gross floor area of floor below 125 ft	At Grade: 19,440 SF From Grade to Floor 6: 18,270 SF Floor 7-22: 16,160 SF Floor 23: 13,650 SF	floors above 125 ft - max size of 8,000 sq. ft.	N/A
Parking requirements	.7 stalls/1000 Sq. Ft. retail lt. .5 stalls/1000 Sq. Ft. retail St. .94 stalls/1000 Sq. Ft. office lt. .1 stalls/1000 Sq. Ft. office St.	.7 stalls/1000 Sq. Ft. retail lt. .5 stalls/1000 Sq. Ft. retail St. .94 stalls/1000 Sq. Ft. office lt. .1 stalls/1000 Sq. Ft. office St.	.7 stalls/1000 Sq. Ft. retail lt. .5 stalls/1000 Sq. Ft. retail St. .94 stalls/1000 Sq. Ft. office lt. .1 stalls/1000 Sq. Ft. office St.	.7 stalls/1000 Sq. Ft. retail lt. .5 stalls/1000 Sq. Ft. retail St. .94 stalls/1000 Sq. Ft. office lt. .1 stalls/1000 Sq. Ft. office St.
Max. Parking (see note 4)	1 stall/1000 Sq. Ft. non-res. (no parking requirement for residential use)	1 stall/1000 Sq. Ft. nonr-es. (no parking requirement for residential use)	1 stall/1000 Sq. Ft. non-res. (no parking requirement for residential use)	1 stall/1000 Sq. Ft. non-res. (no parking requirement for residential use)
Min. Sidewalk and Alley Widths	Based on street classification	Based on street classification	Based on street classification	Based on street classification
Affordable housing	no requirement	no requirement	no requirement	no requirement
Lot Size	N/A	N/A	min. 19,000 Sq. Ft.	N/A
Landscape	No minimum requirement, but 50% of setback area must be landscaped when setbacks are provided	No minimum requirement, but 50% of setback area must be landscaped when setbacks are provided	1.5 x length of property for landscaping along sidewalks	No minimum requirement, but 50% of setback area must be landscaped when setbacks are provided
Setback	(1) No setback limits shall apply up to an elevation of fifteen (15) feet above Sidewalk grade. (2) Between the elevations of fifteen (15) and thirty-five (35) feet above sidewalk grade, the facade shall be located within two (2) feet of the street property line The maximum setback shall be ten (10) feet.	(1) No setback limits shall apply up to an elevation of fifteen (15) feet above Sidewalk grade. (2) Between the elevations of fifteen (15) and thirty-five (35) feet above sidewalk grade, the facade shall be located within two (2) feet of the street property line The maximum setback shall be ten (10) feet.	40' above 65' Upper level setbacks are required on some Green Streets and view corridors.	(1) No setback limits shall apply up to an elevation of fifteen (15) feet above Sidewalk grade. (2) Between the elevations of fifteen (15) and thirty-five (35) feet above sidewalk grade, the facade shall be located within two (2) feet of the street property line The maximum setback shall be ten (10) feet.

Notes:

1/ Height increase of up to 20% above mapped height limit allowed though TDC and other conditions.

2/ Height increase of up to 40% above mapped height limit allowed though TDC and other conditions.

3/ 5% of gross floor area provided as common recreation area for use by residents. Up to 50% of open space can be provided as interior space. Green streets abutting a site can be improved to meet part of requirement.

4/ For mixed use commercial/housing projects, no parking is required for retail and service uses up to 30,000 square feet in high transit access acres and 7,500 square feet elsewhere.

Interviews with Local Development Experts

As a starting point in this urban form study, Otak interviewed six local development experts from both public and private sectors. These interviews were intended to gather subjective input from professionals that work with Seattle's downtown development standards, regulations and guidelines on a continuous basis. Interview results are provided in Appendix B. the professionals participating in the interview process included:

- David Hewitt, AIA, Hewitt Architecture (DH)
- William Justen, Samis Land Development (WJ)
- Mike Scott, AIA, LEEDtm, Principal – Callison Architecture, Inc. (MS)
- Jon Siu, City of Seattle Building Official, Principal Engineer (JS)
- Greg Smith and Glenn Scheiber, Greg Broderick Smith Real Estate (GS)
- Blaine Weber, AIA, Principal, Weber+Thompson, and Downtown Design Review (Board Member (BW)

A summary of their input and feedback is organized by topic area below.

Based on your experience, explain how the current zoning code dictates the buildings structural form (i.e., density, height, core requirements, etc.)

Height dictates the structural system. The 85-foot limit is of little value – it doesn't offer enough flexibility. Because zones have a base, you get a high percentage of coverage until a certain height and then the setback applies. Developers want to maximize the envelope so they are forced to deal with awkward shapes. (DH)

Height thresholds impact coverage allowance. Because of coverage restrictions after a certain height in Downtown zones, you get pushed into building in a clumsy form. The city needs to permit sculptural opportunities for architects. (DH)

The single most important influence on building form, given the FAR, is the height limit when it comes to speculative office buildings and high-rise residential because it's mostly about building proportion. (MS)

One critical factor is the high-rise threshold of 75', especially for residential design. This triggers a series of expensive life safety building systems and components that cause a developer to amortize the increased cost over a much larger structure comprised of more units. Once the high-rise threshold is exceeded the limiting factor is normally the height limit established in a given zone. Again a developer needs to maximize the given development potential. (MS)

Current development standards provide “no freedom in building design.” “The floor plate setbacks impose an unimaginative “wedding cake” building form. Seattle should allow 50% of the buildings first 85’ height to be carved out artistically and the lot coverage above 85’ should be 50% with 10,000 SF floor plates. (GS)

For Type 1 construction there are no limits on height and density. The International Building Code (IBC) requires a moment frame for back up structural support to the concrete core during a seismic event. (JS)

There is a 160 feet height limit on a concrete sheer wall system. Although, a tall sheer wall system has been approved through peer review. Built examples of tall sheer wall systems are Nordstrom Tower, Millennium Tower and IDX Tower. (JS)

Density most definitely dictates the building’s form. One other aspect to developing a site is the Land Residual Analysis. This formula will dictate what you can pay for land based on the cost of developing the property. Allowing more density will make a smaller in-fill site more developable because density helps pay for the price of the land. (WJ)

It is important to maximize the efficiency (rentable/sellable space) of the floor plate. An 85% efficiency rate is sufficient. The ideal floor plate size is about 12,000 Sq.Ft. (WJ)

For buildings that exceed 240’ height, IBC dictates a redundant system of a moment frame. The moment frame helps resist lateral forces for a percentage of the building mass during a seismic event. The aesthetic draw back to this backup structural system is that a wall is required above and below the floor slab. The most efficient system is a sheer core system with two-foot thick concrete. This system allows glass from ceiling to floor. Vancouver allows 300’- 400’ height buildings with no moment frame. In Seattle, the IBC is open to peer review and alternative structural systems can be presented to avoid redundant systems. (BW)

IBC changed the 16 foot setback rule for development on alleys to 20 foot setback (each development gives up 2 feet i.e. 2’+2’+16’ alley = 20’). This forces each developer to give up developable land (2 feet x the length of the property). (BW)

Steel doesn’t pencil for high-rise residential. Steel has to be fireproofed. In addition, the price of steel has risen. The most cost efficient system is post tension concrete slab with a concrete core. (BW)

Explain the impacts of code requirements on choice of construction type.

After the 1994 Northridge Earthquake, the cost of steel moment frames went up because every connection had to be fortified. In addition, the cost of steel in the US is rising. The rising cost of steel construction has made concrete construction more attractive. Concrete is a local and cost efficient building material. (JS)

Buildings above 75 feet high require smoke/fire controls in the form of pressurized stair and elevator shafts, break out glass (1 tempered glass window for every 50 feet), fire pumps, and emergency generators. Building code requires high-rises less than 160 feet high have a minimum of 1 elevator and high-rises greater than 160 feet high have a minimum of 2 elevators served by separate and fire protected mechanical rooms. (JS)

The core (stairs, elevators, etc.) of the building always impacts the form. A smaller core will allow for a smaller floor plate creating a slender building. Seattle does not currently allow “scissors stairs” for high rises, but Vancouver does. This design creates a smaller core allowing for more units. (WJ)

Type 1 construction is typical for certain types of lower-rise residential. Steel is preferred but is not used as often because of its thickness takes away from floor plate. You can lose 2-3 floors using steel. Most use concrete slab b/c it is only 8". The Energy Code doesn't understand the nature of high-rise residential structures. The Code was written for residential structures not for high-rise development. (DH)

If you are talking about entitlement code, there is little impact. In the past, environmental issues concerning reflectance glass were a big issue, but recently there are few code mandates. Currently the process relies on design review to define materials through established guidelines. (MS)

What are the key factors that make a building marketable?

It used to be different, but rental and condominiums are nearly identical when it comes to average unit size and floor plate sizes. Generally in residential high-rise housing developments developers try to stay below 15,000 SF to make them exempt to upper development regulations. Office building floor plate sizes vary from 18,000 SF to 24,000 SF, although many tenants are looking for even larger floor plate sizes. I would say the average for residential is about 62' x 180' in a bar, or 'L' configuration with stepping; they could also be in the neighborhood of 90' x 90' for square configurations. Office structures are normally 120' wide by 180' – 210' average. Office structures have a tendency to have larger bases largely do to the demand of newer

tenants to have floors larger than 25,000 SF. Developers will normally go for the limit on height and FAR. (MS)

Beyond a given location, residential high-rise is about views, views and views. Balconies (Lanais) no matter how usable are a given. Flexibility in the unit design is important. Unit sizes are going down as the price or rent of unit climbs. (MS)

Natural light is important. Vancouver developers usually provide taller slender towers that have glass on all sides, which allows more views and light. Tall buildings should have 9-foot floor-to-floor heights to allow more light and better ventilation.
(GS)

Balconies should not be mandated since above a certain height high winds make them uncomfortable. (GS)

Light is a major factor. Outdoor balconies are not much needed in upper floors of high-rise buildings because of the wind. An atrium setting is more appropriate. Accommodating needs by providing flexibility in floor plans is becoming an important element. (DH)

Building skin material is also a factor – people are getting particular about what they want. Glass and metal are big marketing points as is concrete and steel. People are leery of wood because vulnerable skin-coverings. (DH)

People are looking for quality buildings with longevity. People want usability – storage, quality kitchens, etc. Height isn't a factor in the residential market. (DH)

Location is a big factor. People like views and a sense of safety at the street level. This would include street level activity at all times of the day and night. Visitor parking is also important. People like aesthetically pleasing buildings as well. I think the design review process will help with aesthetic appeal. (WJ)

Not sure what the future market conditions are for new condo/apartment units. The trend used to be empty nesters who want 2 bedrooms or 1 bedroom/den. Now, younger professionals are buying smaller, more affordable studios/1 bedroom units. Right now, the market can not predict what people will want in 5 years. (WJ)

In order for high-rise development to pencil, a building efficiency ratio of 85% must be met. This means that the area of dedicated to building infrastructure i.e. stairs, elevators, vents, mechanical rooms, common areas, etc. can not exceed 15%. When the

building plate becomes smaller, the challenge is keeping the infrastructure area in check to allow for enough units to justify the building cost. (BW)

The Cristalla has an 85% efficiency ratio. The Cristalla's floor plate is 13,500 SF with 32 foot and 16 foot setbacks from the adjacent streets. The building has no blank walls. (BW)

How do the design guidelines influence material choices, building shape and the street environment?

I think the biggest effect is the street environment and where design guidelines seems to be more specific (relatively speaking). The materials of the high-rise are somewhat limited, and driven by cost and technology, but it's up to the designer to create the composition to provide appropriate uniqueness and interest to the design. Once you are about 30' above the street, the materials tend to blend and it's more about color and amount of solid/void space. (MS)

Quality designers would exceed the guidelines. Design guidelines can actually inhibit good design and cause consensus architecture. The Guidelines take some of the edge out of designing. If architects were policing themselves, guidelines wouldn't be needed. (DH)

The design guidelines encourage good behavior and allow certain projects to fit into the urban context. The guidelines also create blandness. You can't legislate good design. (DH)

Definition of street level retail is too restrictive. There needs to be more freedom in the design review process in regards to street-level uses. In Vancouver, there is a mixture of residential, offices retail and other neighborhood services at the street level. This mixture of street level uses creates an urban village and reduces the possibility of street level vacancies. (GS)

The code in Belltown created a walled city (blank building facades). SODO needs to be re-examined to encourage density, especially along future transit lines. (GS)

Sidewalks must establish a clear zone so pedestrians are not impeded by street furniture. (JS)

Building form is mostly a zoning code level issue. The design review board process helps ensure the intent of the design guidelines is met. In addition, infill development should be response to the existing urban pattern. (BW)

The code already protects view corridors for part of the city but maybe view corridor protection should expand to protect areas of slated for infill development. (BW)

How does the energy code encourage or discourage sustainable development?

The energy code is a mandate and ironically its difficult code to beat which is one of the most effective ways to accumulate LEED™ points for certification. (MS)

The energy code is counter-productive to sustainable development. We need to remove impediments to sustainable development and promote the use of rainwater, energy efficient lighting and mechanical systems and allow more sunlight in buildings and on the street. (GS)

The energy code is designed to save energy over the life of the building. Building operations and maintenance have a big role in operating an energy efficient building. (JS)

The energy code doesn't encourage glass. The intent is to prevent energy loss by minimizing the amount of glass openings. Maximum amount allowable glass openings is calculated as a percentage of the building's floor area. However, this approach relies on artificial lighting. The drawback to artificial lighting is that it also consumes a lot of energy and building occupants generally prefer natural daylight. Buildings may exceed the maximum amount of glazing by providing alternative shading devices and energy saving measures. (JS)

Washington State Energy Code doesn't allow natural ventilation for residential dwellings. However, if the baseline for mechanical ventilation is provided, the building can augment the system with operable windows, balconies, etc. (JS)

The energy code is restrictive. The city needs to take a holistic view at the situation. People are saving energy when they live downtown and walk to work and to run errands. The city should adopt a policy statement addressing the benefits of downtown housing development. This policy statement needs to say, "Housing density in downtown is good for these reasons...." Transportation and sustainability are just two of those reasons. (WJ)

The Washington State Energy Code is designed for single family residential. With high-rise residential buildings, heat loss is never an issue. Heat travels vertically through the concrete slabs with little heat lost. The code puts restrictions on glazing;
S e a t t l e U r b a n F o r u m S t u d y

in turn making it hard to use glass. This forces developers to needlessly spend money on the buildings skin. Blaine recommends an energy code designed specifically for high-rise towers. (BW)

The Energy Code doesn't understand the nature of high-rise residential structures. The Code was written for residential structures not for high-rise development. (DH)

There is no relationship between sustainable development and the energy code. (DH)

What emerging code changes will likely impact future building design forms in the wake of 9-11 and the newly adopted International Building Code? Is there any latitude for amendments with the Seattle Building Code?

Safety is increasingly important. The code ensures that life safety measures have been met. Once the building is occupied, it becomes a building security issue. Buildings need to provide adequate outdoor lighting and safe, secure parking. (GS)

Tenants/owners today seem to bring up the issue of the World Trade Center and always ask questions about security and height. Recently these issues focus on the garage, building access, building air systems, and structure. Many recently completed towers have incorporated structural concrete cores, which house the vertical transportation (exiting) systems that seem to give high-rise tenants and dwellers a good degree of confidence of fire and impact resistance. The World Trade Center's core, in many places, consisted of nothing more than gypsum fireboard separating it from adjacent spaces. (MS)

Redundant systems are important for safety. Quality buildings can be designed with defensible systems. A good example is the King County Courthouse. (DH)

Vancouver uses scissors stairs. Their space efficient design allows for more or larger units per floor. They are pressurized and concrete sealed for fire safety. (GS)

Stairs are about getting out of the building safely. Two sets of alternative escape routes are required. Scissors stairs provide two separate entries to the same staircase. Vancouver and Portland have approved scissors stairs. Seattle will not allow scissors stairs. Seattle is in a Seismic 3 Zone. During a seismic event, a floor could collapse and thus make a portion of a scissors stair inaccessible. A collapse is unlikely to happen. The issue of fire-protection is accommodated with scissors stairs. The staircase has doors at opposite ends of the building, the stair shaft is pressurized to resist smoke, and the concrete shaft has two hour fire protection. (BW)

Seattle should change the definition of tall, slender towers to a 12,000 SF floor plate. The City should remove code impediments and add incentives to help developers hit their pro-formas. Vancouver's high-rise towers are 10,000 SF on average and have glass on all four sides. (BW)

DOC 1 and DOC 2 zones are not conducive to building tall and slender towers. Seattle needs to increase downtown residential by encouraging density. Currently, Downtown Seattle has four jobs for every one household. (GS)

Through urban infill development, we can comply with the Growth Management Act. In addition, providing housing near transit gives people alternatives choices to passenger vehicles. We should incentives sustainable development. The zoning code should reward developments that have green roofs, on site recycling collection areas, efficient HVAC systems, reuse rain water, are within walking distance to transit, have dedicated Flexcar spaces, and provide bicycle facilities. (GS)

Currently, the FAR is 100% for residential, we propose 95% FAR to provide more open space, sunlight, and pedestrian amenities at the street level. This could be achieved through height incentives. (GS)

There is a challenge in the city to find infill development sites. The only way to develop one a small lot is by increasing density. I suggest a 50% increase in DMC 240 this would put density at 360 feet. We need downtown housing – there needs to be separation in the code when addressing residential vs. office towers. (WJ)

The city needs to realize that parking for residential buildings doesn't necessarily increase traffic. People want/need a car on the weekends or for a trip to the grocery store. Parking needs to be provided for people but there is no correlation to increased traffic. This is a very important element. A parking space increases the marketability without affecting traffic. Perhaps DPD could conduct a study analyzing people who live downtown and how they commute/run errands (walk, bus, bike, drive, etc.) to determine that adding parking does not increase traffic. (WJ)

The City could add incentives to the code to encourage tall, slender buildings. Some bonuses for density are already in place. For instance, Columbia Tower received a density bonus for providing an interior retail arcade. Similar incentives should be created that allow taller building heights for residential high rise structures. (BW)

Here are some additional ideas for height bonuses (BW):

- *In Alternative 1 (240'-312' height), reward a smaller floor plate (10,000 to 12,000 SF) with a 20% height bonus. The City benefits with visually more pleasing buildings, more light to the street level and preserved view corridors.*
- *Grant a height bonus for providing at least 10% affordable units per building. This results in a percentage of smaller units per building. Providing affordable housing is a great asset for the City. Cities with a diverse population of ages and incomes thrive. Seattle needs more downtown work force (median income housing).*
- *Grant a height bonus for developing with sustainable building practices.*
- *Grant a height bonus for providing additional pedestrian amenities.*

High-Rise Regulations in Other Cities

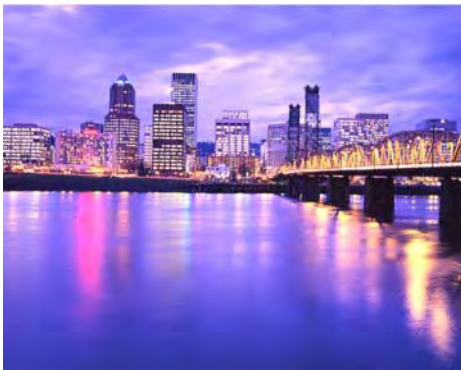
Otak reviewed the development standards in selected cities to address the bulk of high-rise residential structures. Local comprehensive plans, development standards, design standards, and design guidelines were reviewed to ascertain potential impacts of these regulations on building form. The cities selected for this analysis include:

- Portland, Oregon;
- San Francisco, California; and
- Vancouver, British Columbia, Canada.

Portland, Oregon

Within the Central City Plan District, only the South Waterfront Sub-District contains specific code language dedicated to creating taller towers. In order to maximize views and connections to the Willamette River and the Willamette Greenway, standards limit the maximum north-south dimension of the building and identify east-west pedestrian and bicycle connections. However, with the exception of these regulations, tall buildings are regulated in Portland through height and FAR standards. Ensuring elements like adequate light, air and the sky to building ratio is considered in the design of buildings, and realized through the Design and Development Review Process, and the South Waterfront Design Guidelines.

Portland Skyline



Key findings include:

- Portland's downtown zoning, FAR and small block grid impact building form and density.
- Central Residential (RX) is the highest density residential zone. Maximum height is 250 feet. An additional 16 feet is allowed beyond 250 feet provided that height is required to house elevator and mechanical equipment.

- Maximum FAR in RXd zone is 12:1 and can only be achieved through the use of bonus density and TDR. TDR is only allowed between abutting lots when they are being jointly developed.
- Applicable bonus uses include: day care, retail, roof top gardens, percent to the arts, large dwelling units, middle income housing option, small development site, affordable housing replacement fund, and below-grade parking.

In the burgeoning South Waterfront Plan District (south end of downtown), a new set of development regulations have been adopted. The maximum FAR (for any allowed use) is 9:1, but the maximum building height is 325 feet. Building FARs and heights step up gradually from the Willamette River, and small block grids of 200*200 feet with east-west streets help to preserve views from upland neighborhoods to the west.

- Additional height beyond 325 feet can be approved provided buildings meet one of the following criteria: average floor to floor heights are 16 feet; or no floor area of the building above 75 feet is larger than 10,000 square feet.
- In the South Waterfront no more than 3:1 FAR may be earned through the use of bonuses or TDRs in combination with provision of additional public open space.
- The South Waterfront Design Guidelines and the Greenway Design Guidelines for the South Waterfront include specific regulations intended to affect urban form. Specific guidelines include: Develop River Edge Variety (A1-1), where projects must “vary the footprint and façade plane of buildings that face the Willamette River to create a diversity of building forms and urban spaces adjacent to the greenway.”
- Building height and tower orientation standards in the South Waterfront are intended to provide visual access to the Willamette Greenway and the Willamette River from surrounding neighborhoods, visual access to surrounding peaks and ridges, and natural light along designated east-west streets and create urban form that is permeable.
- Generally buildings less than 75 feet in height have no limit on north-south dimensions, nor tower spacing.
- Buildings greater than 75 feet must comply with building dimension standards as well as tower separation standards. Tower separation standards require at least a 50-foot separation between towers, or additional limits on north-south building facades.
- With buildings over 250 feet in height, portions of the building must be at least 200 feet apart from other existing or planned structures at the 250+ foot height level. Note: this particular design standard has not yet been tested.

One recent example of Portland's design standards and Design Review Process is the recently approved Benson Tower project in downtown Portland. The Benson will become a slender condominium tower with a 3,700 +/- floor plate on a 13,000 square foot site

(130'x100'). When completed this elegant tower will be approximately 266 feet tall, with 24 stories above a ground level retail/common area, and below grade parking. The project will include 148 dwelling units. The Benson maximizes the available 12:1 FAR by taking advantage of a bonus density from below grade parking, which increases the base FAR from 8:1 to 12:1.

San Francisco, California

Creation of slender towers that allow for views of San Francisco's topography is necessary to retain the city's imagery and folklore. Unfortunately, rigorous seismic requirements prevent use of recent design innovations such as scissors stairs, where both sets of stairs share a single overall shaft but are separated by an internal wall. Larger more costly structural steel cores for buildings above 240-feet complicate creating distinctive high-rise residential towers in San Francisco. Consequently, compared to places like Vancouver BC (where floor plates typically range from 3,500 to 7,500 square feet), San Francisco's floor plates range between 7,500 square feet and 10,000 square feet.

Given a 10,000 square foot floor plate and a 1:1 goal of sky to building ratio, towers would need to be a minimum of 100 feet apart (or 140 feet if diagonal dimensions are considered). The distance between buildings is not expected to be significantly different than Vancouver BC, where buildings are typically a minimum of 100-feet apart, even though the minimum requirement is 80-feet.



San Francisco Skyline

Key findings from our review of San Francisco downtown regulations are summarized below.

- San Francisco's most innovative design and planning regulations are now being prepared for the Rincon Hill Special Use District, located on the west end of downtown along the San Francisco Bay. This new mixed-use development area is to be guided with specific development regulations that affect overall building height, bulk and orientation. The proposed standards are intended to create a slender, more elegant building form.
- Design considerations associated with increasing the building height and reducing the overall building mass:
 - Public Realm (R.O.W.)
 - At the street level, residential towers need to include wide sidewalks, street trees, street furnishings and public open spaces.
 - Massing and articulation of the building
 - Ground Floor Treatments

In general, pedestrian-oriented retail, residential, office or other community services are required on the ground floor of all street-facing frontages.
 - Podium Level
 - Buildings proposed in the Rincon Hill Downtown Residential Mixed Use District consist of a distinct podium and a rhythm of (evenly spaced) slender towers. The purpose of the podium level of the building is to create a continuous and cohesive street edge condition along the street. This model of development is practiced extensively in Vancouver BC.
 - In San Francisco, podiums are not to exceed 85 feet in height with an average minimum height of 50 feet.
 - Multiple residential entries from the street to ground floor units are encouraged within the podium level of the building. Individual ground floor units are required to be articulated every 25-feet to help differentiate individual units from the overall mass of the podium and express a rhythm of individual units.
 - Residential podium facades must be setback 5-10 feet from the property line and elevated a minimum of 3-feet with stoops, porches and landscaping. Interior spaces such as living and dining rooms should connect to the raised porches or balconies and serve as a transition from indoor spaces to outdoor spaces.
 - Ground floor podium facades not used for residential uses are required to employ retail, office or other community-oriented uses as a means of creating a pedestrian-friendly edge and visual interest along the ground floor. These non-residential ground floor uses require a minimum

clearance in height of 15-feet from the ground floor to the ceiling. Ground floor facades require a minimum of 60% transparent glazing.

- Requirements for creating slender sculptured point-towers.
 - Spacing Towers: Above 85-feet, buildings must be spaced a minimum of 115-feet apart. Given San Francisco's larger floor plates, 115-feet is the minimum separation to achieve a 1:1 sky to building ratio.
 - Bulk: Towers are encouraged to exhibit a minimum bulk to height ratio of 3.5 to 1 for buildings that are between 240-400 feet.

Note: Buildings between 85 and 300 feet cannot exceed a plan length of 100 feet and a diagonal length of 125 feet. The maximum average floor area for these buildings is 8,500 square feet.

Buildings between 301 and 400 feet cannot exceed a plan length of 115 feet and a diagonal length of 145 feet.

- Proposed regulations for floor areas shall be in accordance with site dimensions and proposed building heights (See Figure 2) as follows:
 - Buildings between 85 and 240 feet in height, average floor plates cannot exceed 7,500 square feet;
 - Buildings between 241 and 300 feet in height, average floor plates cannot exceed 8,500 square feet;
 - Buildings between 301 and 350 feet in height floor plates cannot exceed 9,000 square feet. Top third of building above podium level is subject to 10% volume reduction for tower sculpting.
 - Buildings between 351 and 400 feet floor plates cannot exceed 10,000 square feet. Top third of building above podium level is subject to 10% volume reduction for tower sculpting.
 - There are no bulk controls below podium levels (less than 85 feet);
- Floor plates: In San Francisco floor plates typically range from 7,500 to 10,000 square feet.
- Height Sculpting: A ten-percent volume reduction is required for any tower above 300-feet.
- Block Coverage: A maximum of three towers is proposed per block, with a tower defined as any building above 85-feet in height. San Francisco considers an ideal tower development to be 20% of the total block area.
- Lots with depths greater than 80 feet are allowed 100 % site coverage up to 85 feet in height, provided that the building's sitting and configuration assure adequate light and air.

- Lots with a depth of 80 feet or less are limited to 80 % lot coverage up to 85 feet in height.
- Buildings less than 85 feet in height are required to be built to all property lines that face public rights of way.
- Floor Area Ratio Controls (TDR Program): How much FAR a site can receive depends on the size of the parcel, proposed use and whether the parcel currently has an existing (historic) structure. Residential uses are exempt from FAR limits, pursuant to Planning Code Section 124(b). Commercial base FAR between 7 – 10:1 is allowed for the creation of an 85-foot podium. An additional 13-23:1 FAR is available to supplement the base commercial FAR and allow for the creation of towers. A district wide transfer of development rights program allows unused FAR to be used in other locations within the district.
- Techniques used to preserve light and air at the street:
 - Alleys or mid-block facing podiums above 45 feet must be setback 15 feet from the property line.
 - Street fronting entry podiums above 65-feet must be setback an additional 15-feet from the property line.
 - New street facing buildings located on the south side of the street are required to preserve a minimum 50-degree sun angle (solar access) above 45 feet. In order to achieve this requirement the building might need multiple setbacks. Within 60-feet of an intersecting cross street, stepping back the building is not required. Floor area devoted to towers is exempt from the setback requirement.

Figure 2. San Francisco's Proposed Bulk Control Standards

Vancouver, British Columbia

Many zones in the City of Vancouver allow for the development of residential towers. However, unlike the City of Portland and San Francisco where land use designations are applied to specific geographic areas, zoning in Vancouver is often applied on more of a block by block basis. This finer grain of land use controls and development standards are largely the result of the city's more intense development pattern. There are finite number of (infill) sites in the downtown. Consequently, planners have the opportunity determine zoning designations in relationship to surrounding developments and the city as a whole.

This more individualized approach to building residential towers and communities is also the result of planning that has occurred on large sites that are under a single ownership, or in planning sub-districts. In Vancouver, many of the recent tower developments have been guided by large master plan developments that have been prepared in conjunction with the city. In this development scenario, the value of each tower is tied to the larger value of the proposed neighborhood. As a result of this synergy, developers and architects are more willing to look at the cumulative impact of things like views, privacy, light and air on the proposed development.

The limited amount of land coupled with protection of the City of Vancouver's natural and scenic resources has created an environment where it is necessary to apply a more vertical approach to building, especially housing. This mindset is widely accepted in Vancouver, due to the city's dedication to creating quality "high-rise" architecture. Hence, the City of Vancouver is considered the model for developing residential towers with floor plates typically ranging between 3,500 square feet and 7,500 square feet.



Vancouver Skyline

Key findings from our review of Vancouver's development regulations are provided below:

- Planning Principles
 - The following select design and development principles guide development in False Creek, a neighborhood characterized by a continuous and cohesive podium edge and a large number of residential towers.
 - Views: Water, mountain and landmark views should be considered from residences, public spaces, bridges and streets.
 - Sunlight: The form of development should maximize sunlight exposure to public and private opens spaces.
 - Water: The form of development should enhance the openness and presence of the water and not overwhelm the natural water's edge.
 - Imageability: Within an overall unifying theme, distinctive character areas should be achieved to be compatible with surrounding areas, provide variety and respond to site influences such as views, parks bridges, shopping areas and public facilities.
 - Integration: The form and pattern of buildings should respond to the street network and adjacent built up areas of the city.
 - Public Realm: A concepts should be developed for street and sidewalk treatments, street furniture, plantings and walkways which achieves areas of distinctive character within a unifying theme and is attractive, durable, cost effective and reasonable to maintain.
 - Safety: Development should ensure (building) patterns and guidelines that foster safety and security
- Architectural Character
 - In designing residential towers, Vancouver architects and developers are encouraged to divide the building into 3-4 zones, depending upon the height.
 - Street / Base Zone is designed to be about 4-6 stories and consists of combination row houses, town houses and flats. In order to promote a continuous and cohesive pedestrian environment, the base or podium is divided into distinct units. Changes in materials, types of windows and cornice details are typically employed in this zone to distinguish units from one another and to distinguish the base of the building from the taller tower parts of the building.

The City of Vancouver is often credited with the development of the model that calls for row houses in the base (podium level) of the building and along the street in combination with slim point towers. This approach is pedestrian-oriented as realized by eyes on the street, protection of view

corridors, creation of open spaces, and the development of semi-public rooms – porches, balconies and stoops.

- The middle zone often referred to as the terrace or tower zone typically integrates elements found in the base zone. At a minimum, horizontal and vertical datums are carried through this part of the building. The middle zone is predominately residential as realized by the palette of repetitive building materials and building elements: windows, and porches / decks.

A common thread through Vancouver tower developments is the use of timeless materials. Mid-rise and high rise towers may utilize a variety of building materials provided materials are carefully detailed to ensure compatibility. The range of appropriate materials includes brick, concrete, stucco, glass and metal.

- The (tower) top zone terminates the building. In Vancouver, BC the design of the top of the building is intended to contribute to the city's skyline. The most common practice for articulating how the building meets the sky is through sculpting the building's upper floors. This approach is not intended to dilute the importance of have a decorative cap. But it is imperative that the cap fits in with the sculpting of the upper floors and the larger building form.
- Development Standards
 - The City of Vancouver's development of residential towers is guided by the following land use regulations:
 - Minimum tower separation: 80 feet
Note: Because of the many overlay restrictions, Vancouver's towers are typically more than 100 feet apart.
 - Master Plan Floor Area Ratio: 3 to 1
 - Minimum Site Dimensions: 375 foot street frontage
 - Minimum Lot Size: 45,000 square feet
 - Street Setback: 40 feet
 - Maximum Building Height: 300 feet
 - Wall length in towers can be maximum of 80 feet long in any direction.

Note: The Development Permit Board can approve buildings up to 450 feet if they determine that the building has limited or no shadowing and view corridors are maintained.

- Minimum Sky to Building Ratio 1:1
The sky to building ratio is the minimum acceptable opening between buildings necessary to bring light and air to sidewalks and public open spaces.

Synthesis of Findings

The combination of findings from the evaluation of actual high rise residential projects, interviews, and city case studies is compared and synthesized in this section. The results indicate potential areas of consideration for City staff and elected officials as they prepare development code amendments and select a preferred alternative for the EIS.

Based on the results of the Draft EIS skyline impact analysis, it is apparent that all of the EIS Alternatives would likely result in similar impacts on the downtown skyline (please refer to Appendix B). While the existing stair-stepped pattern of graduated building heights would continue, the vast concentration of redevelopment in the Denny Triangle could result in a uniform wall or mesa of building structures that impede views of downtown from the north and northeast. Given the potential for development of large and bulk structures with uniform building heights, there will likely be adverse urban design impacts under any of the EIS Alternatives with the Denny Triangle and Denny Regrade areas, unless additional development standards or design standards are adopted.

It is apparent that the most significant change in urban design conditions over the next 20 years will occur in the Denny Triangle and Belltown areas. In these areas, the street blocks are typically longer (360 feet) than in the Commercial Core area (240 feet) and the street width in some areas is slightly narrower. The larger blocks, narrower streets, and lack of major physical or man made separation between lower density development patterns in the South Lake Union area, could lead to a dense urban environment that forms a “wall” between Downtown and adjacent areas such as South Lake Union and Pike Place. The potential to maximize building density and height with current development standards would likely exacerbate this urban condition, and lead to taller and bulkier, uniform buildings that would allow less sunlight and building variation than exists today. (Please refer to Appendix B)

High rise regulations that propose standards similar to those that apply in the Belltown high-rise residential zones would be expected to result in more slender high-rise towers, and more tower separations. This approach would provide a relatively better transition of development scale on the edges of abutting neighborhoods.

Structures in the DMR/C zone are allowed to cover 100 percent of the site area below the height of 65 feet. Above 65 feet, the allowed building coverage area is regulated according to lot size. For lots between 19,000 and 25,000 square feet, the building area above 65 feet is limited to 65 percent of the site until a height of 85 feet. From

86 feet to 125 feet, site coverage drops to 55 feet; and from 126 to 240 feet, site coverage drops again to 45 percent. The minimum site size for a project exceeding 125 feet in height is 19,000 square feet, and the maximum floor size for a any portion of the structure exceeding 125 feet in height is 8,000 square feet.

As the Denny Triangle redevelops, thousands of new Downtown residents and employees will be added to an area that encompasses 39 city blocks or approximately 145 acres (including streets). Residential population density in this area could likely increase to nearly 40 people per acre by year 2020. Daytime employment livability within the emerging live/work environment in the Denny Triangle area can be optimized if the following factors are integrated into the pedestrian environment:

- Encourage uses at ground floor levels that provide services to residents and visitors during the day and night.
- Provide adequate lighting and landscaping that makes residents, employees and visitors feel safe and secure.
- Create diverse market-rate and affordable housing opportunities.
- Provide welcoming public open spaces and streets where residents need them. New green streets, parks and open spaces should be created or enhanced with attention toward passive and active recreational settings, and preservation of sunlit areas. Streets such as Westlake must become welcoming to pedestrians as well as vehicles. Sunlit locations will increase in importance overtime as more people move into the area, and new development reduces existing levels of sunlight and open space.
- Pedestrian and bicycle pathways and routes are convenient, safe, and well maintained.
- Transit facilities and service levels are convenient for pedestrians.
- Architectural treatment of buildings, urban design of sites, public art displays, plazas, and parks are integrated—yet provide an interesting and unique urban experience.

Based upon the review of residential high rise regulations in other cities it is apparent that city planners are now attempting to regulate high rise structures to optimize a site's development potential in a manner that considers overall urban design and street-environment impacts. Table 3 generally summarizes the various approaches used by Seattle, Portland, San Francisco and Vancouver B.C. to regulate residential high-rise structures.

Table 3
Comparison of Residential High Rise Regulations Used in Selected Cities

Type of Regulation	Examples of Cities Where this Applies	Notes Regarding Seattle Regulations
Increase allowable base building height, when special conditions are met	Seattle, Portland, Vancouver	Height increases of up to 30% are allowed in Denny Triangle
Increase allowable base FAR, with housing projects, when special conditions are met	Portland, Vancouver	No current density limit with housing projects
Minimum site size for tower development	Vancouver, Seattle (DMR only)	Applies to DMR zone
Increase building FAR through bonus incentives	Seattle, Portland, Vancouver	<i>ibid</i>
Regulate upper-level setbacks	San Francisco, Portland and Seattle	See Note 1
Regulate building floor plates	San Francisco and Seattle	See Notes 1 and 2
Regulate towers along view corridors	Portland, Vancouver and Seattle	Upper level setbacks apply to Green Streets and specified View Corridors
Regulate sun light access to street level	San Francisco and Vancouver	City regulates shadowing on Freeway Park and Convention Center Park
Regulate building dimensions	San Francisco and Portland	Wall length regulations do apply
Regulate tower sculpting	San Francisco and Vancouver	potential new regulation
Regulate air space to building ratio	San Francisco and Vancouver	potential new regulation
Regulate building tower separation	San Francisco and Portland	potential new regulation
Allow scissors stairs in high rise buildings	Vancouver and Portland	not allowed
Notes:		
<i>1/ In DOC2 zones, Above 125 feet, buildings with floor plates over 15,000 sq. ft. are subject to coverage limits in areas along "street frontages." DMR zone includes "wedding cake" type upper-level setbacks starting at 66 ft. Buildings with less than 15,000 sf floor plates are exempt from upper level setback requirements.</i>		
<i>2/ In DMR zone sites with 40,000 feet: floors above 125 foot have 7,000 maximum limit on floor size; smaller sites have 8,000 sq.ft. floor -size limit above 125 feet. No other limitations apply in other zones.</i>		

The interviews with downtown development experts indicate that the existing regulations and development incentives could foster Downtown housing development that is contained in relatively bulky structures with minimal spacing between building floor plates. As such, Seattle may consider additional design

measures that result in buildings that are more consistent with local sunlight, wind mitigation, and open space objectives. Changes in design regulations should be crafted in a manner that does not result in adverse market/financial impacts on a developer's ability to provide housing and mixed-use development.

Figure 3 illustrates conceptual ways of providing the same amount of building floor-area onto a one-half block site. The massing image on the right depicts the likely result from existing regulations that control height limits more than building densities. The left image depicts higher building heights with more attention towards tower separation.

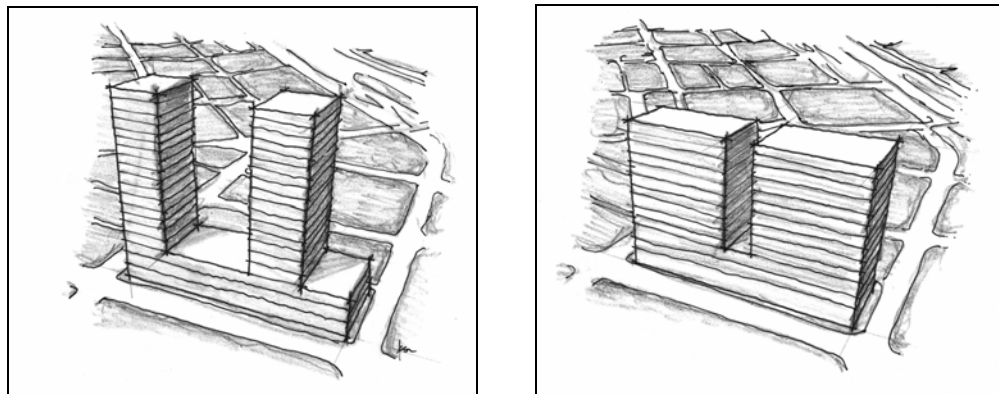


Figure 3. Density Alternatives – Two concepts for attaining equivalent amounts of development floor area. Figure on the left has a desirable air:building space ratio about 1:1, compared to figure on right with ratio of about 0.2:1.0.

Height and Density Considerations

It is apparent that the city of Seattle's current development standards would likely result in the construction of bulky massive buildings that would impact the urban feel of downtown and create a wall or mesa of buildings of similar height and scale.

Future development projects will most likely be designed by different architects, each with their own styles and approaches to design. While this is true of the existing buildings that shape downtown, the majority of buildings tend to have similar texture and color when viewed from a distance. Creativity should be encouraged to explore design ideas that will discourage similarity in the overall form of the city and enhance the variety of the character of the skyline.

Design is not just about architectural styles, it's about scale, proportion and arrangement of building components to enhance and define the character of the city.

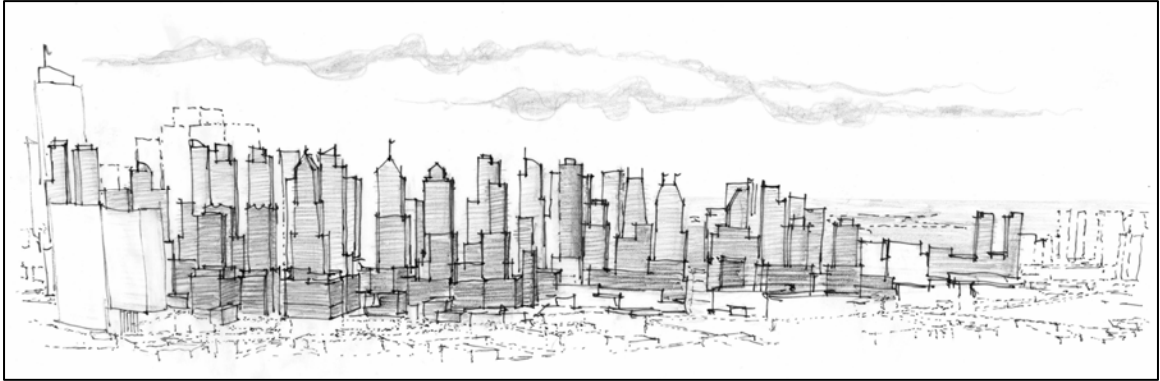


Figure 4. Potential future skyline view from Capitol Hill (with high-rise regulations)

Rooftop shapes and heights

Articulation of upper-level floors and rooftop penthouses will create a variety in building shapes. Existing downtown development regulations are subject to criticism by downtown developers and architects interviewed for this study for not allowing adequate flexibility to provide slender residential towers.

While the residential density is not subject to FAR constraints, the towers are subject to height limits. Hence, residential structures seeking to optimize development potential tend to utilize the majority of their buildable airspace. This results in bulkier structures than could otherwise be achieved if taller structures were allowed.

As evidenced by regulations in San Francisco and Vancouver B.C., allowing taller structures (up to 450+ feet) can still result in slender towers especially when additional regulations are adopted allowing or requiring tower sculpting, maximum floor plates, and maximum building dimensions.

Developers and architects interviewed for this study indicated interest in additional bonus height/density allowances for projects that provide smaller floor plates, taller floor-to-ceiling separations, affordable housing, LEEDtm certified sustainable buildings, and added pedestrian amenities.

Table 4.
Comparison of Development Regulations

Type of Standard or Guideline	Seattle's Current Situation in DOC2, DMC and DMR zones	Downtown EIS Alternatives for DOC2 and DMR zones	Notes and Considerations*
Increase allowable base building height	Code allows 160, 240 and 300 ft. heights, plus 30% increase though the TDC or certain conditions.	Alt.1:increases height to 165-340 ft (DMC); 300-400 ft (DOC2) Alt.2: increases height to 300-400 ft. DOC2; no change for DMC (other than 30% increase with TDC); Alt.3: increases height to 300-400 ft. for DOC2-240 only; 30% height bonus allowed through TDCs in most other zones	Maximum height in Portland's South Waterfront Dist. is 325 feet (excluding 16 ft. for HVAC). San Francisco's Rincon Hill District allows up to 400 feet; Vancouver allows 300 feet (buildings up to 450 feet. are allowed if building has limited shadowing and view corridors are maintained).
Increase allowable base FAR	Residential high-rise towers are not subject to FAR limits. Code allows 7 FAR (DMC) and 10 FAR (DOC2) for commercial uses.	Alt.1: increases commercial FAR to 10 (DMC), 13 FAR (DOC2-240); and 14 FAR (DOC2-300); Alt.2 : increases FAR to 13 (DOC2) and no change in DMC; Alt.3: increases FAR to 13 (DOC2-240), no change in most of DOC2-300 or DMC; reduces FAR to 4-5 in DMR/C.	Maximum FAR in Portland's South Waterfront Dist. is 12:1. San Francisco's Rincon Hill District does not subject residential uses to FAR limits.
Increase building height through bonus incentives * reward for smaller floor plates * reward for at least 10% affordable Dus * reward for LEEDtm buildings * reward for added pedestrian amenities	Code allows height increases of up to 30% if certain conditions are met.	Height increases of up to 30% are allowed in Denny Triangle if certain conditions are met, under Alts. 2 & 3.	Portland: buildings over 325 ft. in height can be approved provided towers either have limited size of floor plates to less than 10,000 (above 75 ft. elevation) or provide 16 foot floor heights.
Increase building FAR through bonus incentives	Code allows density increases if certain conditions are met.	Alt. 1: Denny Triangle DMC districts allowed up to 3:1 FAR increase when certain conditions are met. Alt. 3 allows increases in certain DMC areas if on-site housing is provided.	Bonus of up to 4:1 FAR allowed in Portland if certain conditions are met; San Francisco's FAR often predicated by presence of historic structures. District wide TDR available in San Francisco.
Regulate upper level setbacks	In DOC2 zones, above 125 feet, buildings with floor plates over 15,000 sq. ft. must provide setbacks of 20' from street and 60' from intersection. DMR zone includes "wedding cake" style upper-level setbacks starting at 66 ft. Buildings with less than 15,000 sq. ft. floor plates are exempt from upper level setback requirements.	Areas subject to DMR standards under Alt. 3 would include additional bulk controls on upper floors, including coverage limits and maximum wall dimensions.	San Francisco: 100% site coverage allowed for the podium (up to 85 ft. high); Towers over 85 feet are generally subject to building dimension and floor plate standards, and solar access standards. Portland and Vancouver generally regulate upper level setbacks through building dimension and floor plate standards, and view corridor guidelines.
Regulate building floor plates	No minimum or maximum. Buildings with less than 15,000 sq. ft. floor plates are exempt from upper level setback requirements.	Areas subject to DMR standards under Alt. 3 would be subject to maximum floor plate sizes of 8,000 square feet above height of 125 feet.	San Francisco: towers between 85-300 feet have maximum average floor plates of 8,500 feet; average maximum plates are 9,000 feet for 301-350 ft buildings; and 10,000 ft. for 351+ SF towers. Portland: buildings over 75 ft heights are limited to floor plates no larger than 10,000 sq. ft.

Table 4.
Comparison of Development Regulations Continued

Type of Standard or Guideline	Seattle's Current Situation in DOC2, DMC and DMR zones	Downtown EIS Alternatives for DOC2, DMC and DMR zones	Notes and Considerations*
Regulate Wall Length	In DMR, maximum length varies by elevation, site size, street frontage, and street/avenue type. Between 66 and 125 feet elevations, wall length range includes 90' along avenues and 120' along streets. From 126 to 240 foot elevation, wall length is limited to 100 feet. In DMC and DOC 2, wall lengths within 15 feet of street property line are required to provide modulation if specified limits are exceeded. These also vary by elevation and site size, with the wall length ranging from 90 feet to 120 feet.	same as current standards	In Vancouver, towers can only be 80 feet wide in any one direction.
Preserve Light and Air on Pedestrian Environment	Design guidelines limit building shadows on designated public parks.	Same as current standards	San Francisco generally regulates building setbacks in podium level to preserve at least 50-degree solar access.
Regulate building dimensions	See discussion regarding Wall Lengths	Same as current standards	Portland: buildings over 75 ft. must comply with dimension standards as well as tower separation standards. In San Francisco, buildings above 85 feet are subject to maximum street and diagonal lengths.
Regulate towers along view corridors	Code mandates upper-level building setbacks along designated view corridors and some Green Streets.	Same as current standards	Portland design guidelines vary building edges along the Waterfront and preserve visual access to the Willamette River from surrounding neighborhoods. Vancouver: buildings over 300 feet may be approved if tower has limited or no shadowing or view corridor impacts.
Regulate tower sculpting	Not addressed	not addressed	San Francisco requires 10% building volume reduction for towers over 300 feet.
Regulate air space to building ratio	Not addressed	not addressed	Vancouver and San Francisco have minimum sky to building ratio goal of 1:1.
Regulate building tower separation	Addressed to some extent in DMR zone through minimum site size requirement, limits on wall dimensions (20 foot separation required) and required setback from shared property lines (60 feet).	Same as current standards	Portland: buildings over 75 ft. must be at least 50 feet apart. Buildings over 250 ft. in height must be at least 200 ft. apart. Vancouver: minimum tower separation is 80 ft. San Francisco: towers over 85 ft. high required to be spaced at least 100 ft apart.

* References are made to Portland's South Waterfront District and proposed new standards in San Francisco's Rincon Hill District.

Building setbacks and Tower Spacing

Building setbacks and tower spacing standards should be encouraged to sculpt and shape the building massing based upon aesthetics and proportions. Upper-level setbacks help relate new development to the scale of adjacent smaller buildings and historic landmark structures, as indicated in Figure 5. However, some flexibility or variance from upper-level setbacks may be provided as long as developers comply with other regulations such as:

- Maximum floor plates;
- Tower separation;
- Tower sculpting;
- Air space to building ratios; and
- Maximum building dimensions.

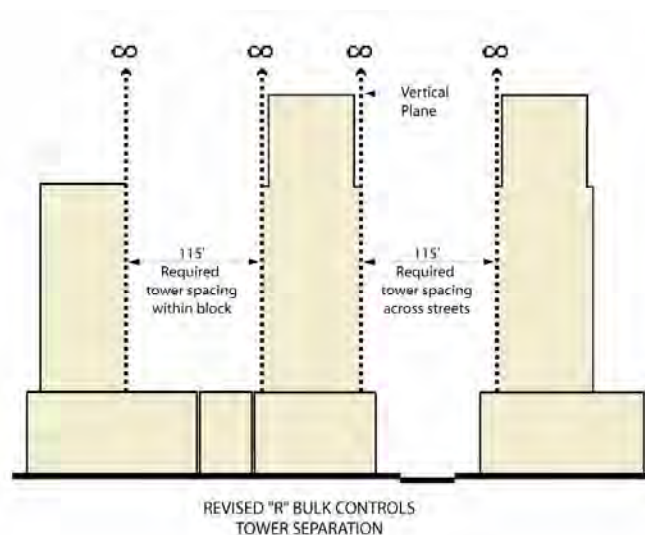


Figure 5. San Francisco's Proposed Tower Spacing Standards*

Open spaces, alleys and streetscapes

Providing open spaces, maintaining alleys and creating pedestrian friendly streetscapes support an active street life and encourages smaller massing of the buildings above. Successful public open spaces are places where people want to be in an urban outdoor setting. When integrated well into a city, successful public open spaces strengthen economic development, civic activity, social interaction and a citizen's sense of pride.

**Source: Rincon Hill District, Proposed Development Standards, San Francisco Planning Department, 2004.*

Open spaces should be encouraged at ground level to provide relief along the street front for pedestrians. Open spaces should be located in such a way as to compliment adjacent historic or landmark buildings. Open spaces give breathing room for new development at the street level and at the skyline level above.

Alleys divide blocks into smaller sizes and increase the building frontages. If alley vacations are allowed then the development should be encouraged to respect the alley on the upper levels by breaking the massing into smaller buildings providing open spaces above that encourage light and air.

Streets become places through creative designs that meet basic functional and operational needs while providing a greater sense of place that can be achieved by relating the streets to developments. Providing wider sidewalks, landscaping, public art and street furniture adds to the character of the development. The integration of public art with urban streetscapes would help to personalize our neighborhoods. It would allow the neighborhoods to project their unique image through art that has been created specifically for the built environment.

Residential and commercial development

Encourage uses at ground floor levels that provide services to residents and office workers day and night. Studies have also shown that urban housing with porches, entrances and windows near the street help foster a safer, more secure environment by placing “eyes on the street”.

Residential high-rise towers should be more slender and varied in exterior articulation. Buildings should be designed with finer grained exterior elements such as windows and/or balconies to distinguish the buildings from commercial towers by creating shadow lines and texture on the facades. Note, some developers and architects would like to have more flexibility from complying with the regulation that requires outdoor balconies for towers in light of high winds and inclement weather.

Building articulation scale and architectural character

Layering of architectural materials such as glass, steel concrete and stone on the facades of buildings can help to break up bulky massing and help to emphasize setbacks and building features, making them distinctive from surrounding development.

Adjacent existing buildings and historic structures

New development should respect existing adjacent building by articulating heights and facades with setbacks, facade treatment, scale and proportions of building

elements, change in materials and entrance locations. New development should relate in scale to existing building's cornice lines, street-wall heights and facades with scale elements, material textures and color to help preserve the pedestrian scale of the street.

Wind Impacts

Tall buildings and structures can strongly influence the wind and shadow patterns. In urban areas, groups of tall structures can slow down winds near ground level, because of the friction and drag of the structures themselves. Buildings that are much taller than surrounding structures intercept and redirect winds that might otherwise flow overhead. The redirected wind, traveling down the face of tall structures, is called “downwash.” Downwash wind conditions can generate ground-level turbulence, which is incompatible with a safe and secure pedestrian environment.

Generally, the taller the buildings are relative to surrounding structures, the stronger the downwash conditions. These intercepted winds can be especially strong if the upwind buildings are much shorter than the taller buildings, and can be diminished when the height of upwind buildings is similar to the height of the subject building. If the building provides a wide face to the wind, more air will flow down the face of the building toward the ground level. In summary, both height and bulk can affect wind conditions at the street level.

Potential wind impacts on the pedestrian environment can be controlled by building design features that redirect wind away from pedestrian areas. Typically, it is sufficient to provide substantial horizontal structures near the base of tall buildings and upper-level setbacks to help intercept and redirect the downwash. This design strategy is usually effective at mitigating wind impacts for both taller towers as well as lower, bulkier buildings.

Natural Light

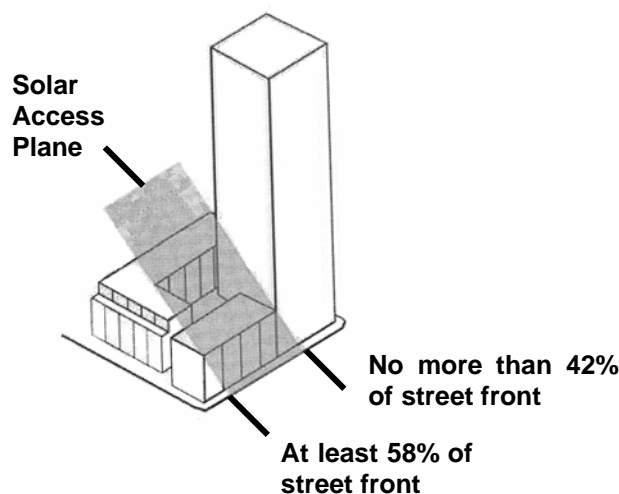
Sunlight is a rare yet highly appreciated weather feature of Seattle. Sun exposure and shading affects pedestrian comfort in Downtown. On a clear day, pedestrians expect to encounter both shade and sunshine on sidewalks and open spaces, and may or may not adjust their routes to favor one or another, according to temperature. Shade usually does not result in safety issues, except for rare icy conditions in the winter.

Seattle's existing Statewide Environmental Policy Act (SEPA) regulations already protect against shadowing effects of new development on specific public open spaces and parks in Downtown, including Freeway Park, Westlake Park, Steinbrueck Park, Convention Center Park, and Kobe Terrace/I.D. Community Garden.

Shadows cast by new development not only impact public open space and street environments, but also affect overall livability and the work environment. Studies have shown that work spaces with access to natural light can contribute to increased productivity of employees, increased retail sales, and reduced use of overhead lighting, which conserves energy. Bulky buildings, which cast shadows on adjacent areas, tend to have a greater impact on the production of shading than taller more slender high-rise structures.

Developers and architects identified natural light as an important marketing factor for downtown residential projects. The City should consider innovative standards, such as air space to building ratios and sunlight (solar) protection measures (as used in San Francisco) to ensure that adequate natural light penetrates the pedestrian environment, as shown in Figure 6. Interior natural light and sustainable energy solutions can be enhanced by encouraging taller floor-to-ceiling heights in towers through bonus height/density allowances, as in the case of Portland, Oregon.

Figure 6. San Francisco's Solar Access Standards



Analysis of Mitigation Measures

The following figures are intended to convey the massing and urban design differences between existing and potential development regulations. The development concepts shown include approximate massing within prototypical DOC2, DMC and DMR zones on half-block development sites. Underlying assumptions for this analysis are provided in Appendix C, D and E.

The results of this analysis indicate that taller residential high-rise tower structures could be accommodated in a manner that's compatible with the adjacent urban environment. Findings from this analysis are consistent with the feedback from developers and architects. It is apparent that Seattle's current development standards are supportive of potentially bulky high rise structures, particularly in the DOC 2 and DMC zones. Potential new standards, as identified in the Downtown Height and Density Environmental Impact Statement, are likely to lead to even bulkier high rise structures for the DOC 2 and DMC zones, with a slight improvement in the DMR zones.

The building prototypes shown in Figures 7, 8 and 9 include an illustrative example of a new high-rise tower prototype that assumes tower sculpting incentives/regulations are adopted.

The prototypes shown assume the allowed height for residential structures is increased to 450 feet for the DOC 2 and DMR-240 zones (up from 300 feet and 240 feet, respectively with current regulations), and a height of 400 feet for the DMC-240 zone (up from 240 feet with current regulations). These assumed height limits (ranging from 350 to 450 feet) are in the range of what is allowed in Portland, San Francisco and Vancouver. For purpose of this analysis, underground parking was limited to 3 levels, and above ground parking was adjusted to allow for parking ratios ranging from 0.8 to 1.0 spaces per dwelling unit.

The Tower Sculpting prototype images shown in the following figures all represent a measurable and noticeable change from the development prototypes likely to result under existing regulations as well as the types of high rises supported by the Downtown Height/Density EIS Alternatives. The added tower height combined with reduced building floor plates and regulated tower separations can result in taller more slender towers with an increase in housing densities (dwellings per acre) above current standards of approximately:

- 8% more housing density in DOC 2;
- 24% more housing density in DMC; and
- 81% more housing density in DMR.

The amount of air space above the 65-foot high "building podium" is another means to compare the building prototypes. Current Seattle regulations, which support potentially bulky structures in DOC2 and DMC zones, can limit the amount of sunlight, air space and views. The high rise prototypes with tower sculpting incentives/regulations result in much greater amounts of urban air space between tower structures.

The added tower height combined with reduced building floor plates and regulated tower separations can result in taller more slender towers with an increase in air space above the 65-foot podium level can result in the following beneficial impacts:

- change from 38% to 98% air-to-building ratio in DOC 2;
- change from 53% to 99% air-to-building ratio in DMC; and
- change from 73% to 77% air-to-building ratio in DMR.

Based upon these findings, it is recommended that the City of Seattle consider new development standards that include a mix of regulations and incentives that foster taller more slender residential high rises in downtown. While various high rise regulations are already codified in the City of Seattle, the results of this study indicate that the development community would desire more flexibility and freedom to design taller more slender structures that transcend current height limits.

Existing and proposed development standards in cities such as San Francisco, Portland and Vancouver B.C. suggest that development standards need not be overly onerous to be successful. An incentive-based approach that allows taller residential high-rise structures (400 to 450 feet) when certain conditions are met regarding tower separations, floor plate sizes, and/or air to building space ratios should be considered. This approach, when combined with updates to Seattle's existing Energy Code (e.g. allow more glass surface area) and Building Code (e.g. allow more openings along alleys) would accommodate more housing and create desirable urban living conditions – resulting in a skyline that characterizes a 21st Century world-class city.

DMC Zoning (based on 240' x 120' half-block development site)

Element	Units	DMC-240	DMC-240	DMC-240
Gross Site Area	SF	28,800	28,800	28,800
Net Site Area	SF	28,800	28,800	28,800
Building Height	Feet	240	340	400
Air Space Ratio Over Podium	Ratio	0.53	0.95	0.99
Building Floor Area Ratio	Gross FAR	18.28	21.67	23.03
Residential FAR (Net)	Net FAR	12.99	15.87	15.33
Residential Dwellings per Acre	Dwellings/Acre	666	813	786
Total Dwelling Units	Dwellings	440	538	519
Total Commercial SF	NSF - Floor Area	12,240	-	12,240
Parking Spaces per Dwelling	Spaces	0.84	0.84	1.03
Above Ground Parking	Spaces	206	247	370
Below Ground Parking	Spaces	165	206	165

DMC-240 (Existing Regulations)

DMC-240 (EIS Alternative 1)*

DMC-240 (With Tower Sculpting Incentives)**

*Based upon Alternative 1, highest allowed building height described in the Downtown Seattle Height and Density Changes, Draft Environmental Impact Statement, November 2003.
 **This option intended to represent taller building height allowance with new regulations and incentives intended to affect building forms.
 Source: Analysis by Otis, Inc. Please see Appendix for detailed assumptions and calculations.

Figure 6 Seattle Urban Form Study, Building Prototype Assumptions

DMR Zoning (based on 240' x 120' half-block development site)

Element	Units	DMR	DMR/C	DMR/C
Gross Site Area	SF	28,800	28,800	28,800
Net Site Area	SF	28,800	28,800	28,800
Building Height	Feet	240	340	450
Air Space Ratio Over Podium	Ratio	0.73	0.76	0.77
Building Floor Area Ratio	Gross FAR	15.14	20.92	27.25
Residential FAR (Net)	Net FAR	10.32	14.38	18.91
Residential Dwellings per Acre	Dwellings/Acre	529	737	969
Total Dwelling Units	Dwellings	350	487	641
Total Commercial SF	NSF - Floor Area	12,240	12,240	12,240
Parking Spaces per Dwelling	Spaces	1.06	0.93	0.83
Above Ground Parking	Spaces	206	288	370
Below Ground Parking	Spaces	165	165	165

* Based upon Alternative 1, highest allowed building height described in the Downtown Seattle Height and Density Changes, Draft Environmental Impact Statement, November 2003.
 **This option intended to represent taller building height allowance with new regulations and incentives intended to affect building form.
 Source: Analysis by Oak Inc. Please see Appendix for detailed assumptions and calculations.

Figure 7 Seattle Urban Form Study, Building Prototype Assumptions

DOC2 Zoning (based on 360' x 120' half-block development site)

DOC2-300 (Existing Regulations)

Element	Units
Gross Site Area	SF
Net Site Area	SF
Building Height	Feet
Air Space Ratio Over Podium	Ratio
Building Floor Area Ratio	Gross FAR
Residential FAR (Net)	Net FAR
Residential Dwellings per Acre	Dwellings/Acre
Total Dwelling Units	Dwellings
Total Commercial SF	NSF - Floor Area
Parking Spaces per Dwelling	Spaces
Above Ground Parking	Spaces
Below Ground Parking	Spaces

DOC2-300 (EIS Alternative 1)*

43,200	43,200	43,200
43,200	43,200	43,200
300	300	450
0.38	0.38	0.98
22.69	29.64	22.06
15.89	20.09	17.16
814	1,030	879
808	1,021	872
18,360	18,360	18,360
0.97	1.00	1.03
420	660	540
360	360	360

DOC2-300 (With Tower Sculpting Incentives)**

* Based upon Alternative 1, highest allowed building height described in the Downtown Seattle Height and Density Changes, Draft Environmental Impact Statement, November 2003.
 ** This option intended to represent taller building height allowance with new regulations and incentives intended to affect building form.
 Source: Analysis by Oak, Inc. Please see Appendix for detailed assumptions and calculations.

Figure 8 Seattle Urban Form Study, Bullitt Foundation

Appendices

*Appendix A –
Draft EIS Excerpts
Comparison of EIS Alternatives*

**Table 6
Comparison of Alternatives**

Alternative 1-High End Height and Density Increases	Alternative 2 – Concentrated Office Core
<ul style="list-style-type: none"> • 135-foot height increase in DOC 1 and 100-foot increases in all Denny Triangle zones • 30% height increase in zones at edge of office and retail cores • 4 FAR maximum density increase in Denny Triangle DOC 2 zone and 3 FAR maximum density increase in other zones • 1 FAR increase in base FAR in DOC 1 zone and DOC 2 zones outside Denny Triangle; 2 FAR increase in base FAR in DMC zones and DOC 2 zone in Denny Triangle. • No TDC in Denny Triangle zones 	<ul style="list-style-type: none"> • 100 and 135-foot height increases to the DOC 1 and DOC 2 zones • 30% height increase only at southern edge of office core • 3 FAR maximum density increases in DOC 1 and DOC 2 zones • No increase in base FAR • No height or density changes in western or northern DMC zones at periphery of the office/retail core • TDC limited to DMC zones in Denny Triangle
Alternative 3 – Residential Emphasis	Alternative 4 – No Action
<ul style="list-style-type: none"> • 135-foot height increase in DOC 1 and 100-foot increase in Denny Triangle DOC 2 between 5th/6th and 8th Avenues, west to Blanchard St. • No other height increases • 3 FAR maximum density increase in DOC 1 and same DOC 2 area described above • No increases in base FAR • Rezone Denny Triangle mixed use area between Westlake, Howell and Minor Ave. from DMC to DMR/C, lowering density from 7 FAR to 5 and 4. This re-oriens the zoning to mixed residential development. • Rezone Belltown southern edge from DMC to DMR/C, lowering density from 7 FAR to 5. • In other Denny Triangle and Commercial Core DMC zones, require the development of <u>non</u>-residential density (above the base) to be contingent upon including on-site housing. • TDC remains in all Denny Triangle zones except portion of DOC 2 with height and density increases. 	<ul style="list-style-type: none"> • No changes in allowable height or density • Existing optional height increases would be available, through use of bulk limitations, use of TDC program, preservation of landmarks or small structures on-site, or provision of on-site open-space usable to public. • Optional height increases range from 10% to 30% above mapped height limits.



Source: SPO, 2002

*Appendix B –
Draft EIS Excerpts
Comparison of Buildout Conditions*

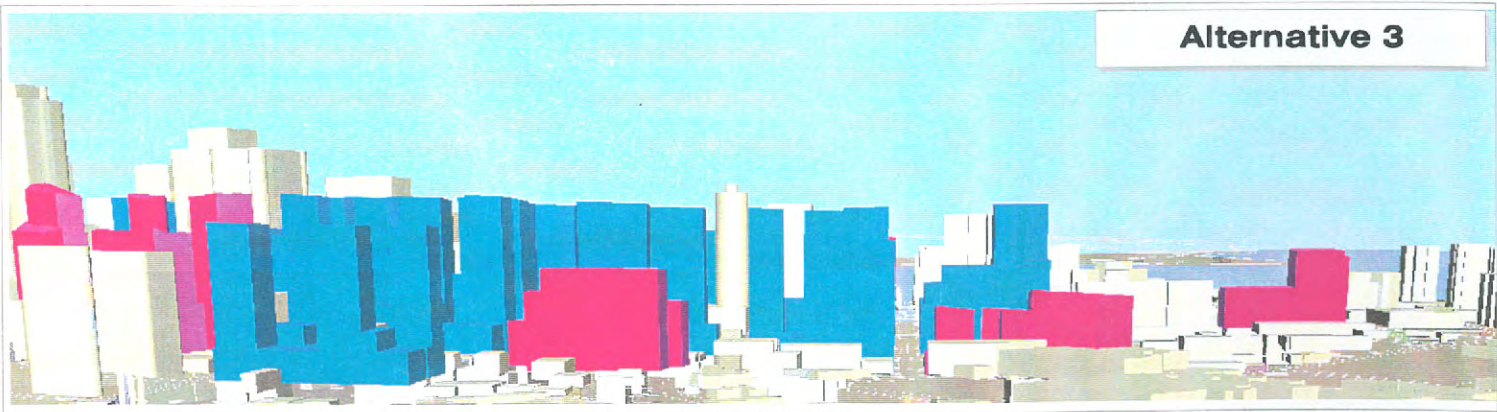
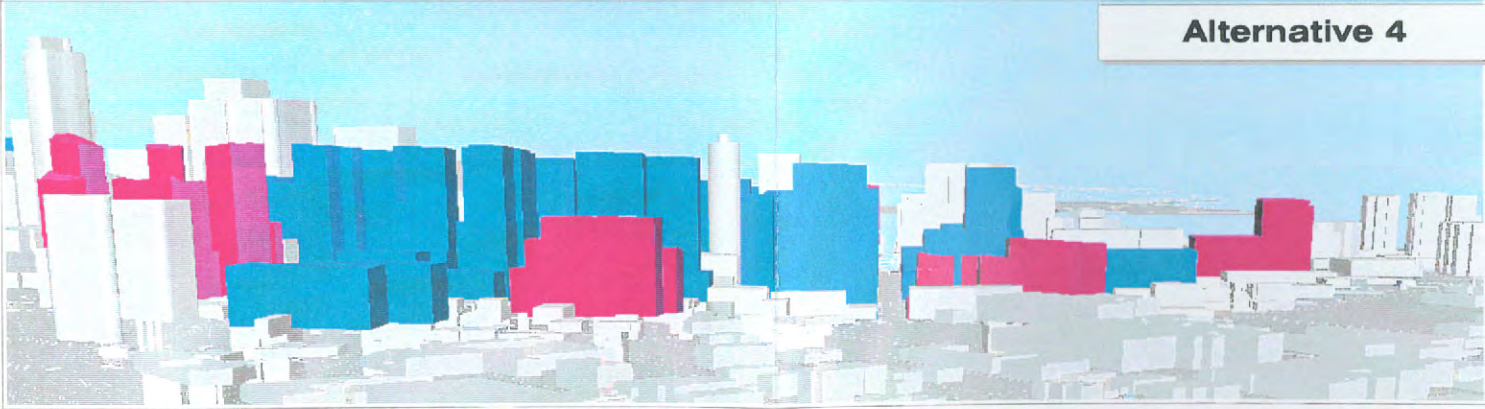
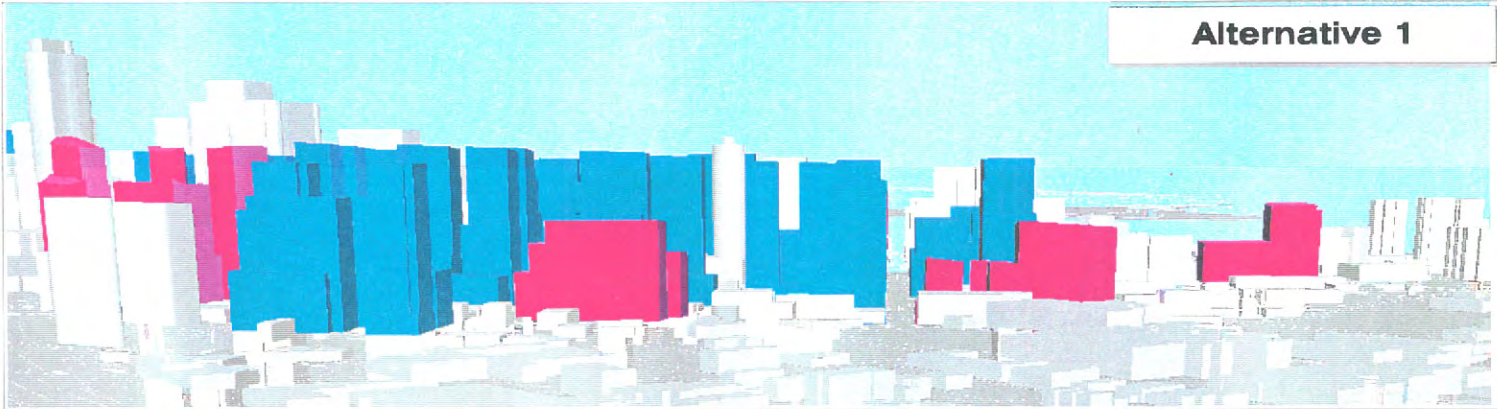
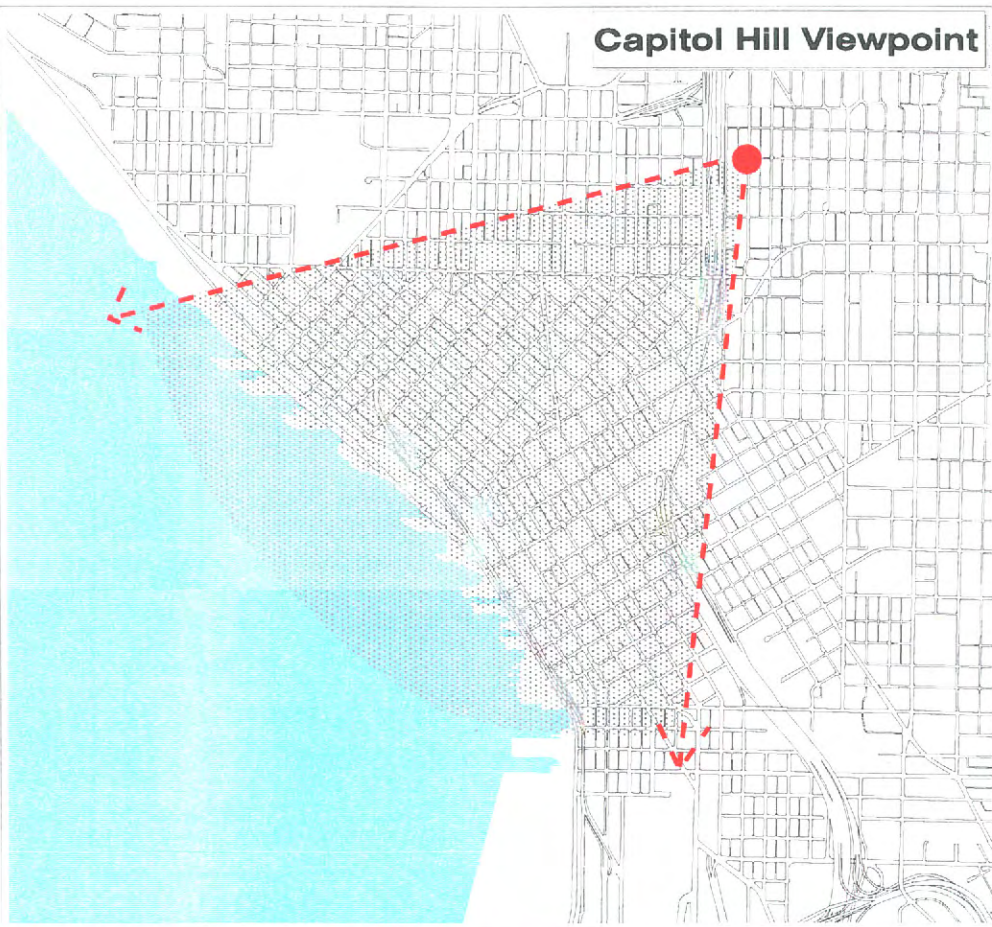
Seattle Urban Design Impact Study

View From Capitol Hill



- LEGEND
-  Future Buildings
 -  Existing or Under Construction

10936/gis/3dBase.apr Capitol Hill Alt. Presentation Map



*Appendix C –
DMC – 240 Prototype Assumptions*

Appendix C-1				
Seattle Urban Form Study				
DMC-240 Building Prototype Assumptions, Existing Regulations				
line #	Element	Units		Notes
1	Gross Site Area	28,800	SF	assumes 240x120 ft. block
2	Net Site Area	28,800	SF	deducts ROW for alley and sidewalks
3	Building Height	240	Feet	per existing code
4	Air Space Envelope	6,912,000	CF	line 1 x line 3
5	Building Space Envelope	5,518,000	GCF	line 19 plus lines 24 & 29
6A	Air to Building Space Ratio	0.25	ratio	(line 4 minus line 5) divided by line 4
6B	Air Space Ratio Over Podium	0.53	ratio	(line 4 - line 19)/(line 5 - lines 19 & 24) - 1
7A	Building Floor Area Ratio	18.28	Gross FAR	line 12 plus lines 20 & 25
7B	Residential FAR (Net)	12.99	Net FAR	(line 8 * 850 sf/du) divided by line 1
7C	Residential Dwellings per Acre	666	Dwellings/Acre	(line 8 divided by line 2) * 43,560
8	Total Dwelling Units	440	Dwellings	line 17 plus lines 22 & 27
9	Total Commercial SF	12,240	NSF-floor area	line 13
10	Above Ground Parking	206	Spaces	line 15
11	Below Ground Parking	165	Spaces	assumes 2 levels (with 0.84 space/du)
12	Base Level (0-35' level)	86,400	GSF-floor area	3 levels
13	Commercial - NSF	12,240	NSF-floor area	Ground Floor, 85% efficiency ratio
14	Parking Area - NSF	72,000	NSF-floor area	2.5 levels
15	Parking Spaces	206	Spaces	assumes 350 sf per parking space
16	Residential - NSF	-	NSF-floor area	none
17	Residential - Dwellings	-	Dwellings	assumes 850 sf per dwelling
18	Common/Other Area	2,160	NSF-floor area	Line 12 minus lines 13, 14 and 16.
19	Building Envelope	1,008,000	GCF	240' x 120 x 35'
20	Level II (35-65' level)	66,000	GSF-floor area	3 levels
21	Residential - NSF	56,100	NSF-floor area	5 levels, 85% efficiency ratio
22	Residential - Dwellings	66	Dwellings	assumes 850 sf per dwelling
23	Common/Other Area	9,900	NSF-floor area	Line 20 minus line 21.
24	Building Envelope	660,000	GCF	220' x 100 x 30'
25	Level IIIA (65-125' level)	132,000	GSF-floor area	6 levels
26	Residential - NSF	112,200	NSF-floor area	6 levels, 85% efficiency ratio
27	Residential - Dwellings	132	Dwellings	assumes 850 sf per dwelling
28	Common/Other Area	19,800	NSF-floor area	Line 25 minus line 27.
29	Building Envelope	1,320,000	GCF	220' x 100 x 60'
30	Level IVA (125-240' level)	242,000	GSF-floor area	11 levels
31	Residential - NSF	205,700	NSF-floor area	11 levels, 85% efficiency ratio
32	Residential - Dwellings	242	Dwellings	assumes 850 sf per dwelling
33	Common/Other Area	36,300	NSF-floor area	Line 30 minus line 31.
34	Building Envelope	2,530,000	GCF	220' x 100 x 115'

Appendix C-2				
Seattle Urban Form Study				
DMC- (340) Building Prototype Assumptions, EIS Alt. 1 High-End Density				
line #	Element	Units		Notes
1	Gross Site Area	28,800	SF	assumes 240x120 ft. block
2	Net Site Area	28,800	SF	deducts ROW for alley and sidewalks
3	Building Height	340	Feet	per EIS Alt. 1
4	Air Space Envelope	9,792,000	CF	line 1 x line 3
5	Building Space Envelope	6,384,000	GCF	line 19 plus lines 24 & 29
6A	Air to Building Space Ratio	0.53	ratio	(line 4 minus line 5) divided by line 4
6B	Air Space Ratio Over Podium	0.95	ratio	(line 4 - line 19)/(line 5 - lines 19 & 24) - 1
7A	Building Floor Area Ratio	21.67	Gross FAR	line 12 plus lines 20 & 25
7B	Residential FAR (Net)	15.87	Net FAR	(line 8 * 850 sf/du) divided by line 1
7C	Residential Dwellings per Acre	813	Dwellings/Acre	(line 8 divided by line 2) * 43,560
8	Total Dwelling Units	538	Dwellings	line 17 plus lines 22 & 27
9	Total Commercial SF	-	NSF-floor area	line 13
10	Above Ground Parking	247	Spaces	line 15
11	Below Ground Parking	206	Spaces	assumes 2.5 levels (with 0.84 space/du)
12	Base Level (0-35' level)	86,400	GSF-floor area	3 levels
13	Commercial - NSF	-	NSF-floor area	none
14	Parking Area - NSF	86,400	NSF-floor area	3 levels
15	Parking Spaces	247	Spaces	assumes 350 sf per parking space
16	Residential - NSF	-	NSF-floor area	none
17	Residential - Dwellings	-	Dwellings	none
18	Common/Other Area	-	NSF-floor area	Line 12 minus lines 13,14 and 16.
19	Building Envelope	1,008,000	GCF	240' x 120 x 35'
20	Level II (35-65' level)	86,400	GSF-floor area	3 levels
21	Residential - NSF	73,440	NSF-floor area	3 levels, 85% efficiency ratio
22	Residential - Dwellings	86	Dwellings	assumes 850 sf per dwelling
23	Common/Other Area	12,960	NSF-floor area	Line 20 minus line 21.
24	Building Envelope	864,000	GCF	240' x 120 x 30'
25	Level III (65-125' level)	132,000	GSF-floor area	6 levels
26	Residential - NSF	112,200	NSF-floor area	6 levels, 85% efficiency ratio
27	Residential - Dwellings	132	Dwellings	assumes 850 sf per dwelling
28	Common/Other Area	19,800	NSF-floor area	Line 25 minus line 27.
29	Building Envelope	1,320,000	GCF	220' x 100 x 60'
30	Level IV (125-240' level)	167,200	GSF-floor area	11 levels
31	Residential - NSF	142,120	NSF-floor area	11 levels, 85% efficiency ratio
32	Residential - Dwellings	167	Dwellings	assumes 850 sf per dwelling
33	Common/Other Area	25,080	NSF-floor area	Line 30 minus line 31.
34	Building Envelope	1,672,000	GCF	190' x 80 x 110'
35	Level V (240-340' level)	152,000	GSF-floor area	10 levels
36	Residential - NSF	129,200	NSF-floor area	10 levels, 85% efficiency ratio
37	Residential - Dwellings	152	Dwellings	assumes 850 sf per dwelling
38	Common/Other Area	22,800	NSF-floor area	Line 25 minus line 27.
39	Building Envelope	1,520,000	GCF	190' x 80 x 100'

Appendix C-3

Seattle Urban Form Study

DMC- (400) Building Prototype Assumptions, High-End Height with Tower Sculpting Incentives

line #	Element	Units		Notes
1	Gross Site Area	28,800	SF	assumes 240x120 ft. block
2	Net Site Area	28,800	SF	deducts ROW for alley and sidewalks
3	Building Height	400	Feet	hypothetical
4	Air Space Envelope	11,520,000	CF	line 1 x line 3
5	Building Space Envelope	6,863,000	GCF	line 19 plus lines 24 & 29
6A	Air to Building Space Ratio	0.68	ratio	(line 4 minus line 5) divided by line 4
6B	Air Space Ratio Over Podium	0.99	ratio	(line 4 - line 19)/(line 5 - lines 19 & 24) - 1
7A	Building Floor Area Ratio (FAR)	23.03	Gross FAR	line 12 plus lines 20 & 25
7B	Residential FAR (Net)	15.33	Net FAR	(line 8 * 850 sf/du) divided by line 1
7C	Residential Dwellings per Acre	786	Dwellings/Acre	(line 8 divided by line 2) * 43,560
8	Total Dwelling Units	519	Dwellings	line 17 plus lines 22 & 27
9	Total Commercial SF	12,240	NSF-floor area	line 13
10	Above Ground Parking	370	Spaces	line 15
11	Below Ground Parking	165	Spaces	assumes 2 levels (with 1 space/du)
12	Base Level (0-55' level)	144,000	GSF-floor area	5 levels
13	Commercial - NSF	12,240	NSF-floor area	Ground Floor, 85% efficiency ratio
14	Parking Area - NSF	129,600	NSF-floor area	4.5 levels
15	Parking Spaces	370	Spaces	assumes 350 sf per parking space
16	Residential - NSF	-	NSF-floor area	none
17	Residential - Dwellings	-	Dwellings	none
18	Common/Other Area	2,160	NSF-floor area	Line 12 minus lines 13,14 and 16.
19	Building Envelope	1,584,000	GCF	240' x 120 x 55'
20	Level II (55' - 65' level)	28,800	GSF-floor area	1 levels
21	Residential - NSF	24,480	NSF-floor area	1 levels, 85% efficiency ratio
22	Residential - Dwellings	29	Dwellings	assumes 850 sf per dwelling
23	Common/Other Area	4,320	NSF-floor area	Line 20 minus line 21.
24	Building Envelope	288,000	GCF	240' x 120 x 10'
25	Tower 1 Level A (65-240')	144,500	GSF-floor area	17 levels
26	Residential - NSF	122,825	NSF-floor area	17 levels, 85% efficiency ratio
27	Residential - Dwellings	145	Dwellings	assumes 850 sf per dwelling
28	Common/Other Area	21,675	NSF-floor area	Line 25 minus line 27.
29	Building Envelope	1,487,500	GCF	85' x 100 x 175'
30	Tower 1 Level B (240-400')	100,800	GSF-floor area	16 levels
31	Residential - NSF	85,680	NSF-floor area	16 levels, 85% efficiency ratio
32	Residential - Dwellings	101	Dwellings	assumes 850 sf per dwelling
33	Common/Other Area	15,120	NSF-floor area	Line 30 minus line 31.
34	Building Envelope	1,008,000	GCF	70' x 90 x 160'
35	Tower 2 Level A (65-240')	144,500	GSF-floor area	17 levels
36	Residential - NSF	122,825	NSF-floor area	17 levels, 85% efficiency ratio
37	Residential - Dwellings	145	Dwellings	assumes 850 sf per dwelling
38	Common/Other Area	21,675	NSF-floor area	Line 25 minus line 27.
39	Building Envelope	1,487,500	GCF	85' x 100 x 175'
40	Tower 2 Level B (240-400')	100,800	GSF-floor area	16 levels
41	Residential - NSF	85,680	NSF-floor area	16 levels, 85% efficiency ratio
42	Residential - Dwellings	101	Dwellings	assumes 850 sf per dwelling
43	Common/Other Area	15,120	NSF-floor area	Line 30 minus line 31.
44	Building Envelope	1,008,000	GCF	70' x 90 x 160'

*Appendix D –
DMR Prototype Assumptions*

Appendix D-1**Seattle Urban Form Study****DMR-240 Building Prototype Assumptions, Existing Regulations**

line #	Element	Units		Notes
1	Gross Site Area	28,800	SF	assumes 240x120 ft. block
2	Net Site Area	28,800	SF	deducts ROW for alley and sidewalks
3	Building Height	240	Feet	per existing code
4	Air Space Envelope	6,912,000	CF	line 1 x line 3
5	Building Space Envelope	4,583,400	GCF	line 19 plus lines 24 & 29
6A	Air to Building Space Ratio	0.51	ratio	(line 4 minus line 5) divided by line 4
6B	Air Space Ratio Over Podium	0.73	ratio	(line 4 - lines 19 & 24)/(line 5 - lines 19 & 24)
7A	Building Floor Area Ratio	15.14	Gross FAR	line 12 plus lines 20 & 25
7B	Residential FAR (Net)	10.32	Net FAR	(line 8 * 850 sf/du) divided by line 1
7C	Residential Dwellings per Acre	529	Dwellings/Acre	(line 8 divided by line 2) * 43,560
8	Total Dwelling Units	350	Dwellings	line 17 plus lines 22 & 27
9	Total Commercial SF	12,240	NSF-floor area	line 13
10	Above Ground Parking	206	Spaces	line 15
11	Below Ground Parking	165	Spaces	assumes 2 levels (with 1 space/du)
12	Base Level (0-35' level)	86,400	GSF-floor area	3 levels
13	Commercial - NSF	12,240	NSF-floor area	Ground Floor, 85% efficiency ratio
14	Parking Area - NSF	72,000	NSF-floor area	2.5 levels
15	Parking Spaces	206	Spaces	assumes 350 sf per parking space
16	Residential - NSF	-	NSF-floor area	none
17	Residential - Dwellings	-	Dwellings	assumes 850 sf per dwelling
18	Common/Other Area	2,160	NSF-floor area	Line 12 minus lines 13,14 and 16.
19	Building Envelope	1,008,000	GCF	240' x120 x 35'
20	Level II (35-65' level)	66,000	GSF-floor area	3 levels
21	Residential - NSF	56,100	NSF-floor area	3 levels, 85% efficiency ratio
22	Residential - Dwellings	66	Dwellings	assumes 850 sf per dwelling
23	Common/Other Area	9,900	NSF-floor area	Line 20 minus line 21.
24	Building Envelope	660,000	GCF	210' x100 x 30'
25	Level IIIA (65-125' level)	54,000	GSF-floor area	6 levels
26	Residential - NSF	45,900	NSF-floor area	6 levels, 85% efficiency ratio
27	Residential - Dwellings	54	Dwellings	assumes 850 sf per dwelling
28	Common/Other Area	8,100	NSF-floor area	Line 25 minus line 27.
29	Building Envelope	540,000	GCF	100' x 90' x 60'
30	Level IVA (125-240' level)	87,780	GSF-floor area	11 levels
31	Residential - NSF	74,613	NSF-floor area	11 levels, 85% efficiency ratio
32	Residential - Dwellings	88	Dwellings	assumes 850 sf per dwelling
33	Common/Other Area	13,167	NSF-floor area	Line 30 minus line 31.
34	Building Envelope	917,700	GCF	95' x 84' x 115'
35	Level IIIB (65-125' level)	54,000	GSF-floor area	6 levels
36	Residential - NSF	45,900	NSF-floor area	6 levels, 85% efficiency ratio
37	Residential - Dwellings	54	Dwellings	assumes 850 sf per dwelling
38	Common/Other Area	8,100	NSF-floor area	Line 25 minus line 27.
39	Building Envelope	540,000	GCF	100' x 90' x 60'
40	Level IVB (125-240' level)	87,780	GSF-floor area	11 levels
41	Residential - NSF	74,613	NSF-floor area	11 levels, 85% efficiency ratio
42	Residential - Dwellings	88	Dwellings	assumes 850 sf per dwelling
43	Common/Other Area	13,167	NSF-floor area	Line 30 minus line 31.
44	Building Envelope	917,700	GCF	95' x 84' x 115'

Appendix D-2**Seattle Urban Form Study****DMR- (340) Building Prototype Assumptions, EIS Alt. 1 High-End Density**

line #	Element	Units	Notes
1	Gross Site Area	28,800 SF	assumes 240x120 ft. block
2	Net Site Area	28,800 SF	deducts ROW for alley and sidewalks
3	Building Height	340 Feet	per existing code
4	Air Space Envelope	9,792,000 CF	line 1 x line 3
5	Building Space Envelope	6,247,400 GCF	line 19 plus lines 24 & 29
6A	Air to Building Space Ratio	0.57 ratio	(line 4 minus line 5) divided by line 4
6B	Air Space Ratio Over Podium	0.76 ratio	(line 4 - lines 19 & 24)/(line 5 - lines 19 & 24)
7A	Building Floor Area Ratio	20.92 Gross FAR	line 12 plus lines 20 & 25
7B	Residential FAR (Net)	14.38 Net FAR	(line 8 * 850 sf/du) divided by line 1
7C	Residential Dwellings per Acre	737 Dwellings/Acre	(line 8 divided by line 2) * 43,560
8	Total Dwelling Units	487 Dwellings	line 17 plus lines 22 & 27
9	Total Commercial SF	12,240 NSF-floor area	line 13
10	Above Ground Parking	288 Spaces	line 15
11	Below Ground Parking	165 Spaces	assumes 2 levels (with 0.9 space/du)
12	Base Level (0-45' level)	115,200 GSF-floor area	4 levels
13	Commercial - NSF	12,240 NSF-floor area	Ground Floor, 85% efficiency ratio
14	Parking Area - NSF	100,800 NSF-floor area	3.5 levels
15	Parking Spaces	288 Spaces	assumes 350 sf per parking space
16	Residential - NSF	- NSF-floor area	none
17	Residential - Dwellings	- Dwellings	assumes 850 sf per dwelling
18	Common/Other Area	2,160 NSF-floor area	Line 12 minus lines 13,14 and 16.
19	Building Envelope	1,296,000 GCF	240' x120 x 45'
20	Level II (45-65' level)	44,000 GSF-floor area	2 levels
21	Residential - NSF	37,400 NSF-floor area	2 levels, 85% efficiency ratio
22	Residential - Dwellings	44 Dwellings	assumes 850 sf per dwelling
23	Common/Other Area	6,600 NSF-floor area	Line 20 minus line 21.
24	Building Envelope	440,000 GCF	210' x100 x 20'
25	Tower 1 Level A (65-125')	54,000 GSF-floor area	6 levels
26	Residential - NSF	45,900 NSF-floor area	6 levels, 85% efficiency ratio
27	Residential - Dwellings	54 Dwellings	assumes 850 sf per dwelling
28	Common/Other Area	8,100 NSF-floor area	Line 25 minus line 27.
29	Building Envelope	540,000 GCF	100' x 90' x 60'
30	Tower 1 Level B (125-340')	167,580 GSF-floor area	21 levels
31	Residential - NSF	142,443 NSF-floor area	21 levels, 85% efficiency ratio
32	Residential - Dwellings	168 Dwellings	assumes 850 sf per dwelling
33	Common/Other Area	25,137 NSF-floor area	Line 30 minus line 31.
34	Building Envelope	1,715,700 GCF	95' x 84' x 215'
35	Tower 2 Level A (65-125')	54,000 GSF-floor area	6 levels
36	Residential - NSF	45,900 NSF-floor area	6 levels, 85% efficiency ratio
37	Residential - Dwellings	54 Dwellings	assumes 850 sf per dwelling
38	Common/Other Area	8,100 NSF-floor area	Line 25 minus line 27.
39	Building Envelope	540,000 GCF	100' x 90' x 60'
40	Tower 2 Level B (125-340')	167,580 GSF-floor area	21 levels
41	Residential - NSF	142,443 NSF-floor area	21 levels, 85% efficiency ratio
42	Residential - Dwellings	168 Dwellings	assumes 850 sf per dwelling
43	Common/Other Area	25,137 NSF-floor area	Line 30 minus line 31.
44	Building Envelope	1,715,700 GCF	95' x 84' x 215'

Appendix D-3

Seattle Urban Form Study

DMR- (450) Building Prototype Assumptions, High-End Height with Tower Sculpting Incentives

line #	Element		Units	Notes
1	Gross Site Area	28,800	SF	assumes 240x120 ft. block
2	Net Site Area	28,800	SF	deducts ROW for alley and sidewalks
3	Building Height	450	Feet	per existing code
4	Air Space Envelope	12,960,000	CF	line 1 x line 3
5	Building Space Envelope	8,071,000	GCF	line 19 plus lines 24 & 29
6A	Air to Building Space Ratio	0.61	ratio	(line 4 minus line 5) divided by line 4
6B	Air Space Ratio Over Podium	0.77	ratio	(line 4 - lines 19 & 24)/(line 5 - lines 19 & 24) - 1
7A	Building Floor Area Ratio	27.25	Gross FAR	line 12 plus lines 20 & 25
7B	Residential FAR (Net)	18.91	Net FAR	(line 8 * 850 sf/du) divided by line 1
7C	Residential Dwellings per Acre	969	Dwellings/Acre	(line 8 divided by line 2) * 43,560
8	Total Dwelling Units	641	Dwellings	line 17 plus lines 22 & 27
9	Total Commercial SF	12,240	NSF-floor area	line 13
10	Above Ground Parking	370	Spaces	line 15
11	Below Ground Parking	165	Spaces	assumes 2 levels (with 0.8 space/du)
12	Base Level (0-55' level)	144,000	GSF-floor area	5 levels
13	Commercial - NSF	12,240	NSF-floor area	Ground Floor, 85% efficiency ratio
14	Parking Area - NSF	129,600	NSF-floor area	4.5 levels
15	Parking Spaces	370	Spaces	assumes 350 sf per parking space
16	Residential - NSF	-	NSF-floor area	none
17	Residential - Dwellings	-	Dwellings	assumes 850 sf per dwelling
18	Common/Other Area	2,160	NSF-floor area	Line 12 minus lines 13,14 and 16.
19	Building Envelope	1,584,000	GCF	240' x120 x 55'
20	Level II (55-65' level)	22,000	GSF-floor area	1 levels
21	Residential - NSF	18,700	NSF-floor area	1 levels, 85% efficiency ratio
22	Residential - Dwellings	22	Dwellings	assumes 850 sf per dwelling
23	Common/Other Area	3,300	NSF-floor area	Line 20 minus line 21.
24	Building Envelope	220,000	GCF	210' x100 x 10'
25	Tower 1 Level A (65-125')	54,000	GSF-floor area	6 levels
26	Residential - NSF	45,900	NSF-floor area	6 levels, 85% efficiency ratio
27	Residential - Dwellings	54	Dwellings	assumes 850 sf per dwelling
28	Common/Other Area	8,100	NSF-floor area	Line 25 minus line 27.
29	Building Envelope	540,000	GCF	100' x 90' x 60'
30	Tower 1 Level B (125-450')	255,360	GSF-floor area	32 levels
31	Residential - NSF	217,056	NSF-floor area	32 levels, 85% efficiency ratio
32	Residential - Dwellings	255	Dwellings	assumes 850 sf per dwelling
33	Common/Other Area	38,304	NSF-floor area	Line 30 minus line 31.
34	Building Envelope	2,593,500	GCF	95' x 84' x 325'
35	Tower 2 Level A (65-125')	54,000	GSF-floor area	6 levels
36	Residential - NSF	45,900	NSF-floor area	6 levels, 85% efficiency ratio
37	Residential - Dwellings	54	Dwellings	assumes 850 sf per dwelling
38	Common/Other Area	8,100	NSF-floor area	Line 25 minus line 27.
39	Building Envelope	540,000	GCF	100' x 90' x 60'
40	Tower 2 Level B (125-450')	255,360	GSF-floor area	32 levels
41	Residential - NSF	217,056	NSF-floor area	32 levels, 85% efficiency ratio
42	Residential - Dwellings	255	Dwellings	assumes 850 sf per dwelling
43	Common/Other Area	38,304	NSF-floor area	Line 30 minus line 31.
44	Building Envelope	2,593,500	GCF	95' x 84' x 325'

*Appendix E –
DOC2 Prototype Assumptions*

Appendix E-1				
Seattle Urban Form Study				
DOC2-300 Building Prototype Assumptions, Existing Regulations				
line #	Element	Units		Notes
1	Gross Site Area	43,200	SF	assumes 360x120 ft. block
2	Net Site Area	43,200	SF	deducts ROW for alley and sidewalks
3	Building Height	300	Feet	per existing code
4	Air Space Envelope	12,960,000	CF	line 1 x line 3
5	Building Space Envelope	10,170,000	GCF	line 19 plus lines 24 & 29
6A	Air to Building Space Ratio	0.27	ratio	(line 4 minus line 5) divided by line 4
6B	Air Space Ratio Over Podium	0.38	ratio	(line 4 - line 19)/(line 5 - line 19) - 1
7A	Building Floor Area Ratio	22.69	Gross FAR	line 12 plus lines 20 & 25 / line 1
7B	Residential FAR (Net)	15.89	Net FAR	(line 8 * 850 sf/du) divided by line 1
7C	Residential Dwellings per Acre	814	Dwellings/Acre	(line 8 divided by line 2) * 43,560
8	Total Dwelling Units	808	Dwellings	line 17 plus lines 22 & 27
9	Total Commercial SF	18,360	NSF-floor area	line 13
10	Above Ground Parking	420	Spaces	line 15
11	Below Ground Parking	360	Spaces	assumes 3 levels (with 1 space/du)
12	Base Level (0- 65' level)	259,200	GSF-floor area	6 levels
13	Commercial - NSF	18,360	NSF-floor area	Ground Floor, 85% efficiency ratio
14	Parking Area - NSF	151,200	NSF-floor area	3.5 levels
15	Parking Spaces	420	Spaces	assumes 350 sf per parking space
16	Residential - NSF	73,440	NSF-floor area	2 levels, 85% efficiency ratio
17	Residential - Dwellings	86	Dwellings	assumes 850 sf per dwelling
18	Common/Other Area	16,200	NSF-floor area	Line 12 minus lines 13,14 and 16.
19	Building Envelope	2,808,000	GCF	360' x120 x 65'
20	Level II (65-125' level)	211,200	GSF-floor area	6 levels
21	Residential - NSF	179,520	NSF-floor area	6 levels, 85% efficiency ratio
22	Residential - Dwellings	211	Dwellings	assumes 850 sf per dwelling
23	Common/Other Area	31,680	NSF-floor area	Line 20 minus line 21.
24	Building Envelope	2,112,000	GCF	320' x 110 x 60'
25	Level III (125-300' level)	510,000	GSF-floor area	17 levels
26	Residential - NSF	433,500	NSF-floor area	17 levels, 85% efficiency ratio
27	Residential - Dwellings	510	Dwellings	assumes 850 sf per dwelling
28	Common/Other Area	76,500	NSF-floor area	Line 25 minus line 27.
29	Building Envelope	5,250,000	GCF	300' x 100 x 175'

Appendix E-2				
Seattle Urban Form Study				
DOC2- (400) Building Prototype Assumptions, EIS Alt. 1 High-end Density				
line #	Element	Units		Notes
1	Gross Site Area	43,200	SF	assumes 360x120 ft. block
2	Net Site Area	43,200	SF	deducts ROW for alley and sidewalks
3	Building Height	300	Feet	per existing code
4	Air Space Envelope	12,960,000	CF	line 1 x line 3
5	Building Space Envelope	10,170,000	GCF	line 19 plus lines 24 & 29
6A	Air to Building Space Ratio	0.27	ratio	(line 4 minus line 5) divided by line 4
6B	Air Space Ratio Over Podium	0.38	ratio	(line 4 - line 19)/(line 5 - line 19) - 1
7A	Building Floor Area Ratio	29.64	Gross FAR	line 12 plus lines 20 & 25 & 30 / line 1
7B	Residential FAR (Net)	20.09	Net FAR	(line 8 * 850 sf/du) divided by line 1
7C	Residential Dwellings per Acre	1,030	Dwellings/Acre	(line 8 divided by line 2) * 43,560
8	Total Dwelling Units	1,021	Dwellings	line 17 plus lines 22 & 27 & 32
9	Total Commercial SF	18,360	NSF-floor area	line 13
10	Above Ground Parking	660	Spaces	line 15
11	Below Ground Parking	360	Spaces	assumes 3 levels (with 1 space/du)
12	Base Level (0- 65' level)	259,200	GSF-floor area	6 levels
13	Commercial - NSF	18,360	NSF-floor area	Ground Floor, 85% efficiency ratio
14	Parking Area - NSF	237,600	NSF-floor area	5.5 levels
15	Parking Spaces	660	Spaces	assumes 350 sf per parking space
16	Residential - NSF	-	NSF-floor area	none
17	Residential - Dwellings	-	Dwellings	none
18	Common/Other Area	3,240	NSF-floor area	Line 12 minus lines 13,14 and 16.
19	Building Envelope	2,808,000	GCF	360' x 120 x 65'
20	Level II (65-125' level)	211,200	GSF-floor area	6 levels
21	Residential - NSF	179,520	NSF-floor area	6 levels, 85% efficiency ratio
22	Residential - Dwellings	211	Dwellings	assumes 850 sf per dwelling
23	Common/Other Area	31,680	NSF-floor area	Line 20 minus line 21.
24	Building Envelope	2,112,000	GCF	320' x 110 x 60'
25	Level III (125-300' level)	510,000	GSF-floor area	17 levels
26	Residential - NSF	433,500	NSF-floor area	17 levels, 85% efficiency ratio
27	Residential - Dwellings	510	Dwellings	assumes 850 sf per dwelling
28	Common/Other Area	76,500	NSF-floor area	Line 25 minus line 26.
29	Building Envelope	5,250,000	GCF	300' x 100 x 175'
30	Level IV (300-400' level)	300,000	GSF-floor area	10 levels
31	Residential - NSF	255,000	NSF-floor area	10 levels, 85% efficiency ratio
32	Residential - Dwellings	300	Dwellings	assumes 850 sf per dwelling
33	Common/Other Area	45,000	NSF-floor area	Line 30 minus line 31.
34	Building Envelope	3,000,000	GCF	300' x 100 x 100'

Appendix E-3

Seattle Urban Form Study

DOC2- (450) Building Prototype Assumptions, High-end Height with Tower Sculpting Incentives

line #	Element	Units	Notes
1	Gross Site Area	43,200 SF	assumes 360x120 ft. block
2	Net Site Area	43,200 SF	deducts ROW for alley and sidewalks
3	Building Height	450 Feet	per existing code
4	Air Space Envelope	19,440,000 CF	line 1 x line 3
5	Building Space Envelope	11,206,000 GCF	line 19 plus lines 24 & 29
6A	Air to Building Space Ratio	0.73 ratio	(line 4 minus line 5) divided by line 4
6B	Air Space Ratio Over Podium	0.98 ratio	(line 4 - line 19)/(line 5 - line 19) - 1
7A	Building Floor Area Ratio	22.06 Gross FAR	line 12+lines 20, 25, 30, 35, 40, 45/line 1
7B	Residential FAR (Net)	17.16 Net FAR	(line 8 * 850 sf/du) divided by line 1
7C	Residential Dwellings per Acre	879 Dwellings/Acre	(line 8 divided by line 2) * 43,560
8	Total Dwelling Units	872 Dwellings	line 17 plus lines 22, 27, 32, 42, 47
9	Total Commercial SF	18,360 NSF-floor area	line 13
10	Above Ground Parking	540 Spaces	line 15
11	Below Ground Parking	360 Spaces	assumes 3 levels (with 0.9 space/du)
12	Base Level (0- 65' level)	259,200 GSF-floor area	6 levels
13	Commercial - NSF	18,360 NSF-floor area	Ground Floor, 85% efficiency ratio
14	Parking Area - NSF	194,400 NSF-floor area	5.5 levels
15	Parking Spaces	540 Spaces	assumes 350 sf per parking space
16	Residential - NSF	36,720 NSF-floor area	1 levels, 85% efficiency ratio
17	Residential - Dwellings	43 Dwellings	assumes 850 sf per dwelling
18	Common/Other Area	9,720 NSF-floor area	Line 12 minus lines 13,14 and 16.
19	Building Envelope	2,808,000 GCF	360' x 120 x 65'
20	Tower 1 Level A (65-125')	92,400 GSF-floor area	6 levels
21	Residential - NSF	78,540 NSF-floor area	6 levels, 85% efficiency ratio
22	Residential - Dwellings	92 Dwellings	assumes 850 sf per dwelling
23	Common/Other Area	13,860 NSF-floor area	Line 20 minus line 21.
24	Building Envelope	924,000 GCF	140' x 110 x 60'
25	Tower 1 Level B (125-300')	187,000 GSF-floor area	17 levels
26	Residential - NSF	158,950 NSF-floor area	17 levels, 85% efficiency ratio
27	Residential - Dwellings	187 Dwellings	assumes 850 sf per dwelling
28	Common/Other Area	28,050 NSF-floor area	Line 25 minus line 26.
29	Building Envelope	1,925,000 GCF	110' x 100 x 175'
30	Tower 1 Level C (300-450')	135,000 GSF-floor area	15 levels
31	Residential - NSF	114,750 NSF-floor area	15 levels, 85% efficiency ratio
32	Residential - Dwellings	135 Dwellings	assumes 850 sf per dwelling
33	Common/Other Area	20,250 NSF-floor area	Line 30 minus line 31.
34	Building Envelope	1,350,000 GCF	90' x 100 x 150'
35	Tower 2 Level A (65-125')	92,400 GSF-floor area	6 levels
36	Residential - NSF	78,540 NSF-floor area	6 levels, 85% efficiency ratio
37	Residential - Dwellings	92 Dwellings	assumes 850 sf per dwelling
38	Common/Other Area	13,860 NSF-floor area	Line 35 minus line 36.
39	Building Envelope	924,000 GCF	140' x 110 x 60'
40	Tower 2 Level B (125-300')	187,000 GSF-floor area	17 levels
41	Residential - NSF	158,950 NSF-floor area	17 levels, 85% efficiency ratio
42	Residential - Dwellings	187 Dwellings	assumes 850 sf per dwelling
43	Common/Other Area	28,050 NSF-floor area	Line 40 minus line 41.
44	Building Envelope	1,925,000 GCF	110' x 100 x 175'
45	Tower 2 Level C (300-450')	135,000 GSF-floor area	15 levels
46	Residential - NSF	114,750 NSF-floor area	15 levels, 85% efficiency ratio
47	Residential - Dwellings	135 Dwellings	assumes 850 sf per dwelling
48	Common/Other Area	20,250 NSF-floor area	Line 45 minus line 46.
49	Building Envelope	1,350,000 GCF	90' x 100 x 150'

Appendix D

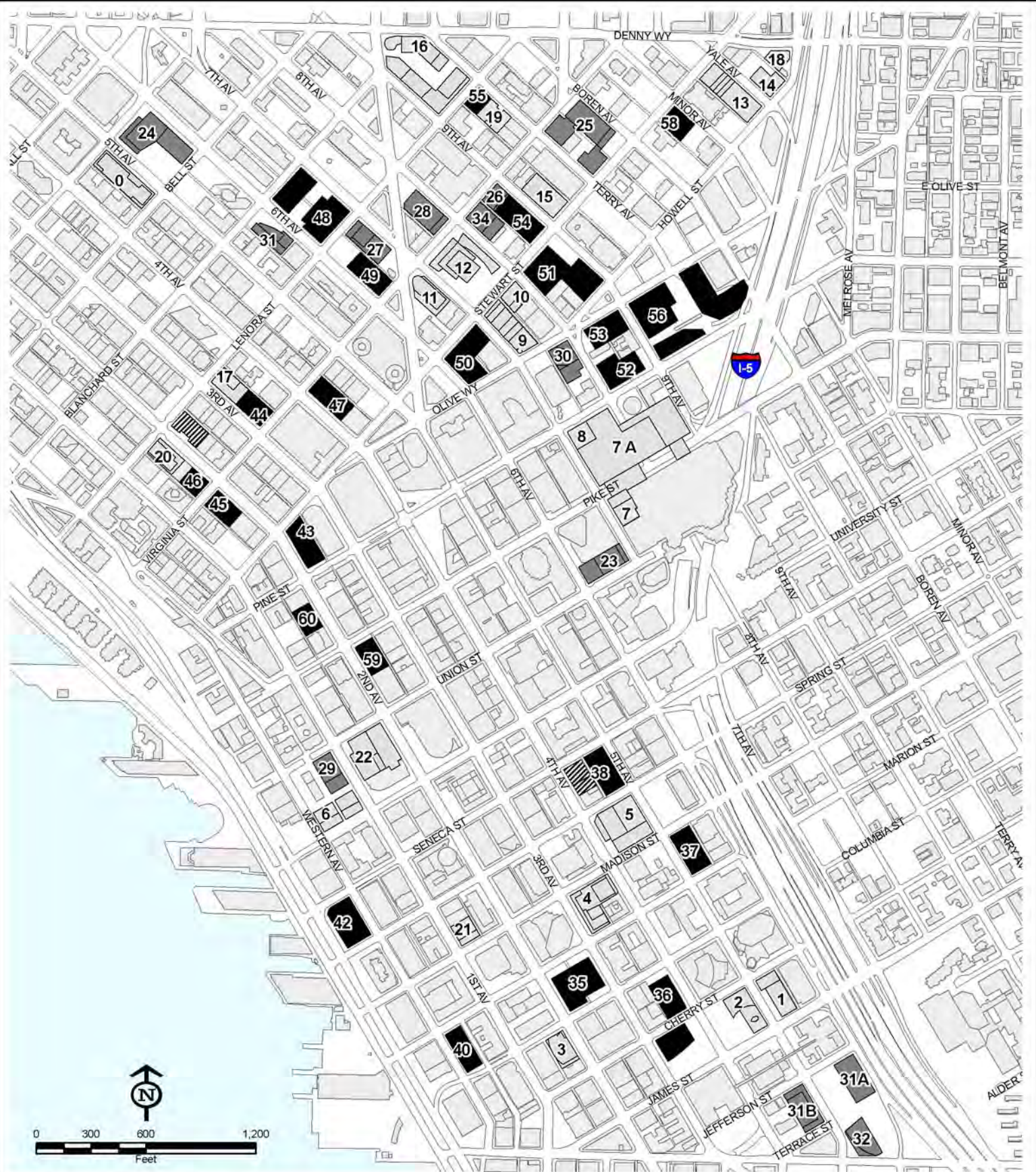
Preferred Alternative Project List

Table D
Preferred Alternative Project List for Potential Development
Accommodating 2000-2020 Growth

Project Name and Number	Project Type	Residential Units	Office Square Feet	Hotel Rooms	Employees
Projects Completed Since 2000 or Currently Under Construction					
1. Justice Center	Government	0	285,000	0	1,140
2. Municipal Building	Government	0	192,412	0	No net gain
3. Millennium Tower	Mixed use	19	196,000	0	784
4. IDX Tower	Office	0	846,600	0	3,386
5. Seattle Central Public Library	Public library	0	0	0	No net gain
6. Harbor Steps (final phase)	residential	285	0	0	
7. One Convention Place	office	0	288,000	0	1,152
7A. Convention Center Expansion					
8. Hyatt Elliott Hotel	hotel	0	300,000	400	400
9. 700 Olive Way	Office	0	525,900	0	2,104
10. Stewart House	residential	60	0	0	0
11. Metropolitan Tower	residential	346	0	0	0
12. Federal Courthouse	government				620
13. Metropolitan Park III	Office and athletic club and parking	0	130,000	0	520
14. Spring Hill Suites Marriott	hotel	0	0	234	0
15. 9 th & Stewart Life Sciences Building	Office/lab space	0	220,000	0	880
16. 2400 Westlake	Mixed use	270		126	126
17. YWCA Opportunity Place	Residential	145	0	0	0
18. 1811 Eastlake Supportive Housing	Special residence	75			
19. 2054 Terry Avenue	residential	54	0	0	0
20. Cristalla	Residential	186	0	0	0
21. Warshall's site	Mixed use	60	0	120	120
22. WAMU headquarters and SAM expansion	Office and museum	0	900,000	0	3,600
SUBTOTAL		1,500 units	3,883,912 SF	880 rooms	14,832 employees

Project Name and Number	Project Type	Residential Units	Office Square Feet	Hotel Rooms	Employees
Projects with approved permits or application in process					
23. Sheraton addition*	Hotel	0	330,000	400	400
24. 2300 5 th Avenue* (Frederick Cadillac site)	Office		592,000	0	2,368
25. Touchstone Stewart Place	Office	0	903,680	0	3,615
26. 819 Virginia*	residential	218	0	0	0
27. 2017 7 th Ave	Mixed use	329	464,520	0	1,858
28. 2001 8 th Ave (Touchstone)	Office	0	483,266		1,933
29. Four Seasons Hotel 1321 1 st Ave*	Mixed use		155,400		
30. 1635 8 th Ave*	Mixed use	170	380,000	340	340
31. 8 th & Blanchard	office	0	259,200	0	1,037
32. 500 5 th Avenue*	office	0	280,000	0	1,120
33. King Co. Admin Office west side 5 th Ave and Jefferson/Terrace Streets	government	0	356,034		1,424
34. 1918 8 th Ave	office	0	302,400		1,210
*Assumed project will not be revised under new provisions					
SUBTOTAL		717 units	4,506,500 SF	740 rooms	18,026 employees

Project Name and Number	Project Type	Residential Units	Office Square Feet	Hotel Rooms	Employees
Projected Development—Assumed Projects on Sites Likely to be Redeveloped					
35. Seattle Trust Court site	office	0	1,044,480	0	4,178
36. 4 th Ave/Columbia and Cherry	office	0	485,520	0	1,942
37. College Club site	office	0	489,600	0	1,958
38. Olympic Garage site	office	0	489,600	0	1,958
39. Society Candy site	residential	304	0	0	304
42. Western/Seneca and Spring	Mixed use	108	248,500	0	994
43. Avalon Hotel site	Mixed use	170	190,854	189	189
44. 3 rd and Virginia	Residential	387			
45. SW corner 2 nd & Virginia	Residential	387	0	0	0
46. NW corner 2 nd & Virginia	Residential	350	0	0	0
47. 4 th Ave @ Virginia	Mixed use	388	362,880	0	0
48. 6 th /7 th Aves & Lenora/Blanchard	office	0	1,169,280	0	4,677
49. 6 th Ave and Virginia/Lenora	Office		544,320	0	2,177
50. Vance properties	Mixed use	317	534,464	700	700
51. Greyhound Bus Terminal site	Mixed use	608	1,059,000	0	4,236
52. Camlin block-south	Office	0	599,200	0	2,397
53. Camlin block-north	Mixed use	376	401,296	0	1,605
54. 9 th and Stewart (NW corner)	Office	0	441,840	0	520
55. Terry and Lenora (SW corner)	Residential	273	0	0	0
56. King Co. Convention Place TOD site	Mixed use	900	600,000 office 400,000 hotel	800	3,200
57. Public Safety Bldg site	Office/open space	0	380,000	0	1,520
58. Minor and Stewart	Residential	265	0	0	0
59. 2 nd and Pike 1400 blk	Residential	387			
60. 2 nd and Pike 1500 blk	Residential	387			
SUB TOTAL		5,607	9,648,434	1,689	32,555
Projected 2000 – 2020 TOTAL		7,824 units	17,831,246 SF	3,309 rooms	65,413 employees



Preferred Alternative Building Sites and Identification Numbers

Legend

- Existing Buildings
- New (since 2000)/Under Construction
- Built 1993-2000
- Currently Permitted/Proposed
- Potential

DISTRIBUTION LIST

Federal

U.S. Environmental Protection Agency
U.S. Army Corps of Engineers

U.S. Fish & Wildlife Service
H.U.D.

State

Washington Department of Ecology
Washington Office of Community
Development
Washington Department of Transportation
Washington Department of Fish & Wildlife

Washington Department of Natural
Resources
Washington Department of Social & Health
Services
Washington Office of Archaeology and
Historic Preservation

County

King County Metro
King County Department of Transportation
King County Housing & Community
Development
King County Office of Regional Policy and
Planning

King County Department of Development
and Environmental Services
King County Executive
King County Assessor

City

Departments of Fire, Police, Neighborhoods,
Departments of Human Services, Parks,
Department of Transportation
Seattle Public Utilities
Seattle Public Schools

Office of Housing
City Light
Seattle Public Libraries
Planning Commission
City Council

Other Government Entities

Port of Seattle
Monorail Authority
Public Facility District
Public Stadium Authority

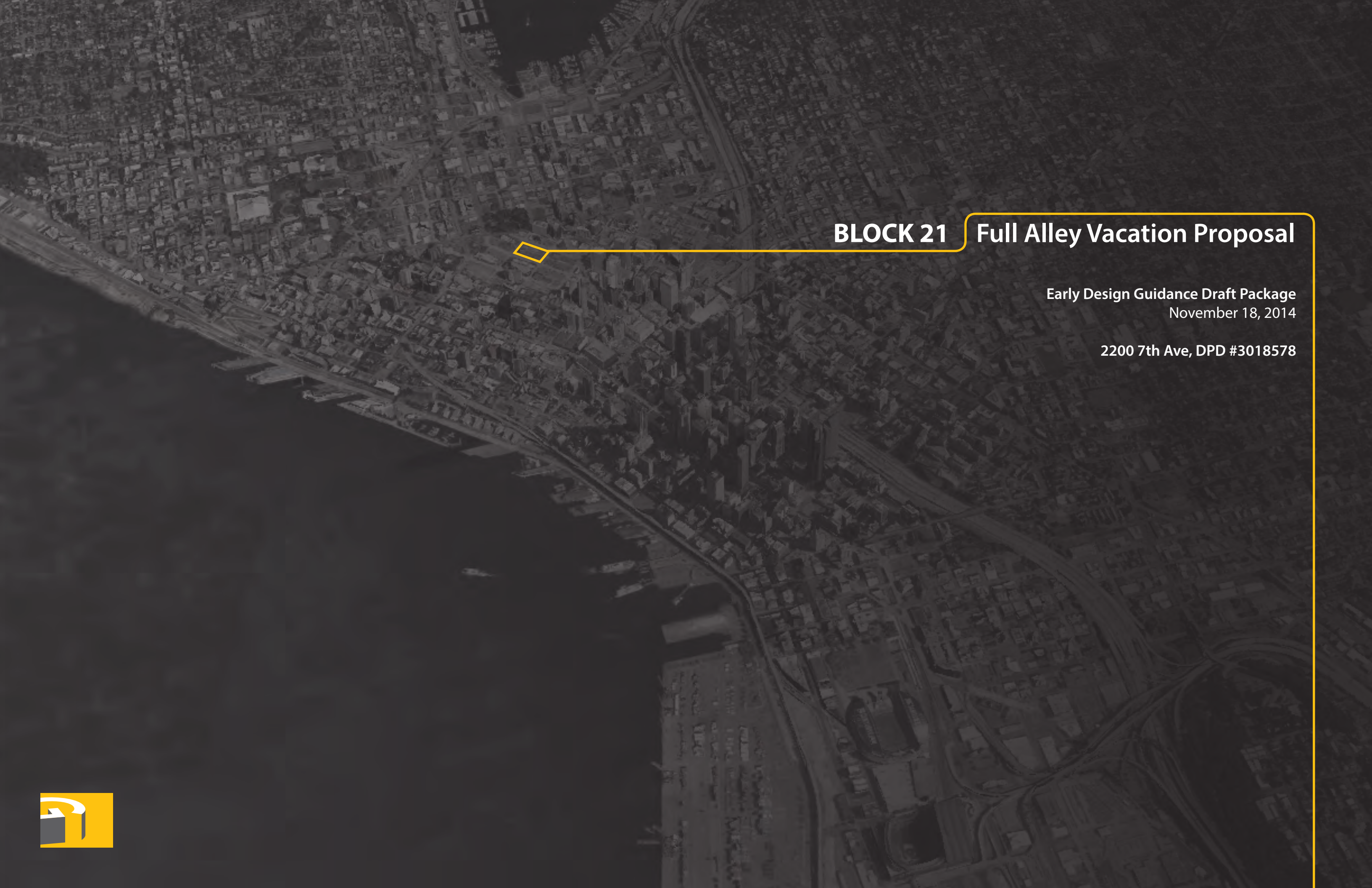
Puget Sound Regional Council
Puget Sound Clean Air Agency
Sound Transit
Seattle-King County Housing Authority

Tribes

Muckleshoot
Suquamish
Duwamish

United Indians of All Tribes
Tulalip

Downtown Design Review Board Materials



BLOCK 21 Full Alley Vacation Proposal

Early Design Guidance Draft Package
November 18, 2014

2200 7th Ave, DPD #3018578



PROJECT INFO

PROPERTY ADDRESSES &
DPD PROJECT NUMBERS

2200 7th Avenue, DPD # 3018578

OWNER

Acorn Development

ARCHITECT

Graphite Design Group

80 Vine St, #202
Seattle, WA 98121

Contact: Peter Krech

206.224.3335

peter.krech@graphitedesigngroup.com

DEVELOPMENT OBJECTIVES

Develop a commercial project with approximately 835,200 gsf of office space and approximately 35,000 gsf of street level retail in three buildings.. Parking below grade will be provided for approximately 835 Cars.

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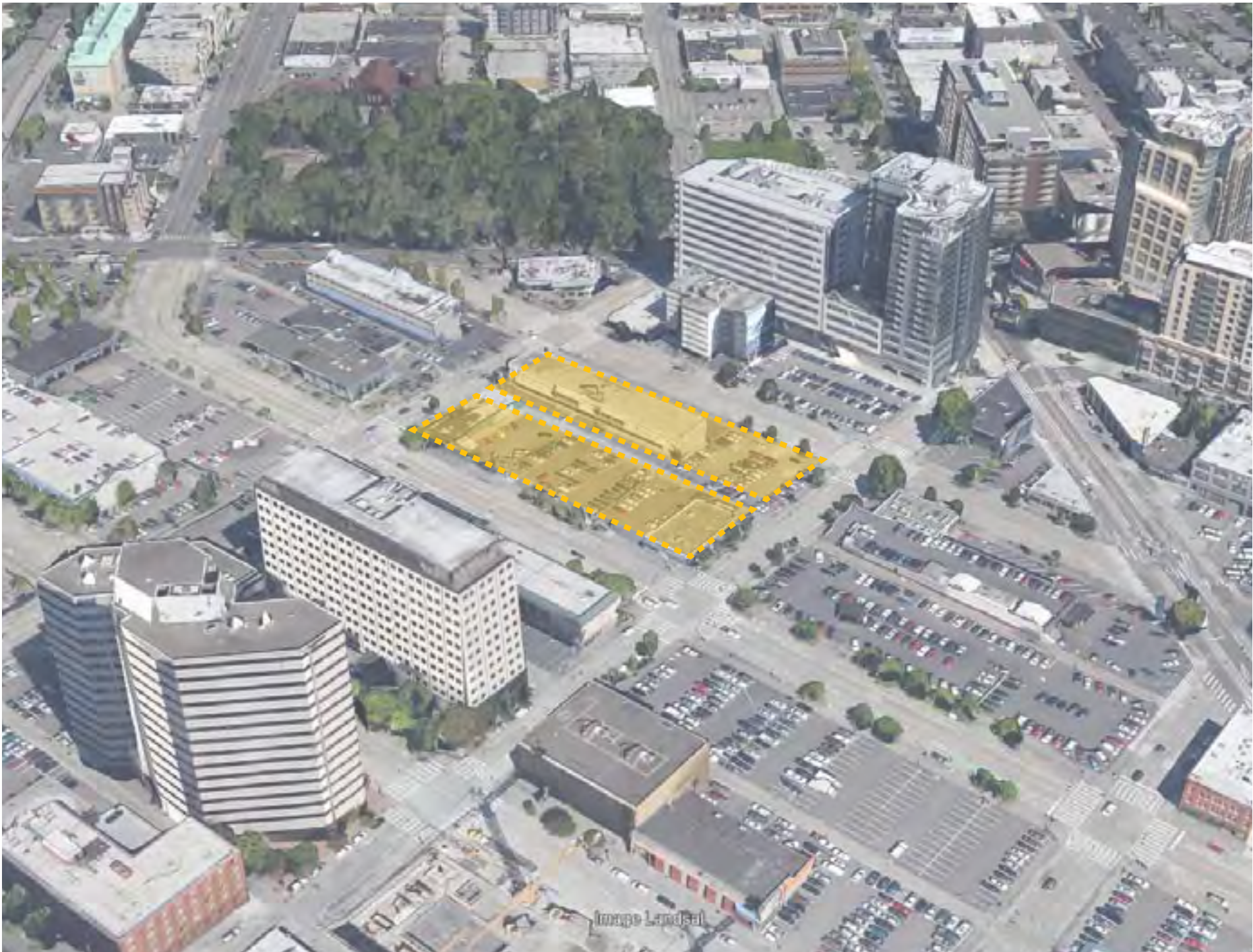
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DEVELOPMENT OBJECTIVES





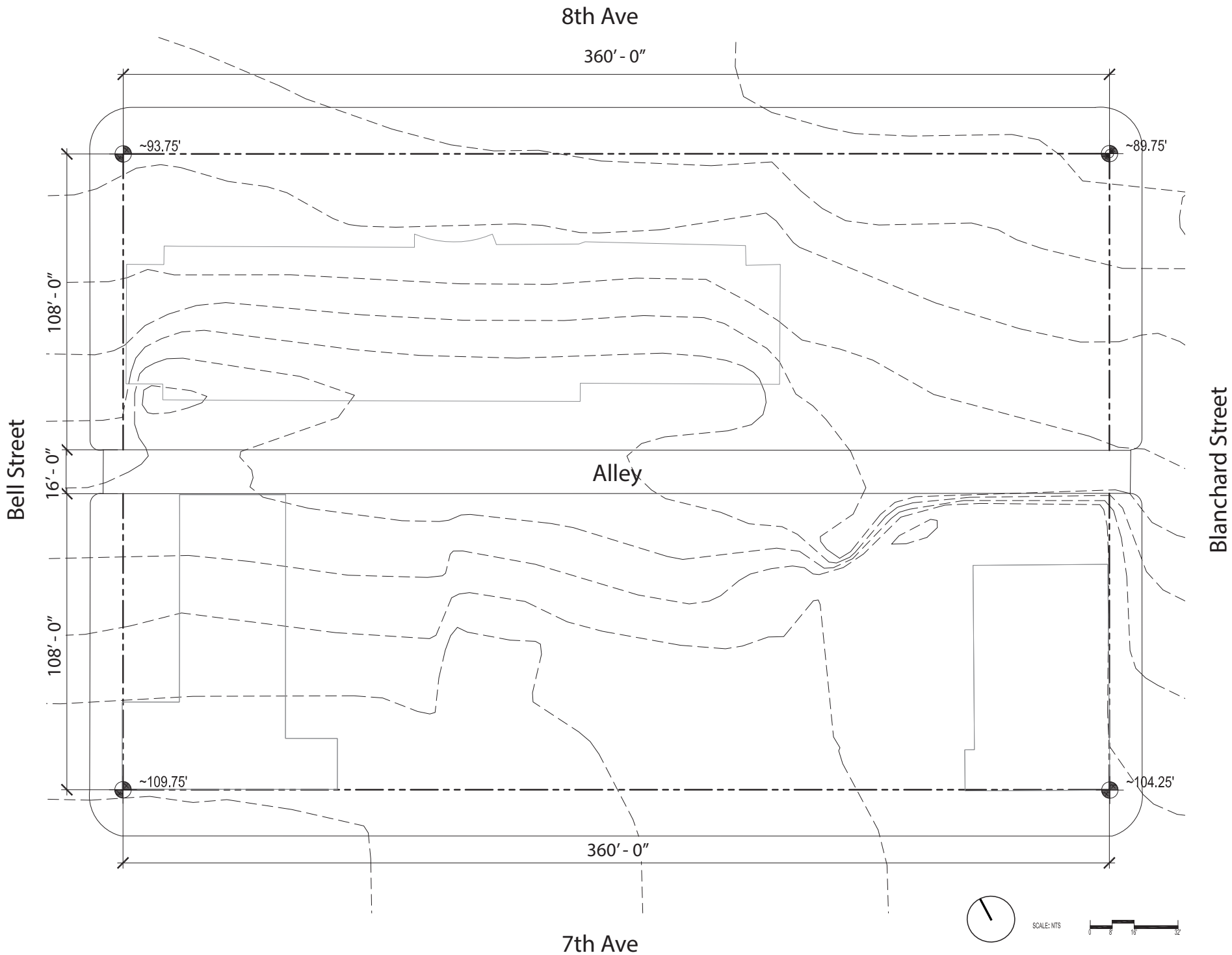
STATEMENT OF DEVELOPMENT OBJECTIVES

The applicant proposes to design and construct a development on the full block bisected by a public alleyway and bounded by 7th Avenue on the east, 8th Avenue on the west, Blanchard Street on the south and Bell Street on the north. The site is zoned DMC 340/125-400, with a site area of approximately 77,700 square feet plus a public alleyway of approximately 5,700 square feet. The site has a base FAR of 5 with a maximum of 10.

This application is for a commercial project with approximately 835,200 gsf of office space and approximately 35,000 gsf of street level retail in three buildings. An open space and through bock connection are proposed connecting 7th and 8th Avenues. Approximately 835 parking stalls will be provided below grade. All building services will be located below grade, with primary access from 8th Avenue and a secondary parking access from Bell Street. This proposal assumes a full alley vacation.

PROJECT GOALS

- Create rich, diverse pedestrian environment with a variety of scales, active uses and character of open spaces
- Connect to and enhance existing neighborhood pedestrian, vehicular, transit and cycling circulation patterns
- Create transitional opportunity between the Denny Triangle and South Lake Union
- Respond and contribute to the established urban density pattern in a thoughtful manner
- Create flexible, active open space and retail opportunities that add vitality to the project site as well as surrounding community
- Extend northward enhancements of 7th Avenue landscaping and cycle track in pattern established by Rufus 2.0
- Maximize utilization of Green Streets at Blanchard and Bell Streets
- Locate all parking and services below grade
- Develop project utilizing sustainable design methodologies and connection to existing community sustainability initiatives such as District Energy
- Maximize development potential



Zone: DMC 340/290-400
Denny Triangle Urban Center Village

23.49.042 Permitted Uses

Standard
All uses are permitted outright except those prohibited by SMC 23.49.046, and parking, which shall be regulated by 23.49.045.

23.49.008 Structure Height

Standard
Nonresidential Height Maximum: 340'
Rooftop Features allowed above height limit: <ul style="list-style-type: none">Railings, planters, skylights, clerestories, greenhouses and parapets may extend up to 4' above height limit.Solar collectors may extend up to 7' above height limit.Mechanical equipment, stair penthouses, etc... may extend up to 15' above the height limit.
Some rooftop features may extend up to 50' above the maximum height through administrative conditional use per 23.49.008-D-1-c
Rooftop features may cover up to a combined coverage limit of 35%.
Elevator penthouses may extend up to 23' above the height limit (8' cab) or 25' above the limit (9' cab) plus an additional 10' if elevator provides access to usable rooftop open space.
The amount of rooftop area enclosed by screening may exceed the maximum percentage of the combined coverage of all rooftop features.
Measures may be taken to screen rooftop features from public view through the design review process. Rooftop screening may exceed ten percent of the applicable height limit or 15 feet, whichever is greater.

23.49.009 Street-level Use Requirements

Standard
None required on 7th Avenue, 8th Avenue, Bell Street, or Blanchard Street.

23.49.011 Floor Area Ratio

Standard
Base FAR: 5 Maximum FAR: 10 Additional chargeable floor area above the base FAR may be obtained as outlined in section 23.49.011 and may include generally the following: <ul style="list-style-type: none">Amenity BonusesTransfer Development RightsRural Development CreditHousing and Child Care
<ul style="list-style-type: none">A minimum of 5% of floor area above base FAR must be obtained through Landmark TDRs to the extent they are available.FAR gained through housing and child care bonuses (23.49.012) together with housing (23.49.015) and landmark TDRs shall equal 75% of the area by which the total chargeable area permitted on the lot exceeds the base FAR.At least 1/2 of the balance of the 25% shall be gained from a sending lot with a major performing arts center if available.The balance of the 25% shall be gained through bonus floor area for amenities (23.49.013)
<ul style="list-style-type: none">The first increment above base FAR must be provided through regional development credits, pursuant to SMC 23.58.A.044 (SMC 23.49.011.A.2.a).
Areas Exempt from FAR: <ul style="list-style-type: none">Street level use (retail) that has a minimum flr-flr of 13', horizontal depth of 15', and overhead weather protection is provided.<ul style="list-style-type: none">Child CareHuman ServicesResidential use and live-work unitsMuseums and museum expansion spacesPerforming art theatersFloor area below gradePublic restroomsShower facilities for bicycle commutersCertain area in Landmark structuresAn allowance of 3.5% of GFA for mechanical equipment after all other deductions have been taken
Rooftop mechanical equipment, whether enclosed or not, shall be counted as part of the GFA of the structure except for those structures existing prior to June 1, 1989 or replacement mechanical equipment.

23.49.013 Bonus Floor Area for Amenities

Standard
<ul style="list-style-type: none">Open Space and Green Street ImprovementsHill Climb Assists (N/A)Human Services Per 23.49.013 A3Public RestroomsRehabilitation and Preservation of Landmark StructureTransit Station Access (N/A)
Amenity Ratios and Limits per 23.49.13 B3

23.49.014 Transfer of Development Rights

Standard
<ul style="list-style-type: none">Housing TDRDMC Housing TDRLandmark Housing TDRLandmark TDROpen Space TDR; andSouth Downtown Historic TDR
Note Table A 23.49.014

23.49.016 Open Space

Standard
Private Open Space - Office Use Requirements: <ul style="list-style-type: none">20 SF for every 1000 GSF of Office UseOnly applies to office use greater than 85,000 GSF; Office use less than 85,000 GSF is exempt.Must be open to the sky, meet Downtown Amenity Standards and be accessible to all tenants.
On-site public open space <ul style="list-style-type: none">Available for amenity feature bonus per section 23.49.013
Off-site public open space <ul style="list-style-type: none">Available for amenity feature bonus per section 23.49.013Must be in a downtown zone within 1/4 mile of the project site.Must be open to the public without charge.Minimum of 5,000 SF of contiguous area.
Payment in lieu <ul style="list-style-type: none">Payment in lieu of open space development is permitted if the Director determines that such payment will contribute to the improvement of a green street or there is public open space abutting the lot or in the vicinity.

23.49.018 Overhead weather protection and lighting

Standard
Continuous weather protection is required along entire street frontage
Exceptions: <ul style="list-style-type: none">• If set back farther than 5' from property line• Abuts a bonused open space or amenity feature• If separated from the street property line by a landscaped area at least 2' in width• Driveways and loading docks
Dimensions: <ul style="list-style-type: none">• Min. 8' from building wall or must extend to a line 2' from curb line, whichever is less• Lower edge minimum height of 10' and a maximum of 15' above the sidewalk• Pedestrian lighting to be provided

23.49.019 Parking quantity, location and access requirements

Standard
No parking, either long-term or short-term, is required on lots in Downtown zones
<ul style="list-style-type: none">• On Blanchard Street and Bell Street (green street), parking is permitted at street level only if separated from the street by other uses
<ul style="list-style-type: none">• On 7th and 8th Avenue (class II pedestrian streets), parking is permitted at street level if it meets the standards of 23.49.019B, including:<ul style="list-style-type: none">• At least 30% of the street frontage (excluding garage doors) is separated from the street by other uses;• The façade of the separating uses meets the transparency and blank wall standards for class I ped. streets;• The portion of parking not separated by other uses is screened, and;• The street façade is enhanced by detailing, artwork, landscaping, etc...
<ul style="list-style-type: none">• Parking not at street level within structures must be located below street level or separated from street level by other uses• Up to four levels of above grade parking may be permitted if it meets the standards of 23.49.019B
Maximum parking limit for nonresidential uses <ul style="list-style-type: none">• Parking for nonresidential uses is limited to one parking space per every 1,000 square feet of gross floor area in nonresidential use.• Parking for nonresidential uses may be permitted to exceed the maximum standard as a special exception as granted by the Director.• Access to parking and loading shall be from the alley when the lot abuts an improved alley, unless the Director approves an alternate access route.
Bicycle Parking (Minimums): <ul style="list-style-type: none">• Office: 1 space per 5,000 SF• Hotel: .05 spaces per hotel room• Retail use over 10,000 SF: 1 space per 10,000 SF• Residential: 1 space for every 2 dwelling units
After the first 50 spaces are provided additional spaces are required at 1/2 the ratio noted
Structures containing more than 250,000 SF of office space shall include shower facilities
Off-street loading spaces shall be provided per 23.54.030

23.49.022 Minimum sidewalk and alley width

Standard
Minimum sidewalk width on Blanchard Street, Bell Street, 7th Avenue and 8th Avenue: 12'. Minimum alley width: 20', achievable through setback or dedication if required.

23.49.041 Combined lot development

Standard
When authorized by the Director pursuant to this section, lots located on the same block in DOC1 or DOC2 zones, or in DMC zones with a maximum FAR of ten (10), or lots zoned DOC1 and DMC on the same block, may be combined, whether contiguous or not, solely for the purpose of allowing some or all of the capacity for chargeable floor area on one such lot under this chapter to be used on one (1) or more other lots, according to the following provisions outlined in 23.49.041-A through D
The Director shall allow combined lot development only to the extent that the Director determines, in a Type I land use decision, that permitting more chargeable floor area than would otherwise be allowed on a lot shall result in a significant public benefit. In addition to features for which floor area bonuses are granted, the Director may also consider the following as public benefits that could satisfy this condition when provided for as a result of the lot combination: <ul style="list-style-type: none">• preservation of a landmark structure located on the block or adjacent blocks;• uses serving the downtown residential community;• public facilities serving the Downtown population;• transportation facilities promoting pedestrian circulation and transit use;• Short-term parking on blocks within convenient walking distance of the retail core or other Downtown business areas ;• a significant amount of housing serving households with a range of income levels;• improved massing of development on the block that achieves a better relationship with surrounding conditions;• public view protection within an area; and/or• arts and cultural facilities, including a museum or museum expansion space.
See SMC 23.49.041-D for full conditions.

23.49.045 Parking

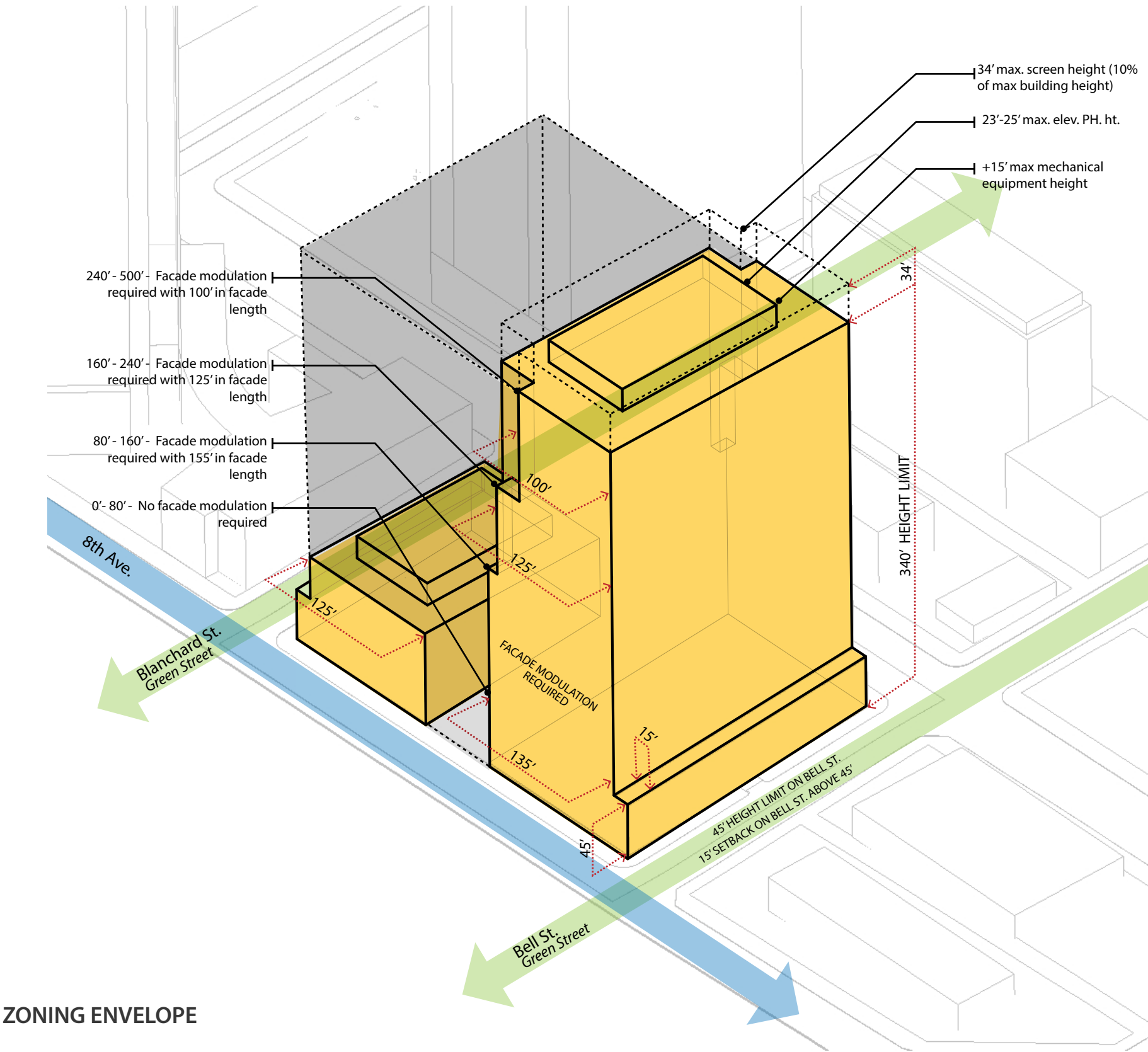
Standard
Principal use parking garages for short-term parking my be permitted as conditional use.
In DMC zones, principal use long-term and short-term surface parking may be permitted as administrative conditional use.
Accessory parking garages for both long-term and short-term parking are permitted outright up to the maximum parking limit established by 23.49.019

23.49.056 street façade, landscaping and street setback requirements

Standard
Minimum façade heights: <ul style="list-style-type: none">• 7th and 8th Avenues (class II pedestrian streets): 15'• Blanchard Street and Bell Street (green streets): 25'
Setbacks <ul style="list-style-type: none">• The max. area of all setbacks shall not exceed the area derived by multiplying the averaging factor by the width of the street frontage. The averaging factor is... ten on Class II pedestrian streets and designated green streets.• The maximum setback of the facade from the street lot lines at intersections is 10 feet. Minimum conforming distance is 20 feet along each street.• Any exterior open space that meets amenity standards is not considered part of the setback area.• If a sidewalk is widened into the lot as a condition of the development setback shall be measured from the line of the new sidewalk.
Transparency and blank façade requirements: <ul style="list-style-type: none">• Along 7th and 8th Avenues (class II ped. street) 30% of street façade to be transparent between 2' and 8' above sidewalk level.• Along Bell and Blanchard Streets (green streets) 60% of street façade to be transparent between 2' and 8' above sidewalk level.• On 7th and 8th Avenues blank façades limited to segments 30' except for garage doors which may be wider than 30'.• On 7th and 8th Avenues the total of all blank façade segments shall not exceed 70% of the street façade.• On Blanchard and Bell Streets blank façades limited to segments 15' except for garage doors which may be wider than 30'.• On Blanchard and Bell Streets the total of all blank façade segments shall not exceed 40% of the street façade.• Blank façade sections shall be separated by transparent area at least 2' wide
Street Trees are required on all streets.
Landscaping in the Denny Triangle Urban Village <ul style="list-style-type: none">• All areas abutting a street lot line that are not covered by a structure, have a depth of 10 feet or more, and are larger than 300 SF shall be landscaped.• Setbacks required to meet minimum sidewalk widths shall be exempt from landscape requirements.

23.49.058 Upper-Level Development Standards

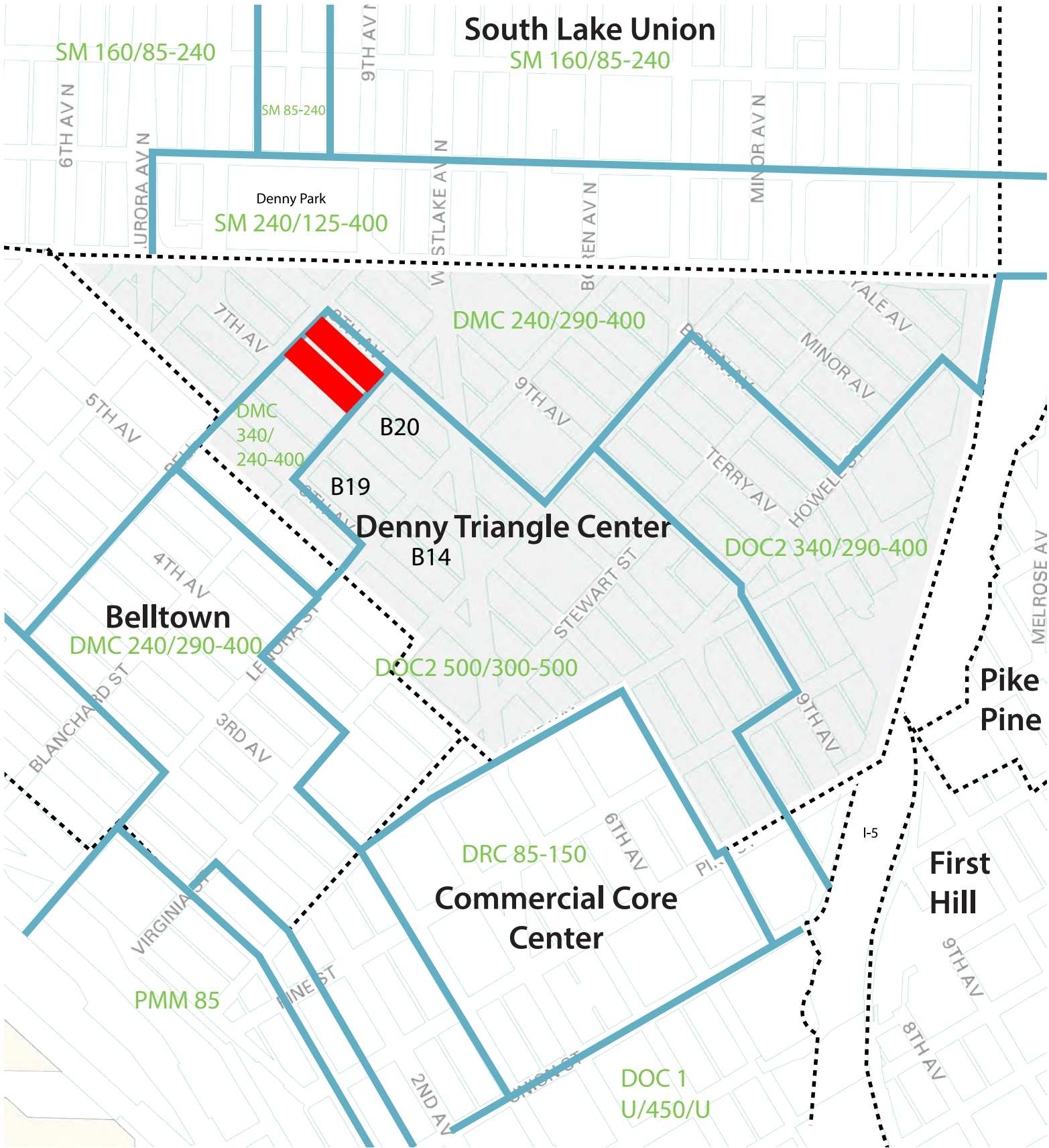
Standard
"Tower" Definition <ul style="list-style-type: none">Any structure where a portion is above a height of 85 feet in a structure that has any nonresidential use above 65 feet or does not have residential use above a height of 160 feet.
Facade modulation and upper-level width limits apply to: <ul style="list-style-type: none">Structures 160' in height or less in which any story above 85' exceeds 15,000 SFPortions of structures in non-residential use above a height of 160' in which any story above an elevation of 85' exceeds 15,000 SF.
Facade Modulation (non-residential) <ul style="list-style-type: none">Required of street facing facades within 15' of street above 85'.Maximum facade length without modulation within 15' of street lot line:<ul style="list-style-type: none">155' facade length from elevation 86 to 160 feet.125' facade length from elevation 161 to 240 feet.100' facade length from elevation 241 to 500 feet.80' facade length for elevations above 500 feet.Modulation defined as at least 15' deep step back from property line at least 60' long.
Upper Level Width Limit <ul style="list-style-type: none">On lots where the width and depth of the lot each exceed 200 feet, the maximum facade width for any portion of a building above 240 feet shall be 145 feet along the general north/south axis of a site.
Tower Separation <ul style="list-style-type: none">On DMC sites zoned with a maximum height limit of more that 160' located in the Denny Triangle Urban Village, if any part of a tower exceeds 160' then all portions of the tower that are above 125' must be separated by a minimum of 60' from any portion of any other existing tower above 125' in height. From a structure allowed pursuant to the Land Use Code in effect prior to the effective date of March 20th 2006 Ordinance 122054.
Upper level setbacks <ul style="list-style-type: none">When a lot in a DMC Zone is located on a designated green street, a continuous upper-level setback of 15' shall be provided on the street frontage abutting the green street at a height of 45 feet.



URBAN DESIGN ANALYSIS



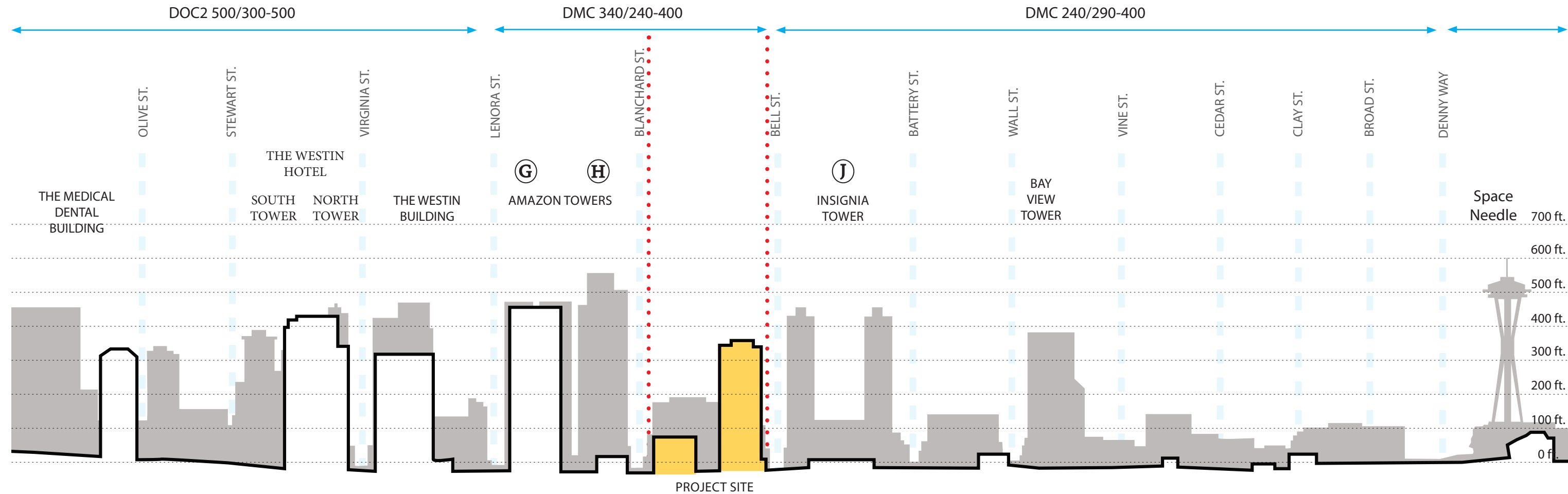
URBAN CONTEXT - ZONING DESIGNATION



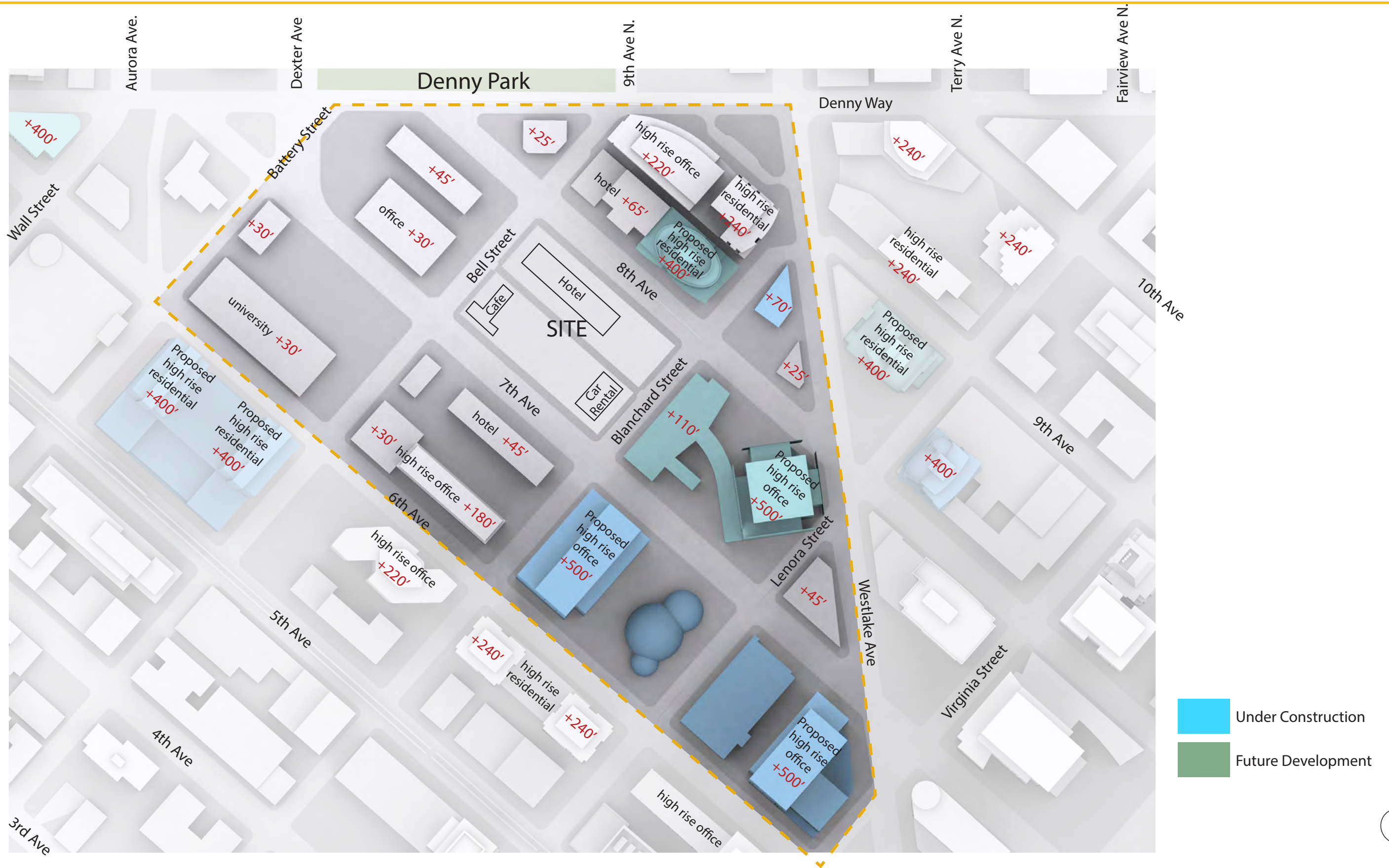
 Project Site

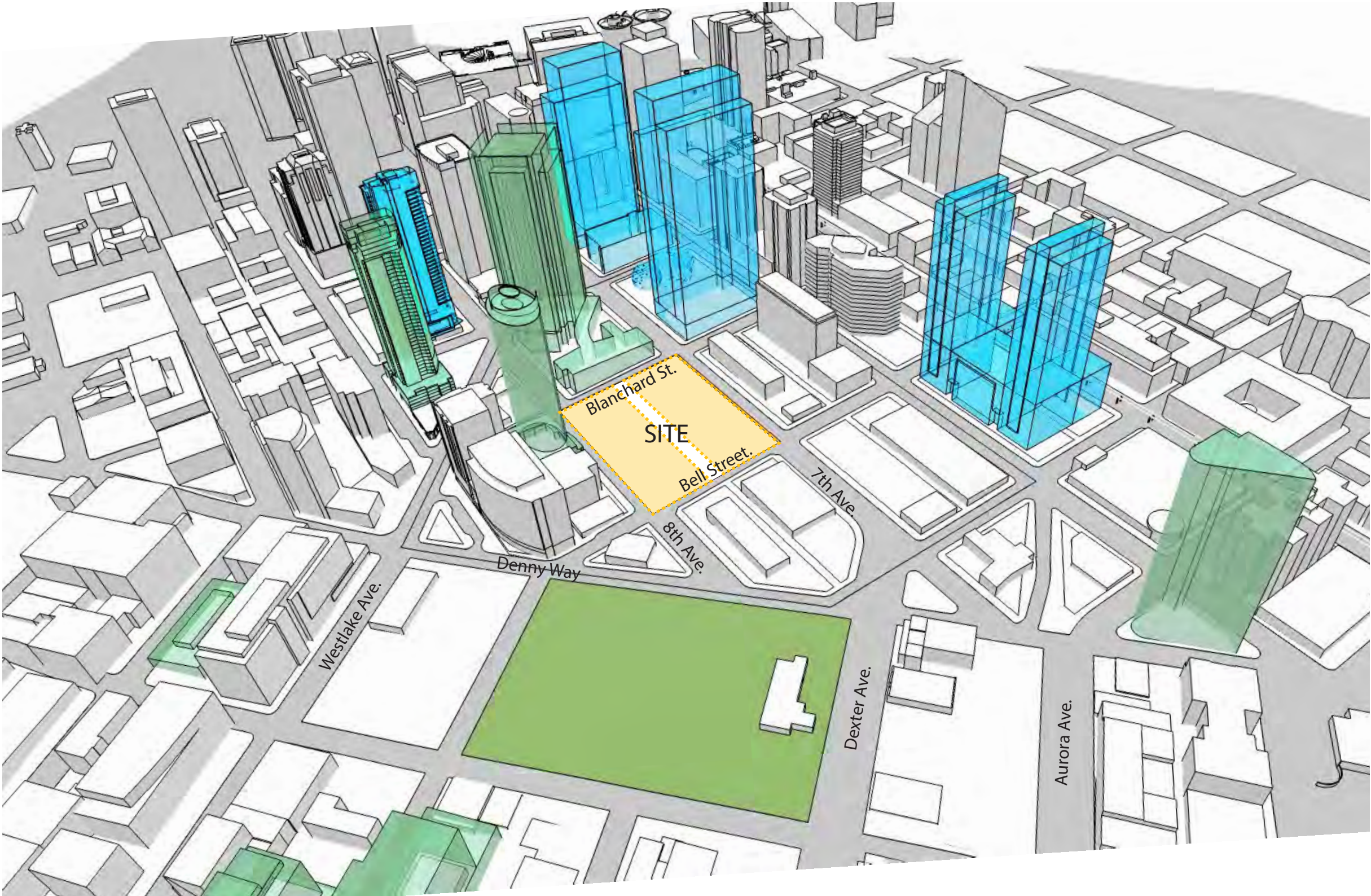


The site section taken along Eighth Avenue shows the site relative to adjacent zones and their respective height and density limits. Generally allowable heights increase as one transitions south from South Lake Union to the downtown CBD.



URBAN CONTEXT - ADJACENT BUILDING HEIGHTS





- Under Construction
- Future Development

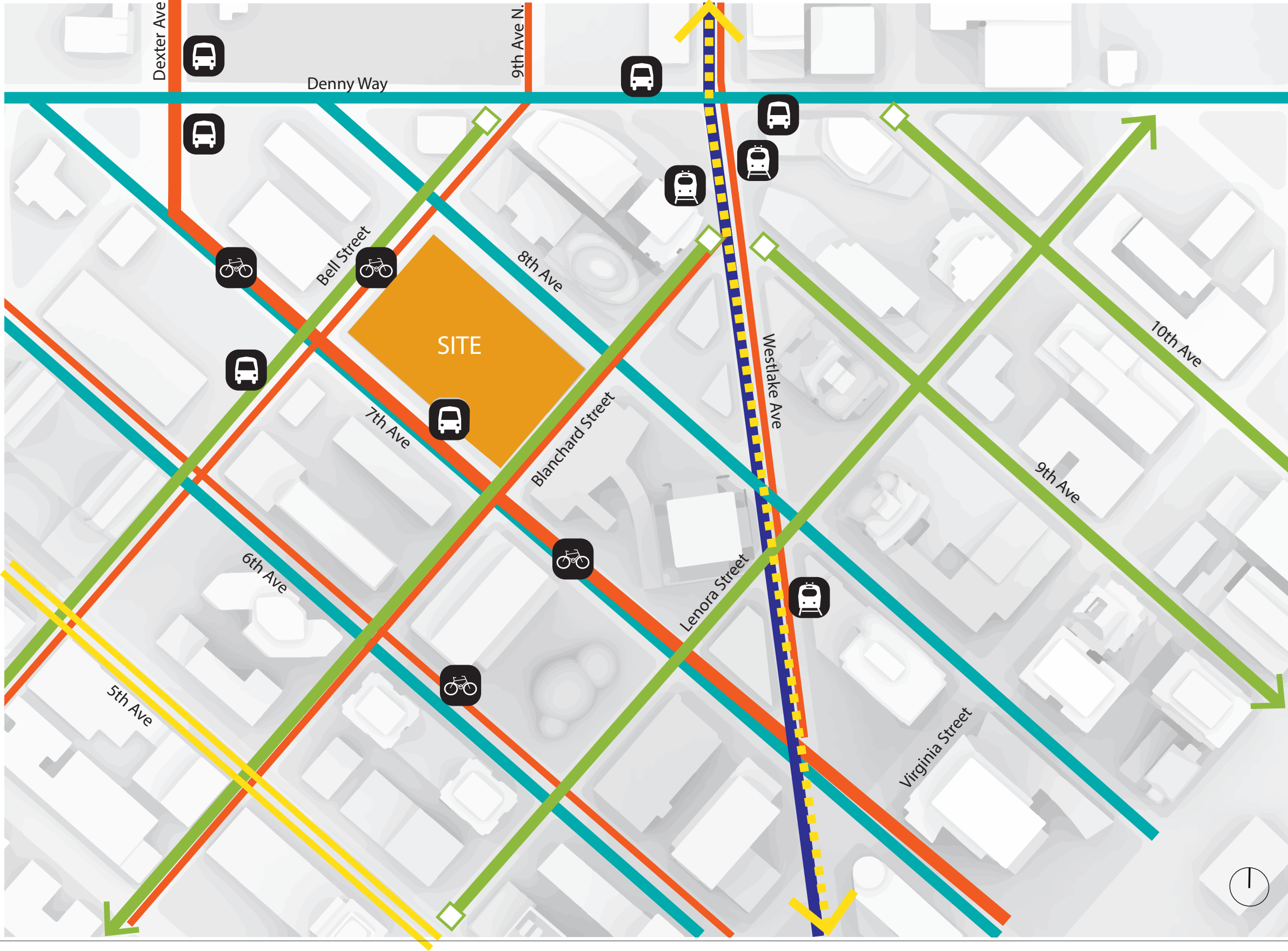


URBAN CONTEXT - STREET CLASSIFICATION

Street Classification DENNY TRIANGLE

The site is convenient for multiple modes of public transportation and is easily accessed by autos, cyclists and pedestrians. The nearby street car stop is at the intersection of Blanchard and Westlake, which is only a ½ block walking distance. Metro bus service is provided on Denny, Dexter and 7th Avenue. Seventh Avenue will be the main access and egress thoroughfare for bicycle traffic with the addition of a cycle track and numerous cross street bike lanes.

- Monorail Route
- Street Car Route
- Class I Pedestrian Street
- Class II Pedestrian Street
- Bicycle Lanes
- Main Bicycle Thoroughfare
- Green Street
- Bus Stop
- Street Car Stop
- Bicycle Street





A. La Quinta Hotel



B. Proposed Apartment Tower



C. 2201 Westlake/Enso



D. 2200 Westlake/ Pan Pacific Hotel



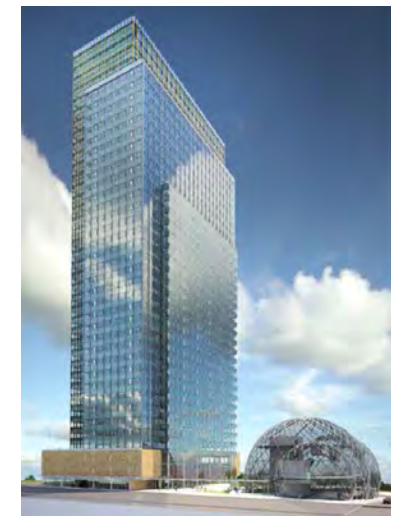
E. Proposed Apartment Tower



F. Apartment Tower Under Construction



G. Office Tower Under Construction



H. Office Tower Under Construction



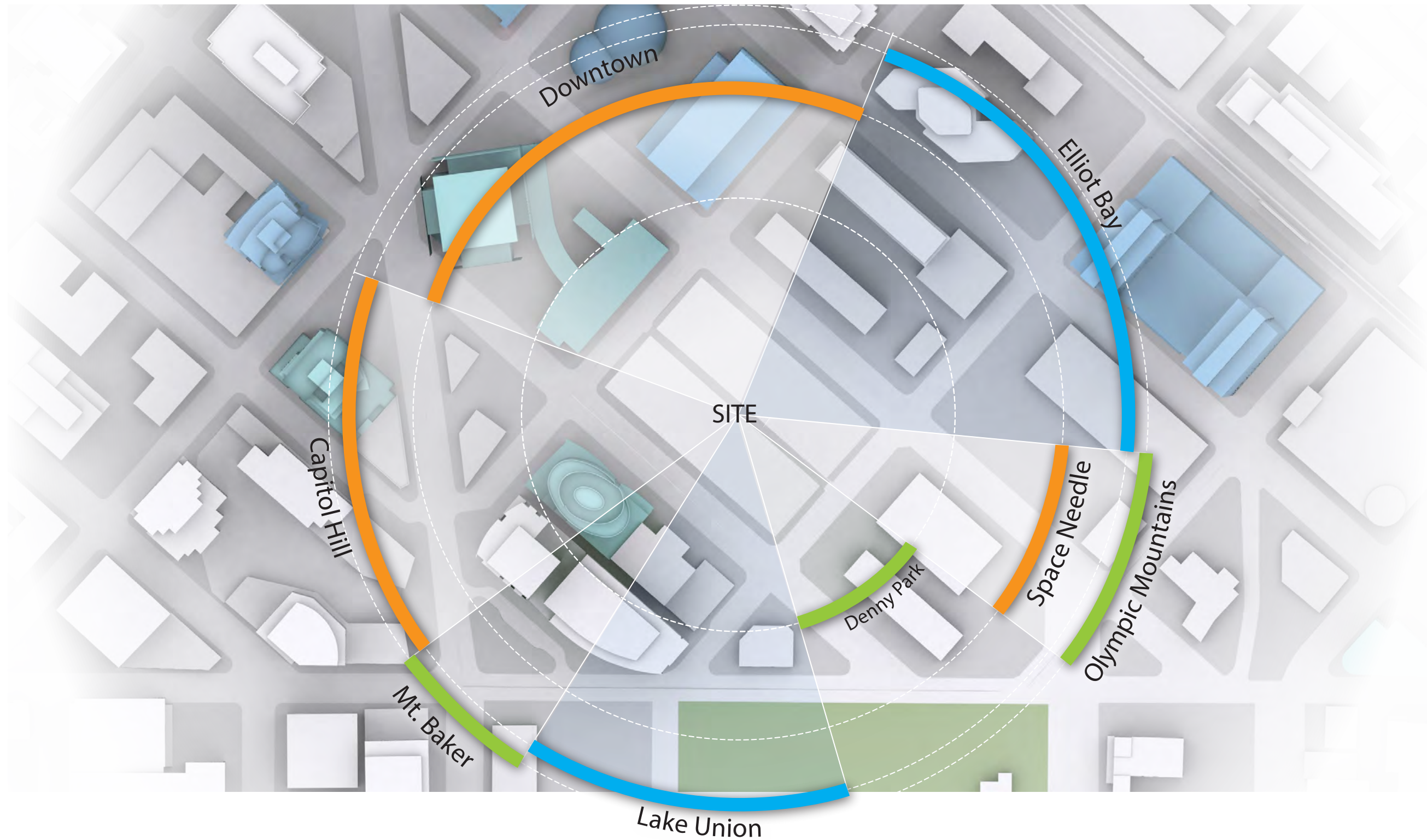
I. Apartment Towers



J. Condo Towers Under Construction

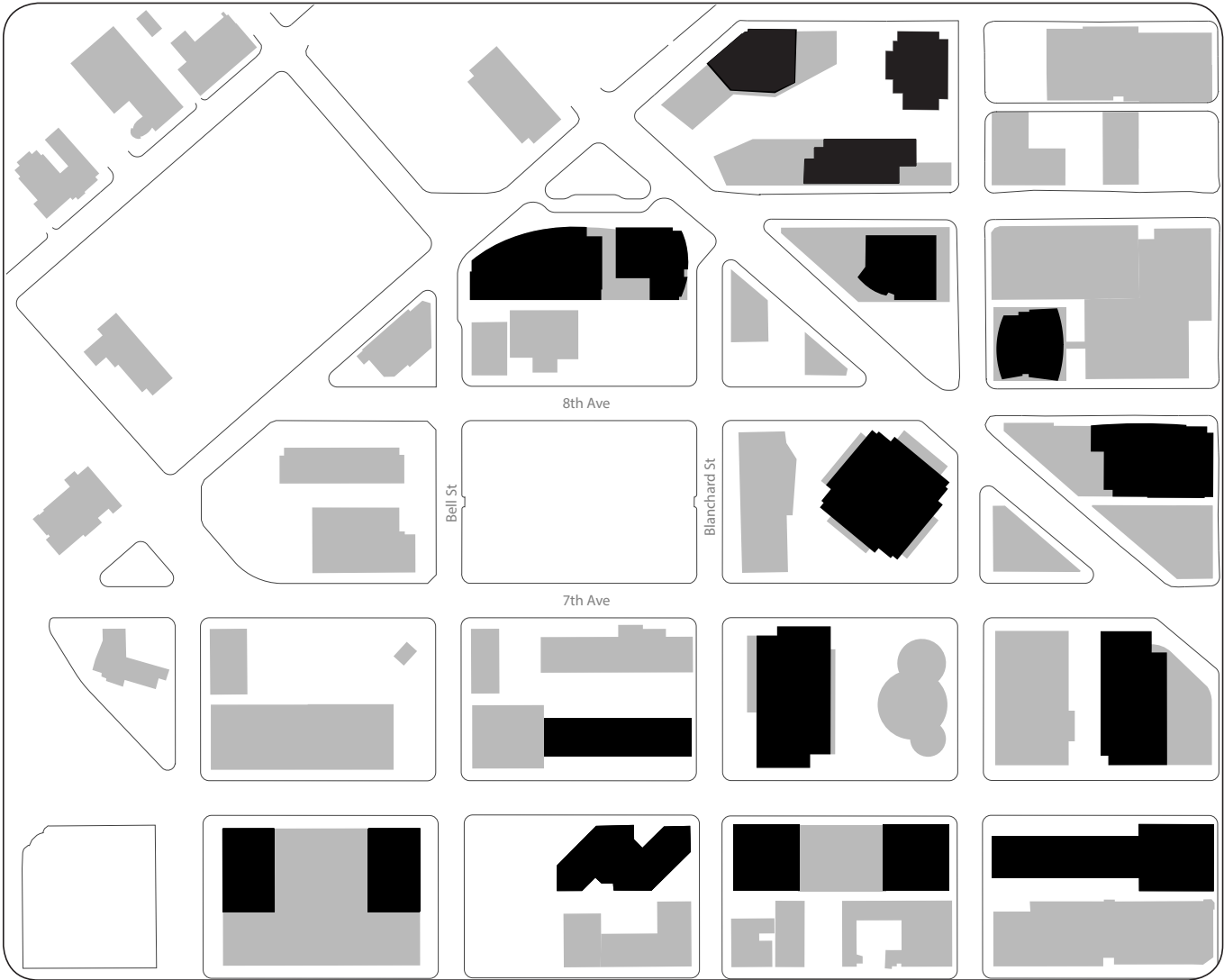


K. Office Tower Under Construction

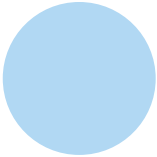




URBAN DENSITY PATTERNS - PRESENT & FUTURE



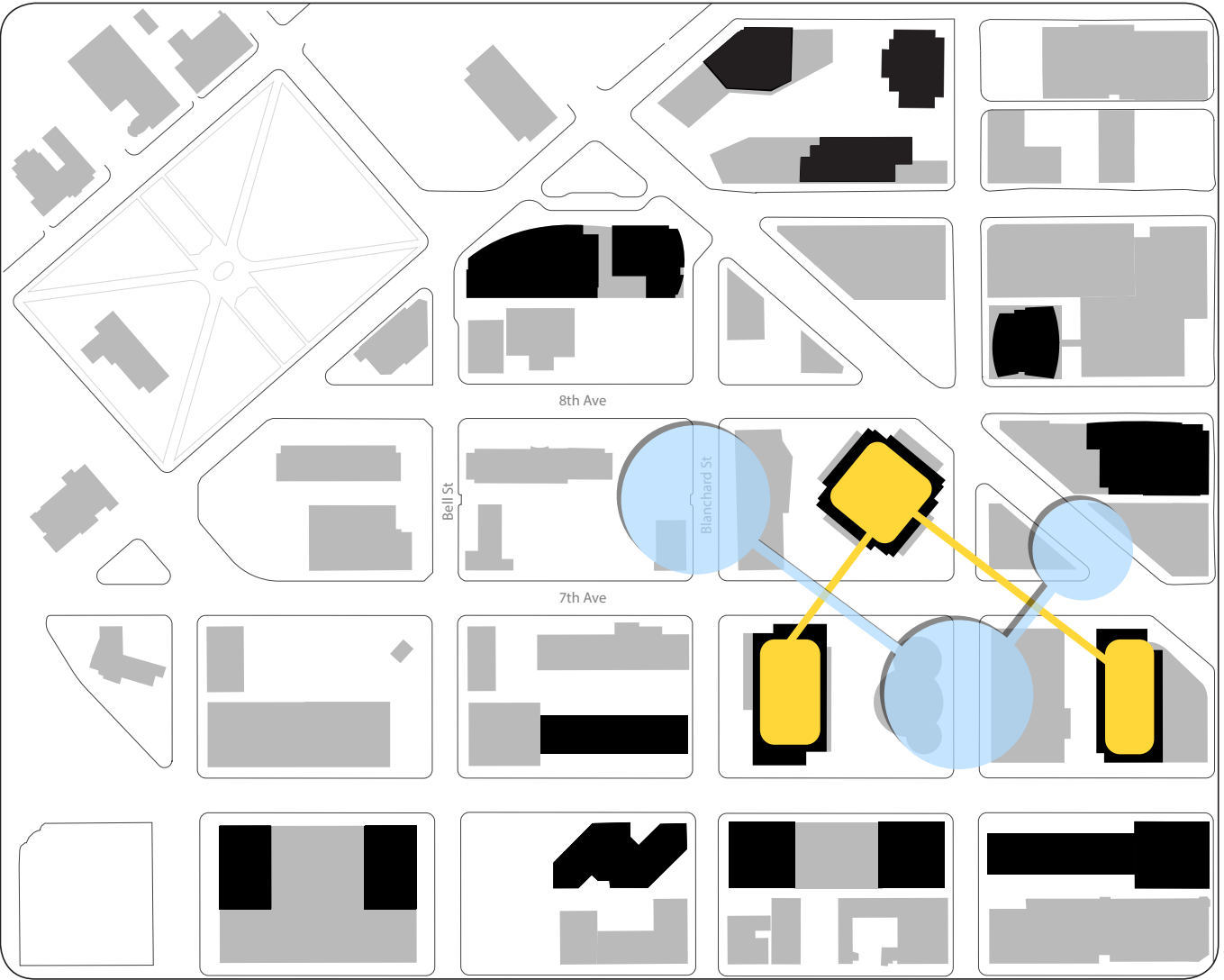
1. Current



Low-rise / Open Space

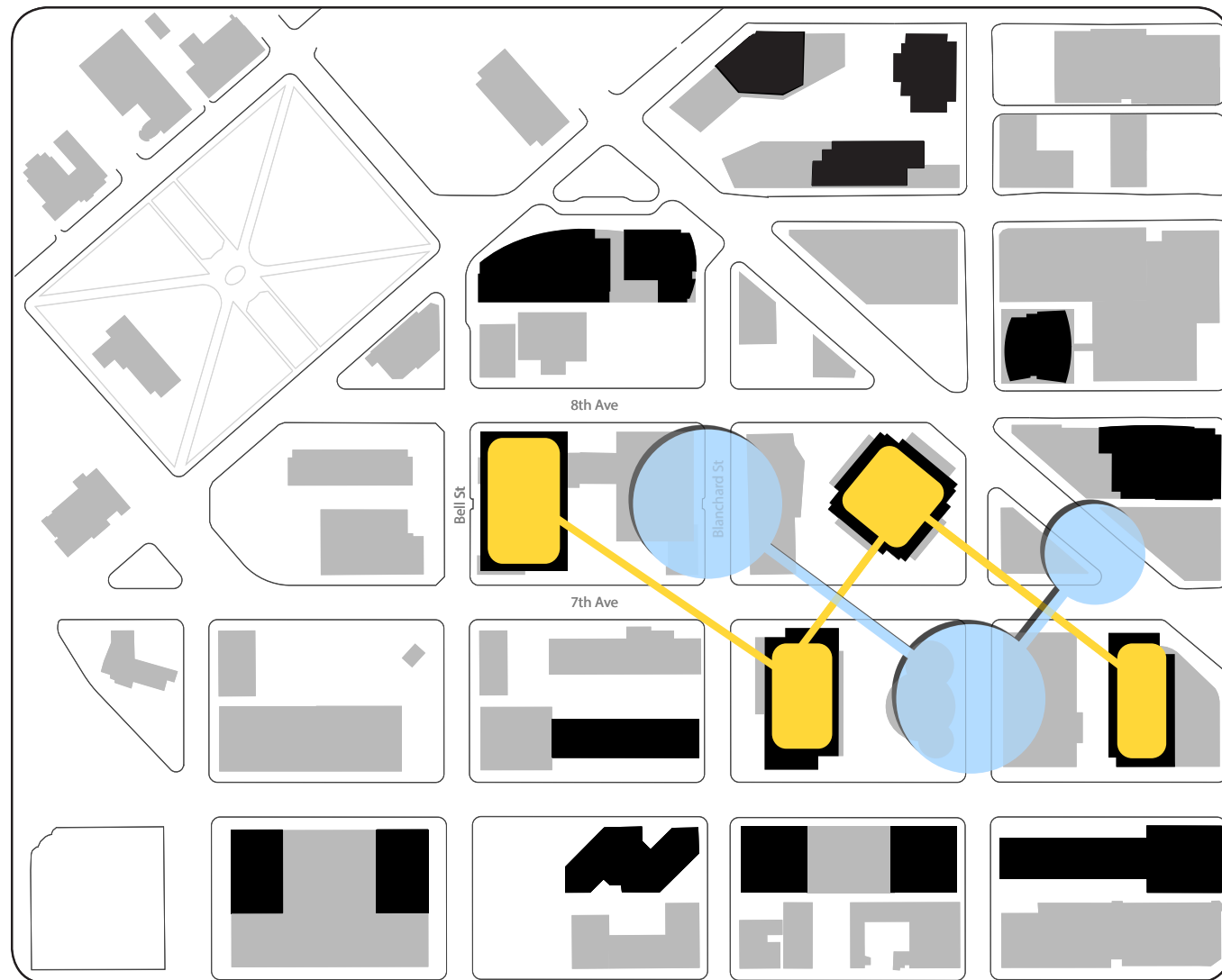


High-Rise Nodes

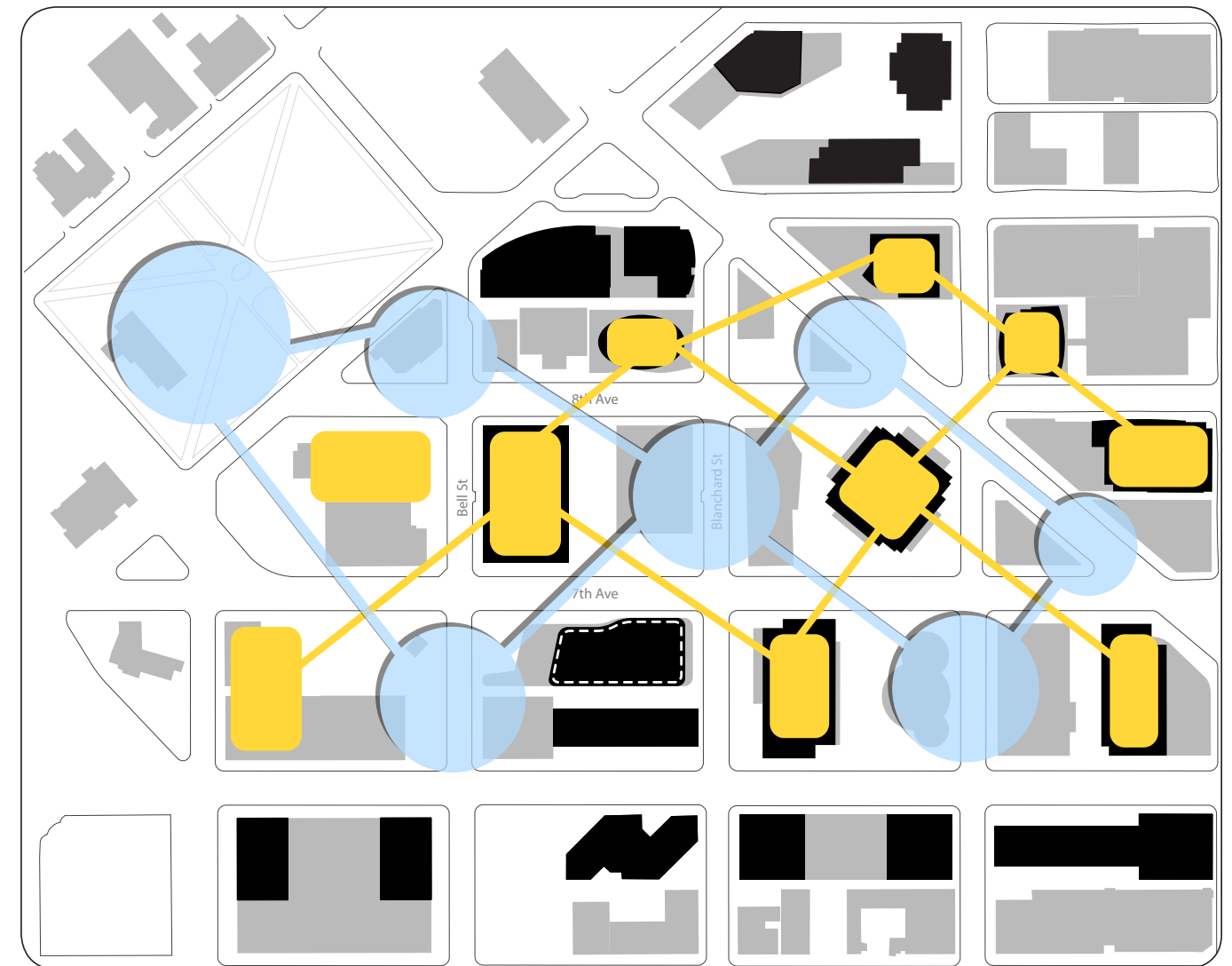


2. Rufus 2.0

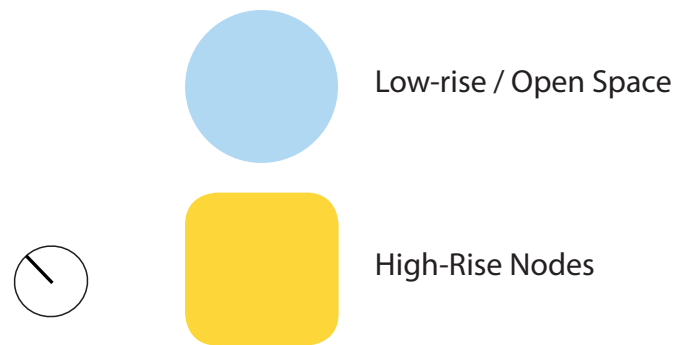


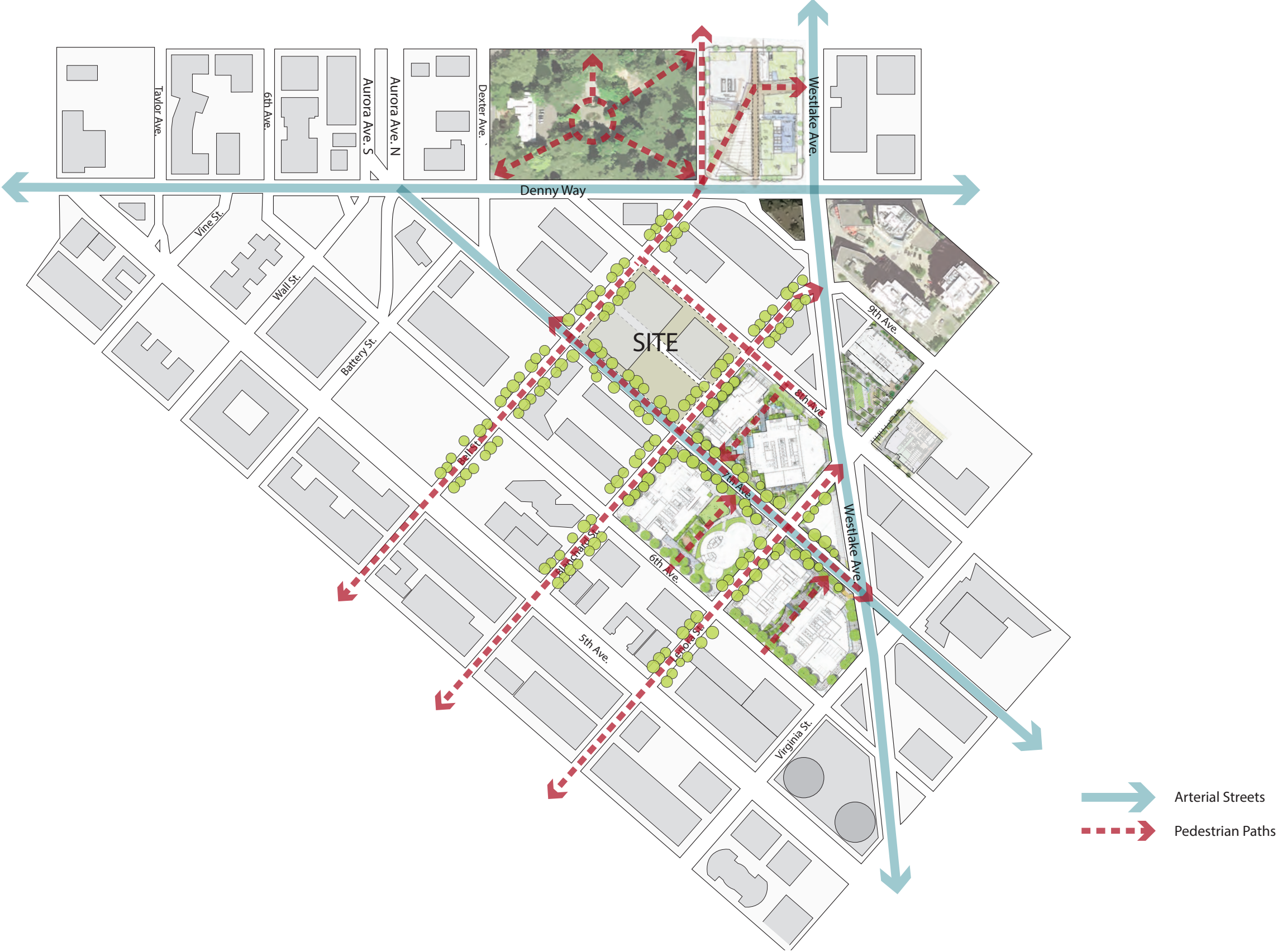


3. Rufus 2.0 + Block 21

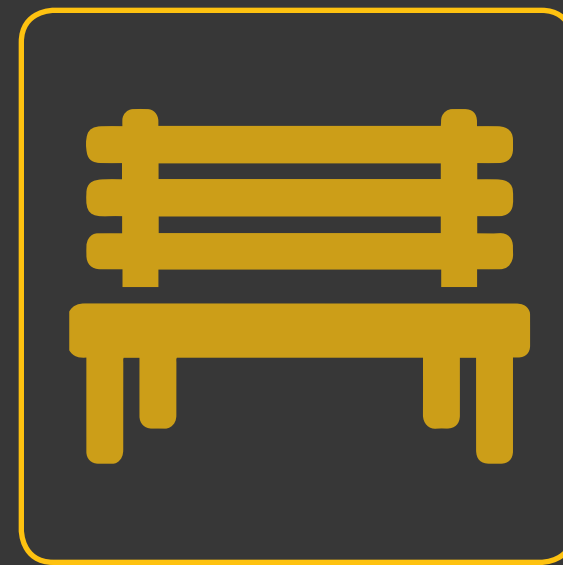


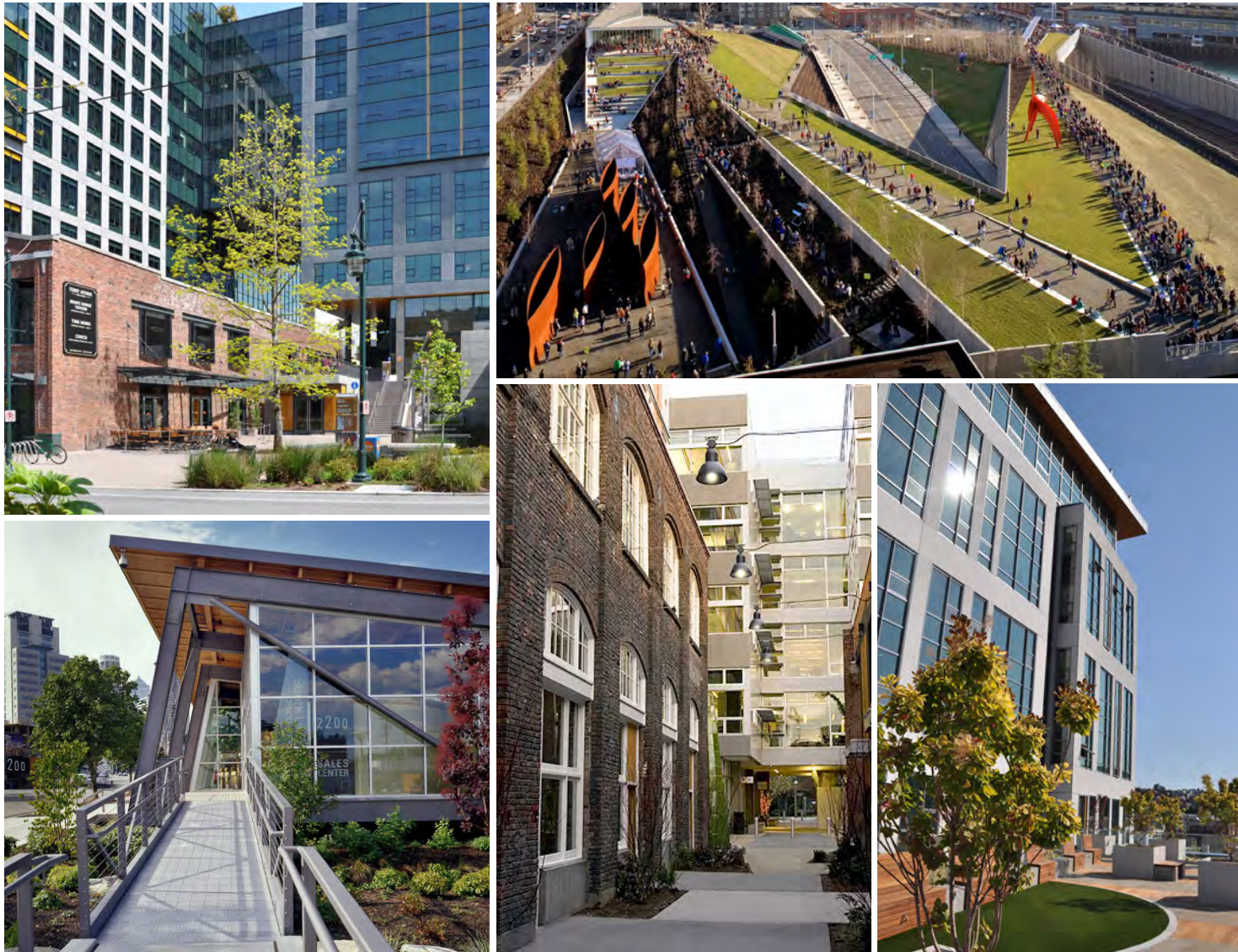
4. Potential Future Development





DESIGN GUIDELINES





A. Site Planning and Massing

A-2 Respond to the physical environment
Develop an architectural concept and compose the building's massing in response to geographic the building's massing in response to geographic conditions and patterns of urban form found beyond the immediate context of the building site.

A-2 Enhance the Skyline
Design the upper portion of the building to promote visual interest and variety in the downtown skyline

The proposed design responds to the allowable zoning envelope and resultant presence on the skyline by employing distinctive massing solutions that respond to the surrounding context and significant site slope. The proposal continues the establish pattern of urban density of open space. Sculpted building forms and expressive tops will distinguish the proposal from the city skyline and respond to the prominent views of the project from the adjacent South Lake Union neighborhood to the north and Downtown to the south.



B. Architectural Expression

B-2 Create a transition in bulk and scale
Compose a massing for the building to create a transition to the height, bulk and scale of development in neighboring or nearby less-intensive zones.

B-3 Reinforce the positive urban form & architectural attributes of the immediate area
Consider the predominant attributes of the immediate neighborhood and reinforce desirable siting patterns, massing arrangements, and streetscape characteristics of nearby development.

B-4 Design a well-proportioned & unified building
Compose the massing and organize the publicly accessible interior and exterior spaces to create a well-proportioned building that exhibits a coherent architectural concept. Design the architectural elements and finish details to create a unified building, so that all components appear integral to the whole.

The proposal distinguishes the high-rise portion of the tower from the lower zones (aka "podium") through scale, massing and material delineation. The building podium acknowledges the surrounding low- and mid-rise structures by providing setbacks that relate to adjacent structures. The site planning of the buildings follow the existing pattern of giving priority to the southern exposure to public open space and extending the boulevard character of 7th Avenue. As a multi-building proposal , the project unifies the architectural vocabulary of the block by employing complementary materials and detailing that are shared by all structures on the block.



C. The Streetscape

C-1 Promote pedestrian interaction

Spaces for street level uses should be designed to engage pedestrians with the activities occurring within them. Sidewalk-related spaces should be open to the general public and appear safe and welcoming.

C-6 Develop the alley facade

To increase pedestrian safety, comfort, and interest, develop portions of the alley facade in response to the unique conditions of the site or project.

The proposal has been designed to reinforce and enhance existing pedestrian patterns and capitalize on the sites transitional location between the Denny Triangle and South Lake Union.

The proposal is organized to provide a through-block connection and linked public plazas that engage pedestrians. The perimeter street frontage gives priority to active uses such as retail and building entries.



D. Public amenities

D-1 Provide inviting and usable open space

Design public opens spaces to promote a visually pleasing, safe and active environment for workers, residents, and visitors. Views and solar access from the principal area of the open space should be especially emphasized.

The design gives emphasis to high quality open spaces that knit into the existing urban fabric and have been situated to maximize solar exposure.

An open plaza is located on the southwest corner of the block to invite pedestrians into the site and encourage through-block circulation. A complimentary open space on the northeast corner of the site engages pedestrian movement from the north.

SITE ANALYSIS



Site Area:

77,700 square feet plus a public alleyway of approximately 5,700 square feet with approximately 360 FT of frontage on both 7th and 8th avenues, 232 FT of frontage on both Bell and Blanchard streets.

Topography:

The site slopes from elevation 104' 3" in the northwest corner down to 83' 9" in the south-east corner.

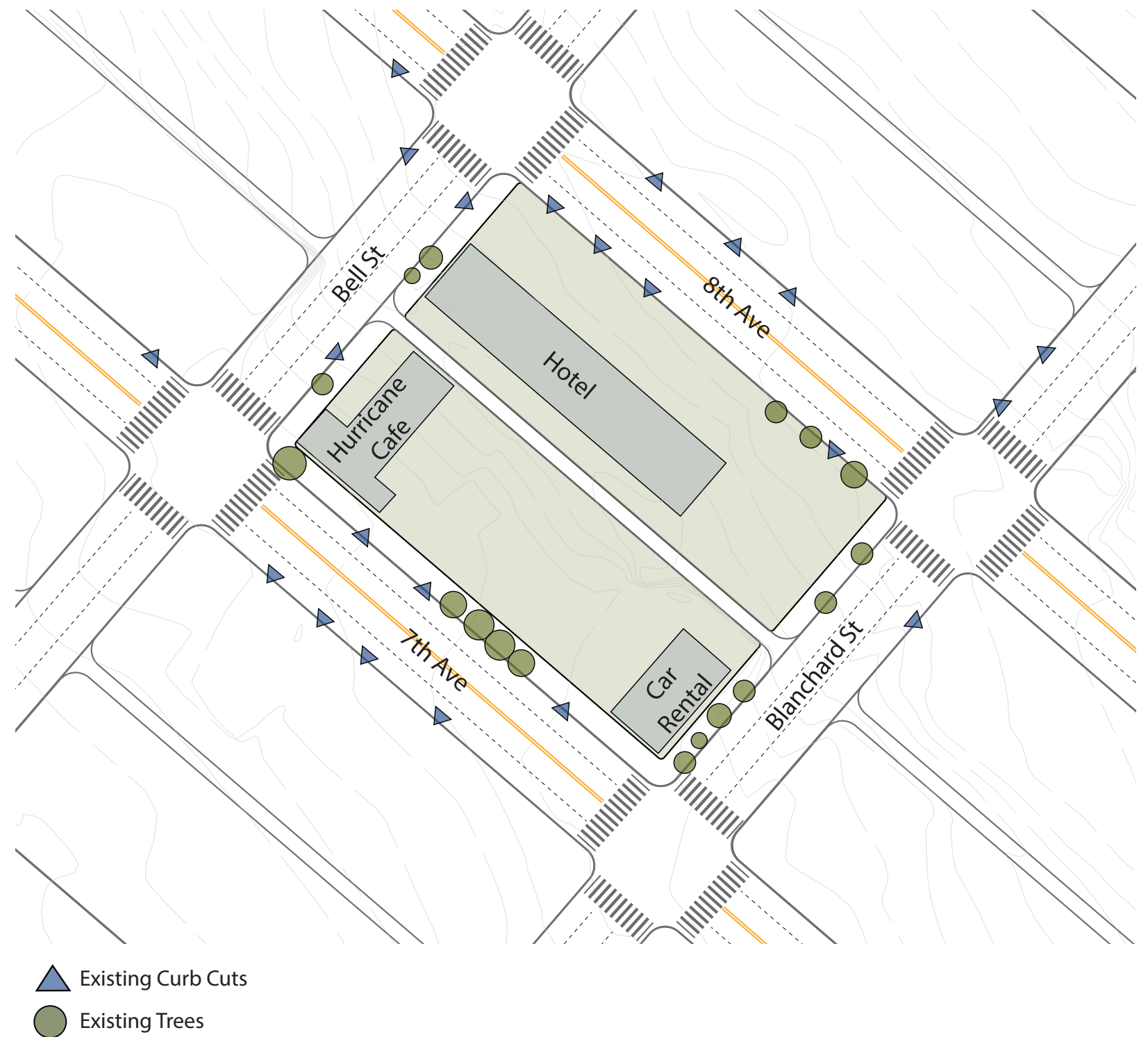
Tree Survey:

There are no significant trees on the site. Trees are located within the sidewalk Right-of-way. Five trees are located along 7th ave, three along 8th ave, six along Blanchard street and three along Bell street.

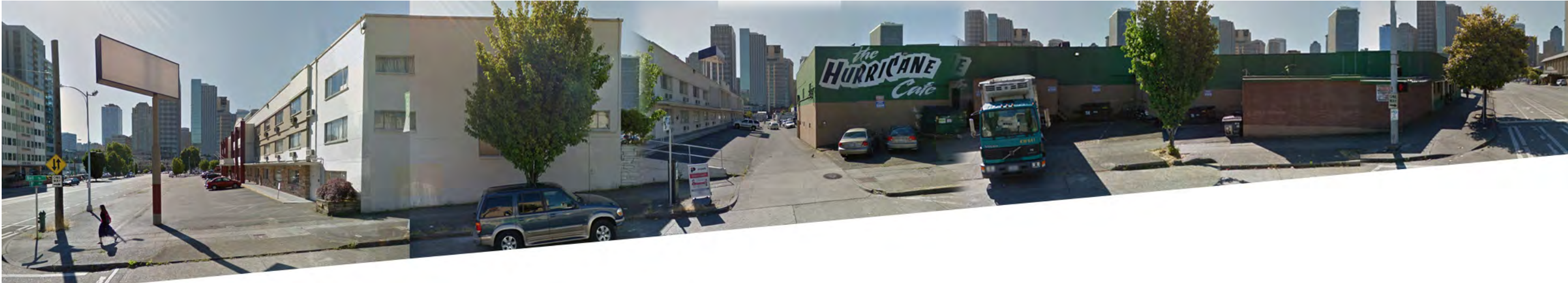
Existing Buildings:

The site has a hotel, restaurant, rental car facility and surface parking lot.

Combined Lot Development Provision
SMC 23.49.041



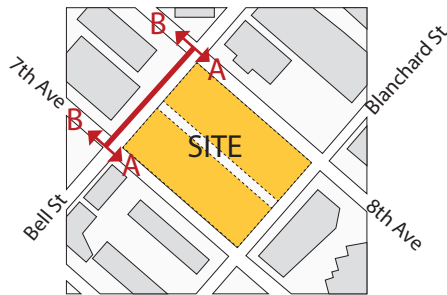
SITE ANALYSIS - PLAN



A. Bell Street Looking South



B. Bell Street Looking North

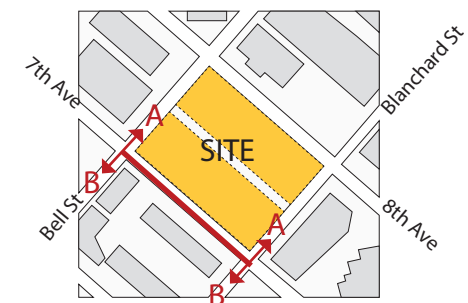




A. 7th Avenue Looking East



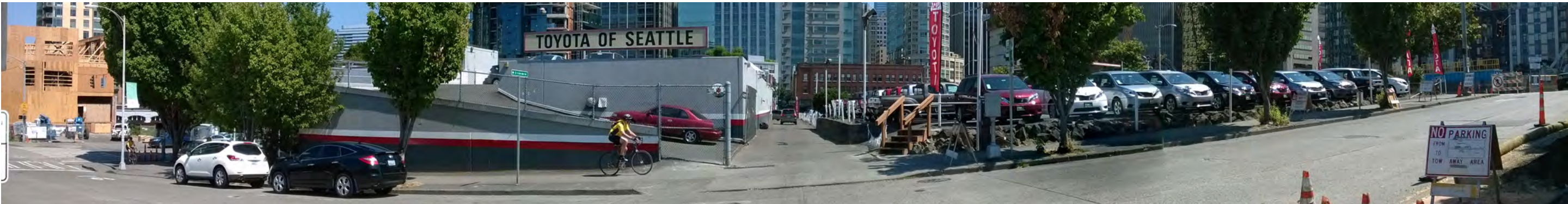
B. 7th Avenue Looking West



SITE ANALYSIS - PLAN



A. Blanchard Street Looking North



B. Blanchard Street Looking South

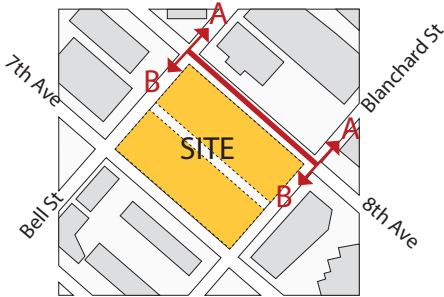




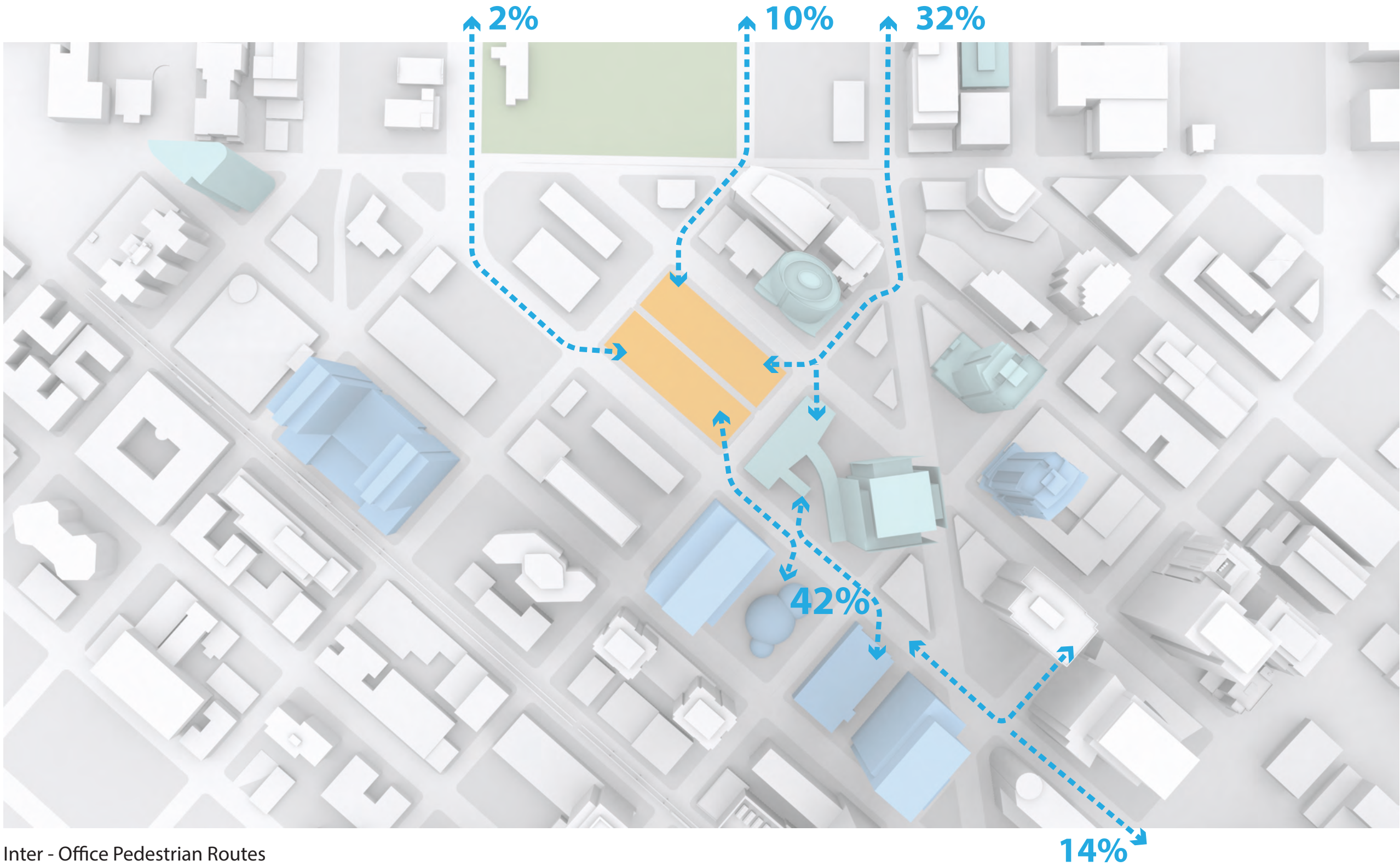
A. 8th Avenue Looking East



B. 8th Avenue Looking West



INTER - OFFICE PEDESTRIAN ROUTES



Inter - Office Pedestrian Routes

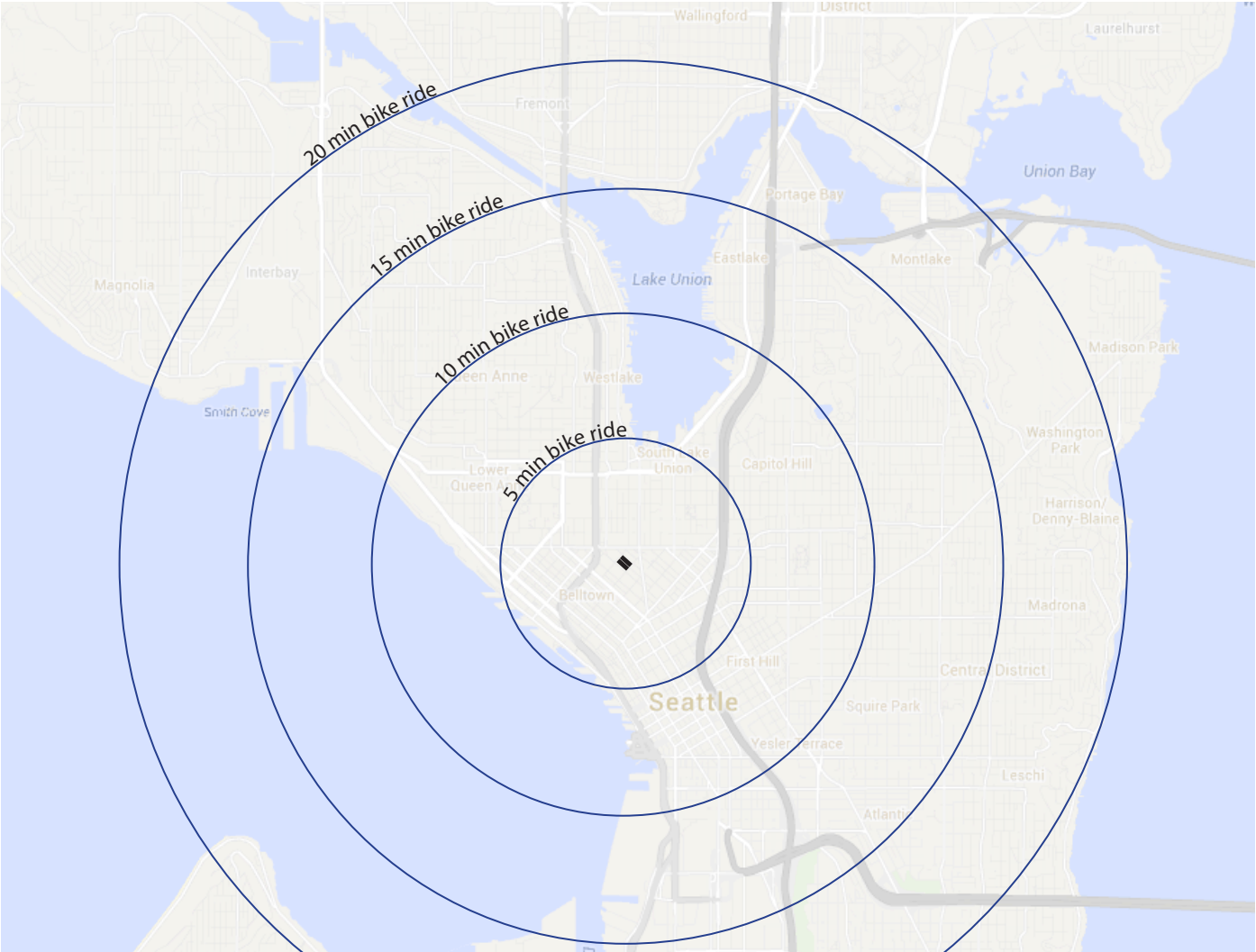




Vehicle Trips - Existing Site



TRAVEL DISTANCES - WALK AND BIKE



Bicycle Travel Time

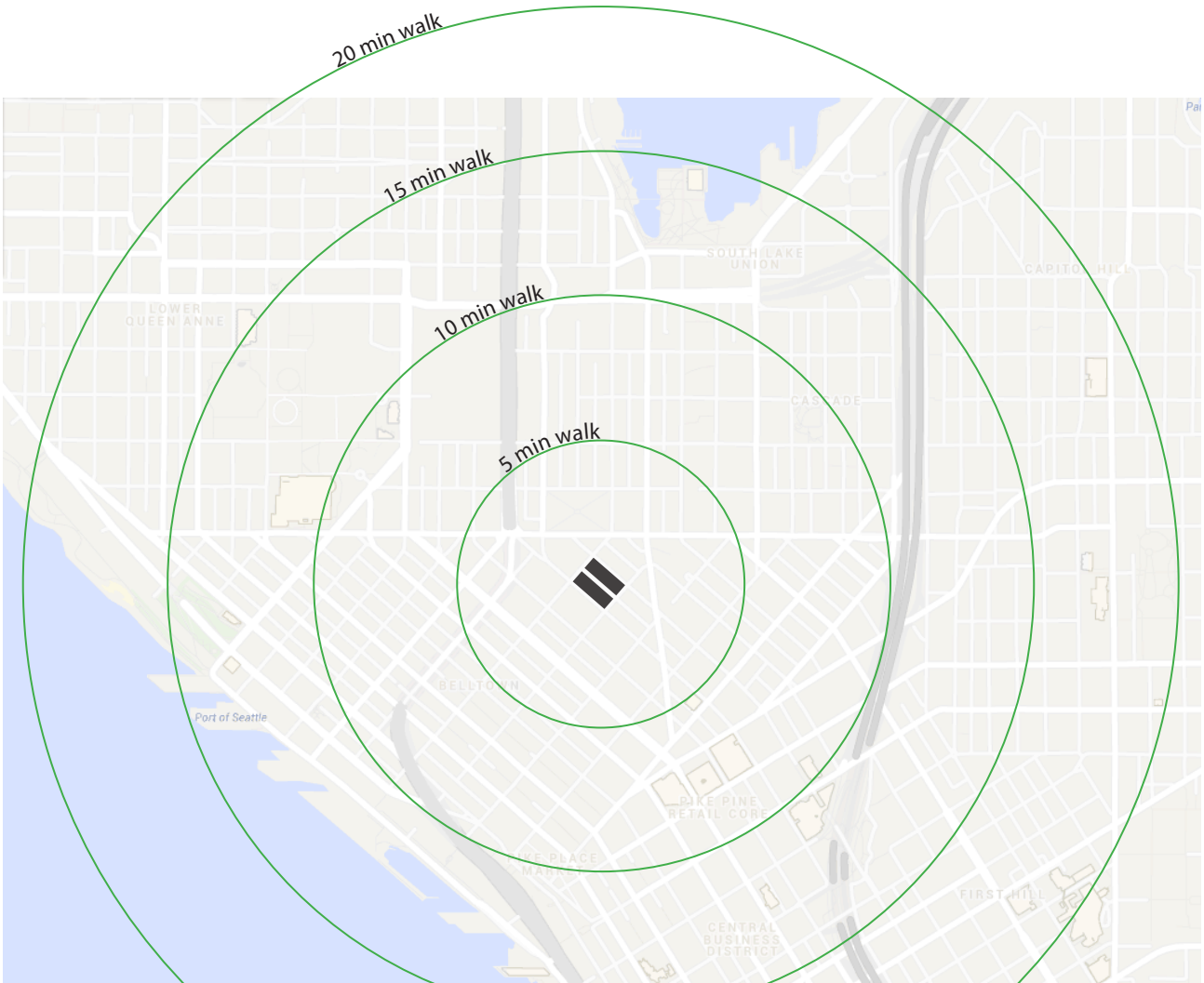
Bike Score: 86
Very Bikeable, flat with excellent bike lanes

Restaurants within .25 miles:

- One Red Pillar Cafe
- Shilia Restaurant
- Far eats
- Bebas Deli market
- Dos Amigos
- Eggs and Plants
- Tio Taco
- Snout and Co. Food Truck
- Tutta Bella Neapolitan Pizzeria
- TanakaSan
- Seastar Restaurant & Raw Bar
- Mio Sushi Westlake

Coffee Shops within .25 miles:

- Cafe Two
- Denny Cafe
- Baristas Coffee Co.
- Starbucks x2
- Dailyz
- Wheelhouse Coffee
- Midtown Coffee
- Top Pot Doughnuts
- Assembly Hall Juice & Coffee
- Yellow Leaf Cupcake Co.
- Cafe Suisse
- Artisan Cafe



Walking Travel Time

Walk Score: 98
Walker's Paradise, daily errands do not require a car

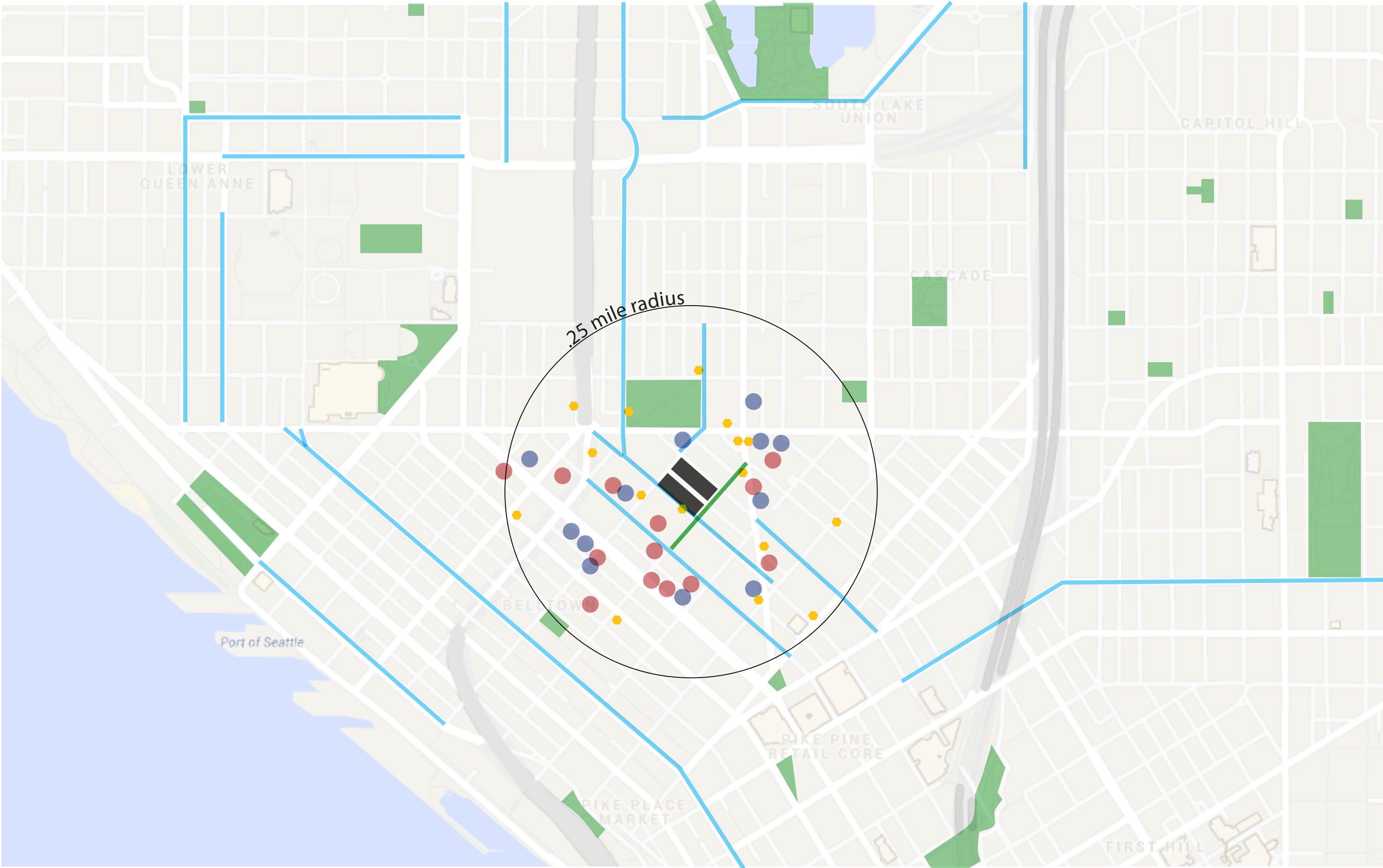
Bus & Rail Lines near by:

- 98
- LINK
- 118
- 7
- 26
- 28
- 62
- 111
- 55
- 114
- 119
- 143

Parks within .6 miles:

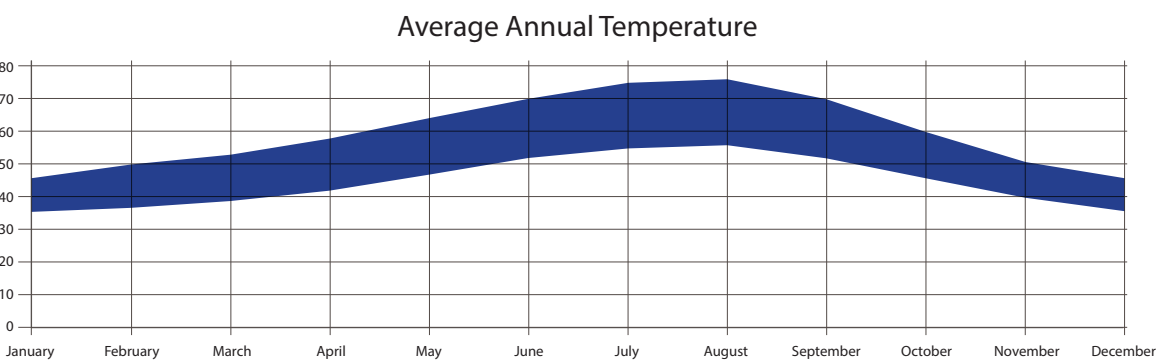
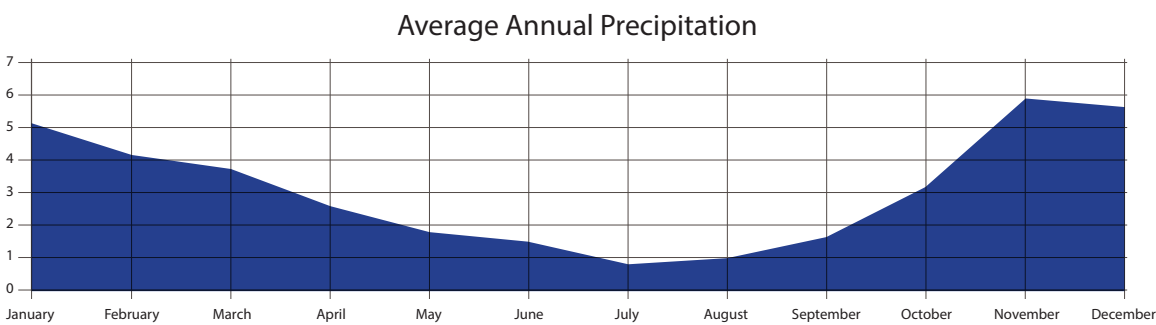
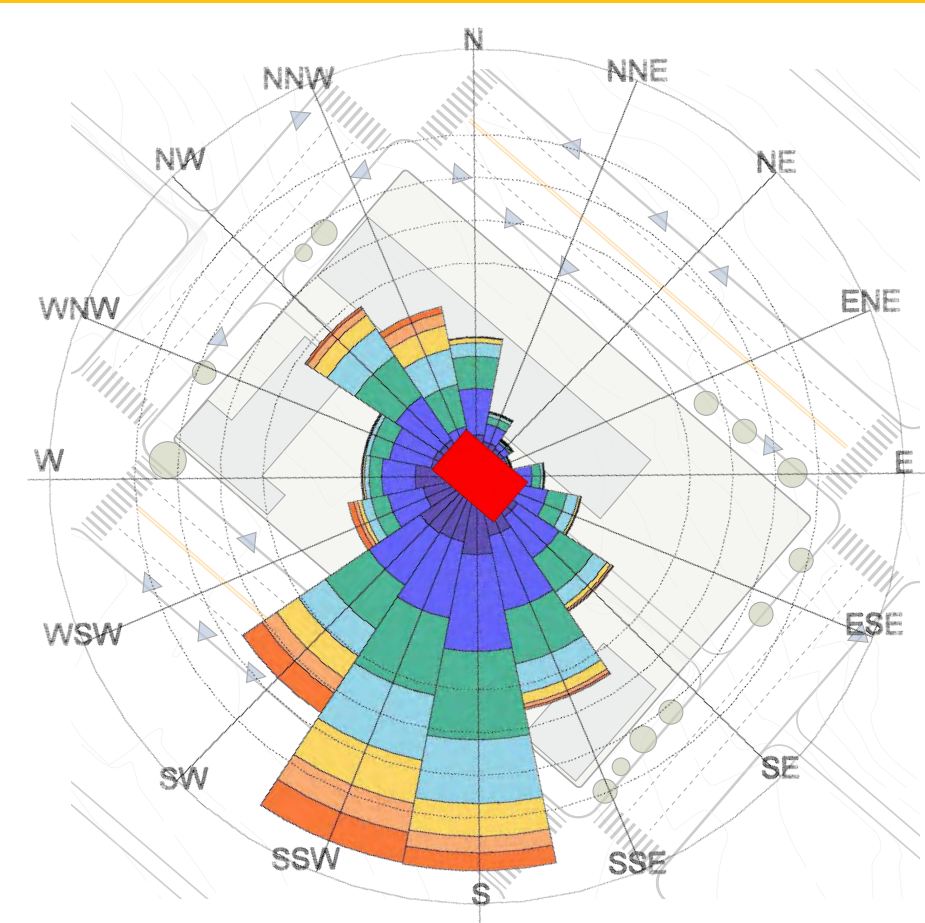
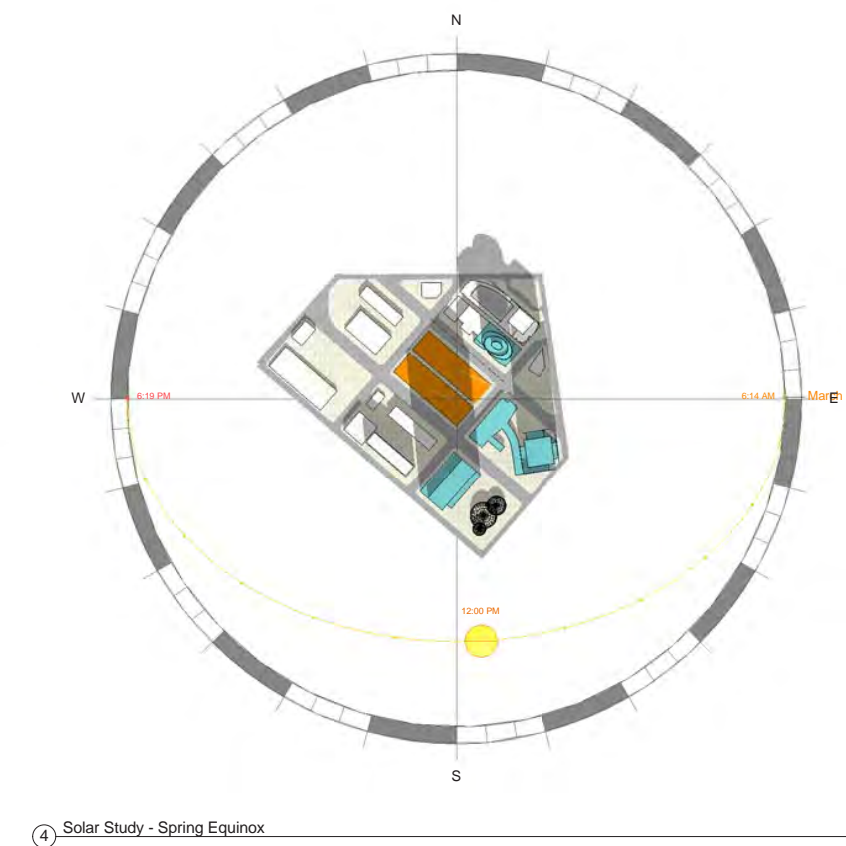
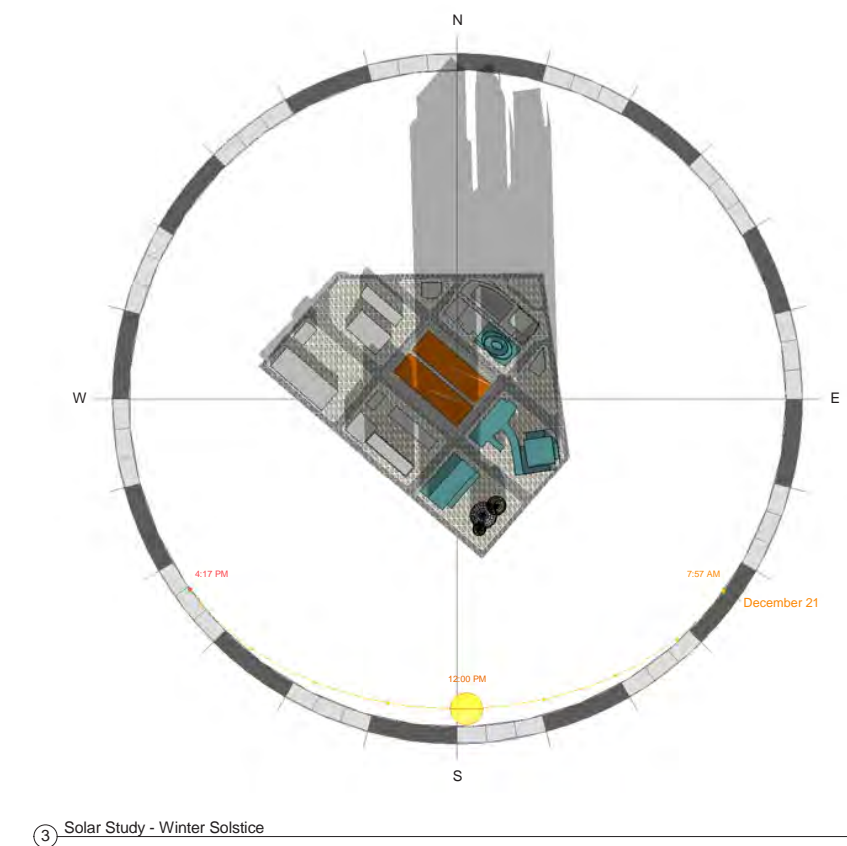
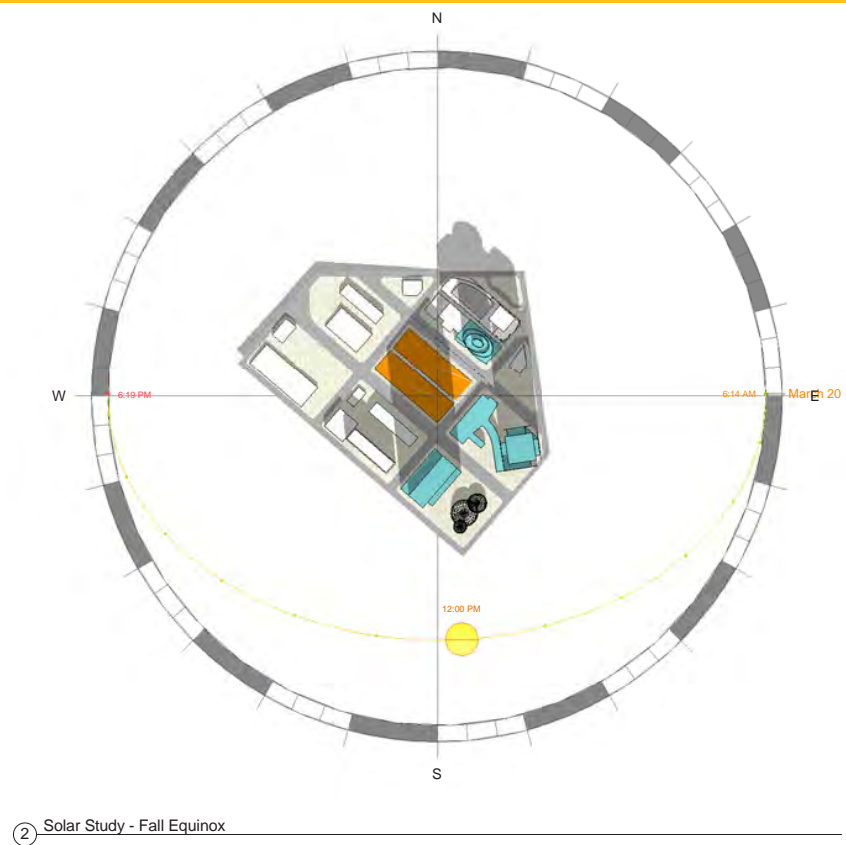
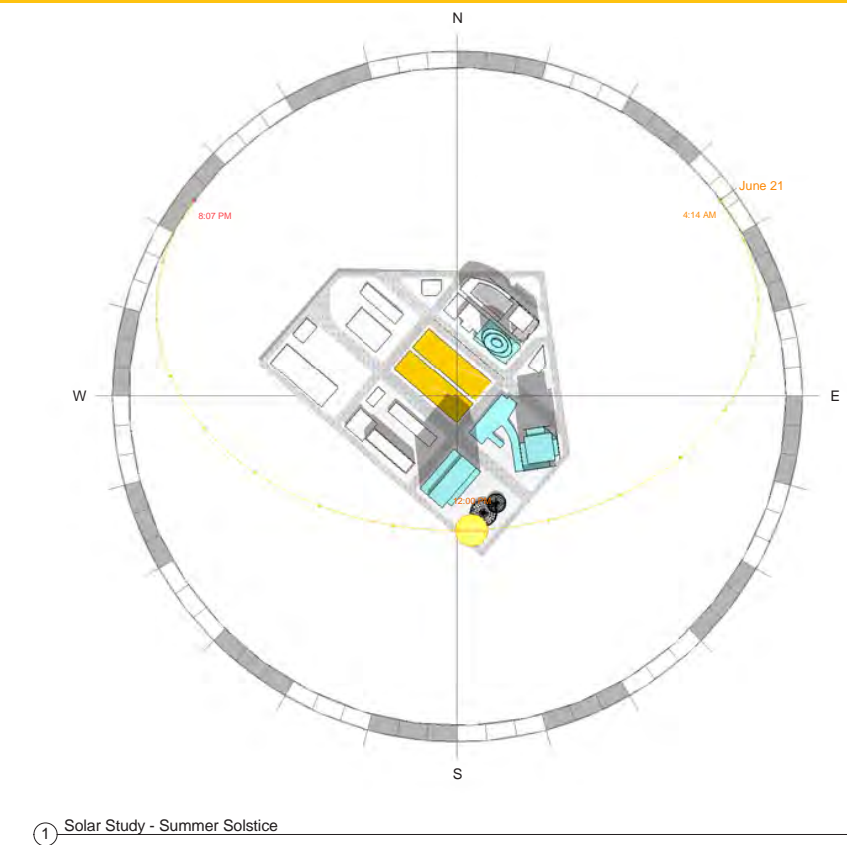
- 1. Denny Park
- 2. Cascade P-Patch
- 3. Westlake Park
- 4. Cascade Playground
- 5. Victor Steinbrueck Park
- 6. South Fountain Lawn
- 7. Olympic Sculpture Park
- 8. Plymouth Pillars Park
- 9. Piers 62-63 Park





- Transit
- Coffee
- Restaurants
- Parks
- Bike Lanes
- Cycle Track

CLIMATE ANALYSIS





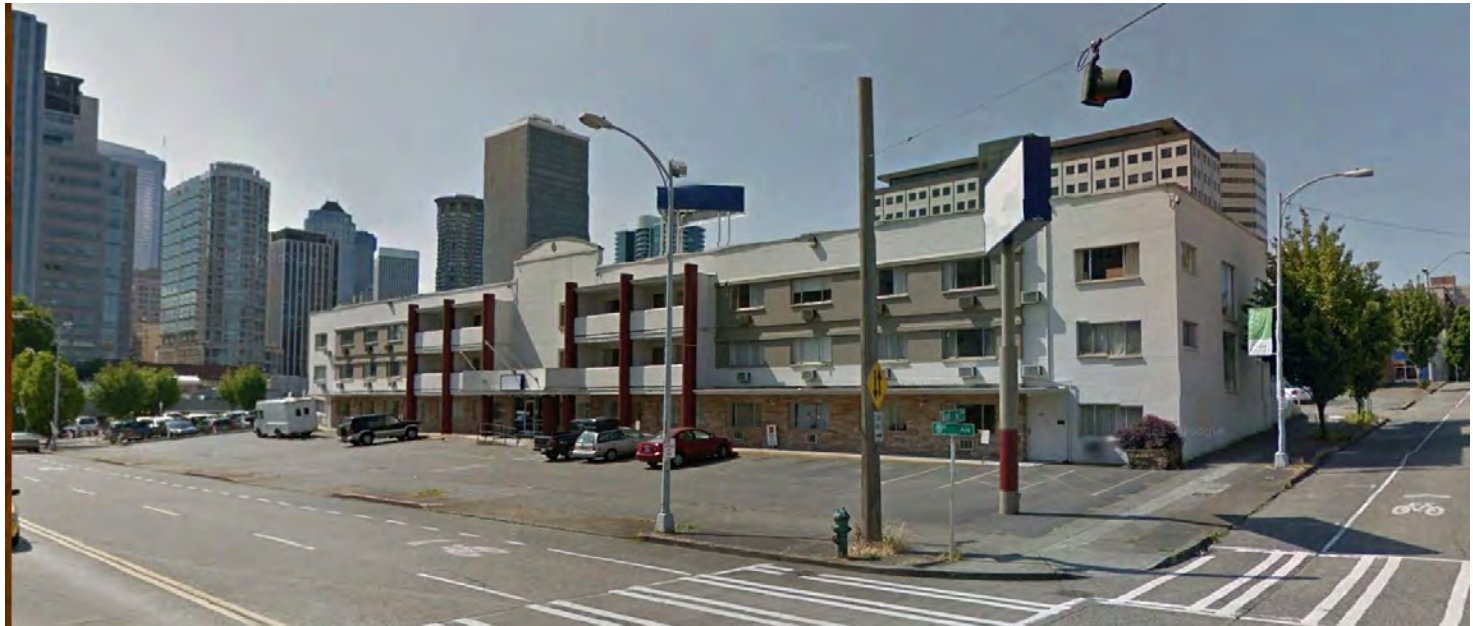
A



B



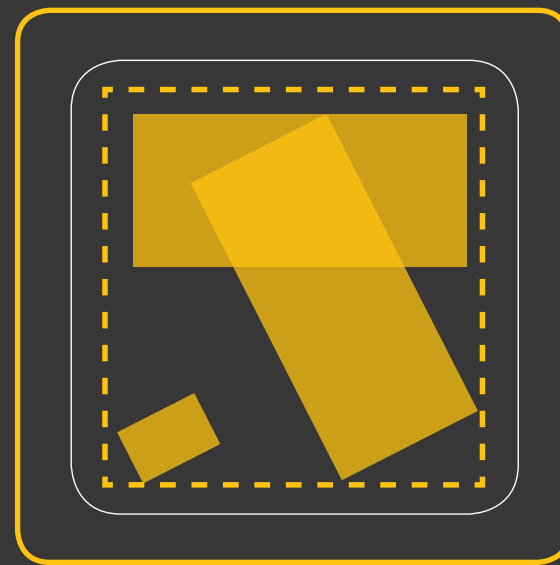
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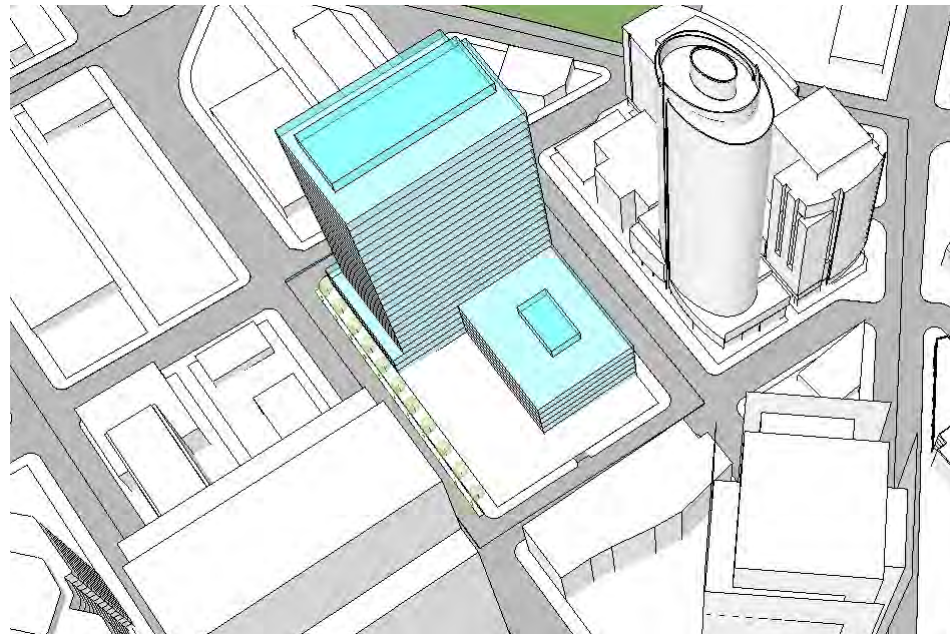
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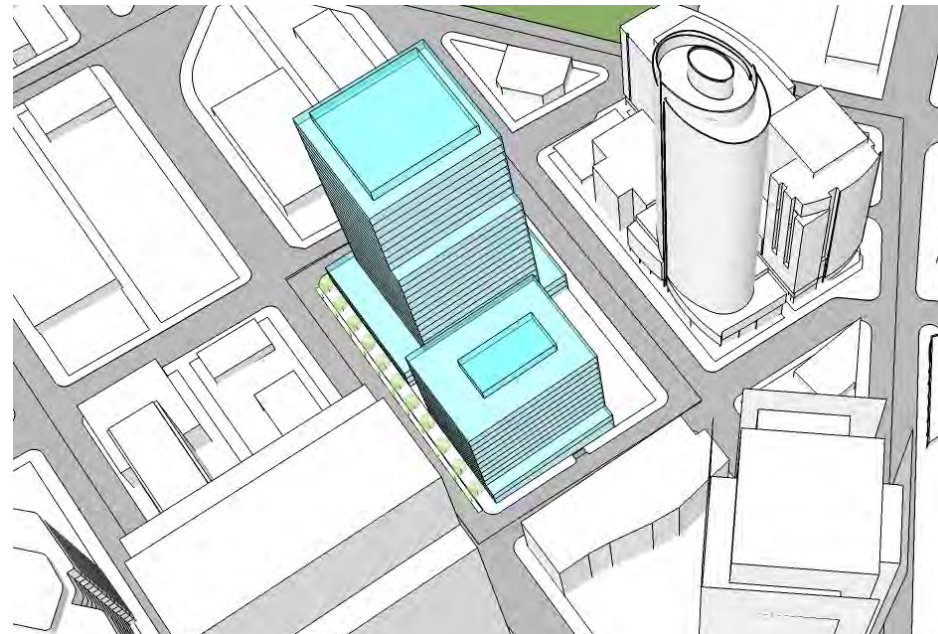
ARCHITECTURAL CONCEPTS



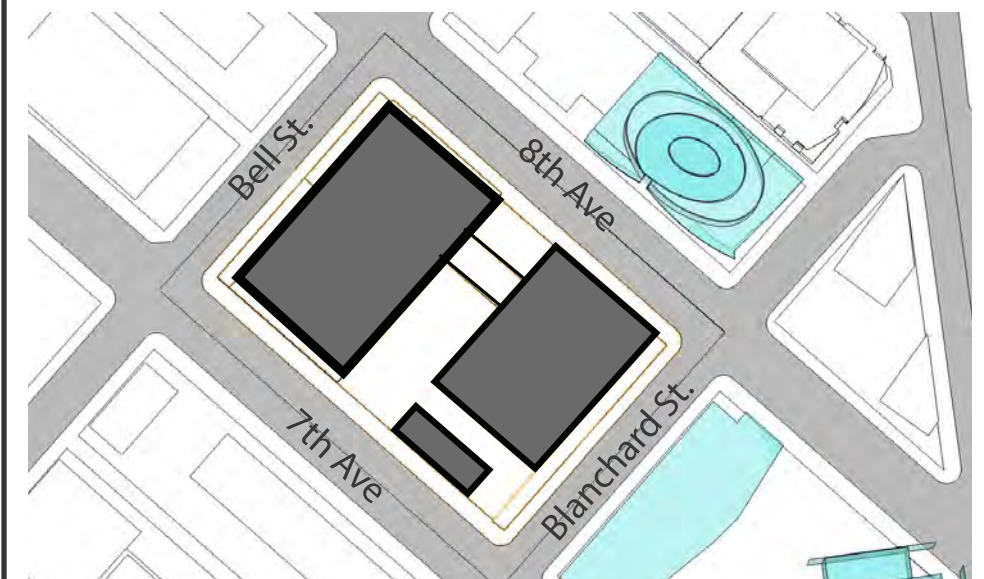
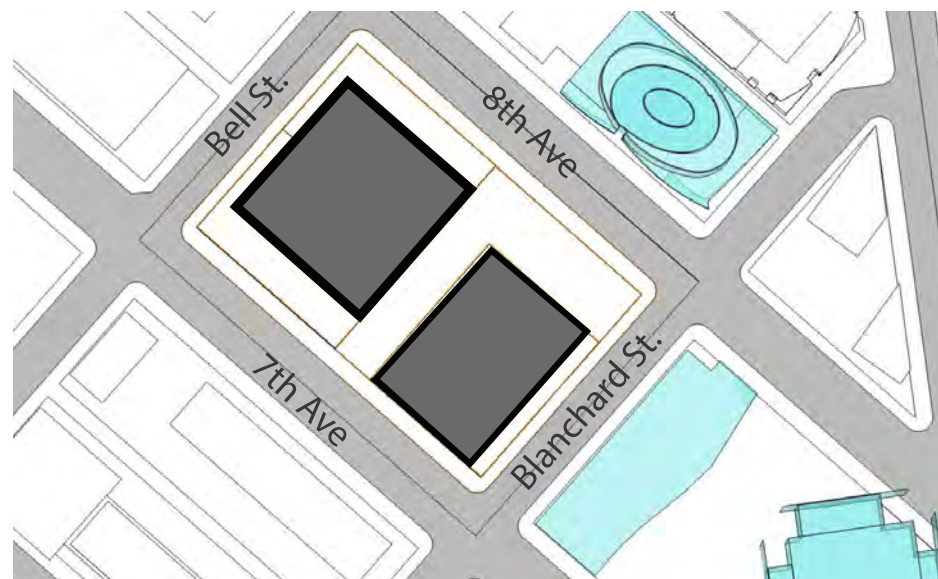
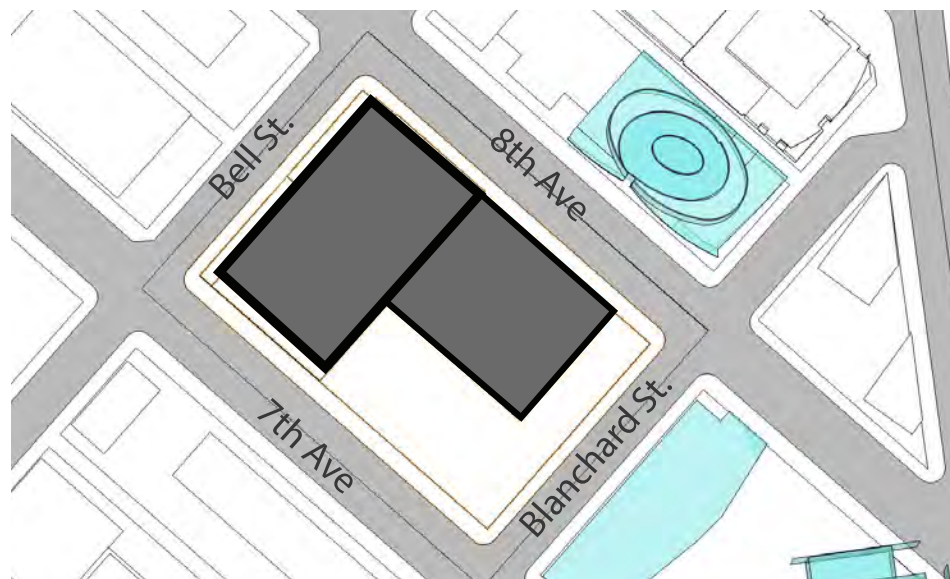
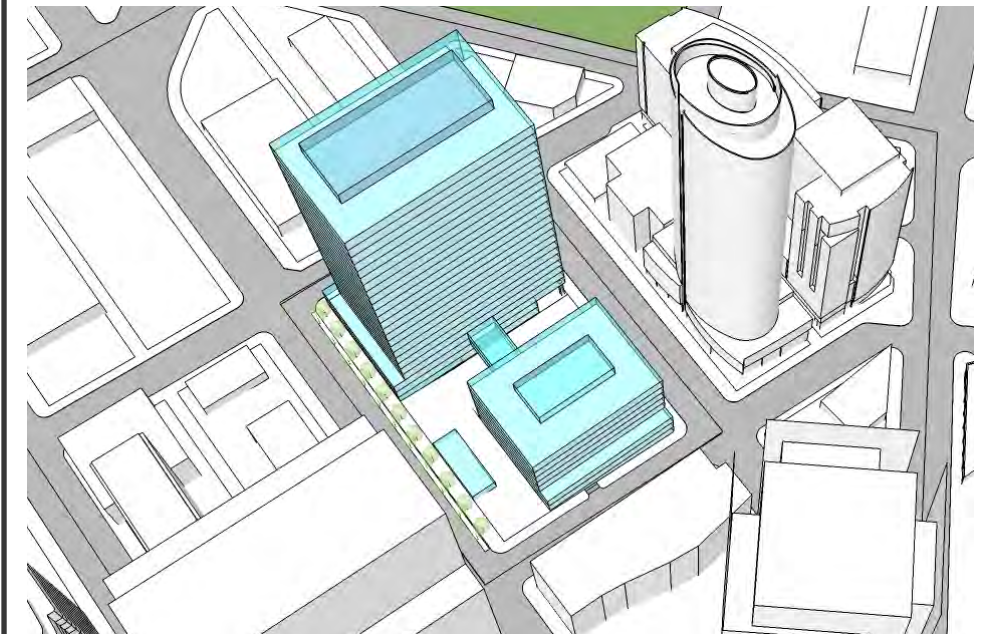
OPTION 1



OPTION 2



OPTION 3 - PREFERRED



Introduction

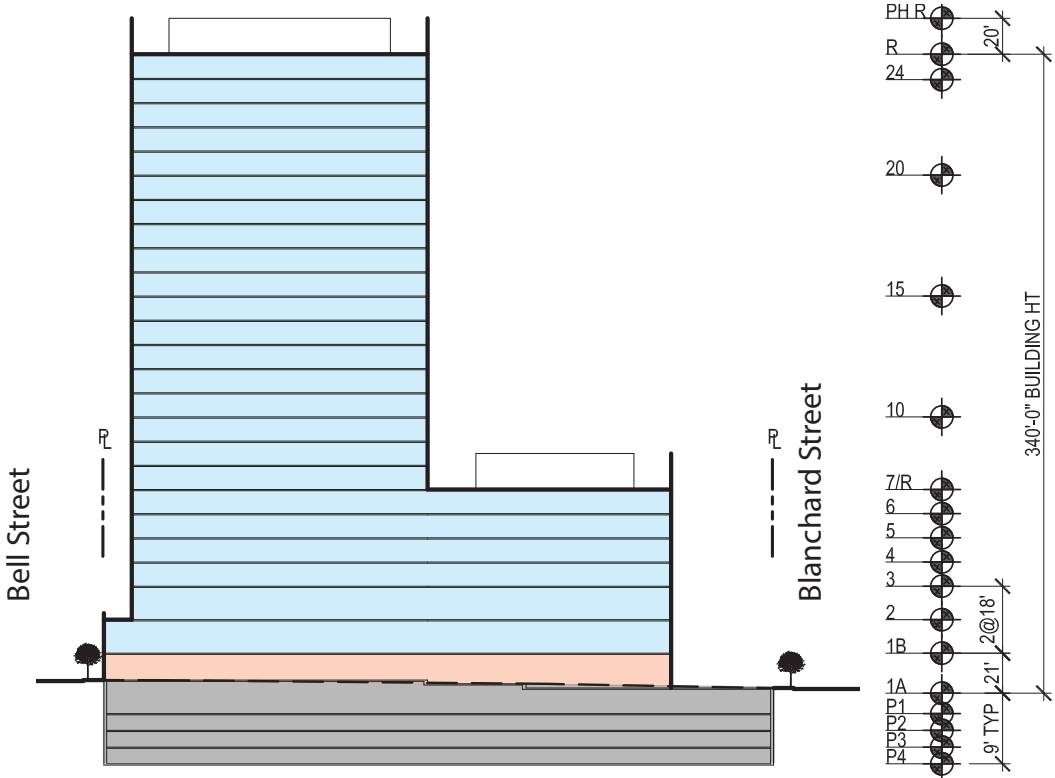
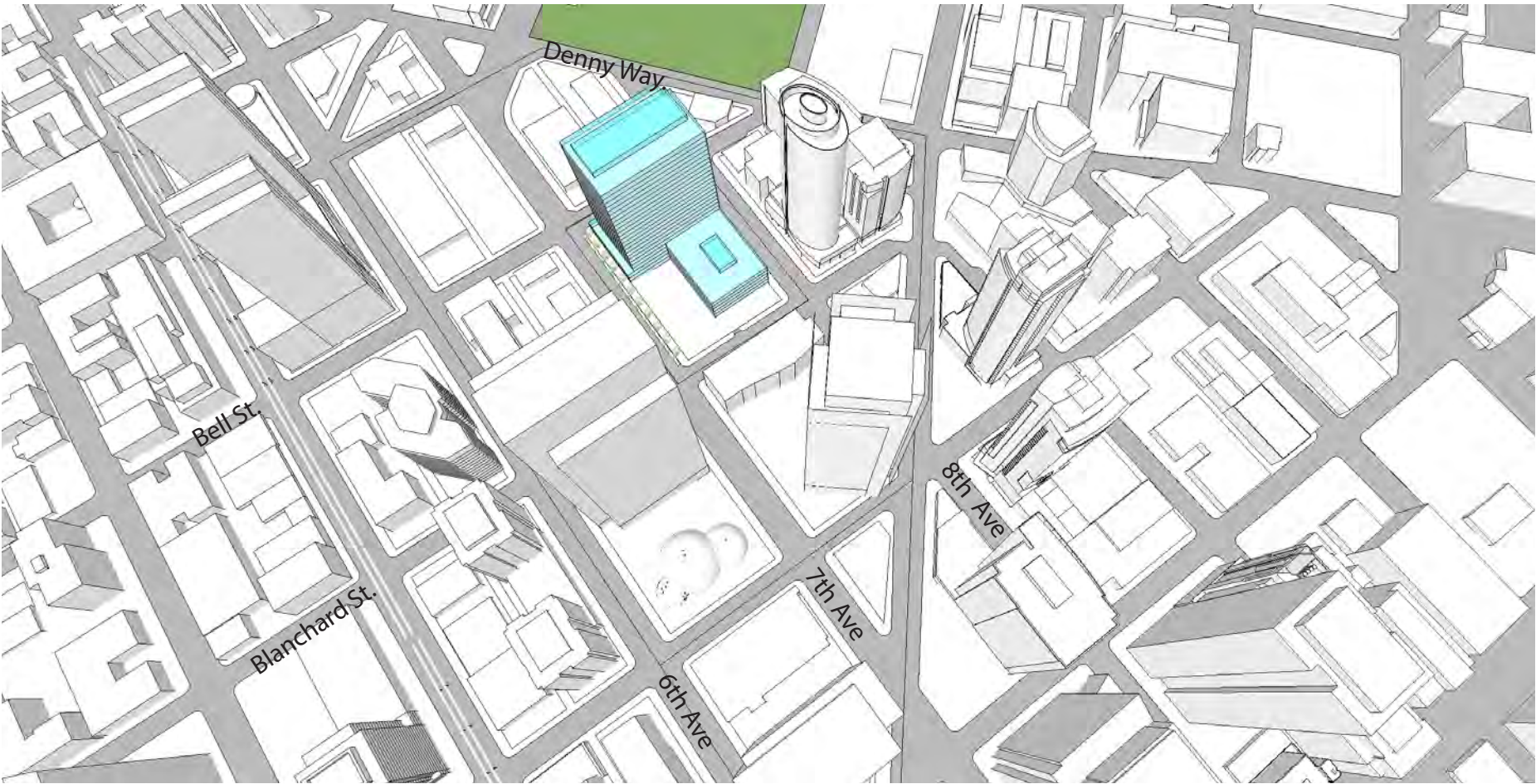
The applicant proposes to design and construct a development on the full block bisected by a public alleyway and bounded by 7th Avenue on the east, 8th Avenue on the west, Blanchard Street on the south and Bell Street on the north. The site is zoned DMC 340/125-400, with a site area of approximately 77,700 square feet plus a public alleyway of approximately 5,700 square feet. The site has a base FAR of 5 with a maximum of 10.

Description

This application is for a commercial project with approximately 835,200 gsf of office space and approximately 35,000 gsf of street level retail in two buildings. An open space and thru block connection are proposed connecting 7th and 8th Avenues. Approximately 835 parking stalls will be provided below grade. All building services will be located below grade, with primary access from 8th Avenue and a secondary parking access from Bell Street. This proposal assumes a full alley vacation.



FULL VACATION - OPTION 1



Summary:

- 4 Parking Levels
- 1-24 Story Building with 6 level podium
- Open Space at Grade
- Loading/Parking Entries on 8th Avenue and Bell Street
- 835,200 SF of FAR
- 30,000 SF Retail

+ (6) Pros

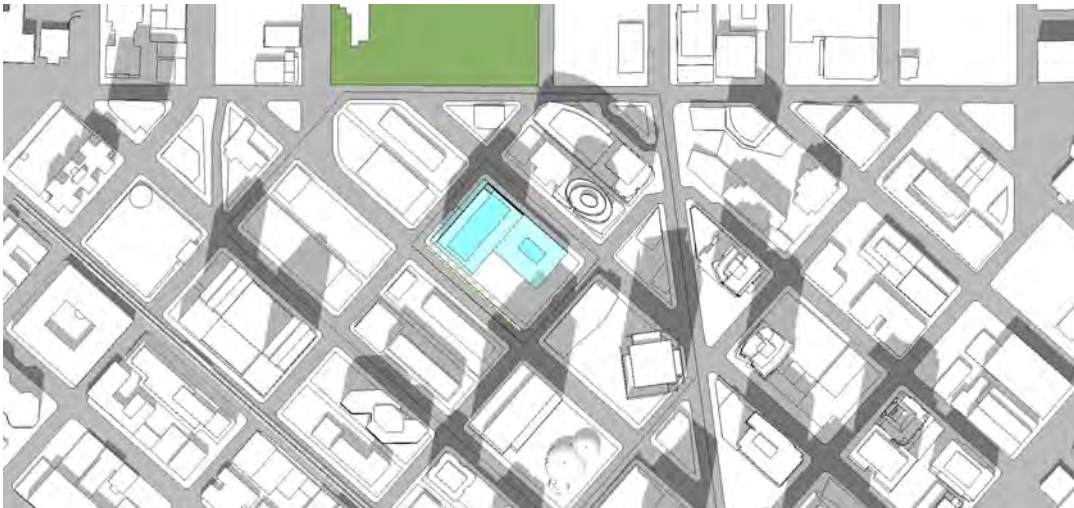
1. Access to daylight and views
2. Grade level open space
3. Enhanced Blanchard green street
4. Enhanced neighborhood urban fabric
5. Opportunity to enhance 7th Ave cycle track
6. Open space in optimal solar location

- (7) Cons

1. Shadow impact on streets
2. Curb cuts on 8th Ave and possible curb cut on Bell Street
3. No through block connection
4. Large floor plates create planning challenges
5. Massing rhythm dissimilar to adjacent blocks
6. Erosion of urban street edge at 7th Avenue
7. Singular building lacks porosity, scale variety

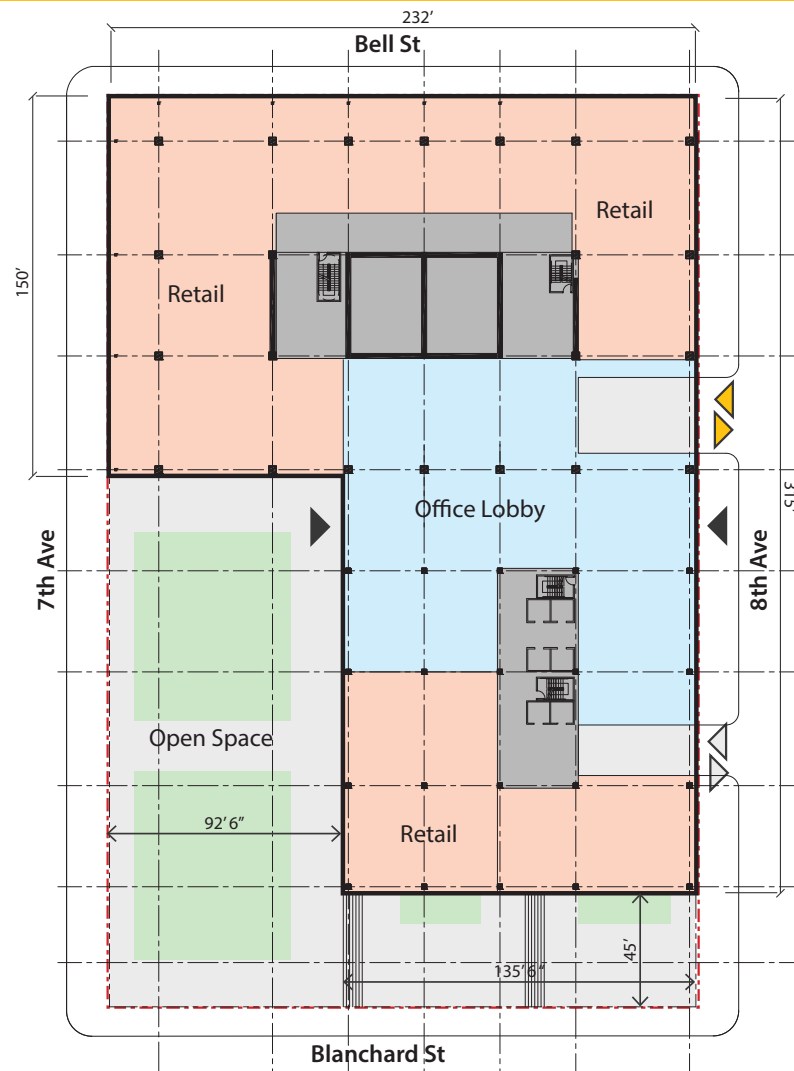
Note: This option requires a favorable Type 1 Director's Decision to permit vehicular curb cuts at 8th Avenue rather than utilizing the alley for access as required by SMC 23.49.019-H-1-a.

Aerial



Vicinity Plan

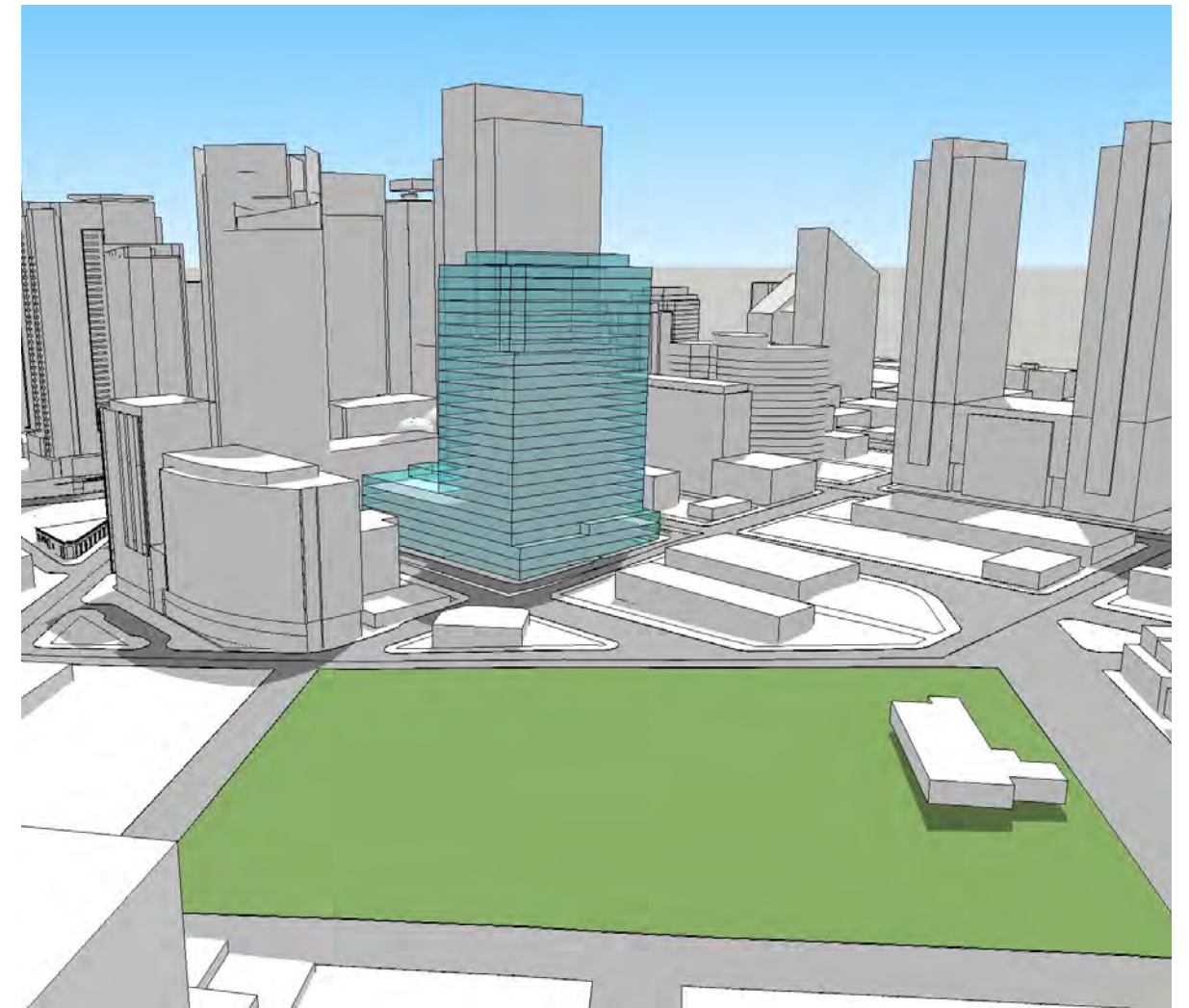
Building Section



Parking Entry
 Loading Entry
 Lobby Entry
 Through-Block Connection
Level 1 Plan



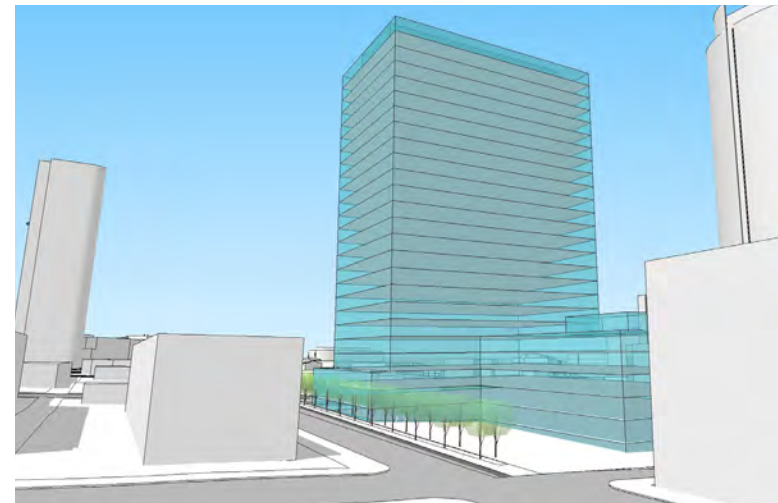
Typical Upper Plan



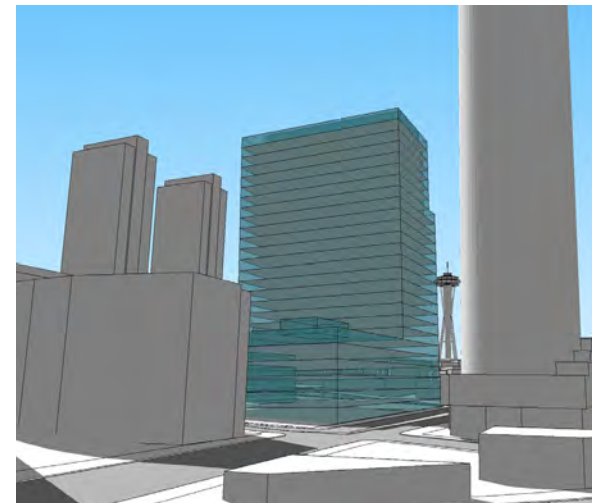
NE Perspective



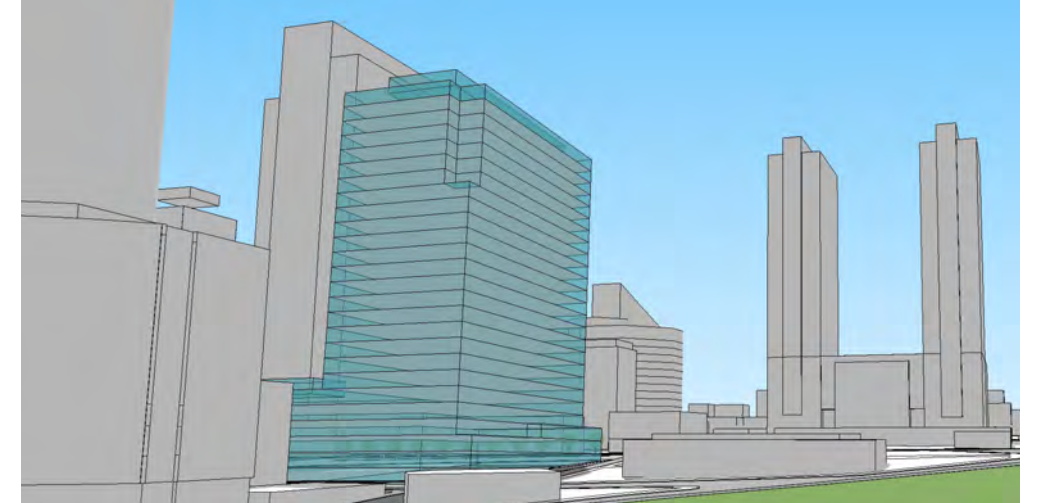
SW Perspective



7th Ave View

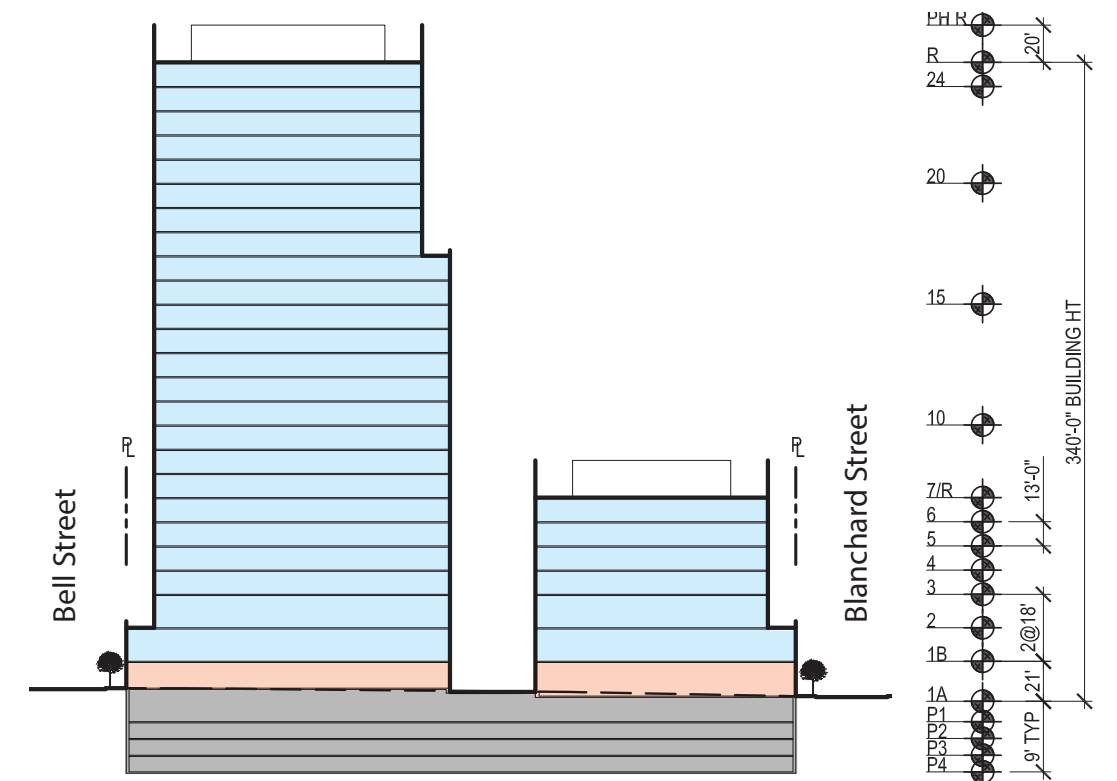
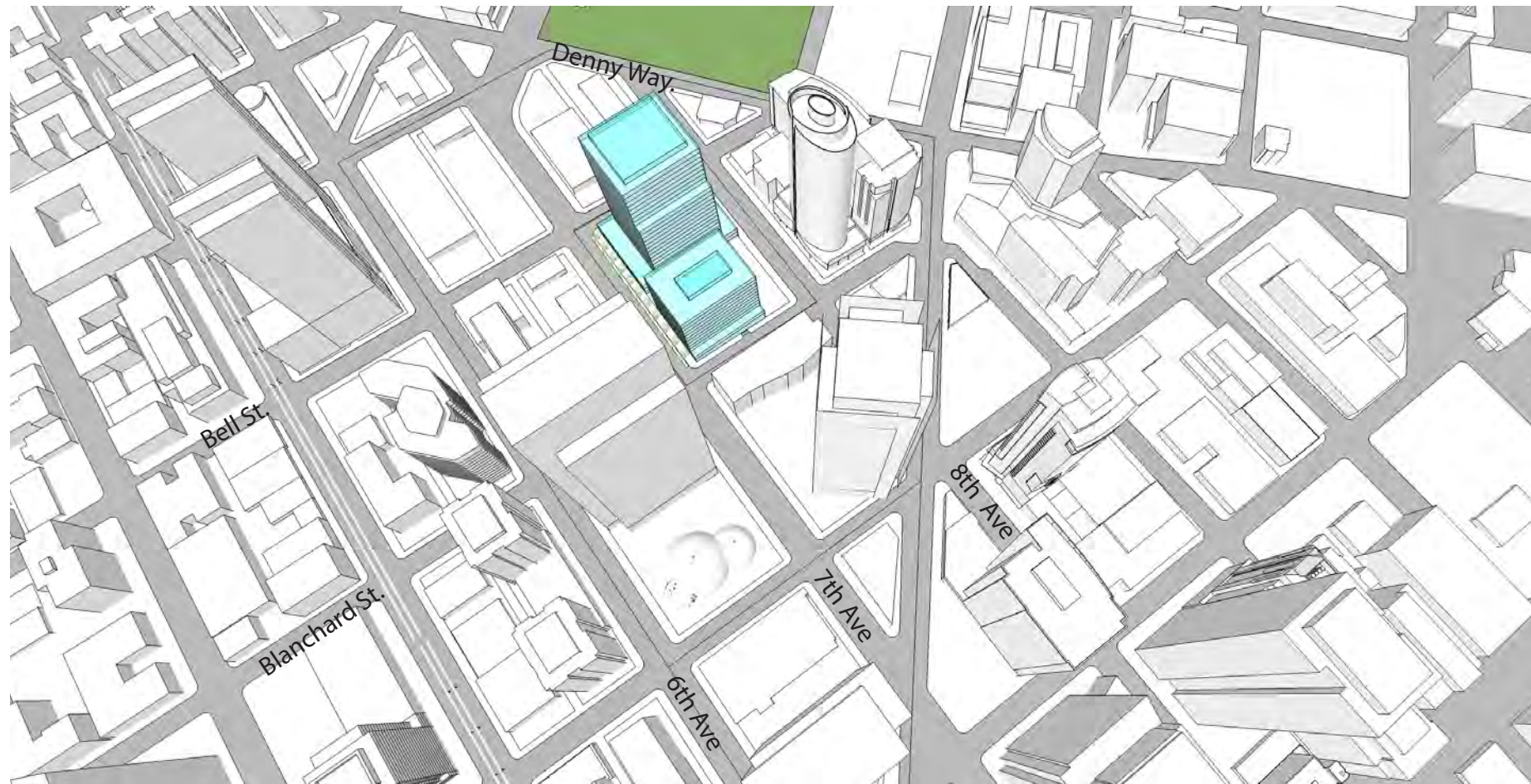


8th Ave View



View From Denny Park

FULL VACATION - OPTION 2



Summary:

- 4 Parking Levels
- 1- 7 Story Building, 1-24 Story Building
- Loading/Parking Entries on Bell street and 8th Ave
- 835,200 SF of FAR
- 30,000 SF Retail

+ (5) Pros

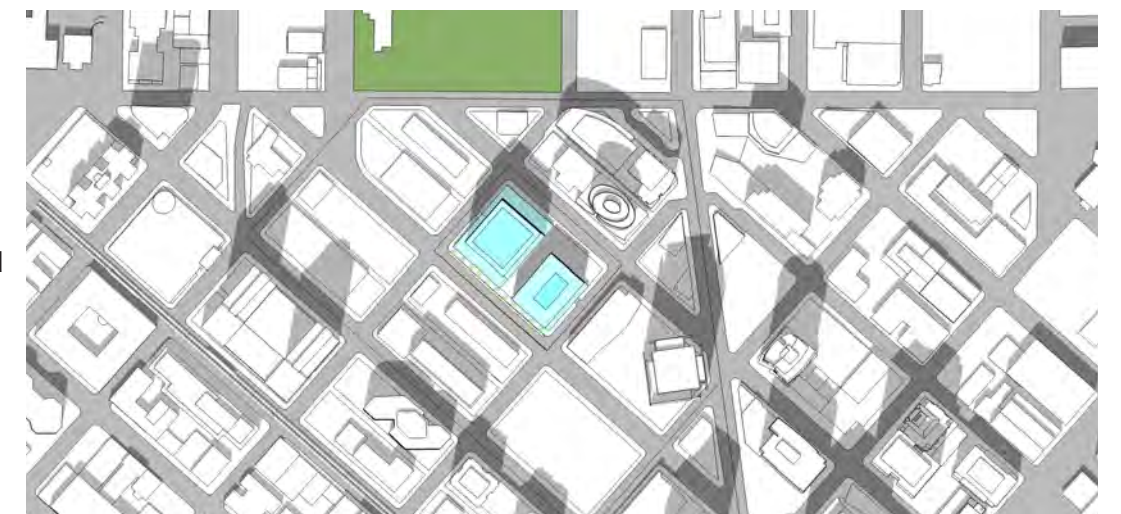
1. Efficient high-rise tower footprint
2. Podium setbacks on three sides of tower
3. Opportunity to enhance 7th Ave cycle track
4. Massing rhythm similar to adjacent blocks
5. Through block connection

- (8) Cons

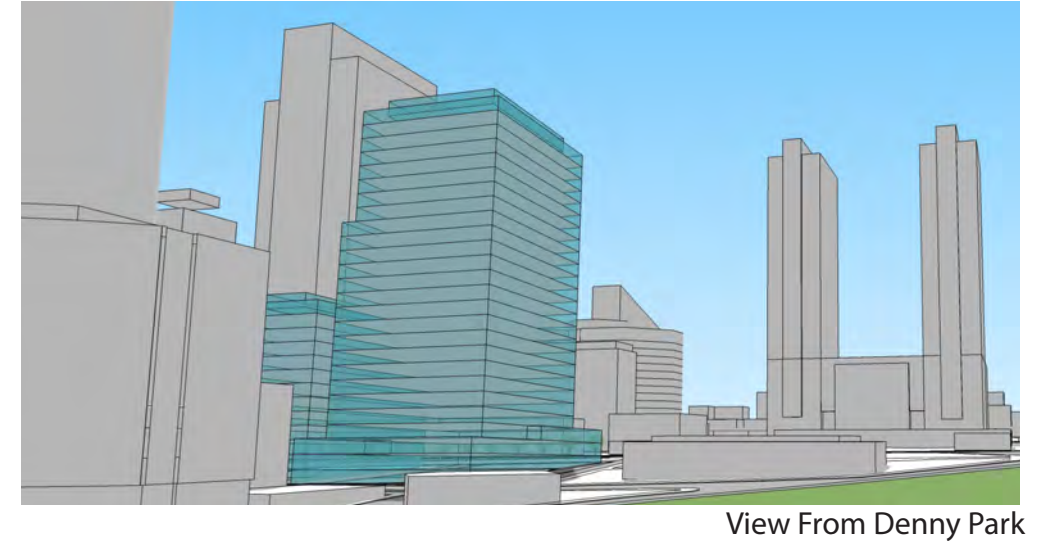
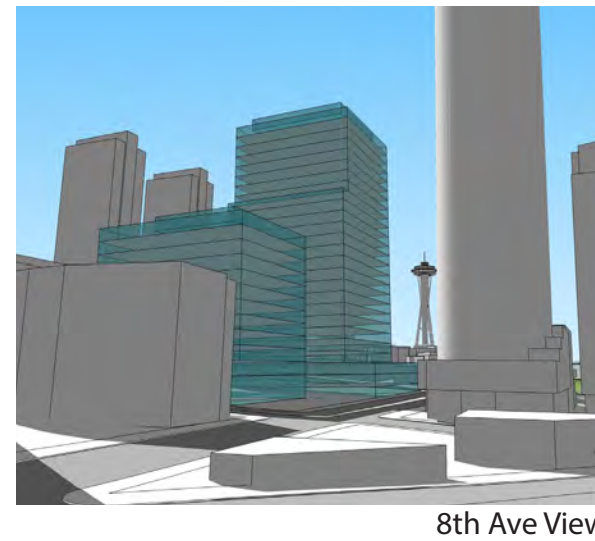
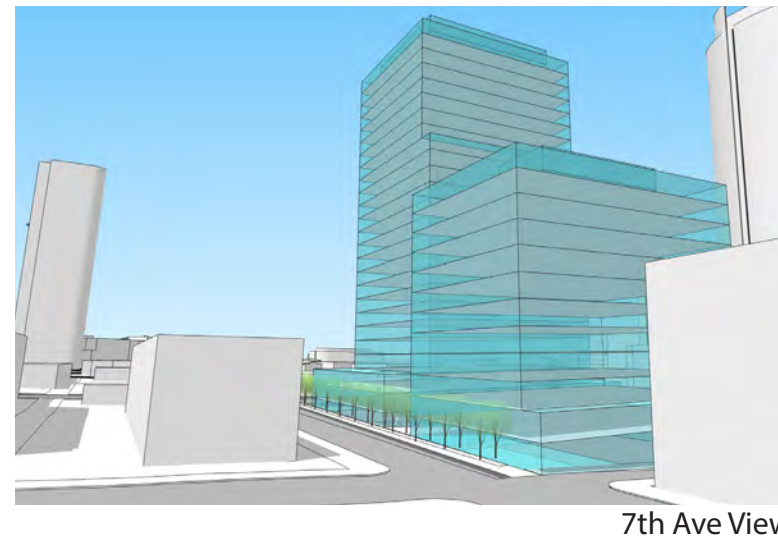
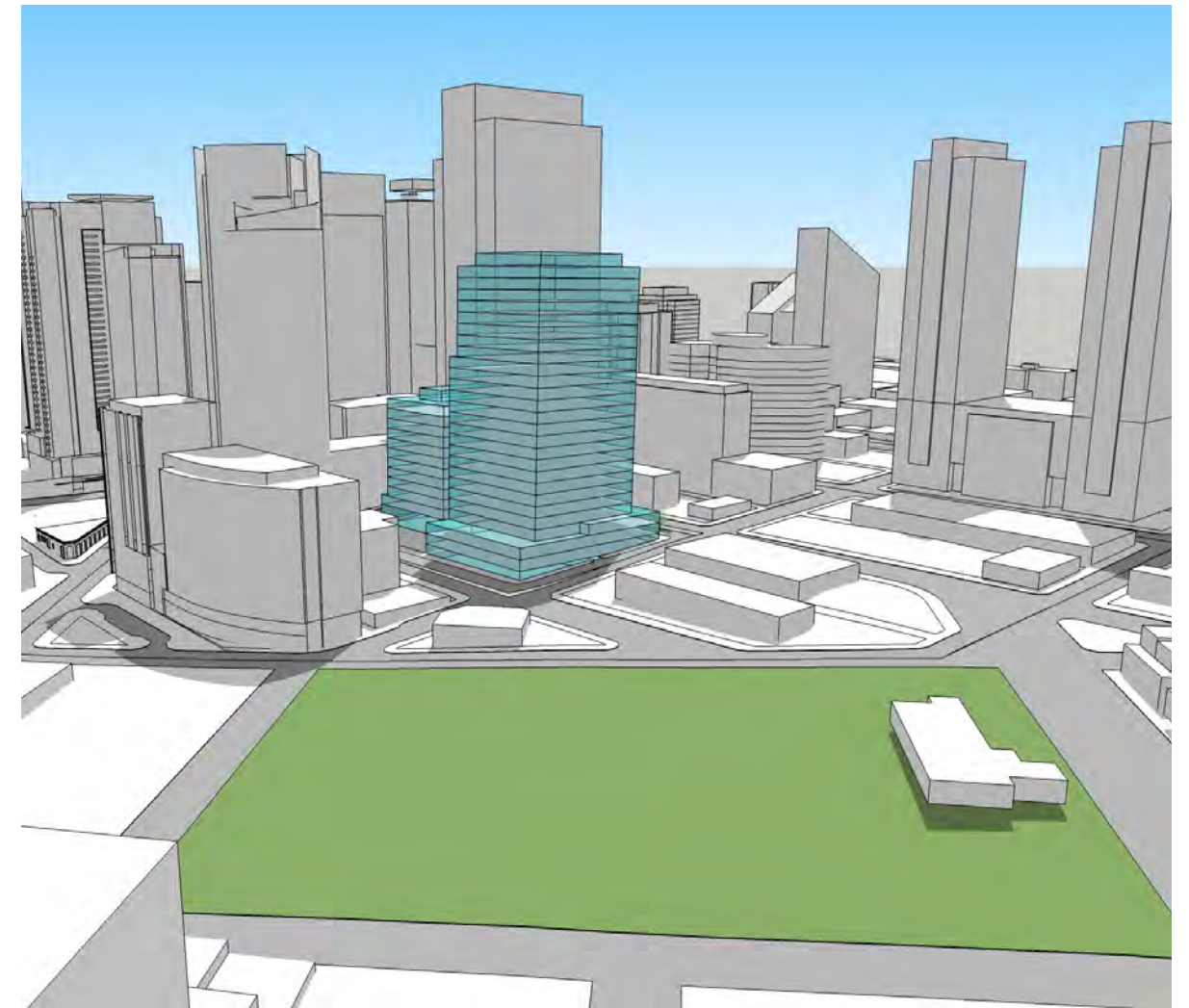
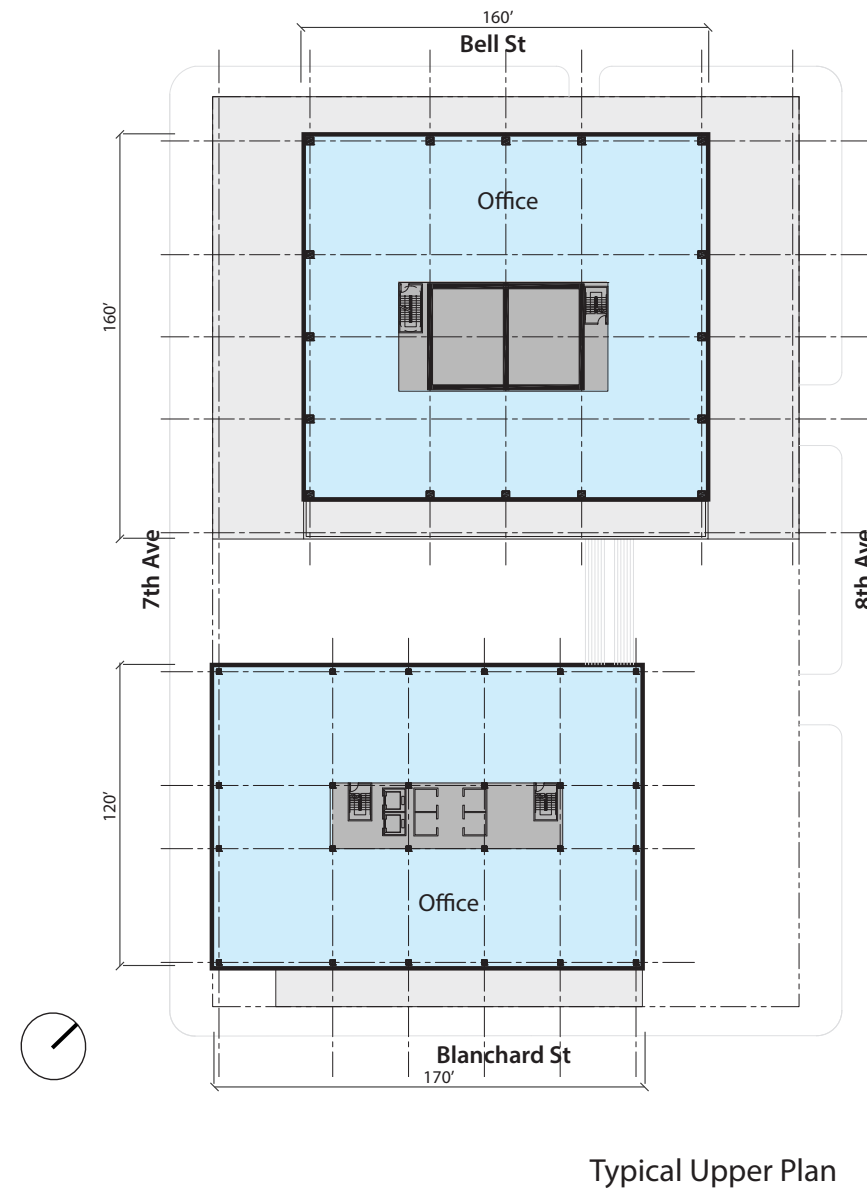
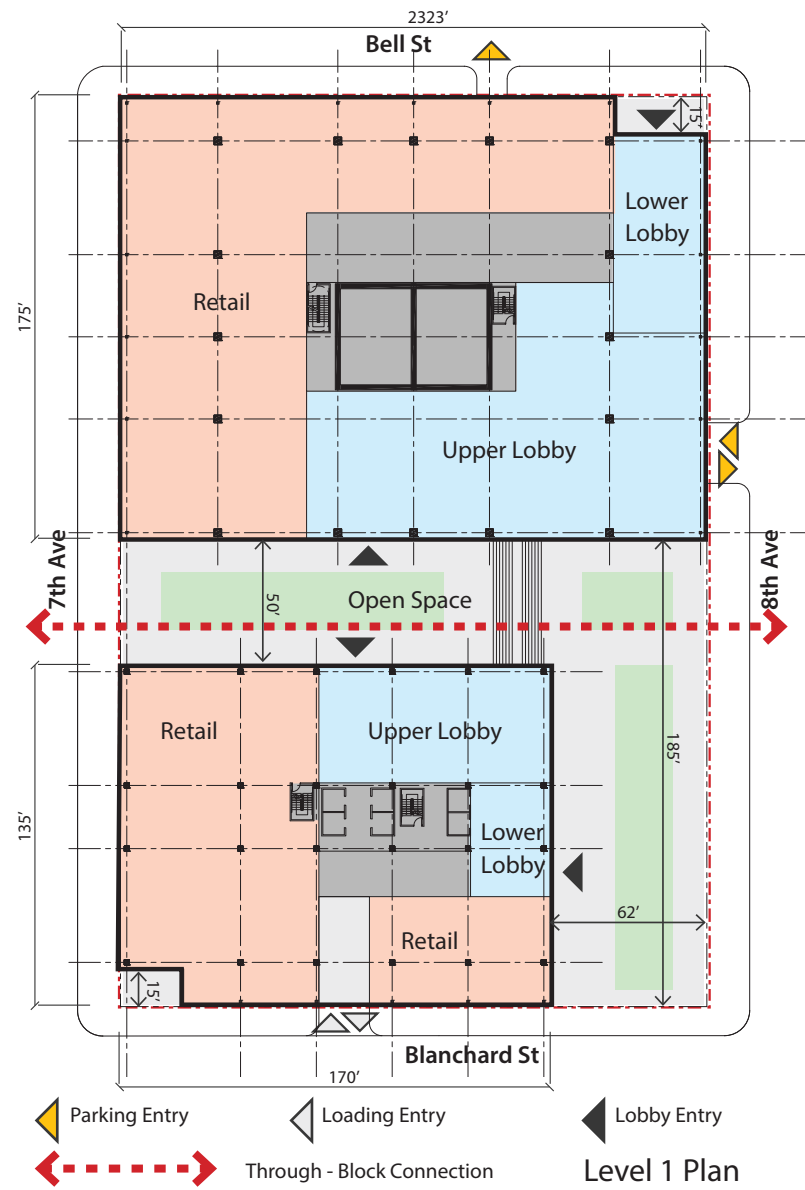
1. Narrow open space between structures
2. Open space is distributed rather than consolidated
3. Static building massing
4. Tower does not "land" on any street facade
5. Does not respond to 7th Avenue boulevard
6. Curb cuts on 8th Ave and possible curb cut on Bell Street
7. Open space not in optimal solar location
8. Requires facade width departure

Note: This option requires a favorable Type 1 Director's Decision to permit vehicular curb cuts at 8th Avenue and Bell Street rather than utilizing the alley for access as required by SMC 23.49.019-H-1-a.

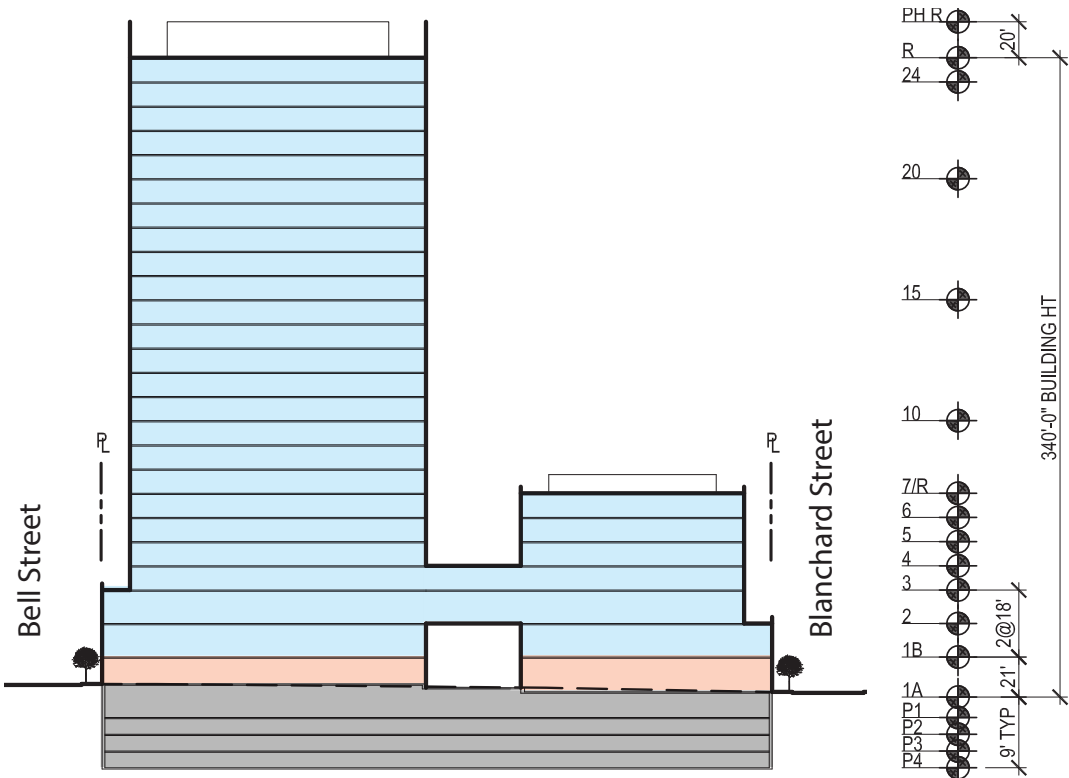
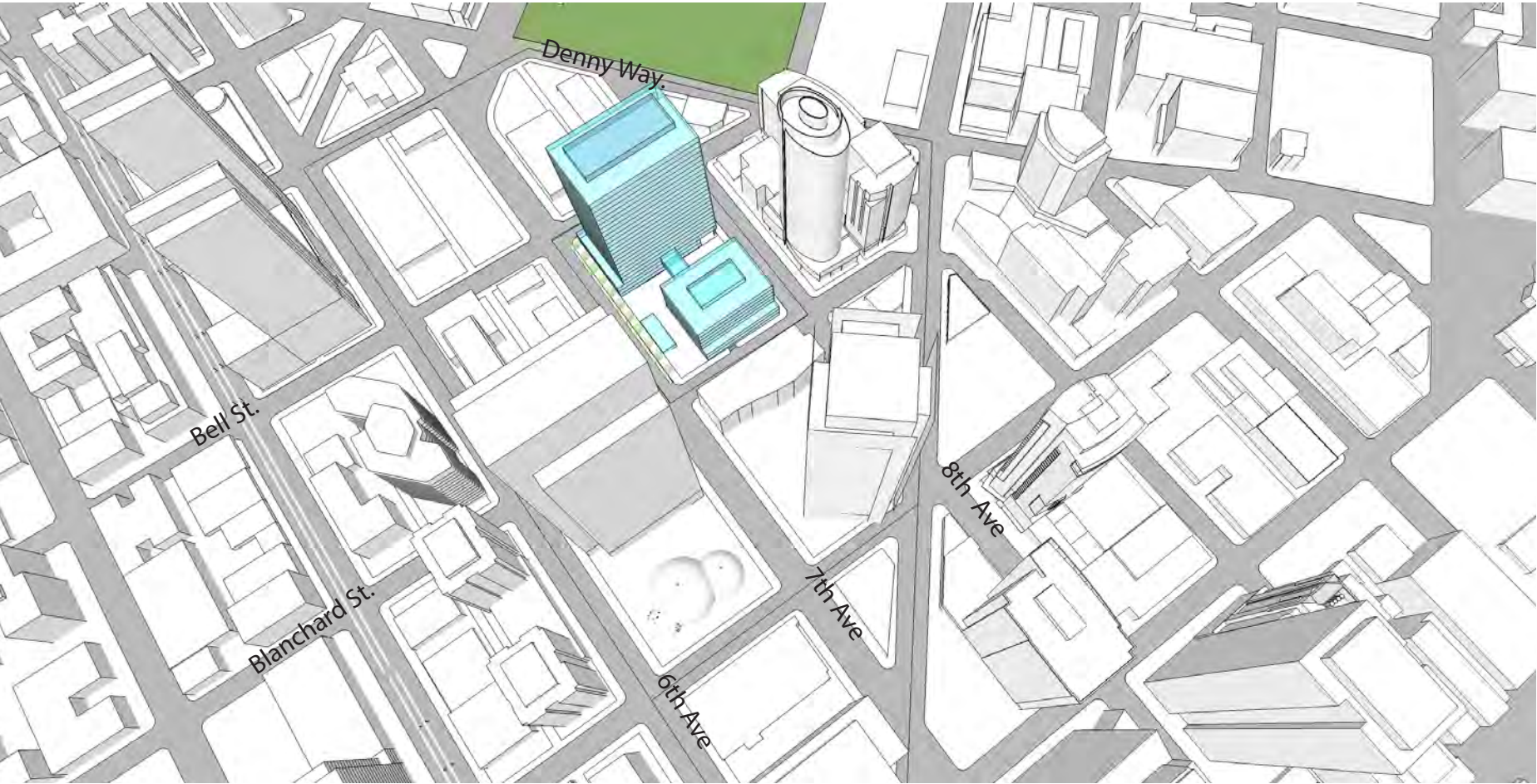
Aerial



Vicinity Plan



FULL VACATION - OPTION 3 (PREFERRED)



Summary:

- 4 Parking Levels
- 1- 7 Story Building, 1-24 Story Building, 1 - 1 Story Building
- Open Space at Grade
- Loading/Parking Entries on Bell Street and 8th Ave
- 835,200 SF of FAR
- 30,000 SF Retail

+ (9) Pros

1. Access to daylight and views
2. Grade level open space
3. Enhanced Blanchard green street
4. Enhanced neighborhood urban fabric
5. Massing rhythm similar to adjacent blocks
6. Through block connection
7. Opportunity to enhance 7th Ave cycle track
8. Open space in optimal solar location
9. Aerial connection enhances long term flexibility

- (3) Cons

1. Shadow impact on streets
2. View impact on adjacent buildings
3. Curb cuts on 8th Ave and possible curb cut on Bell Street

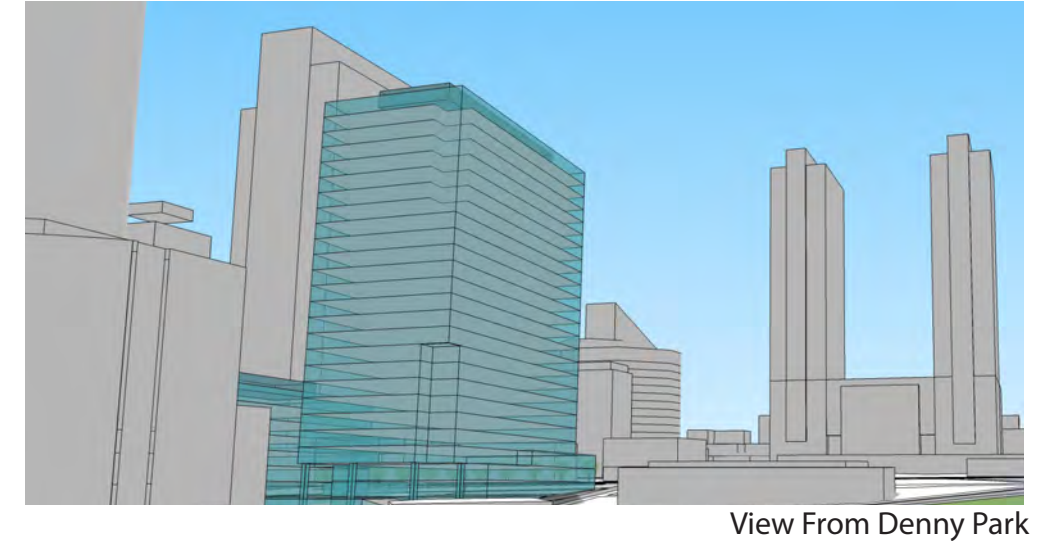
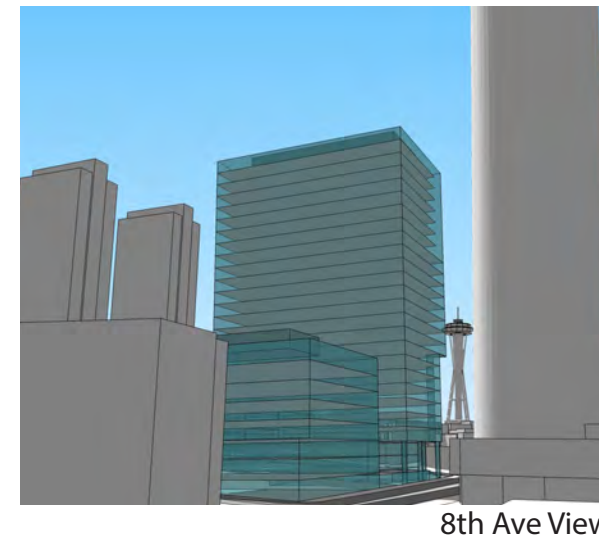
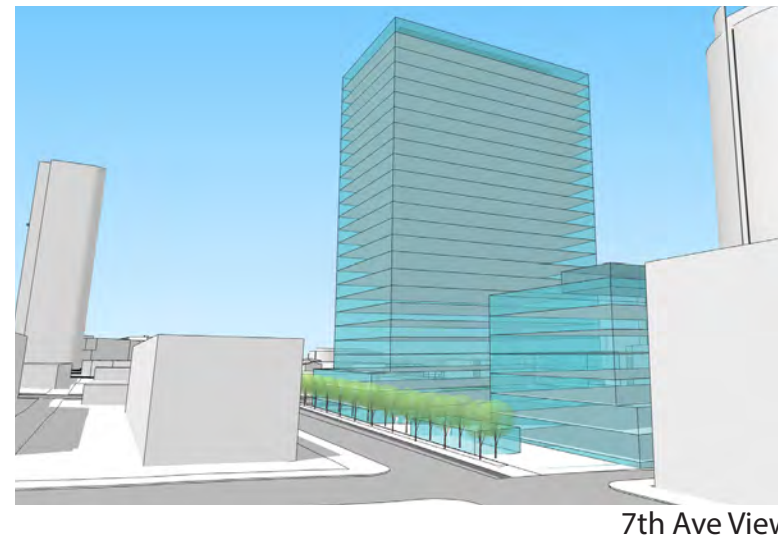
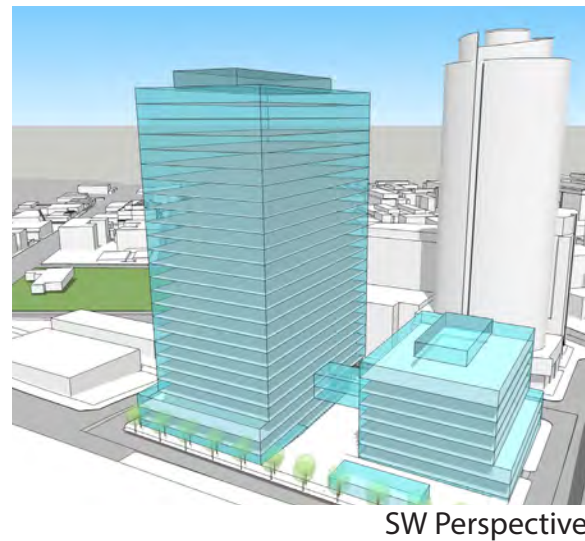
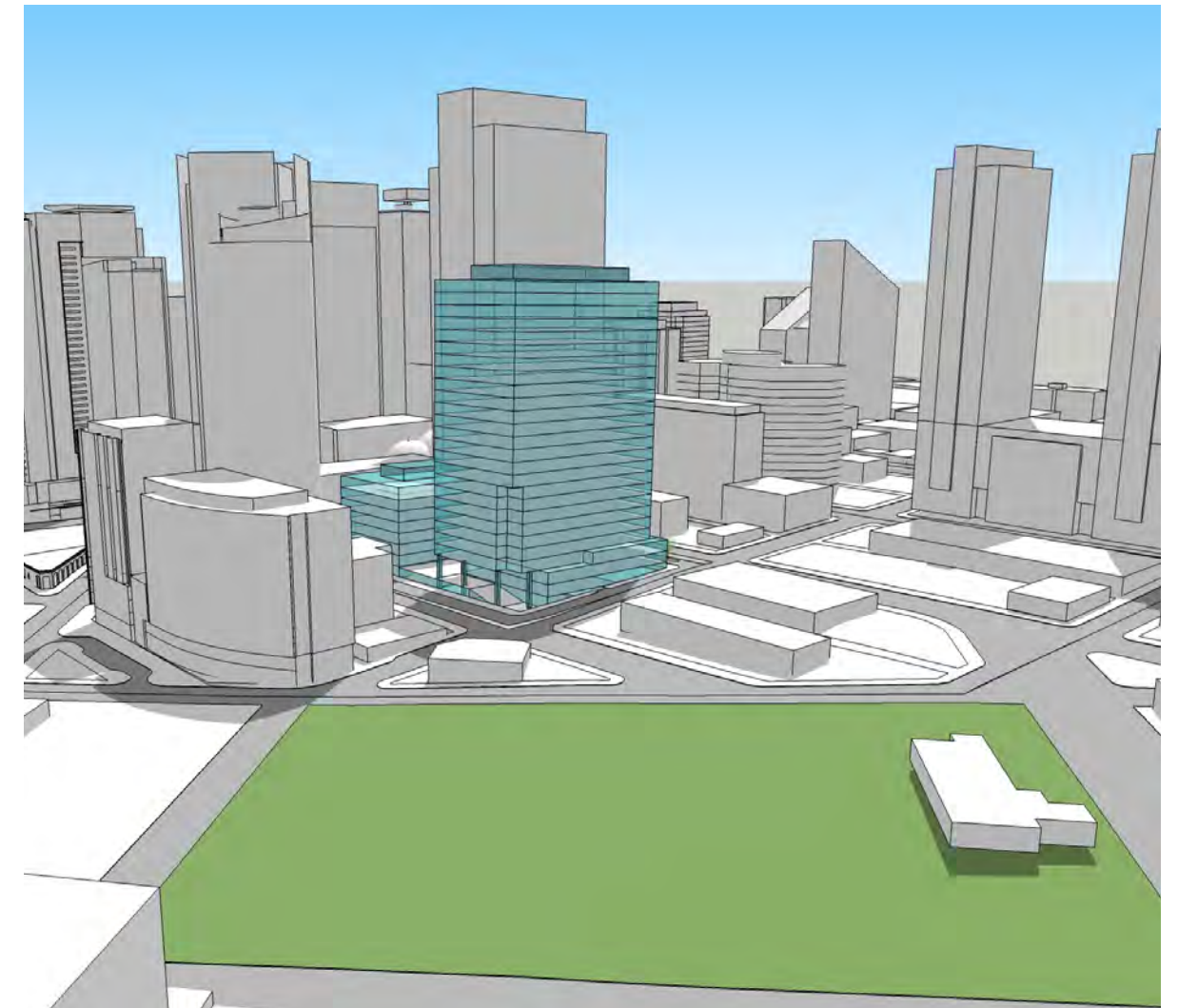
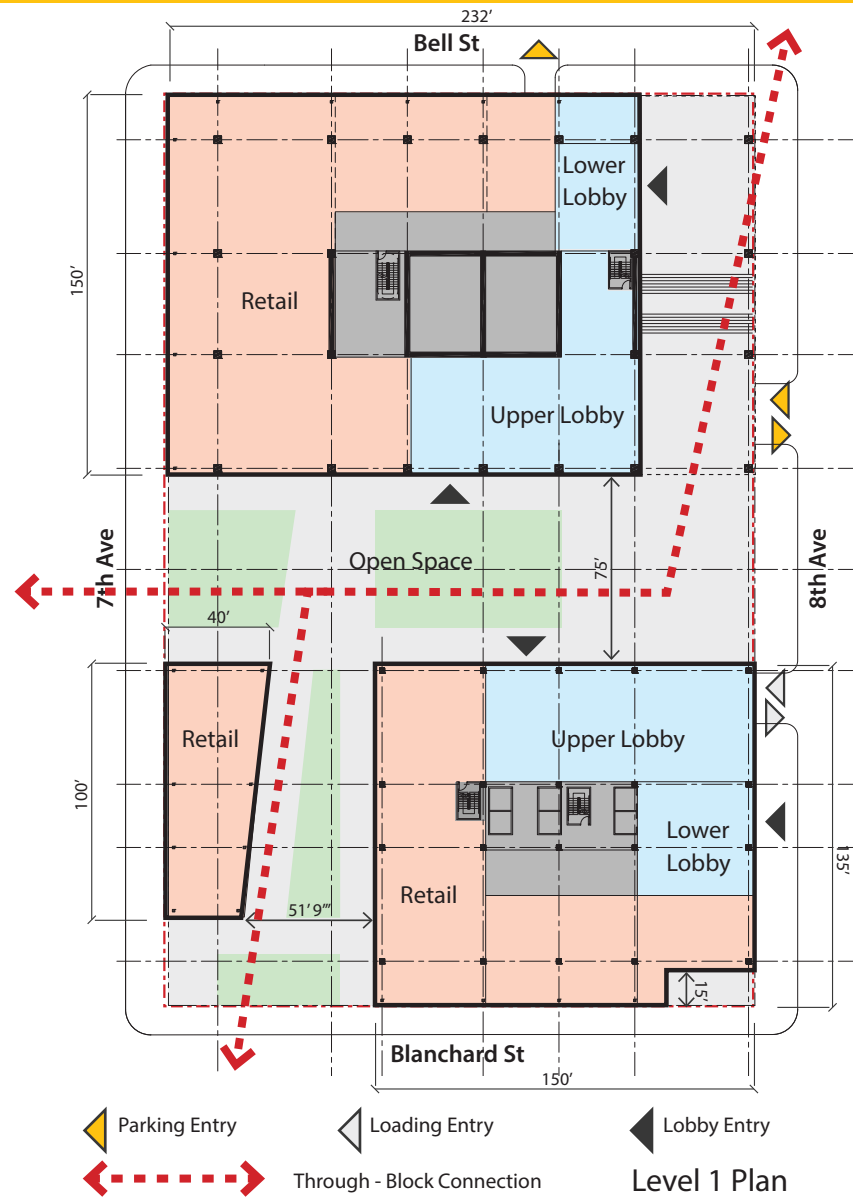
Note: This option requires a favorable Type 1 Director's Decision to permit vehicular curb cuts at 8th Avenue and Bell Street rather than utilizing the alley for access as required by SMC 23.49.019-H-1-a.

Aerial

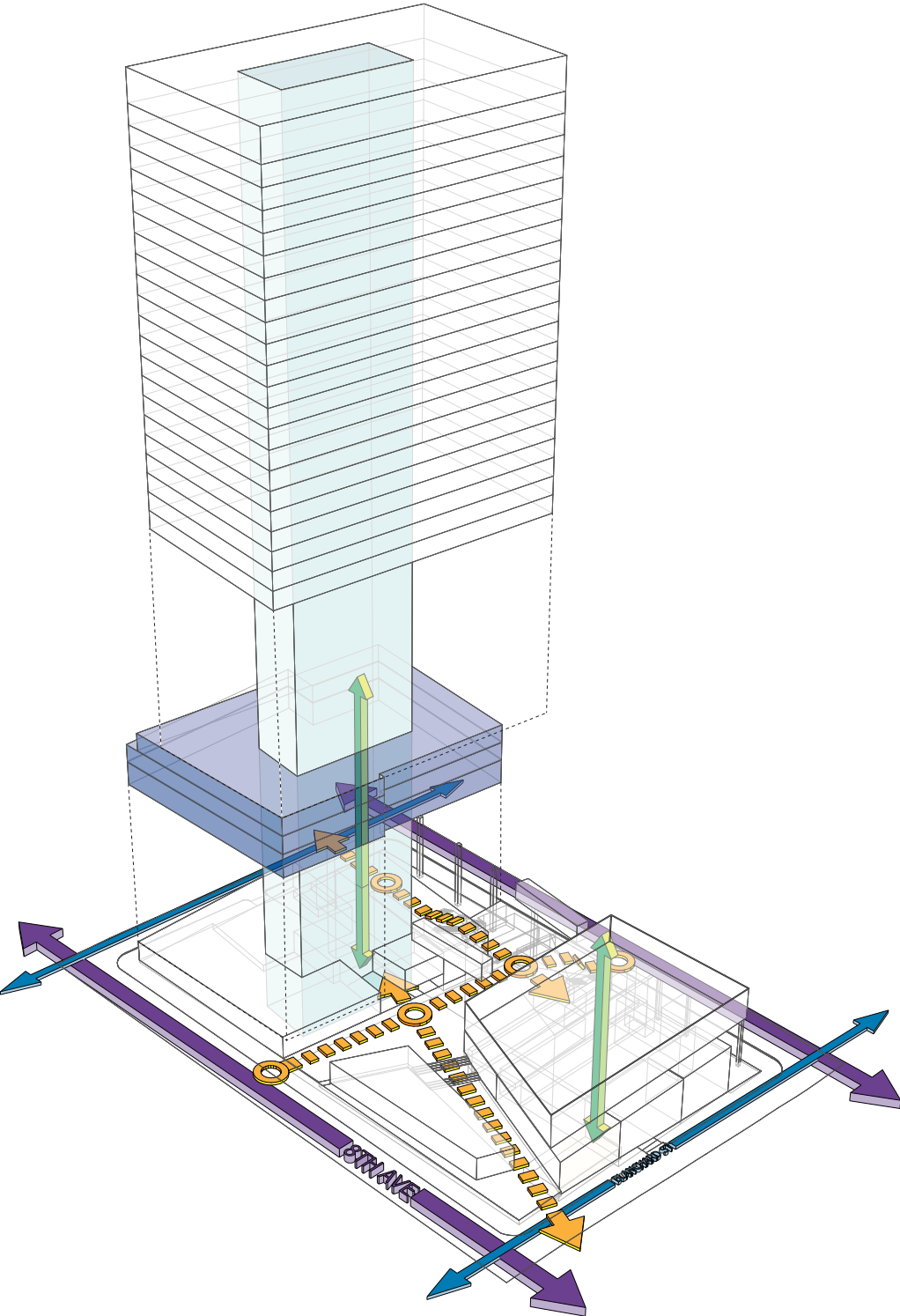
Building Section



Vicinity Plan



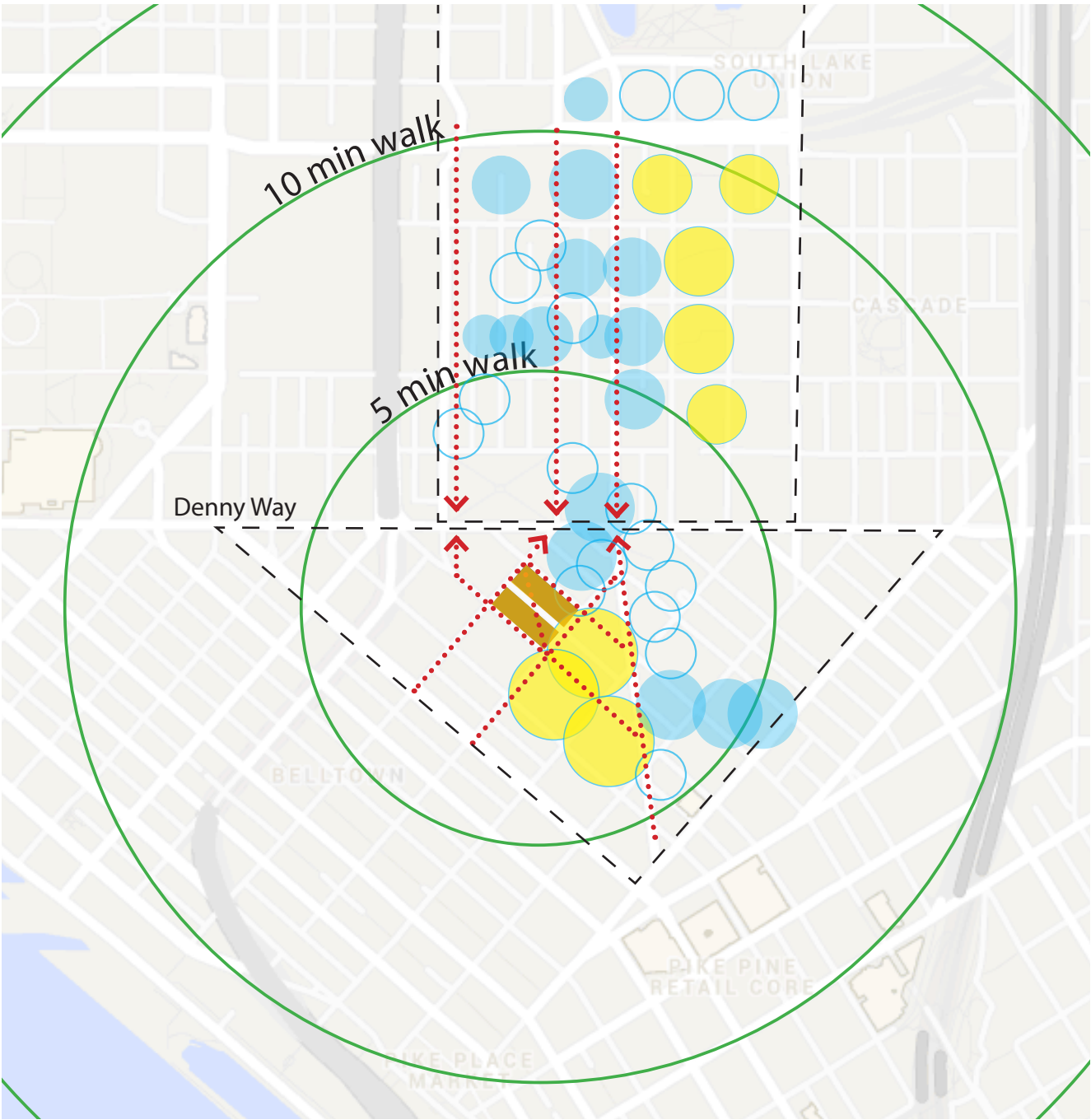
CIRCULATION DIAGRAM (PREFERRED SCHEME)



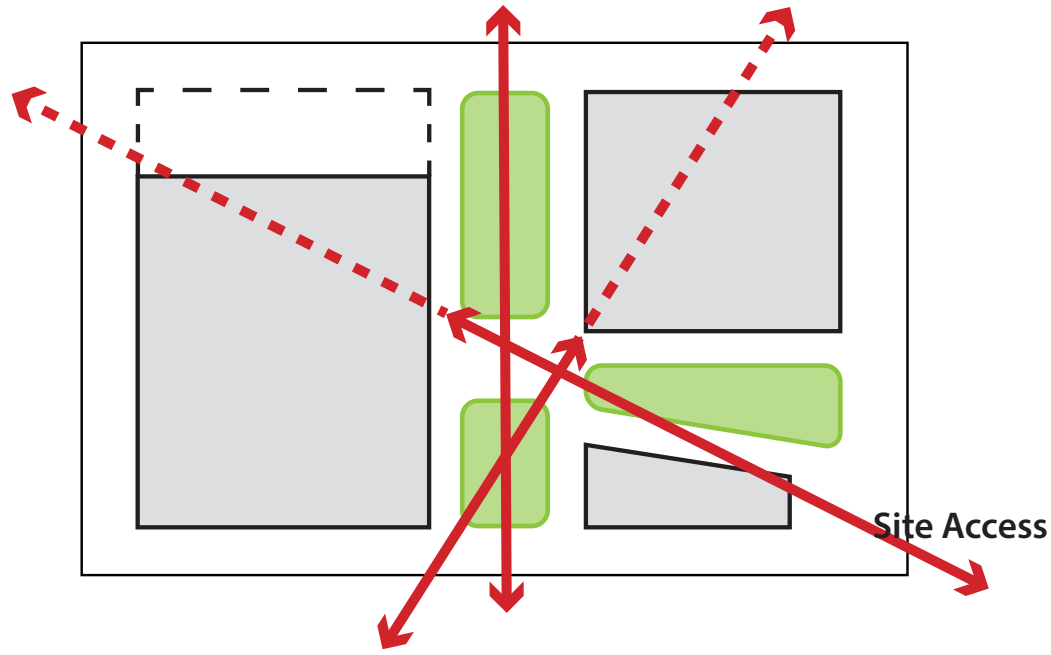
Linkages

Site organization and resulting building massing in the preferred scheme knit into the existing and anticipated pedestrian circulation patterns that connect the commercial and residential population densities of South Lake Union and the Denny Triangle, enhancing north-south ties between these two emerging neighborhoods.

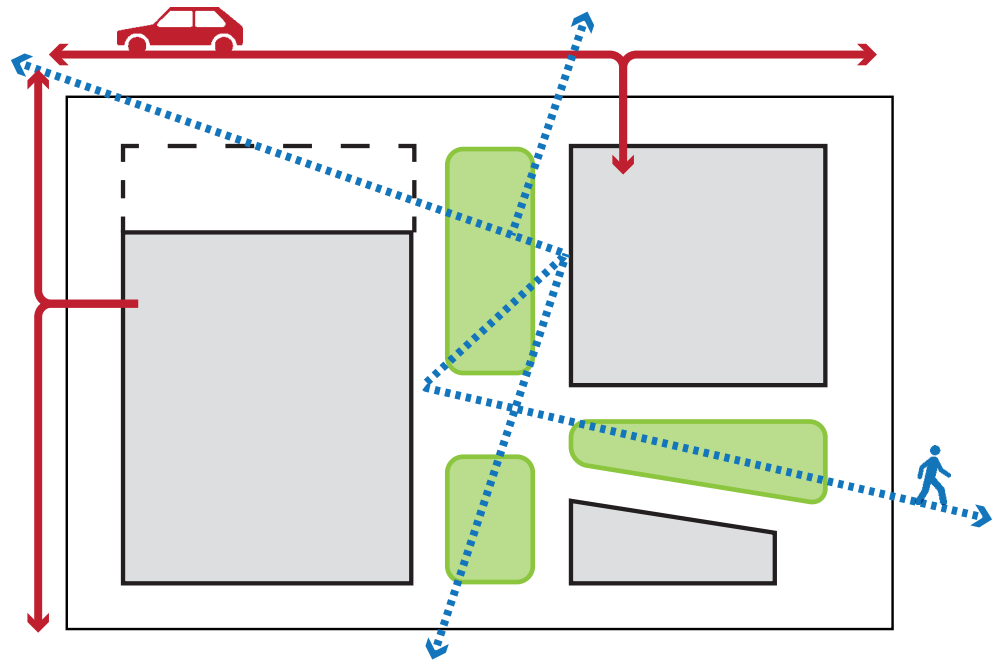
DENNY TRIANGLE / SOUTH LAKE UNION CONNECTIONS



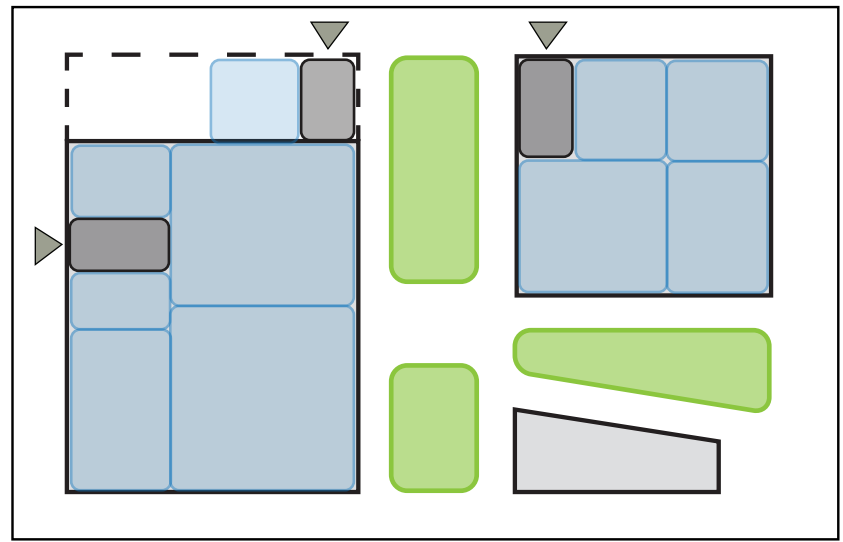
- Owner-occupied office 200-900K SF
- Other office/lab 200-500K SF
- Residential >100 Units



PEDESTRIAN TRAJECTORIES



CIRCULATION PATTERNS



VEHICULAR ACCESS PORTALS

Site Access

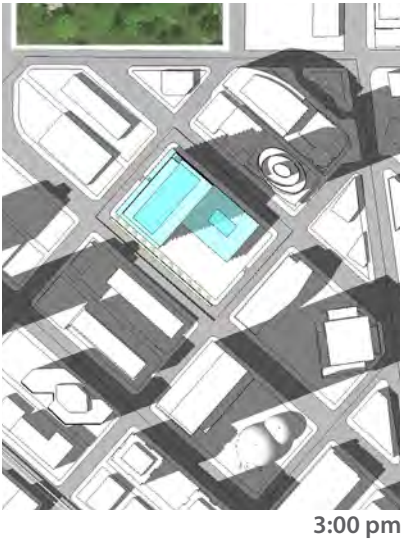
Vehicular site access is proposed to be predominantly from the east on 8th Avenue with a secondary egress-only portal to the north on Bell Street. This perimeter distribution is intended to encourage pedestrian flow through and around the site, particularly at the Green Streets and enhanced 7th Avenue. It has the additional benefit of locating building services below grade where they are fully screened from pedestrians.

Pedestrian Circulation

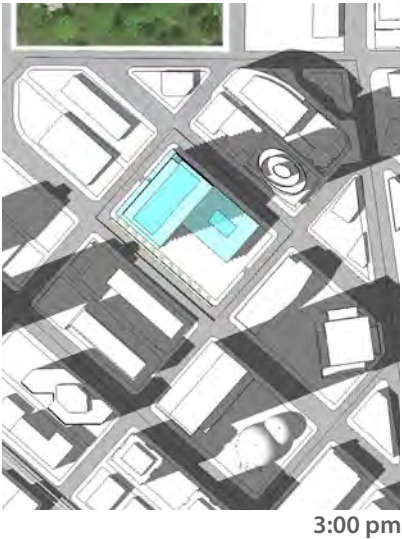
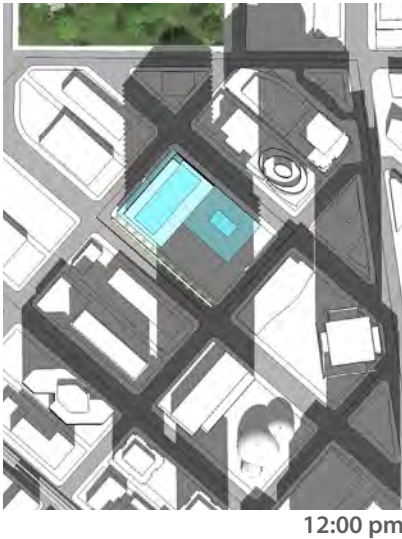
Established neighborhood pedestrian circulation patterns are acknowledged and enhanced in the preferred scheme through a responsive site plan arrangement. As the Denny Triangle and South Lake Union neighborhoods densify, the predominant pedestrian flow will be north-south, creating opportunities to move around and through the Block 21 site. Overlapping open spaces and nodal points draw one around and through the block, encouraging movement and engagement with active uses at the ground level.

SHADOW STUDIES (OPTION 1)

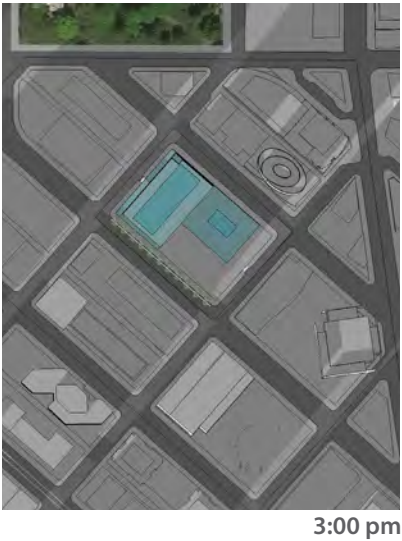
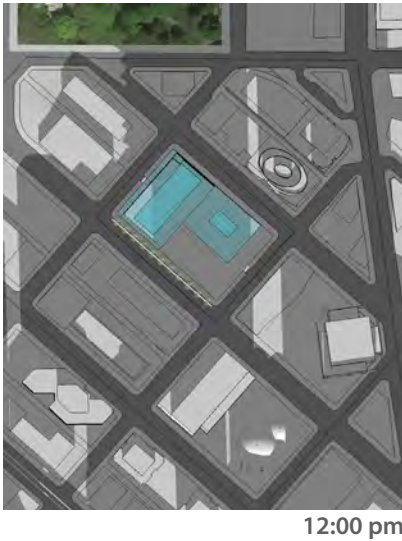
Summer- June 21st



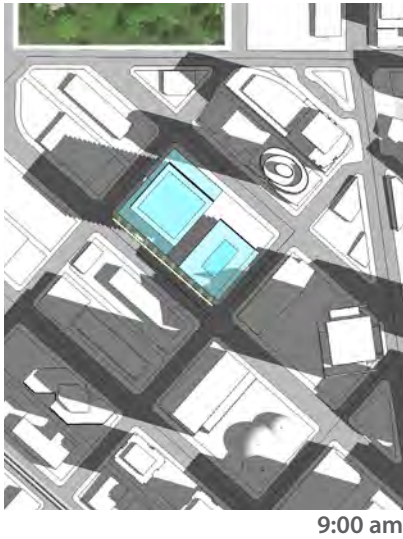
Spring & Fall- March & Sept. 20th



Winter- December 21st



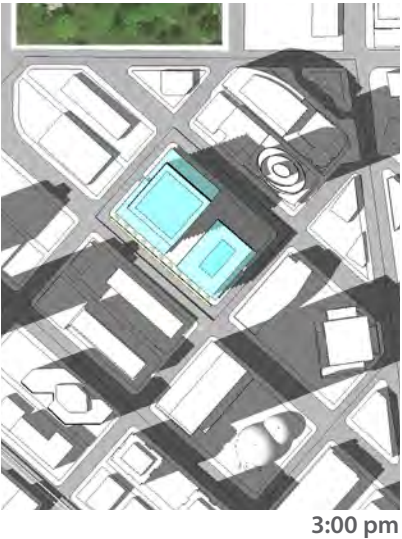
Summer- June 21st



9:00 am

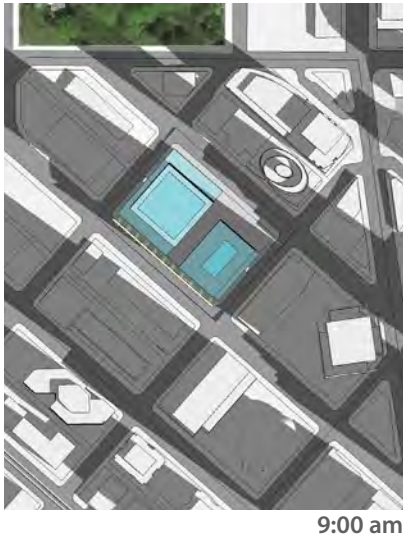


12:00 pm

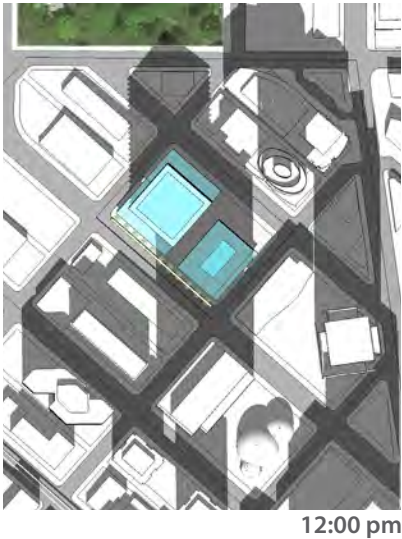


3:00 pm

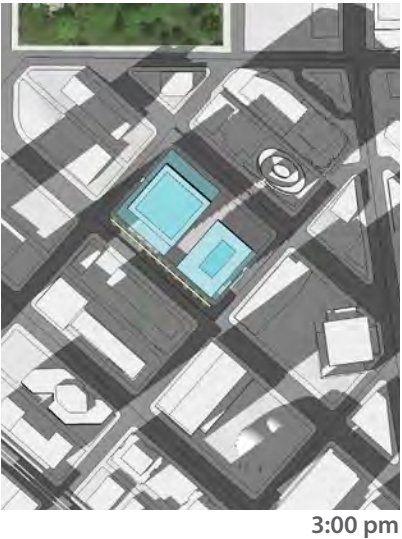
Spring & Fall- March & Sept. 20th



9:00 am

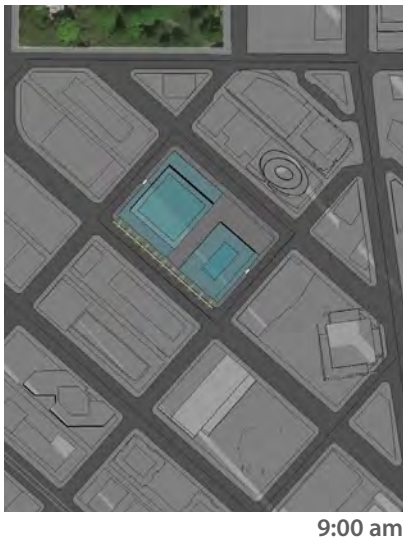


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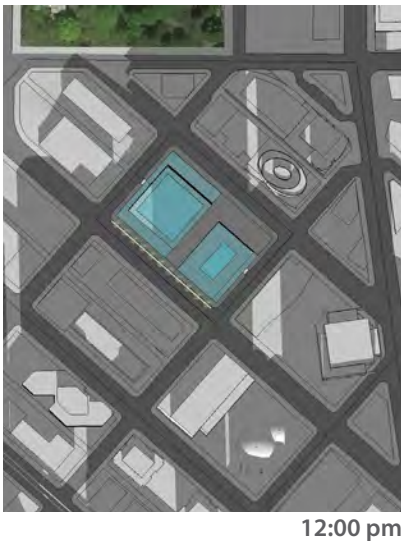


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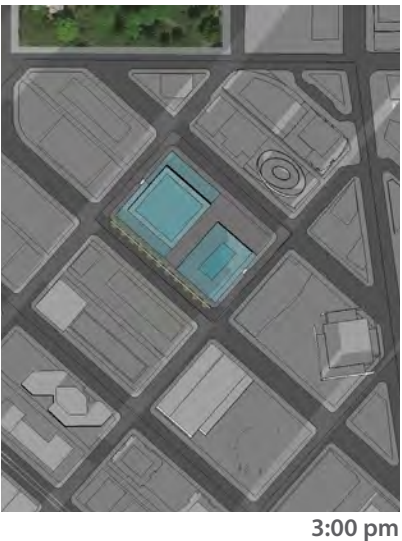
Winter- December 21st



9:00 am



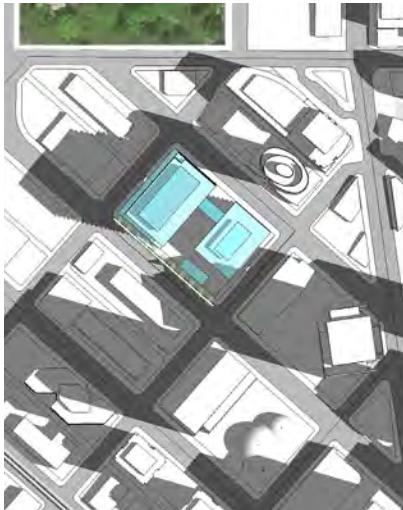
12:00 pm



3:00 pm

SHADOW STUDIES (OPTION 3 PREFERRED)

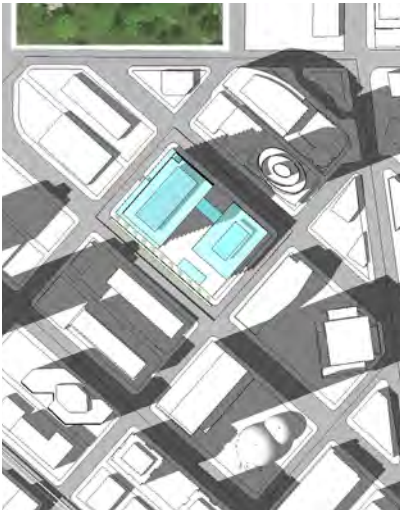
Summer- June 21st



9:00 am



12:00 pm



3:00 pm

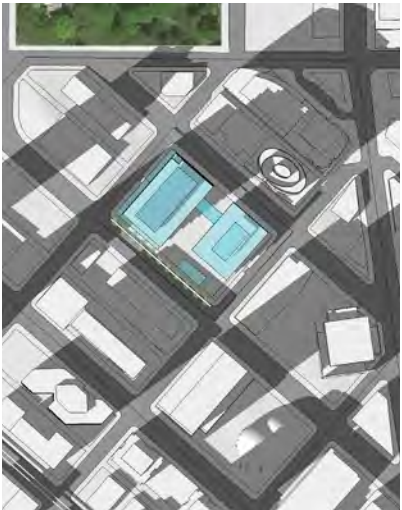
Spring & Fall- March & Sept. 20th



9:00 am



12:00 pm

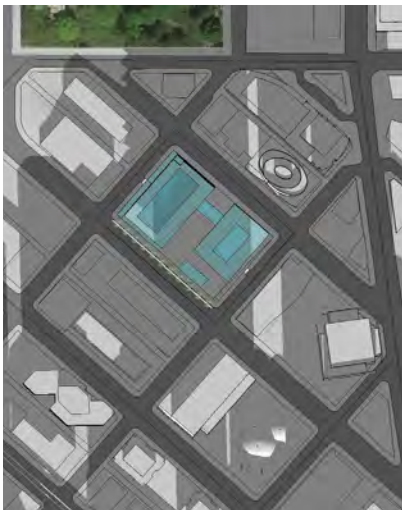


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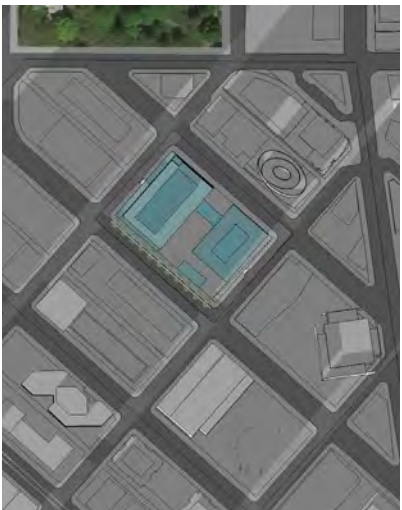
Winter- December 21st



9:00 am



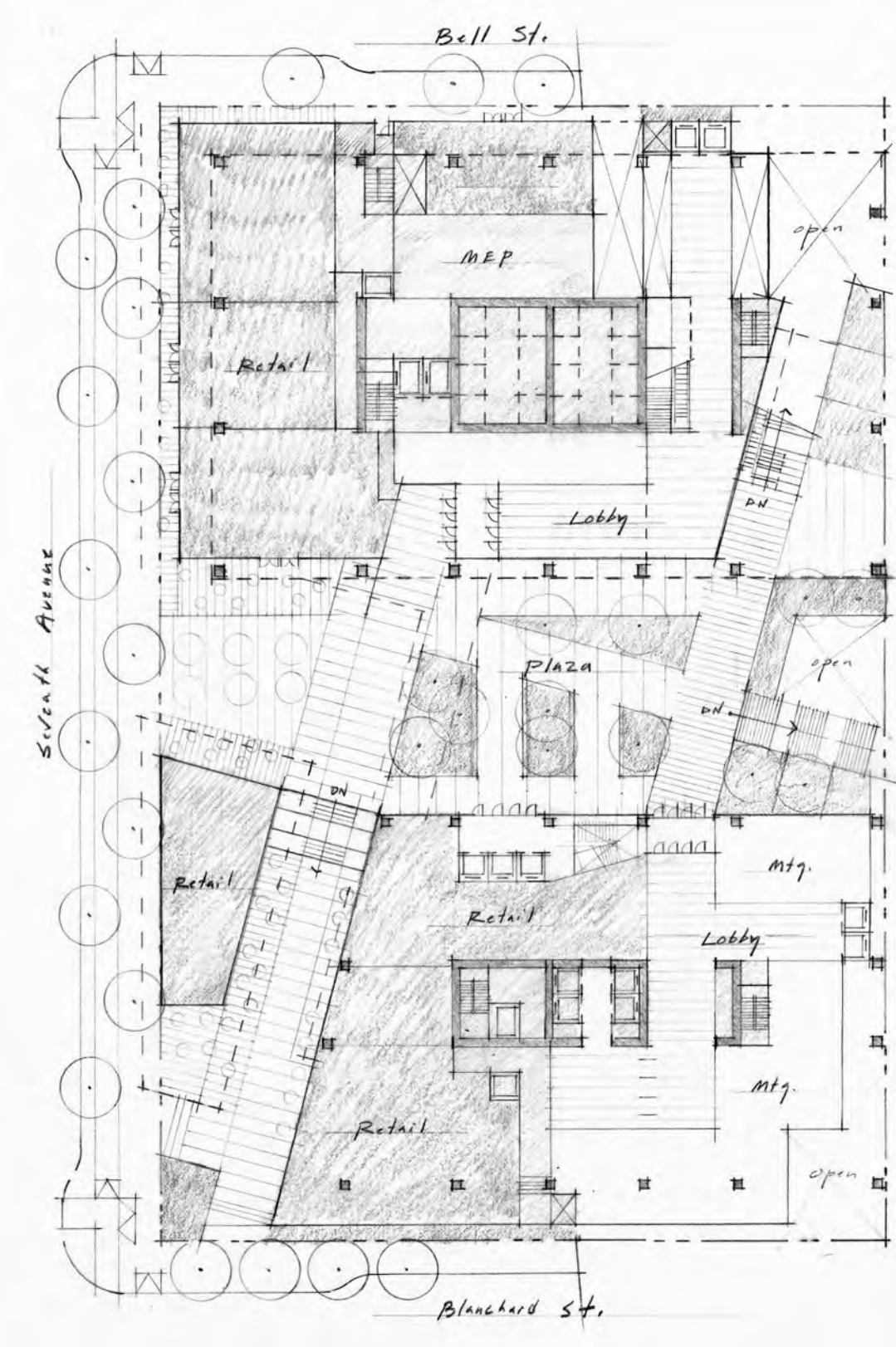
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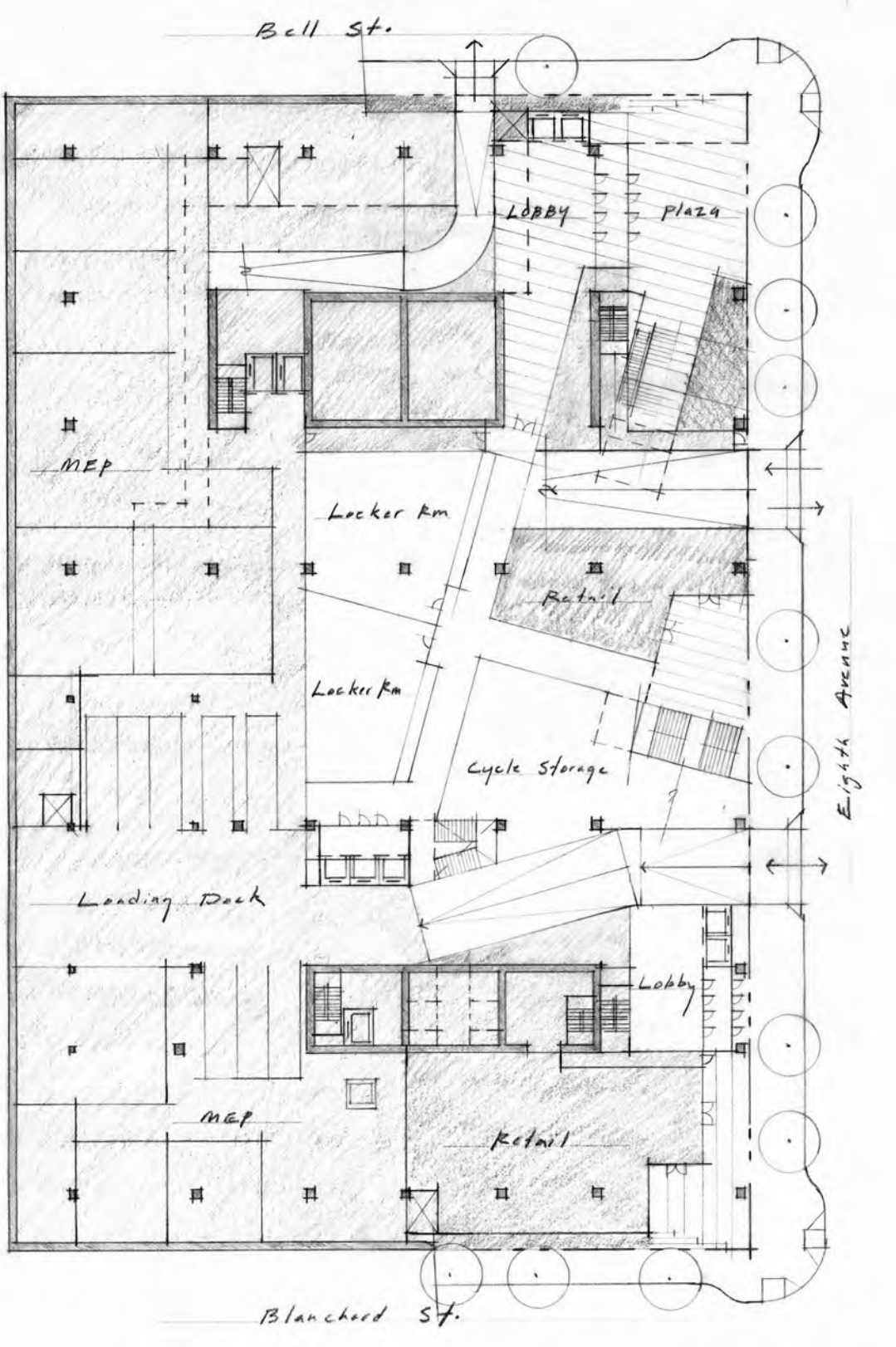
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SITE + MASSING CONCEPTS





Seventh Avenue Site Plan



Eighth Avenue Site Plan



Looking SW



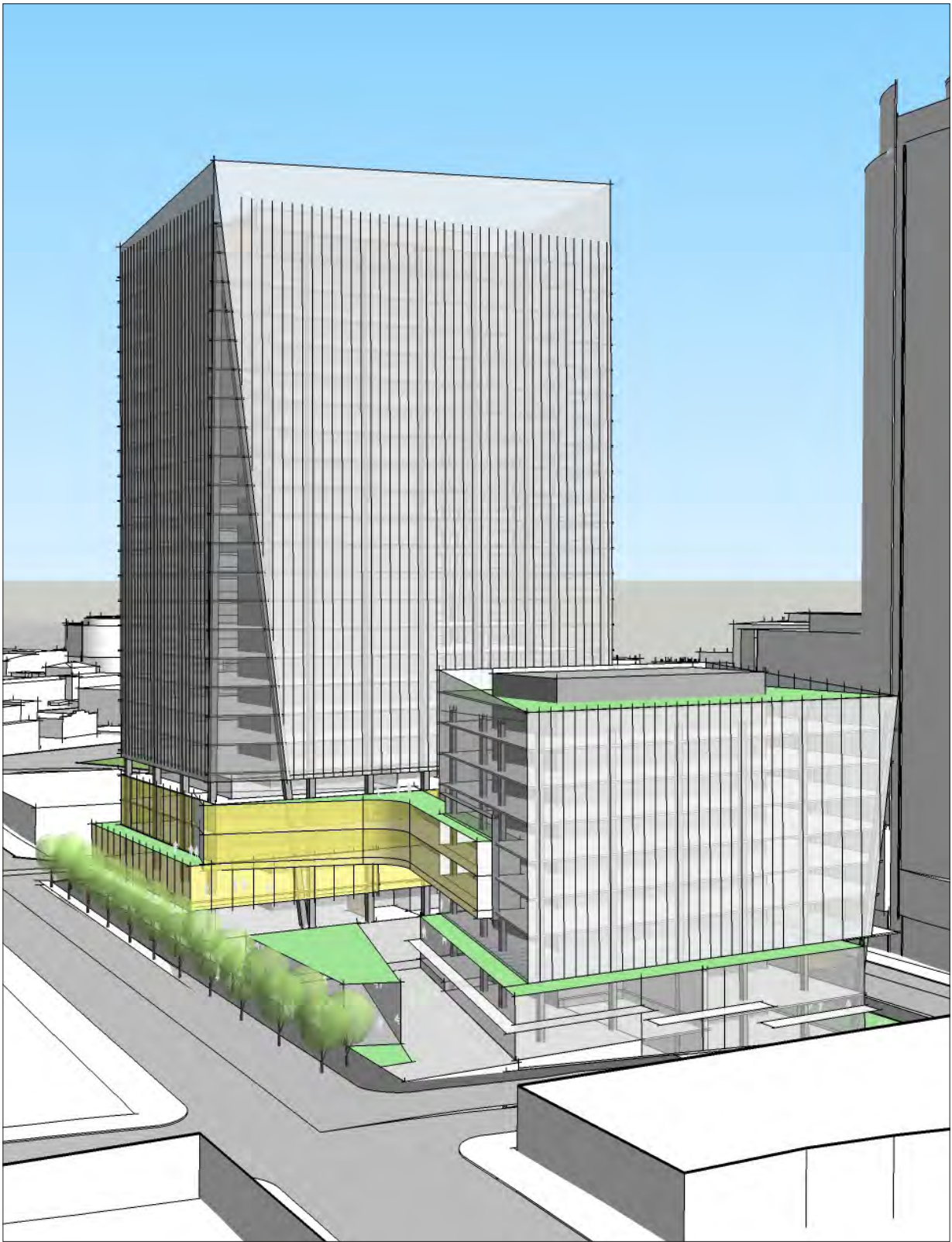
Looking NW



Through-block



Rather than a straight line, the through-block connection takes a meandering path as pedestrians pass through diverse, linked spaces.



Looking north

LANDSCAPE CONCEPT








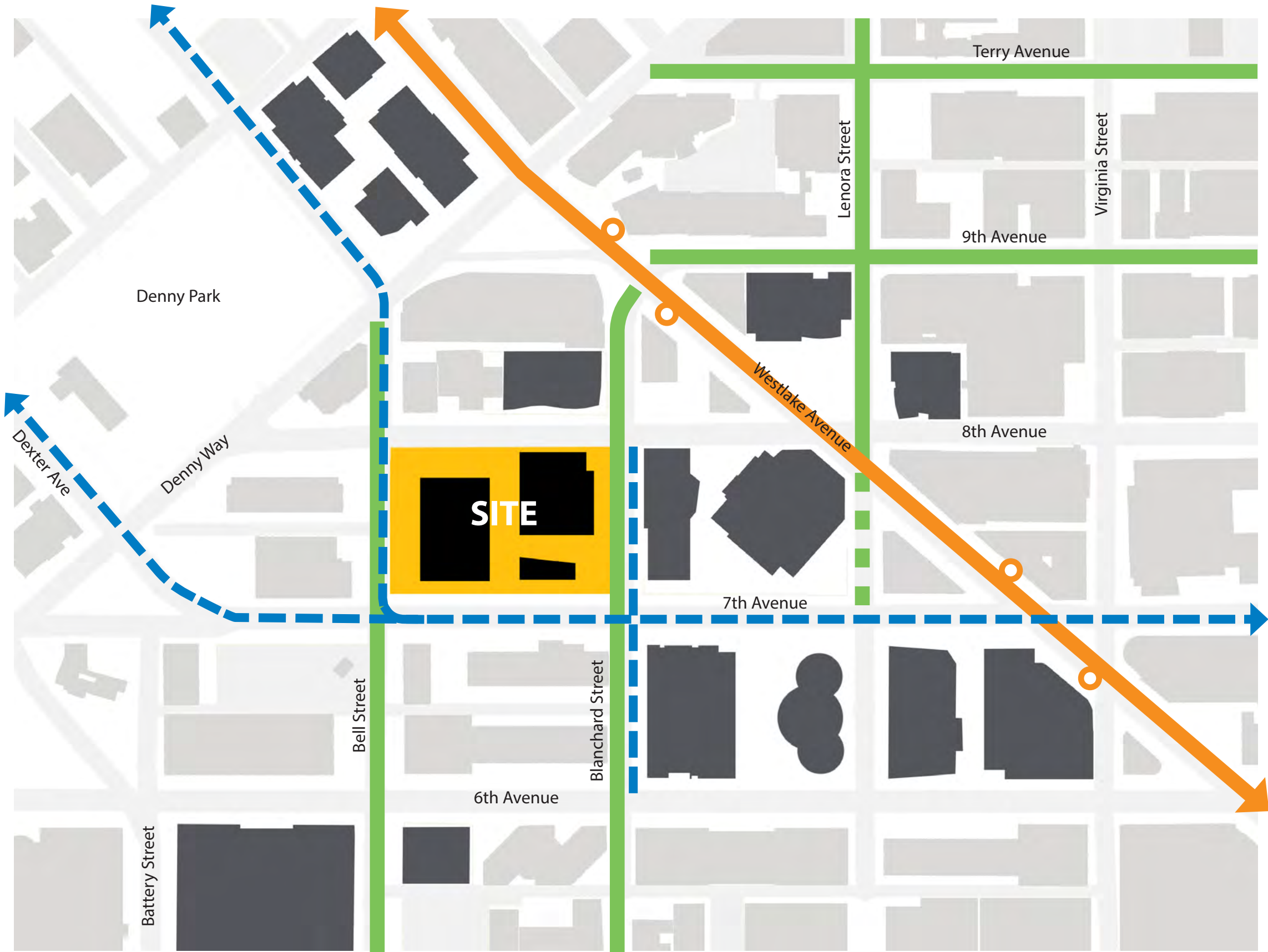
Projects in Development/Construction

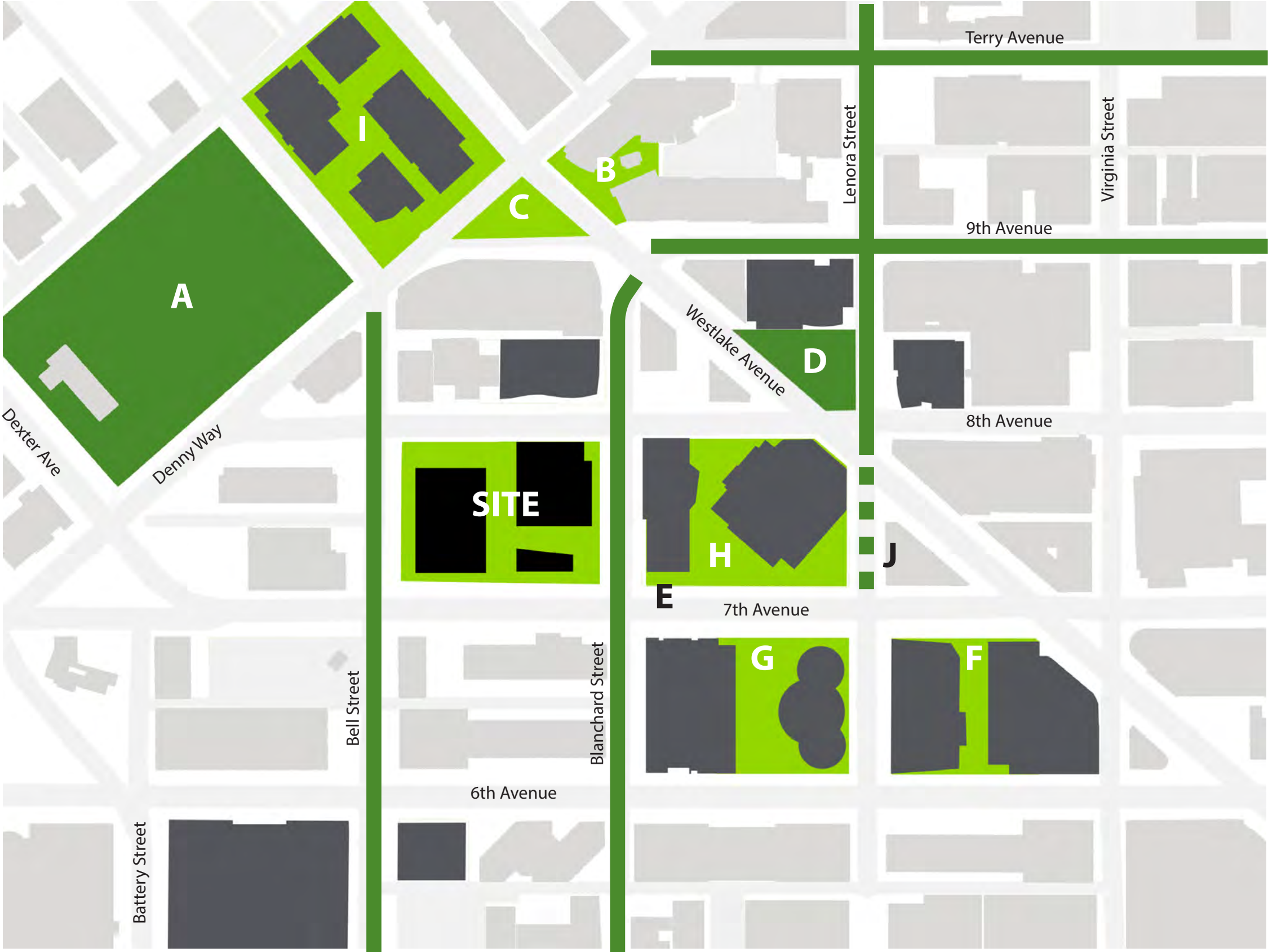


NEIGHBORHOOD CONTEXT

Connections

- Streetcar 
- Streetcar Stop 
- Green Street 
- Cycle Track 
- Shared-use Street 





Public Open Space

Private Open Space
(Public-Accessible)

NEIGHBORHOOD CONTEXT

Open Space



A - Denny Park



B - 2200 Westlake



C - 2201 Westlake Corner



D - Westlake + Lenora Park



E - 7th Avenue Cycle Track



F - Block 14



G - Block 19



H - Block 20



I - Block 48



J - Lenora Shared-Use Street

Landscape Concept Plan



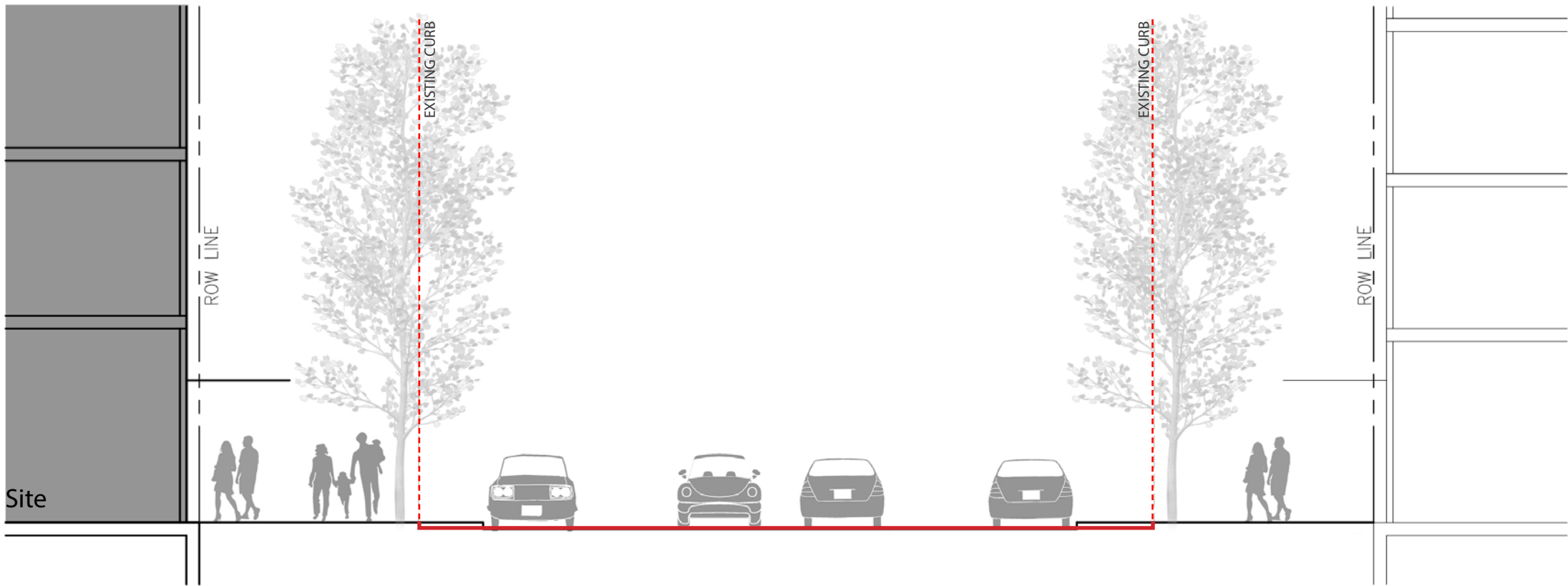
BLOCK 21

Street Section Studies

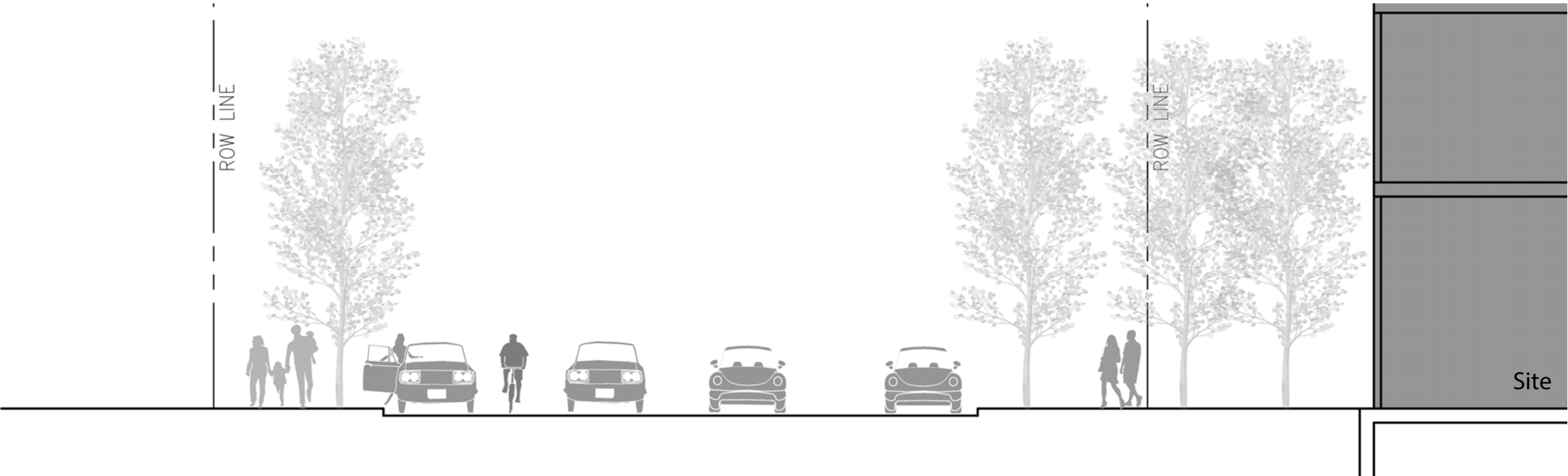
7th Avenue
90' Right-of-Way
Class II Pedestrian Street



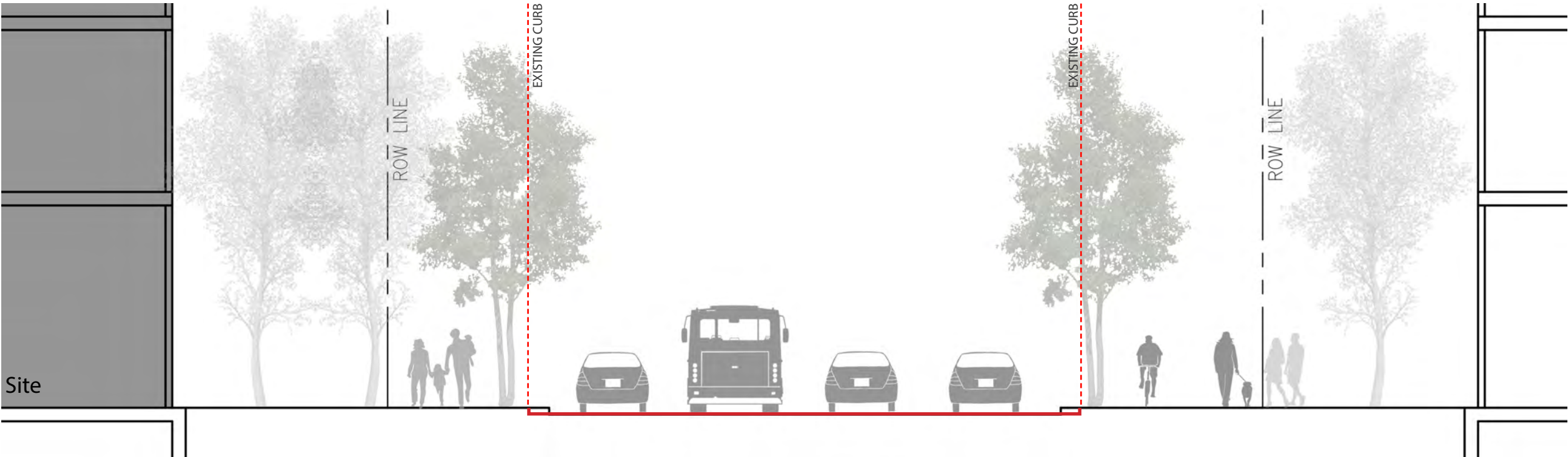
8th Avenue
90' Right-of-Way
Class II Pedestrian Street



Bell Street
66' Right-of-Way
Green Street



Blanchard Street
66' Right-of-Way
Green Street



8th & BLANCHARD LANDSCAPE PLAN



Illustrative Site Plan



Aerial View



Vicinity Plan

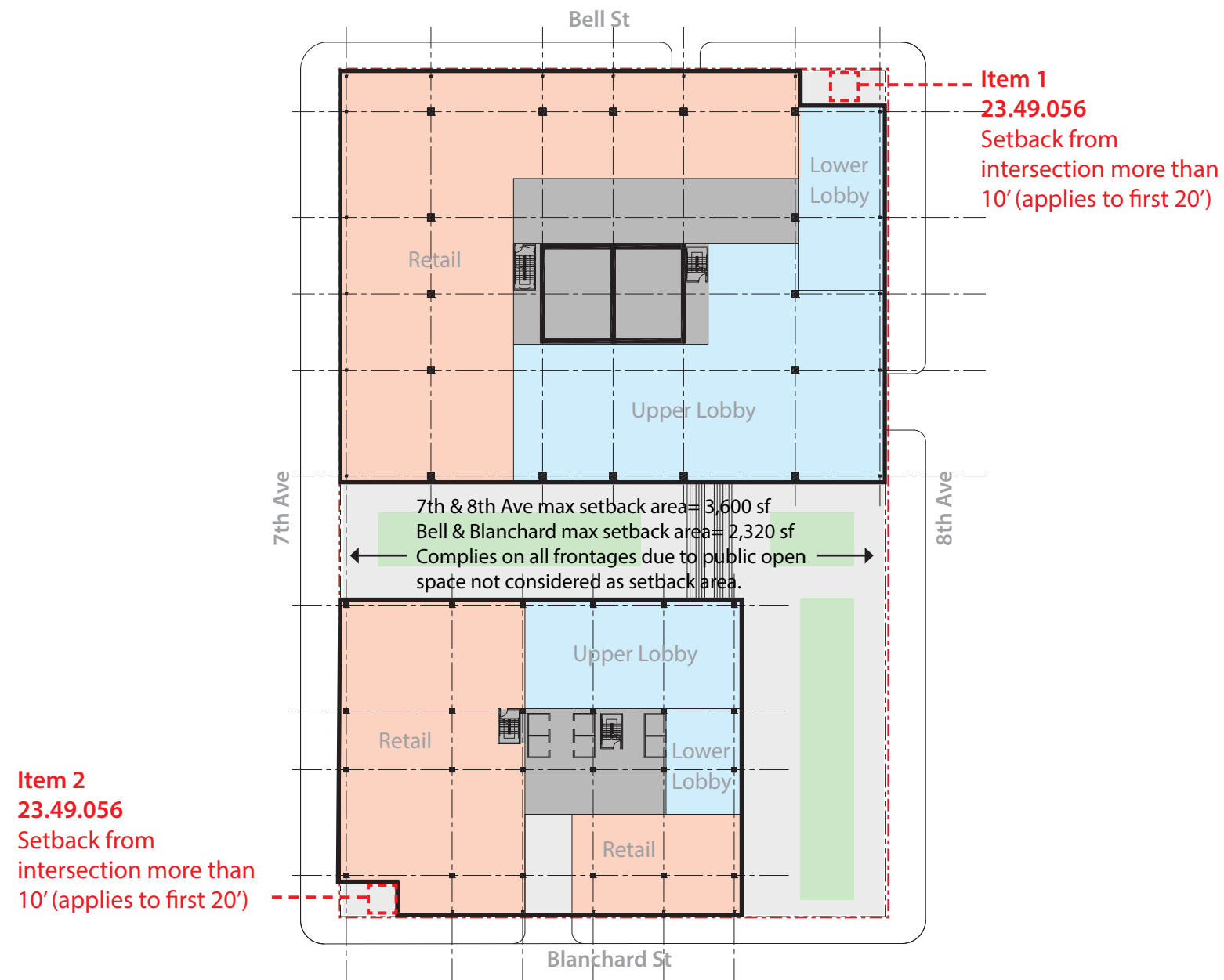
DEVELOPMENT DEPARTURES



DEVELOPMENT DEPARTURES OPTION 2

Additional Setback for Green Street Departures

Item #	Development Standard	Requirement	Departure Amount Required	Rationale	Design Guidelines Reinforced	Reference
1	23.49.056 Street Facade, Landscaping, and Street Setbacks	B. Facade Setback Limits 2. General Setback Limits. The following setback limits apply on streets not requiring property line facades, as shown on Map 1H. d. The maximum setback of the facade from the street lot lines at intersections is 10 feet. The minimum distance the facade must conform to this limit is 20 feet along each street.	The setback at the corner of 8th Ave (& Bell St) exceeds the maximum setback limit by 10 feet.	The entry at this corner is enhanced and supported by a more gracious zone between the public right-of-way and the building.	A-1 Respond to physical environment B-2 Create a transition in bulk & scale B-4 Design a well-proportioned & unified building C-4 Reinforce building entries	Diagram 1
2	Same as (1) above	Same as (1) above	The setback at the corner of 7th Ave (& Blanchard St) exceeds the maximum setback limit by 10 feet.	The entry at this corner is enhanced and supported by a more gracious zone between the public right-of-way and the building.	A-1 Respond to physical environment B-2 Create a transition in bulk & scale B-4 Design a well-proportioned & unified building C-4 Reinforce building entries	Diagram 1



DEVELOPMENT DEPARTURES OPTION 3 (PREFERRED)

Additional Setback for Green Street Departures

Item #	Development Standard	Requirement	Departure Amount Required	Rationale	Design Guidelines Reinforced	Reference
1	23.49.056 Street Facade, Landscaping, and Street Setbacks	B. Facade Setback Limits 2. General Setback Limits. The following setback limits apply on streets not requiring property line facades, as shown on Map 1H. d. The maximum setback of the facade from the street lot lines at intersections is 10 feet. The minimum distance the facade must conform to this limit is 20 feet along each street.	The setback at the corner of 8th Ave (& Bell St) exceeds the maximum setback limit by 10 feet.	The entry at this corner is enhanced and supported by a more gracious zone between the public right-of-way and the building.	A-1 Respond to physical environment B-2 Create a transition in bulk & scale B-4 Design a well-proportioned & unified building C-4 Reinforce building entries	Diagram 1
2	Same as (1) above	Same as (1) above	The setback at the corner of Bell St (& 8th Ave) exceeds the maximum setback limit by 10 feet.	The entry at this corner is enhanced and supported by a more gracious zone between the public right-of-way and the building.	A-1 Respond to physical environment B-2 Create a transition in bulk & scale B-4 Design a well-proportioned & unified building C-4 Reinforce building entries	Diagram 1
3	Same as (1) above	Same as (1) above	The setback at the corner of 8th Ave (& Blanchard St) exceeds the maximum setback limit by 10 feet.	The entry at this corner is enhanced and supported by a more gracious zone between the public right-of-way and the building.	A-1 Respond to physical environment B-2 Create a transition in bulk & scale B-4 Design a well-proportioned & unified building C-4 Reinforce building entries	Diagram 1

Facade Modulation Departure

Item #	Development Standard	Requirement	Departure Amount Required	Rationale	Design Guidelines Reinforced	Reference
4	23.49.058 Upper-Level Development Standards	<div>B. Facade Modulation</div> <div>2. The maximum length of a facade without modulation is prescribed in Table 23.49.058A...</div> <div><div>Elevation</div><div>Max length un-modulated facade w/in 15' of prop line</div><div>161-240'</div><div>125'</div><div>241-500'</div><div>100'</div></div>	At the eastern facade of the large building the maximum facade length without modulation is greater than the dimensions in table 23.49.058A by 10' at elevation 161-240 feet and by 35' at elevation 241-340 feet.	The overall massing of the tower is intended to be shaped at it's lower levels to allow access to daylight and views at the critical 8th and Bell Green Street intersection. This form also results in a tower with more vertical, elegant proportions and better responds to the neighborhood context than a code-compliant tower with facade modulation at mid-block or setbacks at upper corners where impact on pedestrians is less perceivable.	A-2 Enhance the skyline B-1 Respond to neighborhood context B-4 Design a well-proportioned & unified building	Diagram 2

Upper Level Setback Departure

Item #	Development Standard	Requirement	Departure Amount Required	Rationale	Design Guidelines Reinforced	Reference
5	23.49.058 Upper-Level Development Standards	F. Upper Level Setbacks 2. When a lot in a DMC or DOC2 zone is located on a designated green street, a continuous upper-level setback of fifteen (15) feet shall be provided on the street frontage abutting the green street at a height of forty-five (45) feet.	At Bell street an elevator penthouse/overrun encroaches in the green street designated setback by approximately 10 feet.	The elevators provide required handicap access from the lower grade level at 8th and Bell to the upper public plaza and the upper lobby on level 3. The elevators are located here to function better for building visitors and the public by giving a clear visual cue as to how to ascend to the upper lobby and plaza. The elevators are intended to be glass-enclosed (transparent), so their functionality also adds to the sense of active street-level use.	A-1 Respond to physical environment B-2 Create a transition in bulk & scale B-4 Design a well-proportioned & unified building	Diagram 1

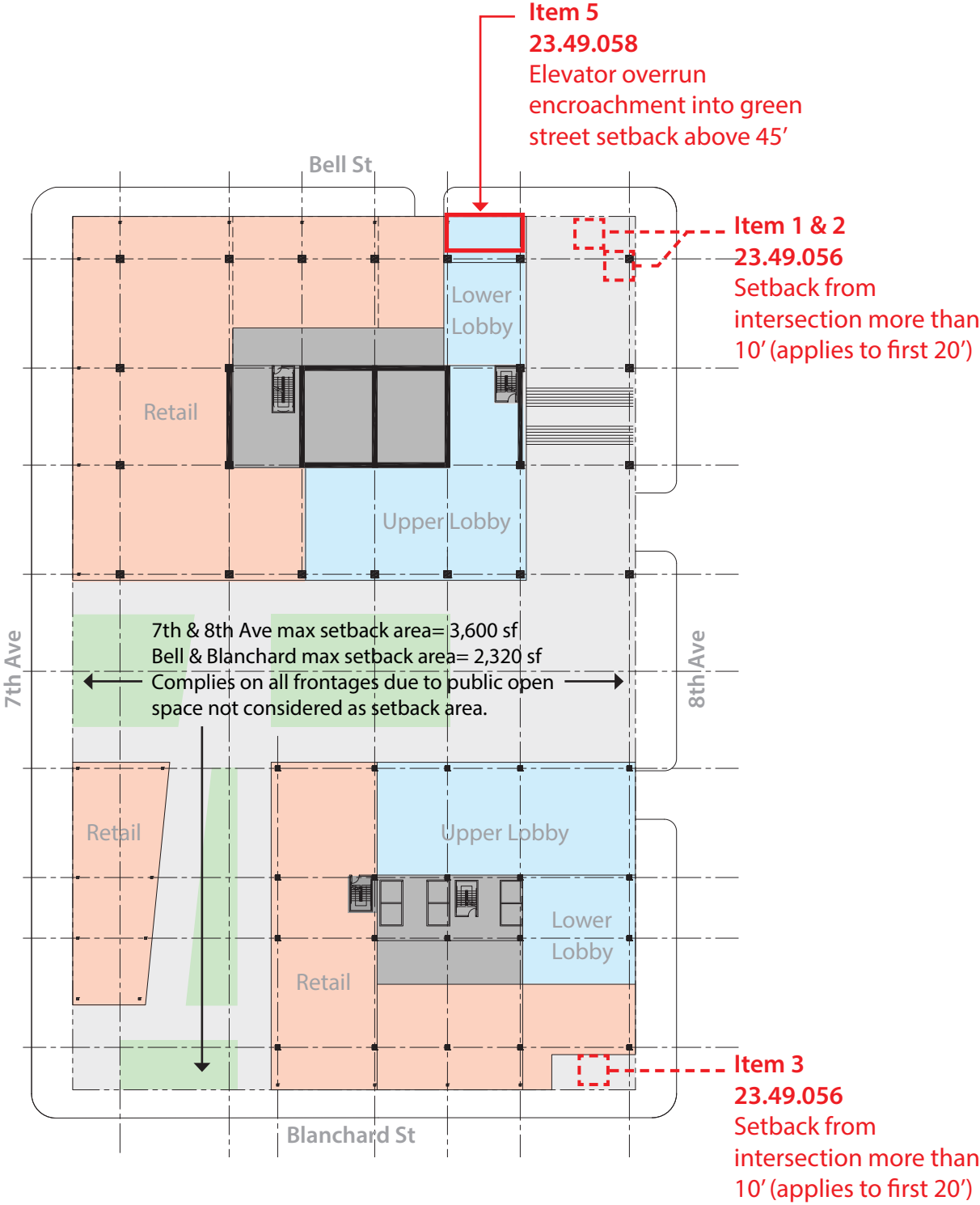


Diagram 1-
Level 1 Plan

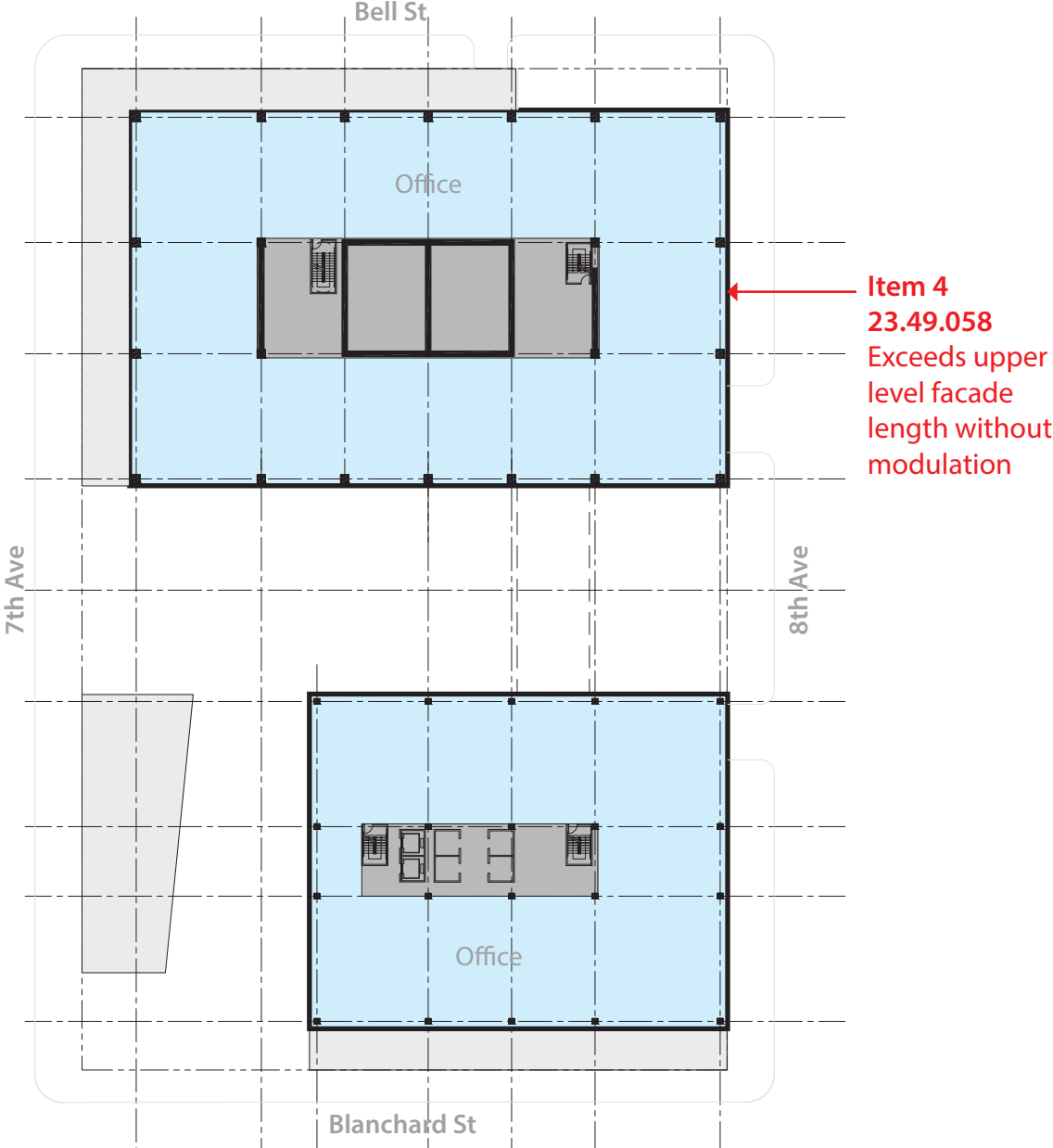
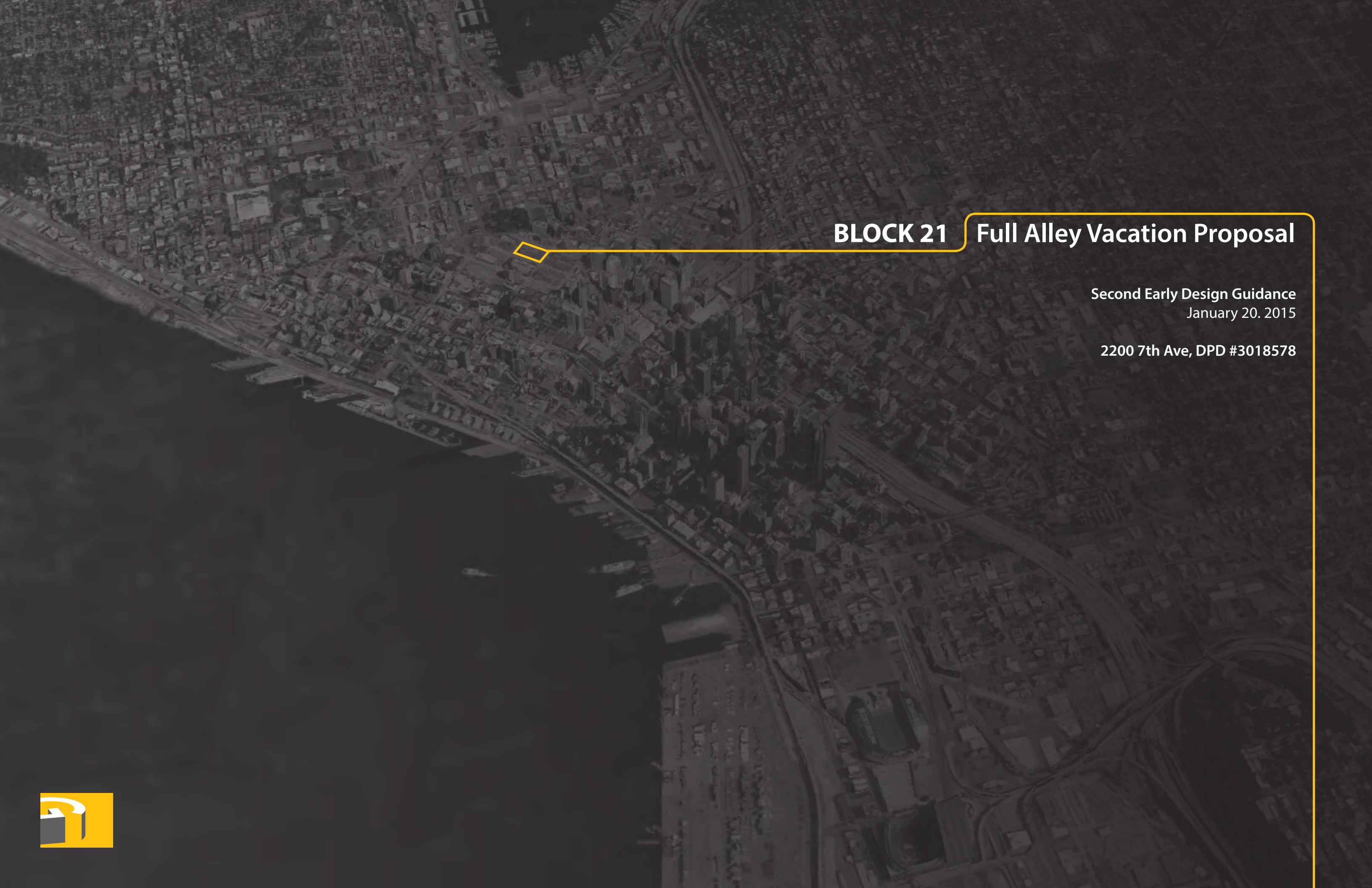


Diagram 2-
Upper Level Plan



BLOCK 21 Full Alley Vacation Proposal

Second Early Design Guidance
January 20, 2015

2200 7th Ave, DPD #3018578



PROJECT INFO

PROPERTY ADDRESSE &
DPD PROJECT NUMBER

2200 7th Avenue, DPD # 3018578

OWNER

Acorn Development

ARCHITECT

Graphite Design Group

1809 7th Avenue, Suite 700
Seattle, WA 98101

Contact: Peter Krech

206.224.3335

peter.krech@graphitedesigngroup.com

DEVELOPMENT OBJECTIVES

Develop a commercial project with approximately 835,200 gsf of office space and approximately 35,000 gsf of street level retail in three buildings. Parking below grade will be provided for approximately 835 Cars.

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DEVELOPMENT DEPARTURES

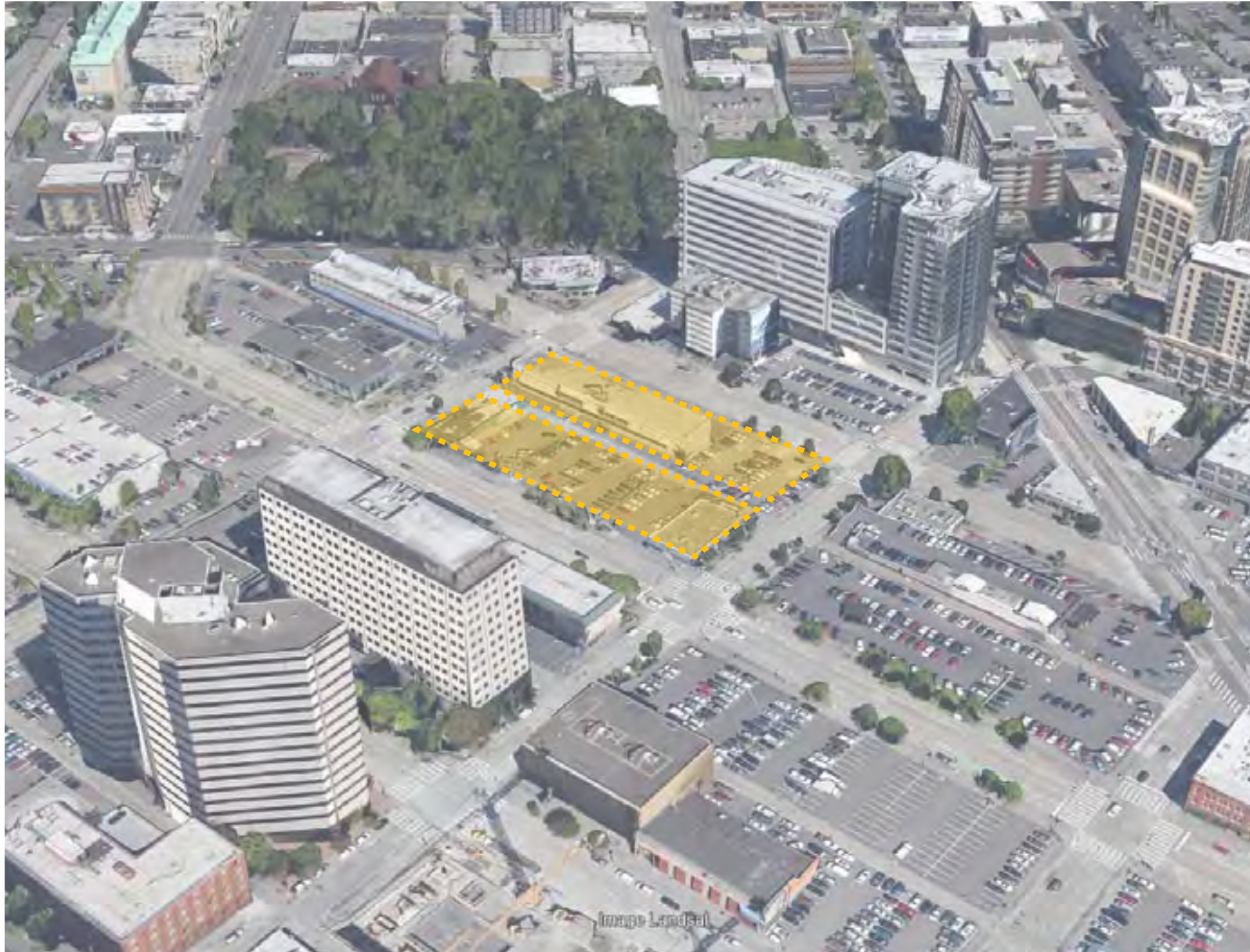
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DEVELOPMENT OBJECTIVES





STATEMENT OF DEVELOPMENT OBJECTIVES

The applicant proposes to design and construct a development on the full block bisected by a public alleyway and bounded by 7th Avenue on the east, 8th Avenue on the west, Blanchard Street on the south and Bell Street on the north. The site is zoned DMC 340/290-400, with a site area of approximately 77,700 square feet plus a public alleyway of approximately 5,700 square feet. The site has a base FAR of 5 with a maximum of 10.

This application is for a commercial project with approximately 835,200 gsf of office space and approximately 35,000 gsf of street level retail in three buildings. An open space and through block connection are proposed connecting 7th and 8th Avenues. Approximately 835 parking stalls will be provided below grade. All building services will be located below grade, with primary access from 8th Avenue and a secondary parking access from Bell Street. This proposal assumes a full alley vacation.

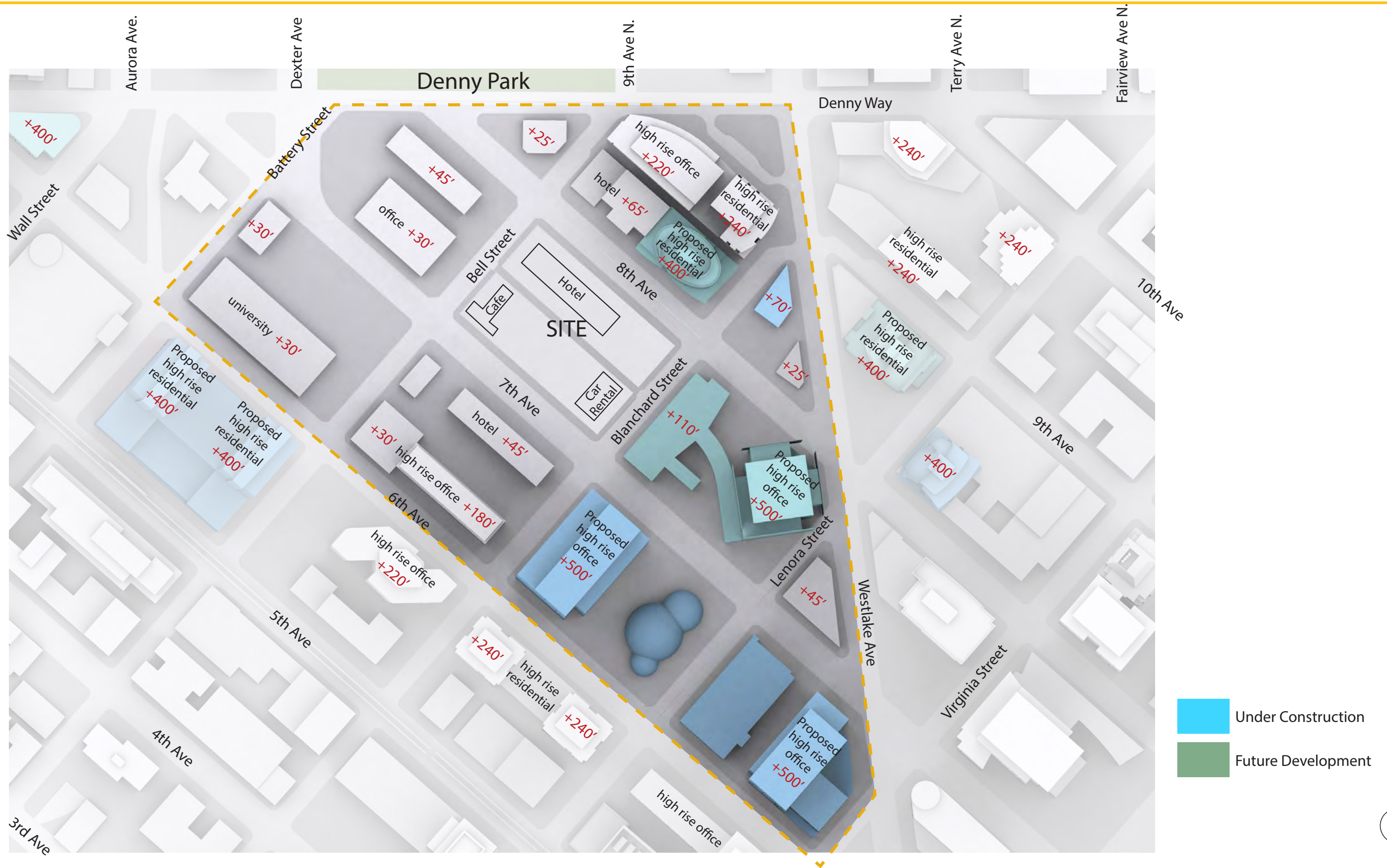
PROJECT GOALS

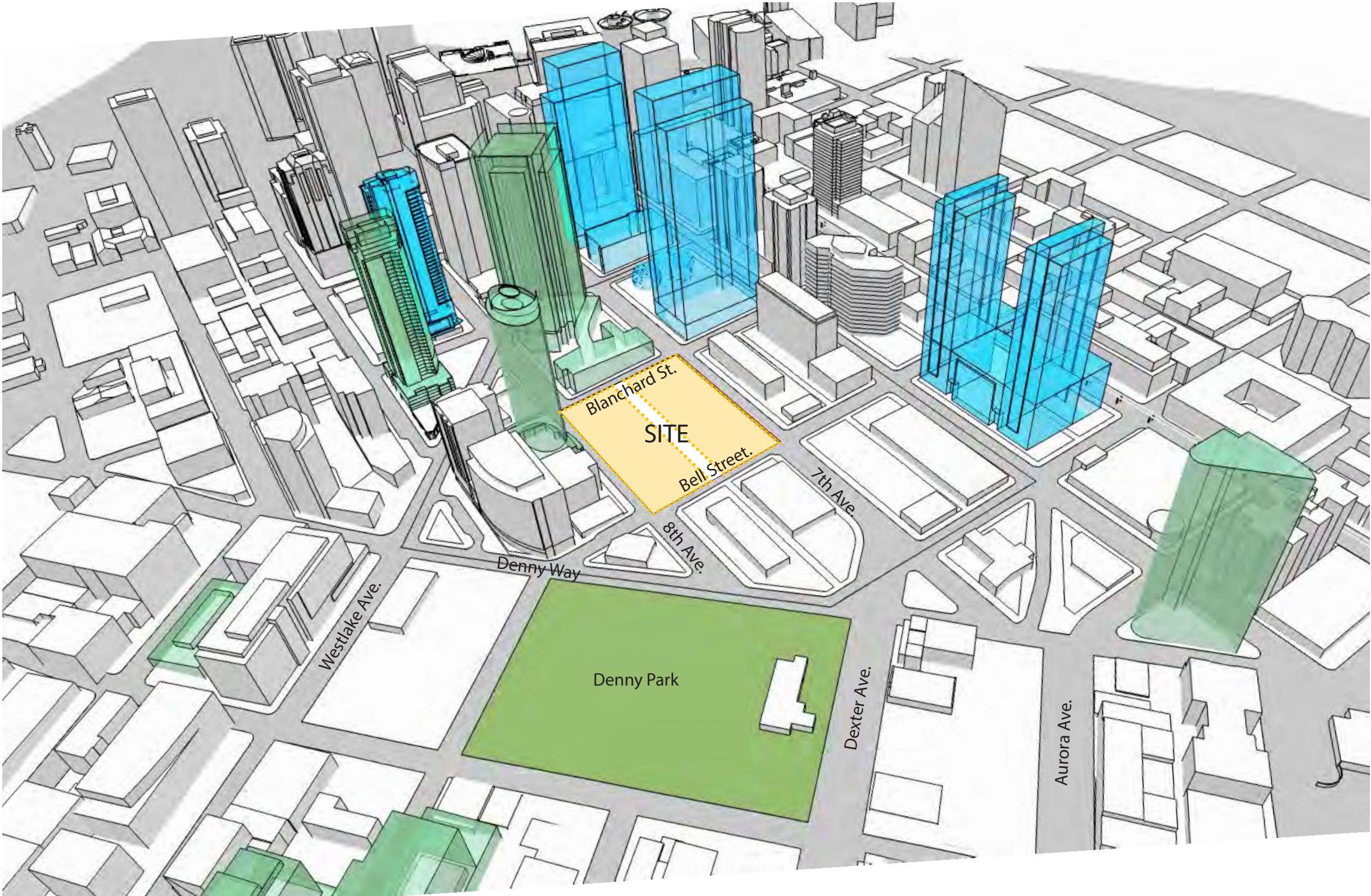
- Create rich, diverse pedestrian environment with a variety of scales, active uses and character of open spaces
- Connect to and enhance existing neighborhood pedestrian, vehicular, transit and cycling circulation patterns
- Create transitional opportunity between the Denny Triangle and South Lake Union
- Respond and contribute to the established urban density pattern in a thoughtful manner
- Create flexible, active open space and retail opportunities that add vitality to the project site as well as surrounding community
- Extend northward enhancements of 7th Avenue landscaping and cycle track in pattern established by Rufus 2.0
- Maximize utilization of Green Streets at Blanchard and Bell Streets
- Locate all parking and services below grade
- Develop project utilizing sustainable design methodologies and connection to existing community sustainability initiatives such as District Energy
- Maximize development potential

URBAN DESIGN ANALYSIS



URBAN CONTEXT - ADJACENT BUILDING HEIGHTS





- Under Construction
- Future Development



DESIGN GUIDELINES



C. The Streetscape

C-1 Promote pedestrian interaction

Spaces for street level uses should be designed to engage pedestrians with the activities occurring within them. Sidewalk-related spaces should be open to the general public and appear safe and welcoming.

C-6 Develop the alley facade

To increase pedestrian safety, comfort, and interest, develop portions of the alley facade in response to the unique conditions of the site or project.

The proposal has been designed to reinforce and enhance existing pedestrian patterns and capitalize on the sites transitional location between the Denny Triangle and South Lake Union.

The proposal is organized to provide a through-block connection and linked public plazas that engage pedestrians. The perimeter street frontage gives priority to active uses such as retail and building entries.



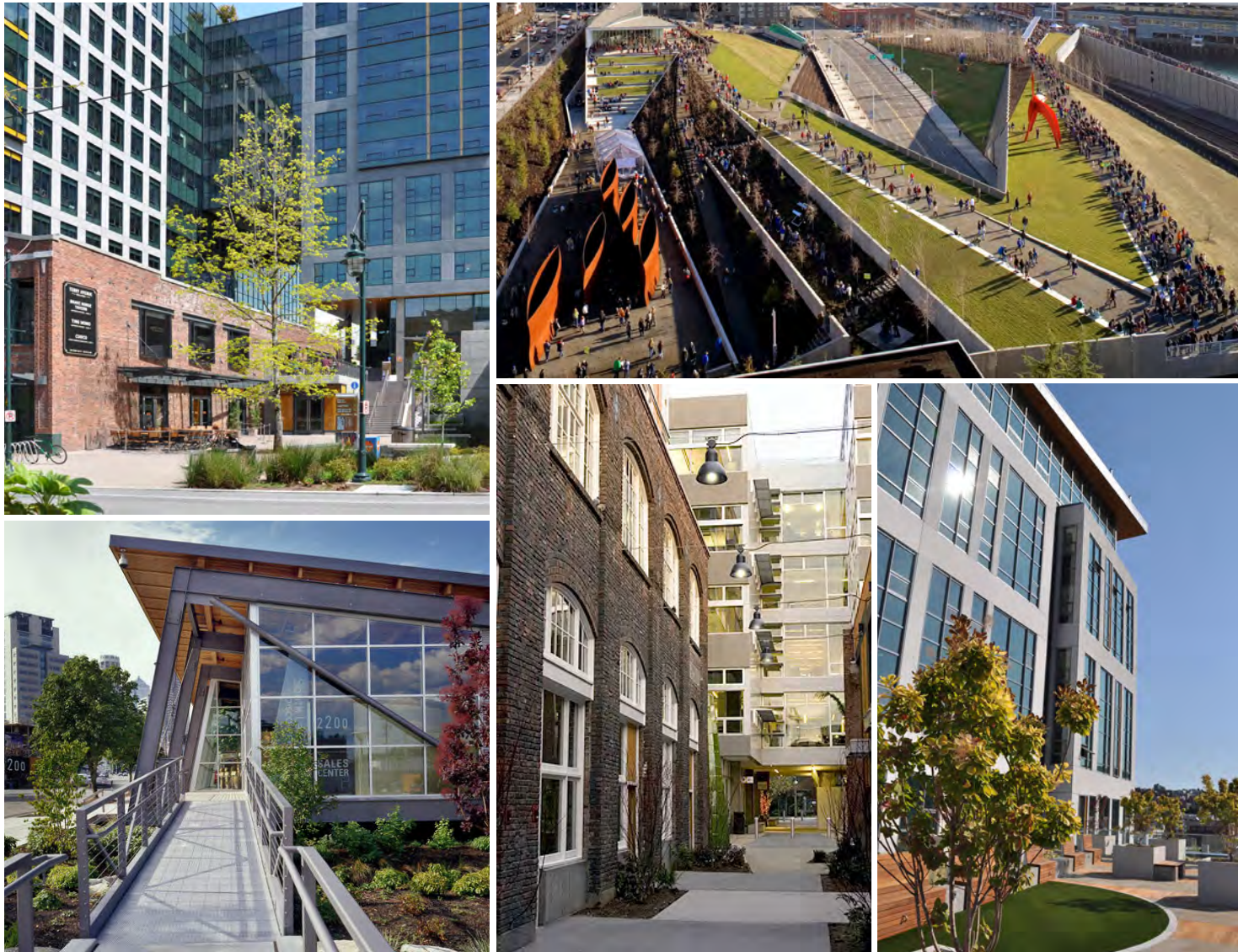
D. Public amenities

D-1 Provide inviting and usable open space

Design public opens spaces to promote a visually pleasing, safe and active environment for workers, residents, and visitors. Views and solar access from the principal area of the open space should be especially emphasized.

The design gives emphasis to high quality open spaces that knit into the existing urban fabric and have been situated to maximize solar exposure.

An open plaza is located on the southwest corner of the block to invite pedestrians into the site and encourage through-block circulation. A complimentary open space on the northeast corner of the site engages pedestrian movement from the north.



A. Site Planning and Massing

A-2 Respond to the physical environment
Develop an architectural concept and compose the building's massing in response to geographic the building's massing in response to geographic conditions and patterns of urban form found beyond the immediate context of the building site.

A-2 Enhance the Skyline
Design the upper portion of the building to promote visual interest and variety in the downtown skyline

The proposed design responds to the allowable zoning envelope and resultant presence on the skyline by employing distinctive massing solutions that respond to the surrounding context and significant site slope. The proposal continues the establish pattern of urban density of open space. Sculpted building forms and expressive tops will distinguish the proposal from the city skyline and respond to the prominent views of the project from the adjacent South Lake Union neighborhood to the north and Downtown to the south.



B. Architectural Expression

B-2 Create a transition in bulk and scale
Compose a massing for the building to create a transition to the height, bulk and scale of development in neighboring or nearby less-intensive zones.

B-3 Reinforce the positive urban form & architectural attributes of the immediate area
Consider the predominant attributes of the immediate neighborhood and reinforce desirable siting patterns, massing arrangements, and streetscape characteristics of nearby development.

B-4 Design a well-proportioned & unified building
Compose the massing and organize the publicly accessible interior and exterior spaces to create a well-proportioned building that exhibits a coherent architectural concept. Design the architectural elements and finish details to create a unified building, so that all components appear integral to the whole.

The proposal distinguishes the high-rise portion of the tower from the lower zones (aka "podium") through scale, massing and material delineation. The building podium acknowledges the surrounding low- and mid-rise structures by providing setbacks that relate to adjacent structures. The site planning of the buildings follow the existing pattern of giving priority to the southern exposure to public open space and extending the boulevard character of 7th Avenue. As a multi-building proposal , the project unifies the architectural vocabulary of the block by employing complementary materials and detailing that are shared by all structures on the block.

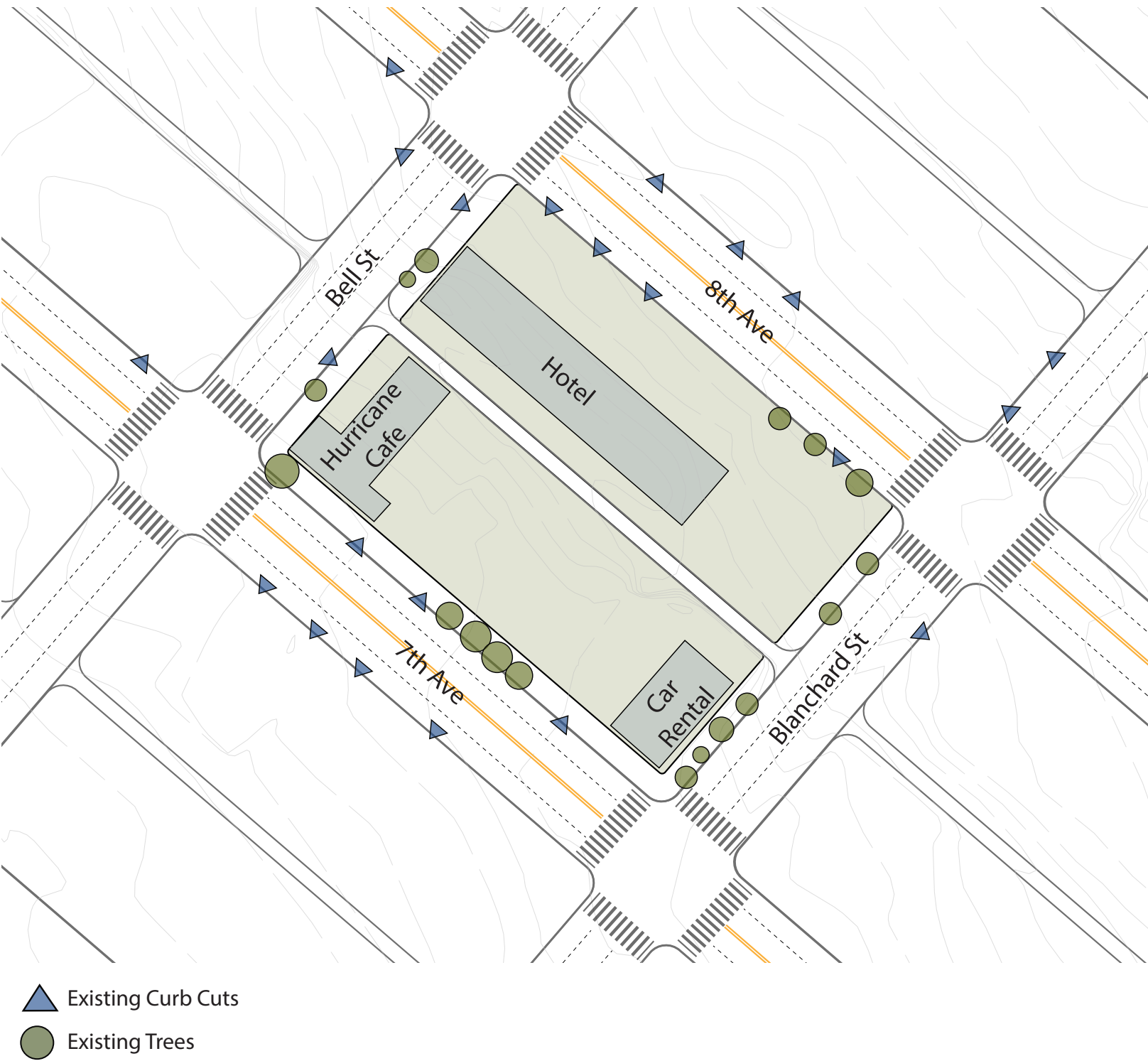
EXISTING SITE PLAN

Site Area:
77,700 square feet plus a public alleyway of approximately 5,700 square feet with approximately 360 feet of frontage on both 7th and 8th Avenues, 232 feet of frontage on both Bell and Blanchard Streets.

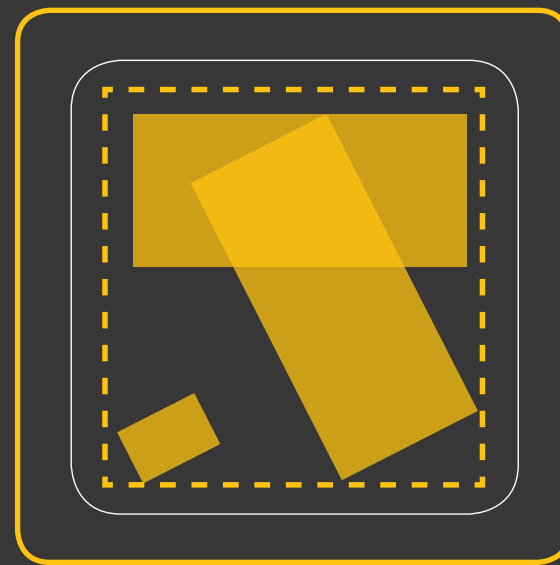
Topography:
The site slopes from elevation 104' 3" in the northwest corner down to 83' 9" in the south-east corner.

Tree Survey:
There are no significant trees on the site. Trees are located within the sidewalk right-of-way. Five trees are located along 7th Avenue, three along 8th Avenue, six along Blanchard Street and three along Bell Street.

Existing Buildings:
The site has a hotel, restaurant, rental car facility and surface parking lot.

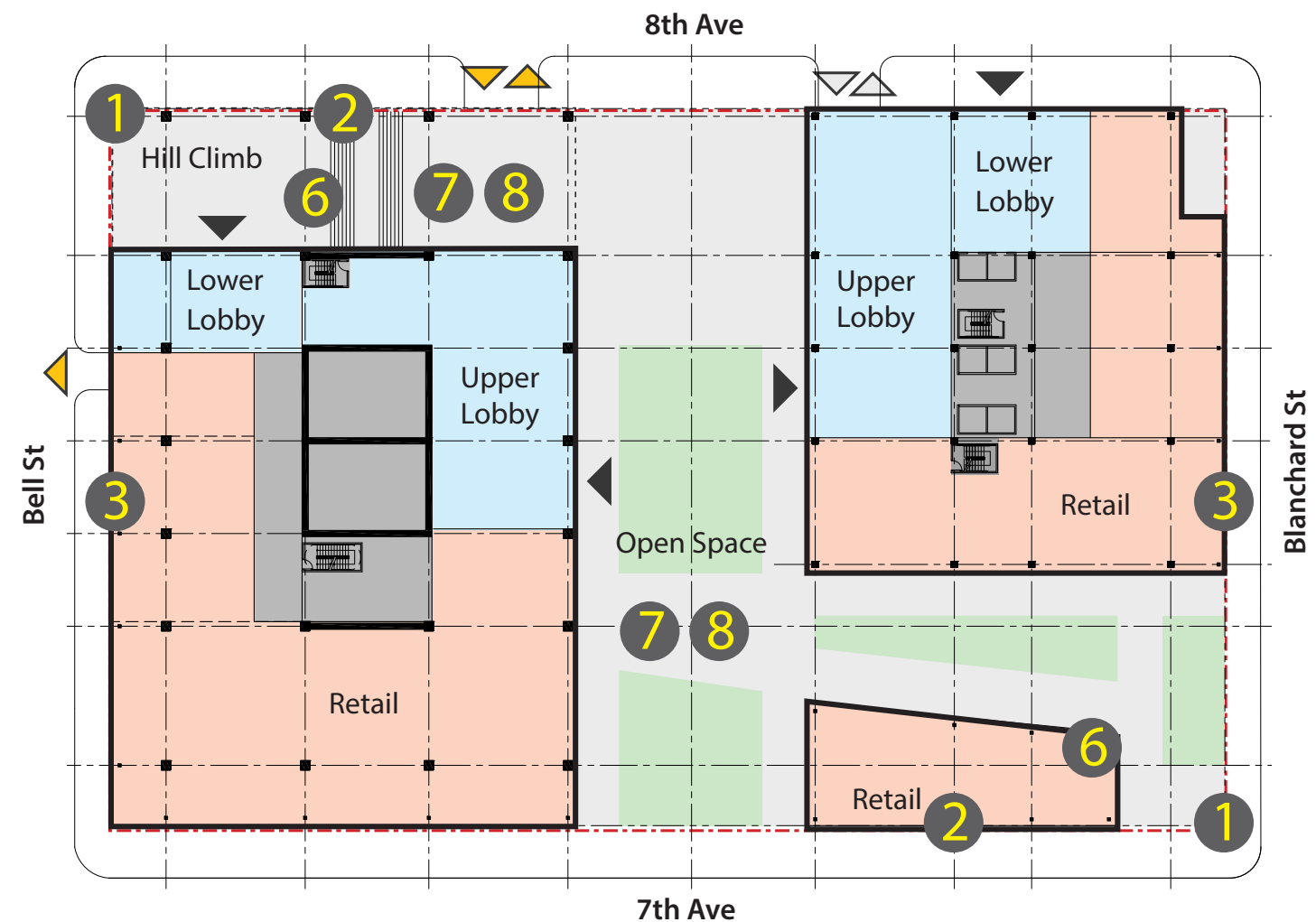


EDG1 GUIDANCE



SUMMARY OF EDG1 BOARD GUIDANCE

- 1 Provide better open space that is easily accessed.
- 2 Engage with the street; design a porous street edge.
- 3 All open space should be accessible at grade.
- 4 Setback the structures along Bell and Blanchard streets.
- 5 Provide modulation and articulation of the tower. Redesign to be better proportioned using modulation, façade treatment and/or a tower size similar to Option 2.
- 6 Avoid office uses along the street facing level.
- 7 Retail and open space should relate to each other.
- 8 Provide open space and retail space along Bell and Blanchard.



EDG1 Site Plan

- 1 Eliminate retail pavilion and expand grade-level open space along Seventh Avenue
- 2 Consolidate vehicular entries and expand extent of accessible open space along Eighth Avenue
- 3 Voluntarily set back north and south buildings 10' along Blanchard and Bell Streets.
- 4 Provide fully ADA accessible route at through-block connection
- 5 Provide active ground-level frontages at Blanchard and Bell Streets
- 6 Limit ground-level uses to retail and building entries in lieu of office use.
- 7 Shape podium and tower to provide further modulation and articulation
- 8 Utilize massing, materiality and detailing to relate facade design to building uses



Proposed Site Plan

1. Massing at Grade: The Board gave guidance to pursue whatever massing option provides better public open space, but expressed they would support a version of the preferred Option 3 if it is well designed and provides well designed open space.

- a. Pursue Option 3 with more transparency at the ground level open space and resolve how the through block connection will work to engage the development with the street. Erode the corner of the tower at Bell St. and 8th Ave. and the three-story plinth. (B4.1&2)
- b. Consider development of Option 2 that incorporates a shifting and narrowing of the lower building to create better open space. (B4.1)
- c. Consider combining Options 1 and 2 to provide an option with all open space accessible at grade. (B4.1)
- d. Consider a development of Option 1 that narrows the building to provide more open space along the two green streets, Bell and Blanchard St. (B4.1)
- e. Consider moving the massing back at grade to provide relief on the green streets, Bell and Blanchard St.(B1.1, B3.3, C1.3)

2. Upper Massing: The Board gave the following guidance on the development of the upper level massing of the Options.

- a. Provide significant modulation and strong articulation of the shaft and tower in Option 3.
- b. The Board encouraged the 'gap' between the top of the podium and the tower in Option 3. (A2, B4)
- c. Work with the 'yellow ribbon' concept presented in Option 3, which represents a two to three story 'band' wrapping around and through the site. Consider bringing the ribbon up the tower. (A2, B4)
- d. Redesign the 'odd' proportions of the tower with modulation and façade treatment. (C2.1)
- e. The Board indicated some support for the massing of the tower on Option 2, noting the massing of the preferred option 3 tower was bulky. (B4)

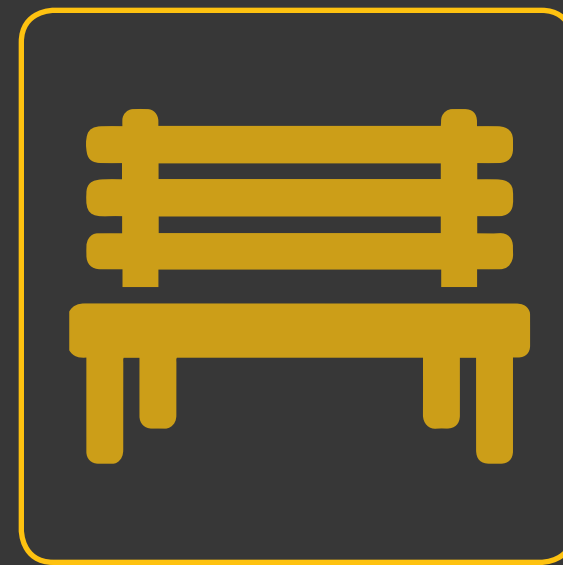
3. Relationship to the Street: The Board emphasized the importance of how the on-site uses will interface with the street and noted that any benefits need to be for the public. Direct connect to the street is key.

- a. Make the site porous and inviting to pedestrians along 8th Ave. (C1, D1)
- b. Pursue an Option 3 design with more transparency at the ground level open space and resolve how the through block connection will work to engage more with the street. (C1.3, C3.1)
- c. Consider lowering the through block open space in Option 3 so it accessible at grade on both 7th and 8th Avenues. The open space on the podium along 8th Ave will create a disconnect between the street and the sidewalk. (B3.1)
- d. Consider placing uses other than offices at the lower floors that would provide a different design treatment near the street. (C1.3, C3.1)

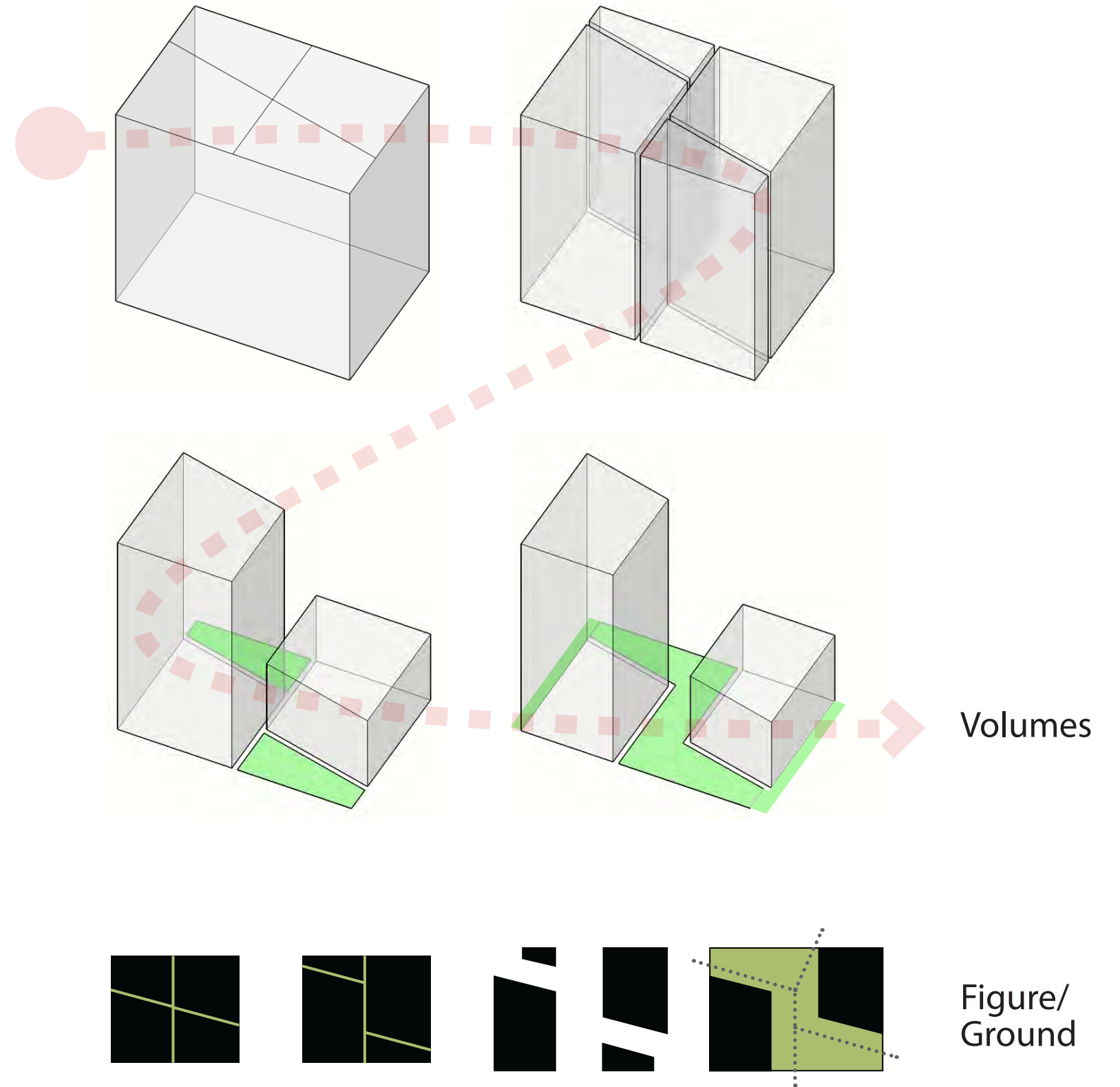
4. Open Space: The Board directed the applicant to program the on-site open space to enhance public benefits.

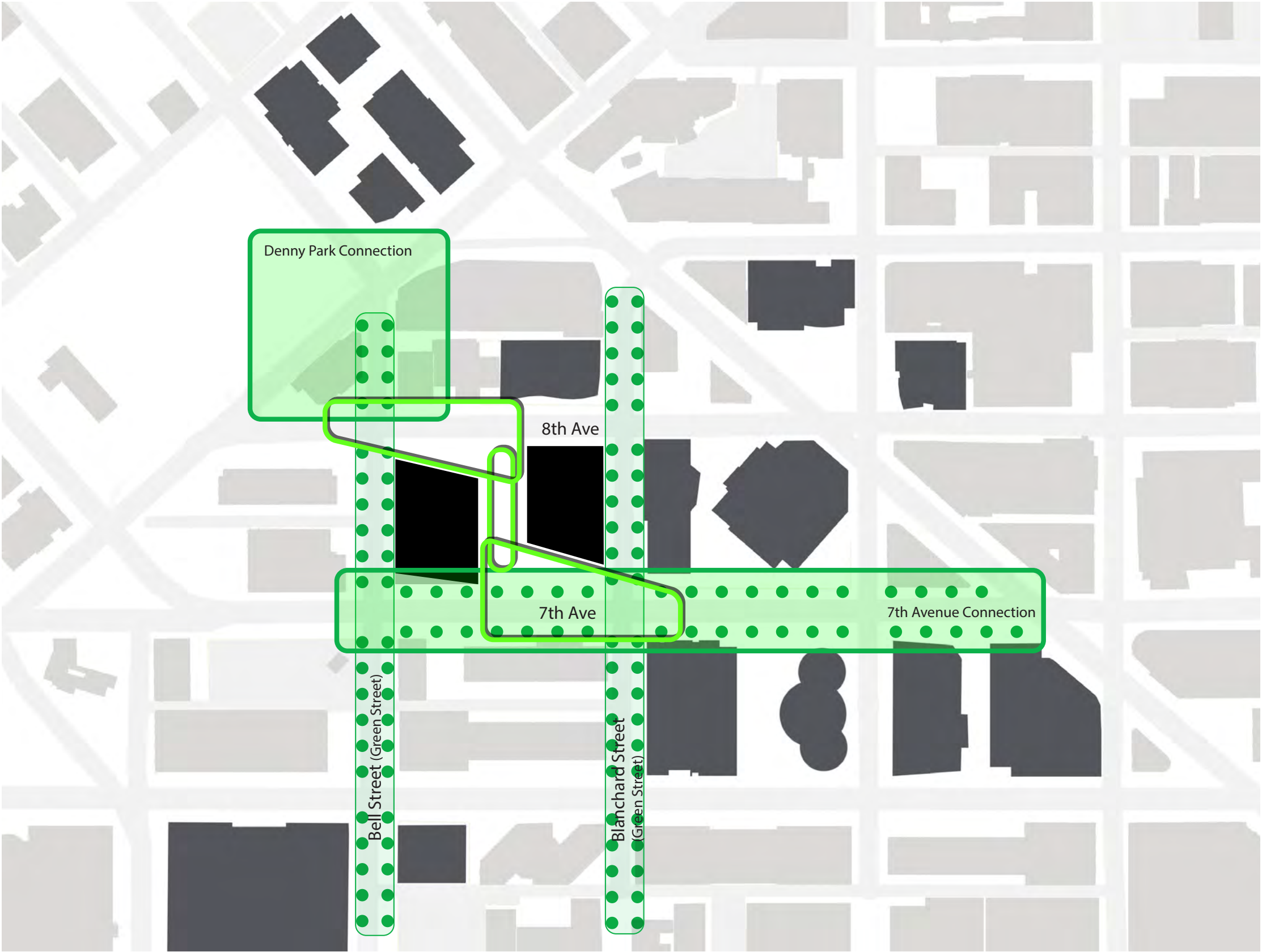
- a. Design the access to all open space to be easily accessible and usable for the public. (D1.1&2)
- b. Consider lowering the through block open space in Option 3 so it accessible at grade on both 7th and 8th Avenues. (B3.1)
- c. Provide easily accessible public space. Program the open space and retail space to complement each other, and relate to the two green streets, Bell and Blanchard St. (B1.1)
- d. Design the scale of the open space so that it will appear inviting when empty. (D2.1, D3, D5, D6)
- e. Resolve the open space of the preferred Option 3 to meet the street, feel comfortable, and be activated. (D1.1&2, D2.1, D3, D5, D6)

SITE AND TOWER MASSING



- Provide better open space that is easily accessed.
- **Engage with the street; design a porous street edge.**
- All open space should be accessible at grade.
- **Setback the structures along Bell and Blanchard streets.**
- **Provide modulation and articulation of the tower. Redesign to be better proportioned using modulation, façade treatment and/or a tower size similar to Option 2.**
- **Avoid office uses along the street facing level.**
- Retail and open space should relate to each other.
- Provide open space and retail space along Bell and Blanchard.





Legend

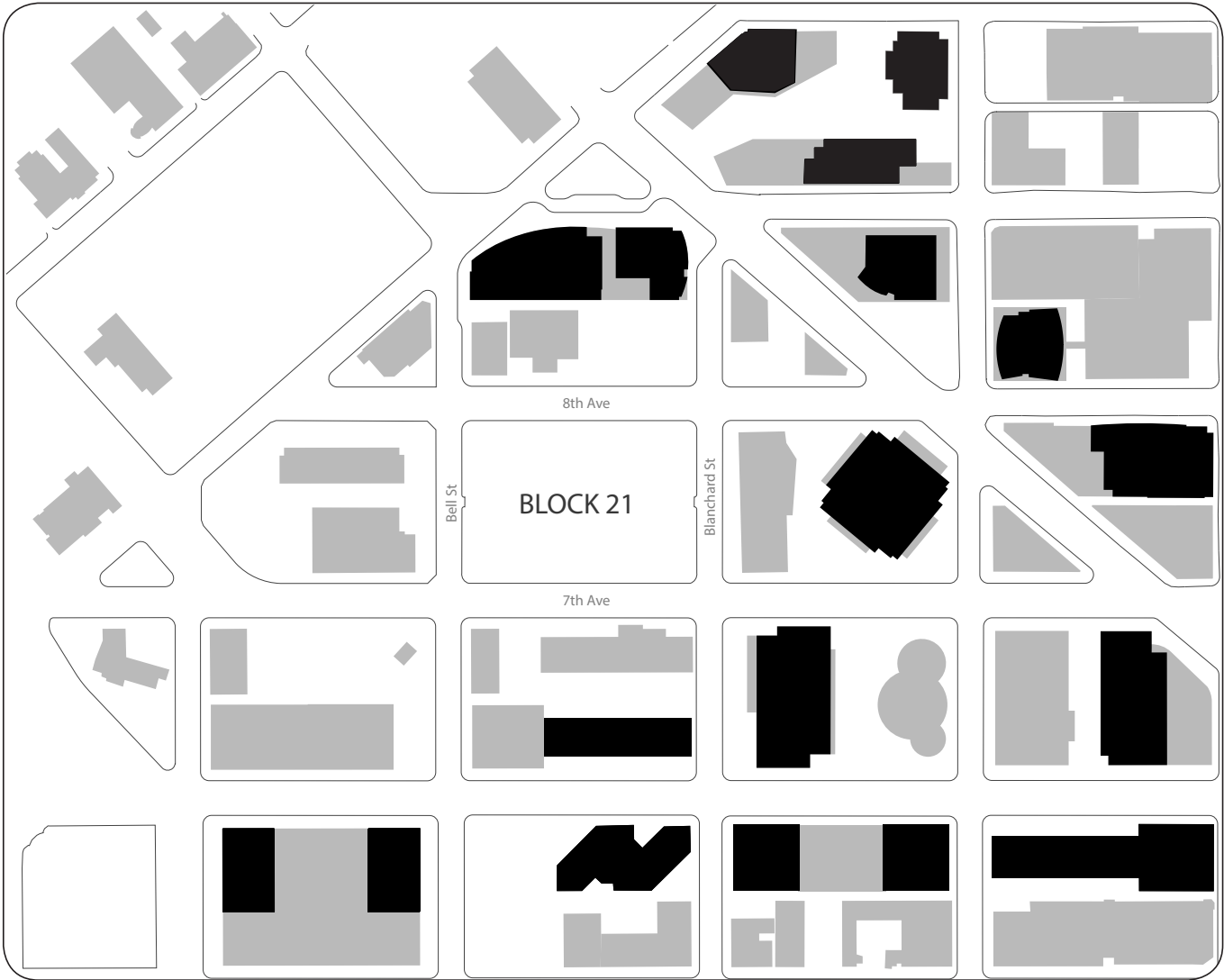


Green Streets and
7th Ave. Boulevard

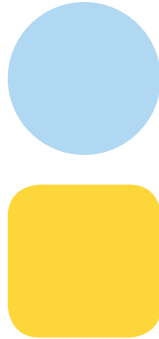


Connections

URBAN DENSITY PATTERNS - PRESENT & FUTURE

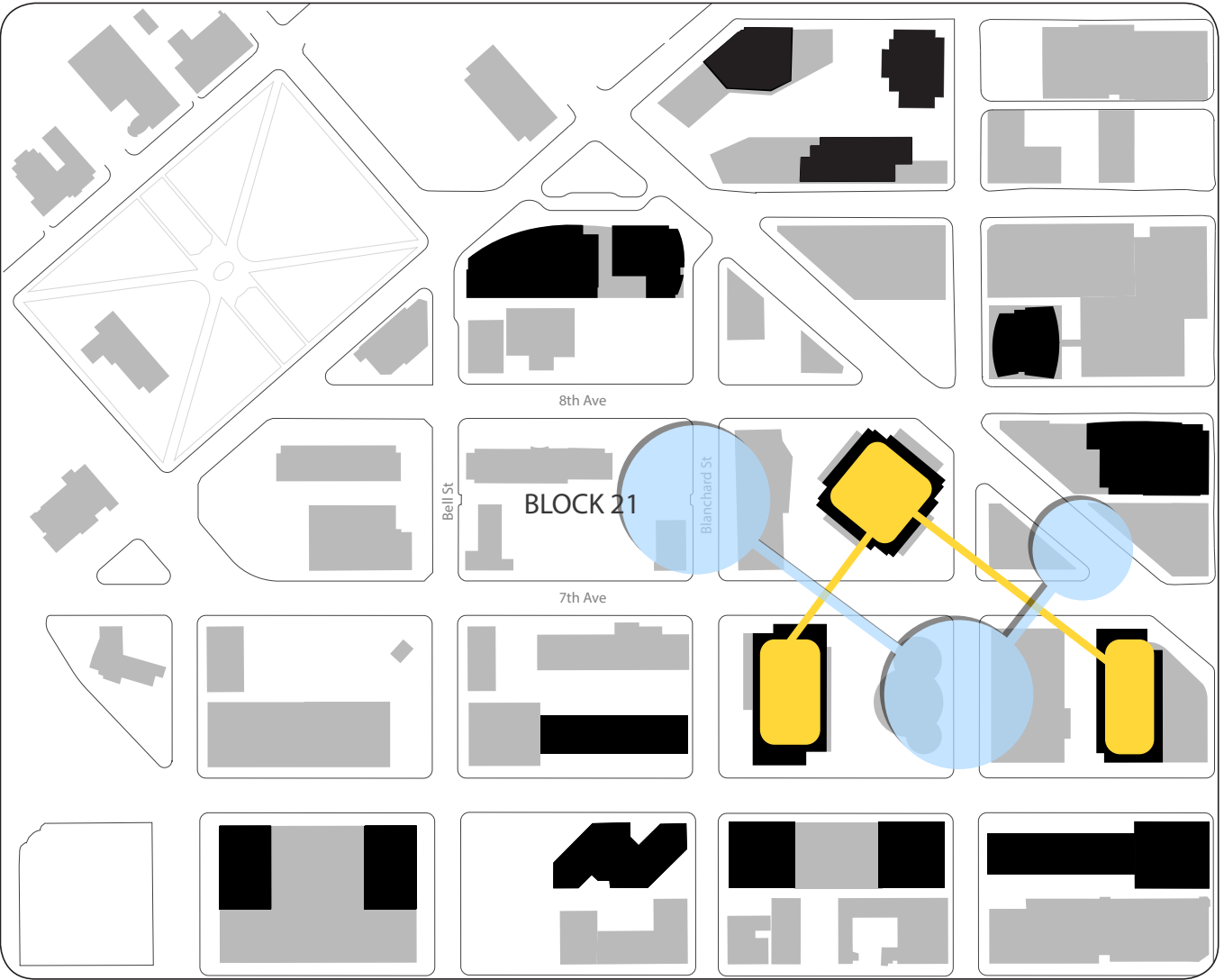


1. Current

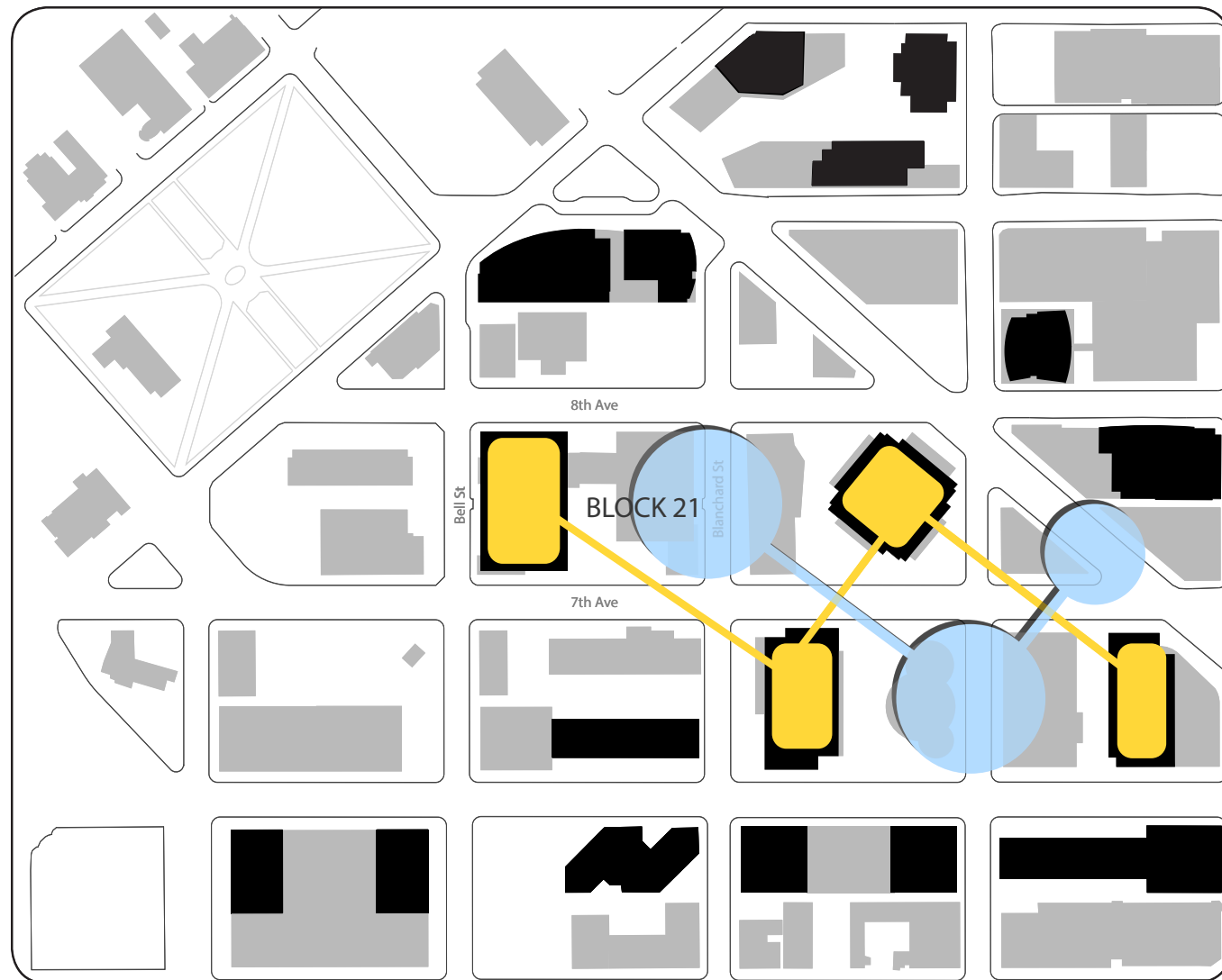


Low-rise / Open Space

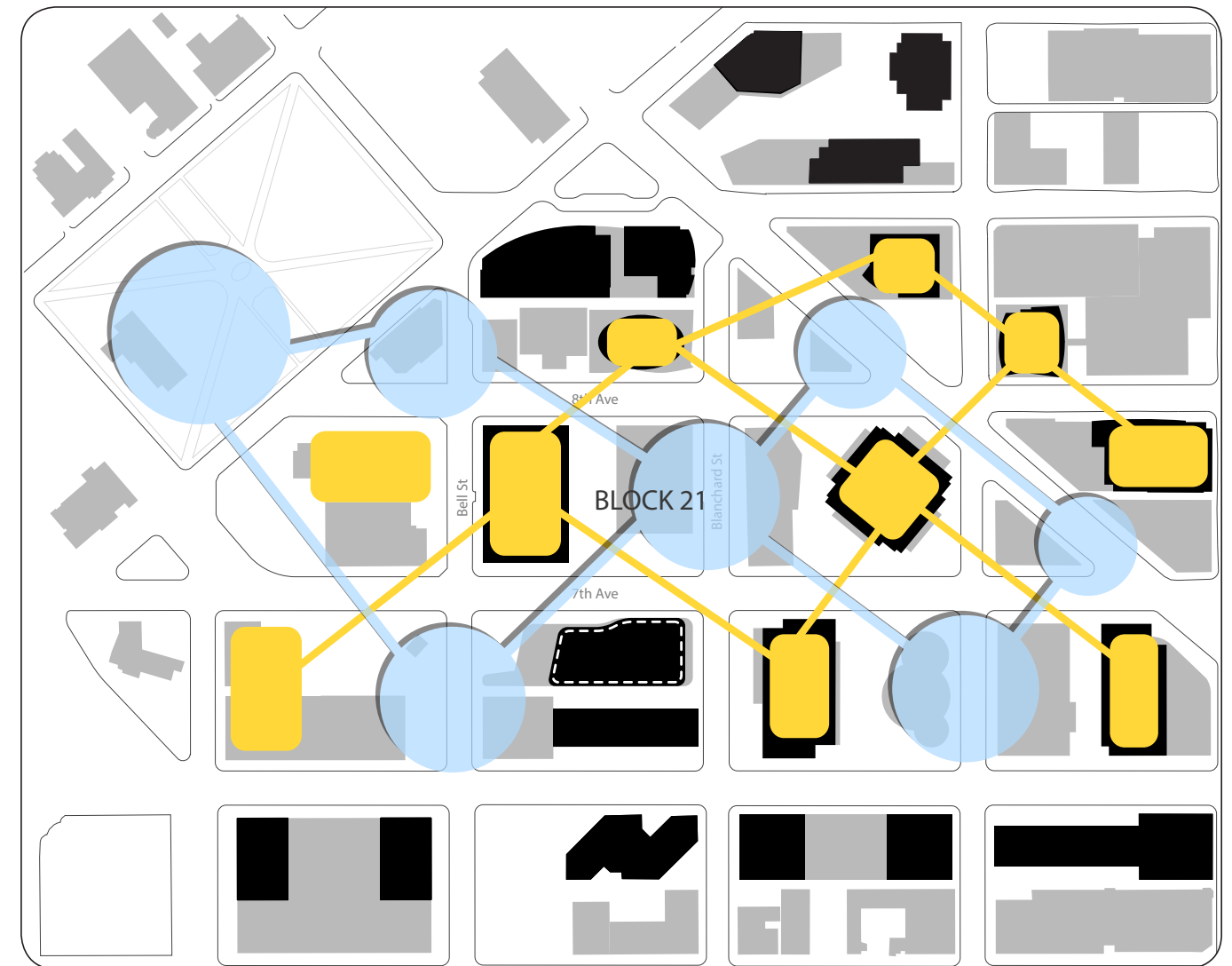
High-Rise Nodes



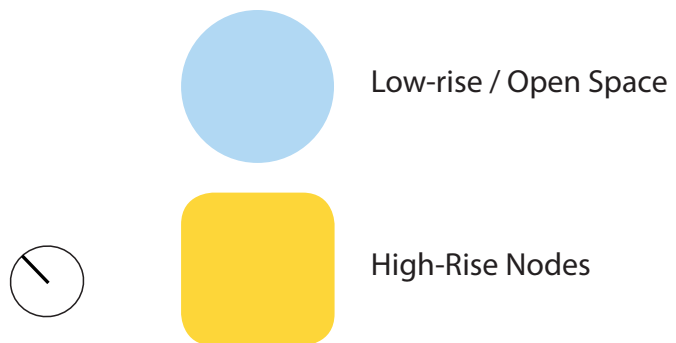
2. Rufus 2.0



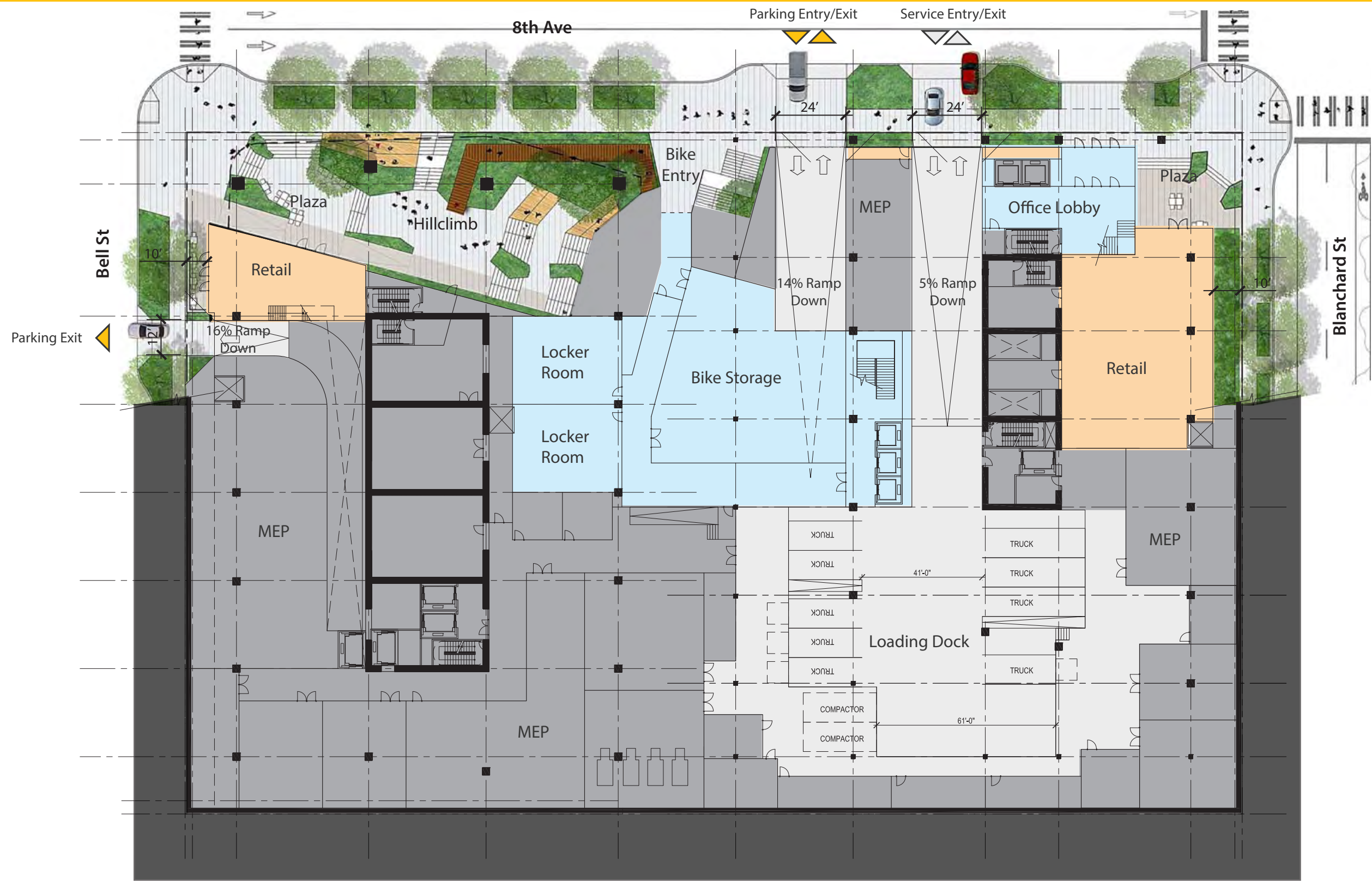
3. Rufus 2.0 + Block 21



4. Potential Future Development

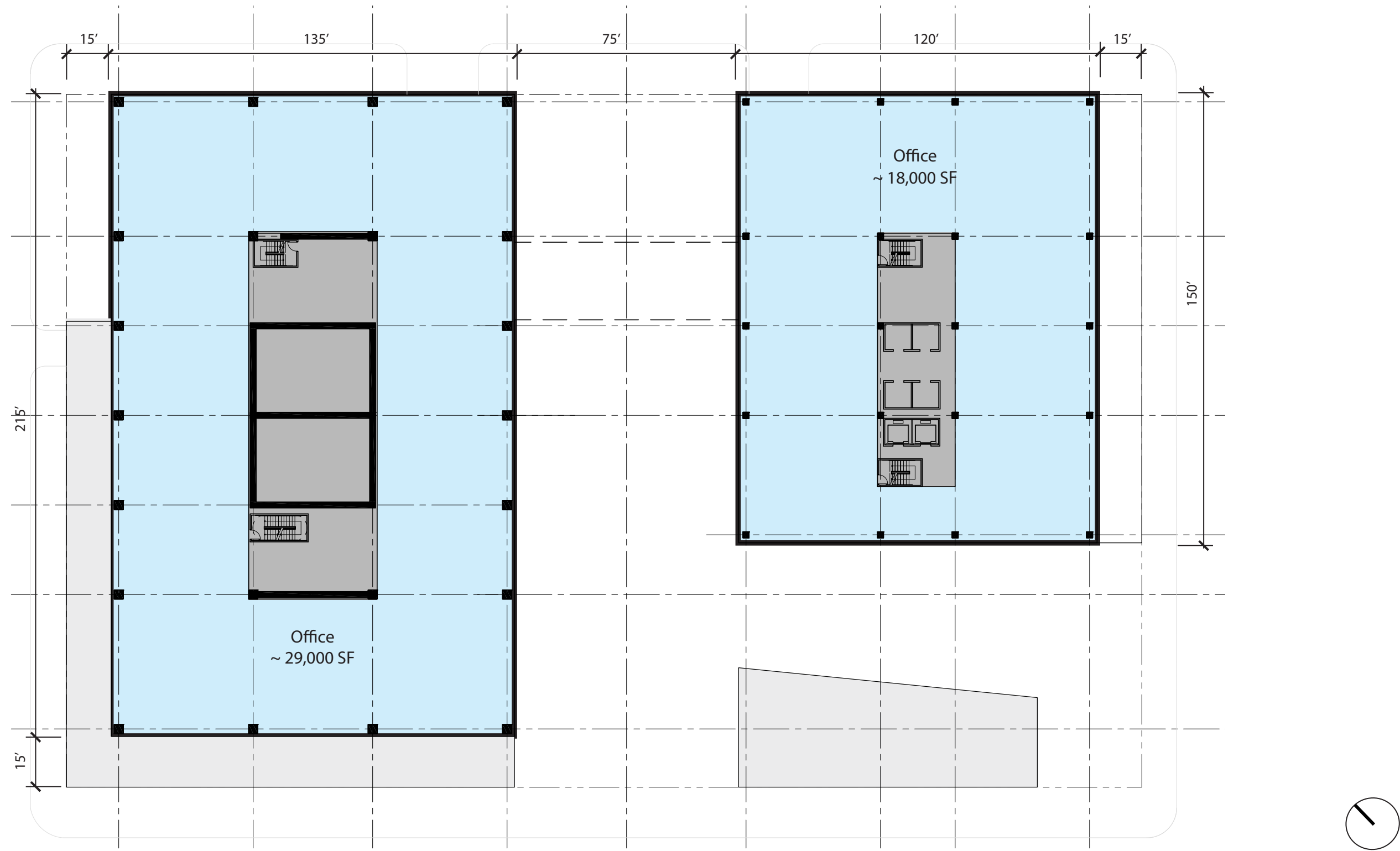


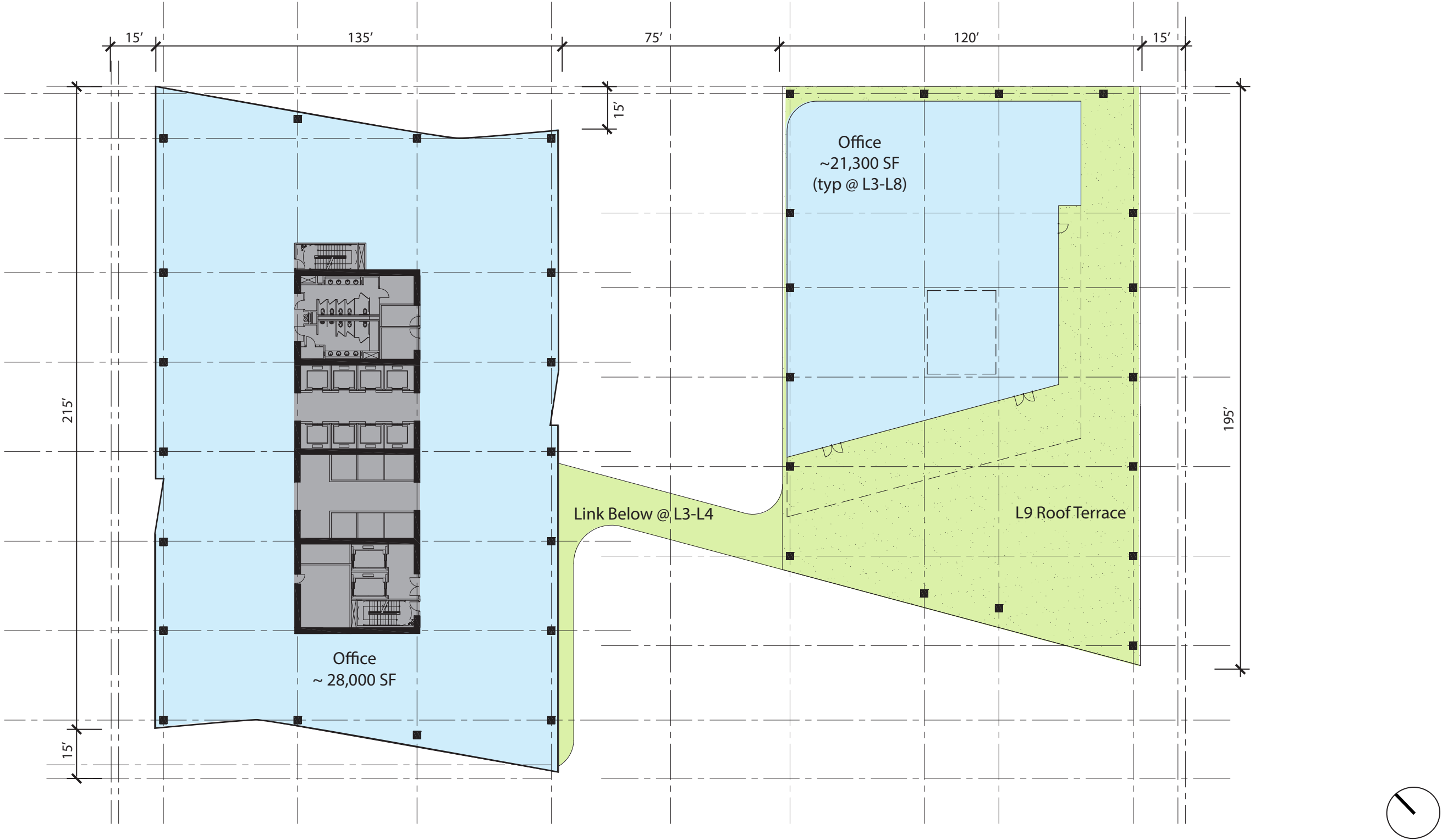
EIGHTH AVENUE PLAN



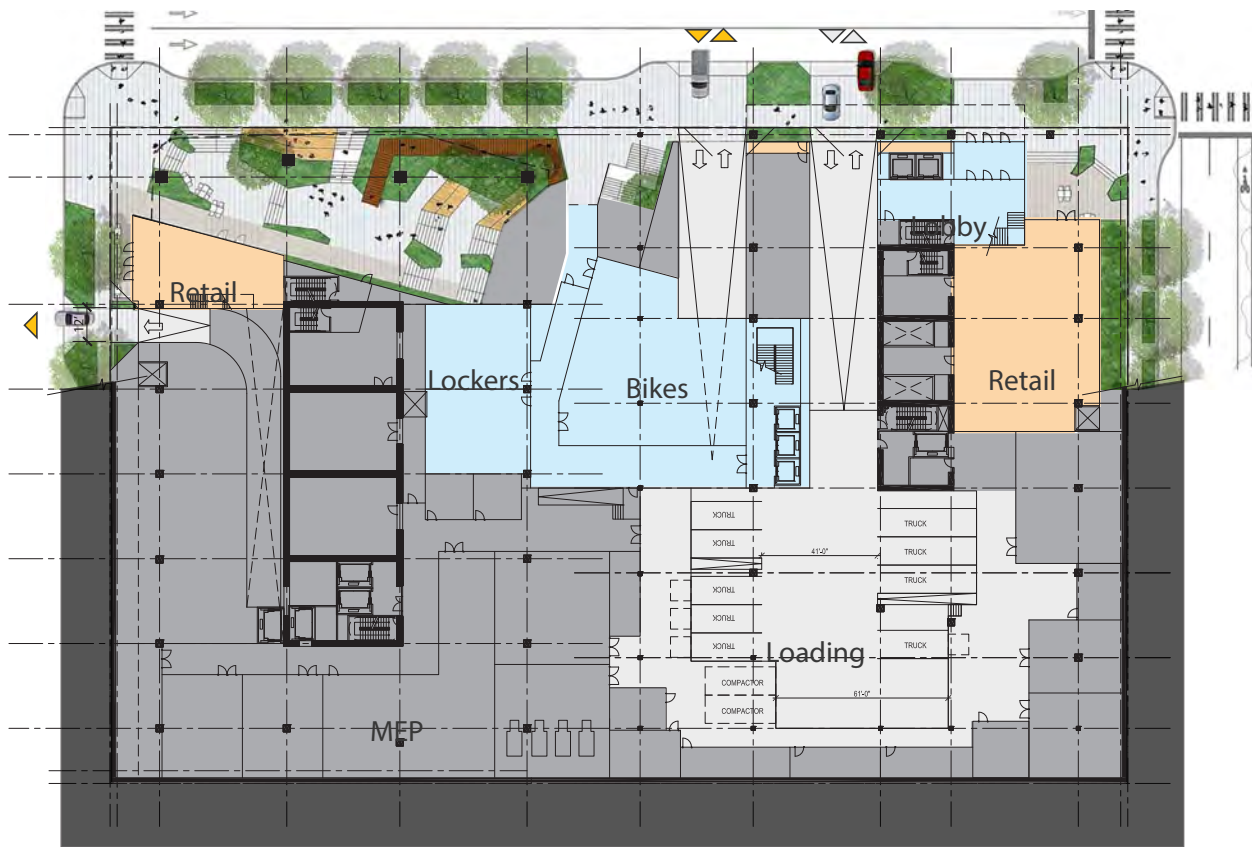


EDG1 TOWER PLAN

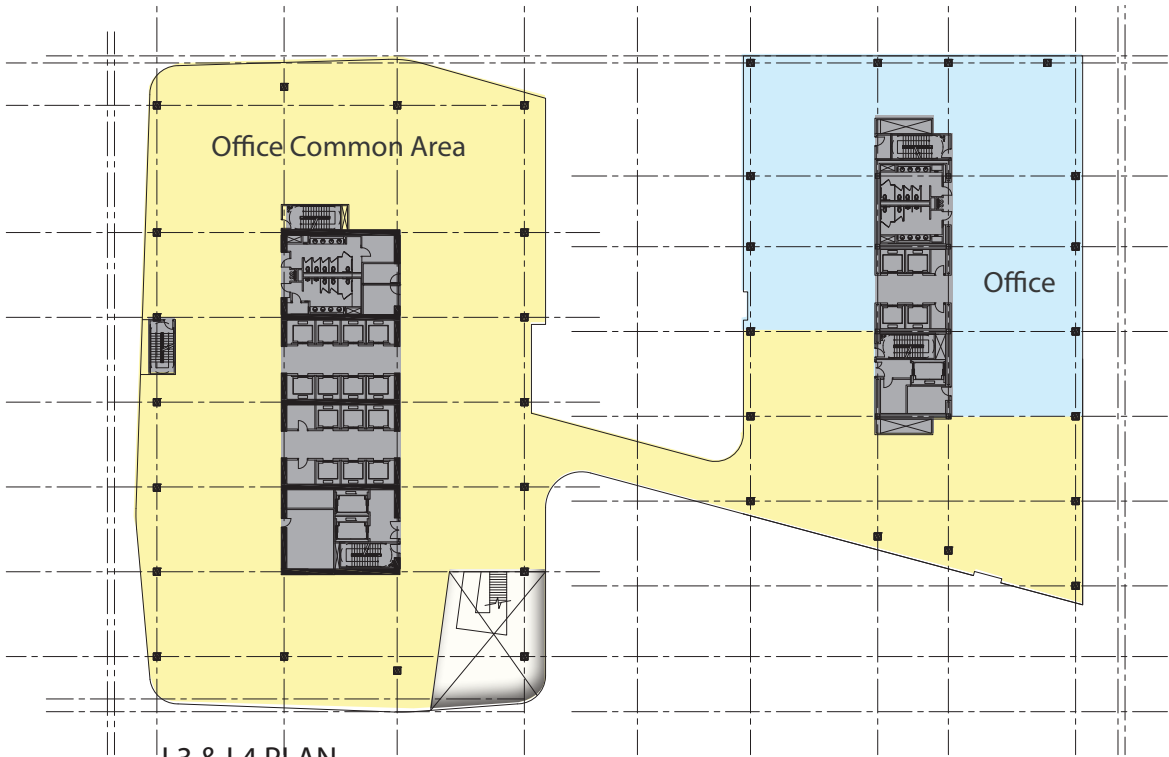




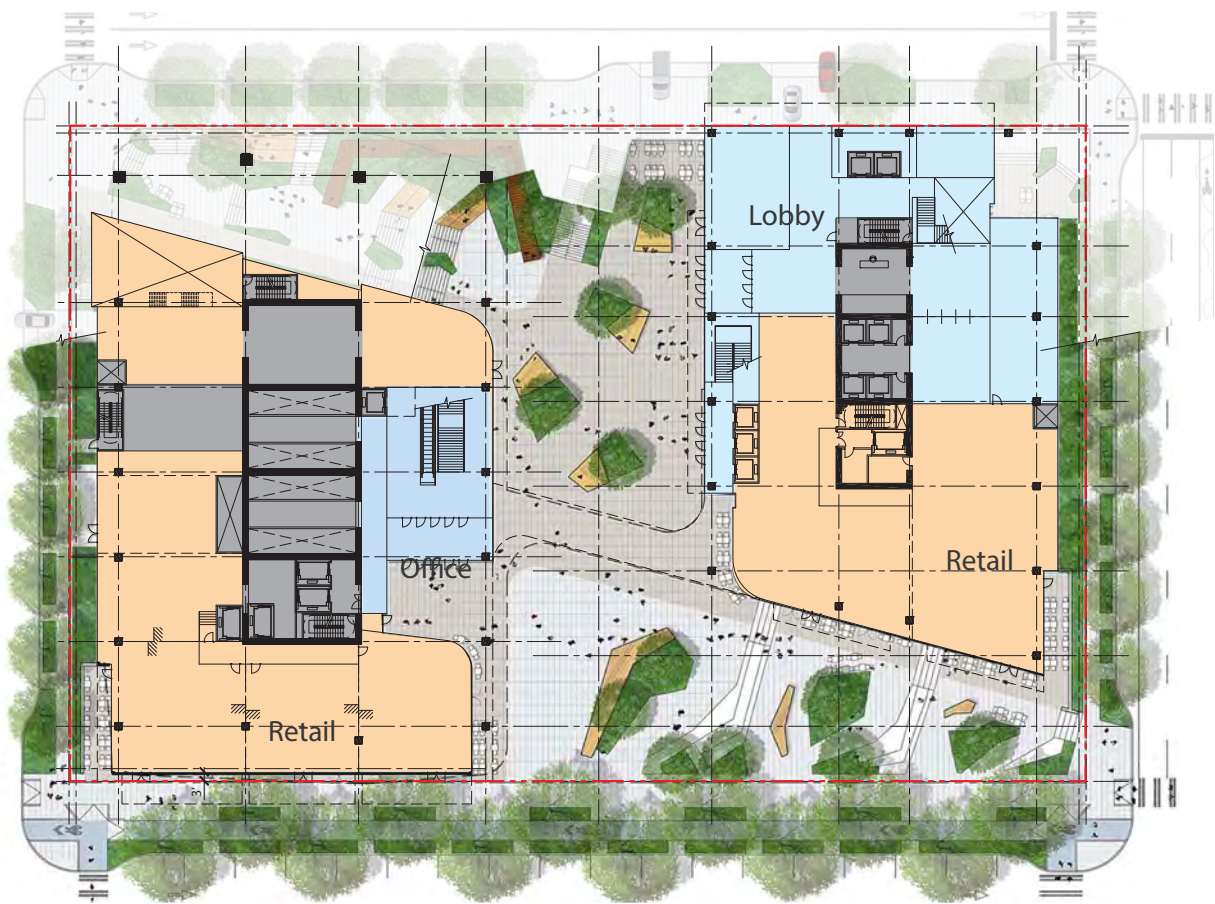
FLOOR PLANS



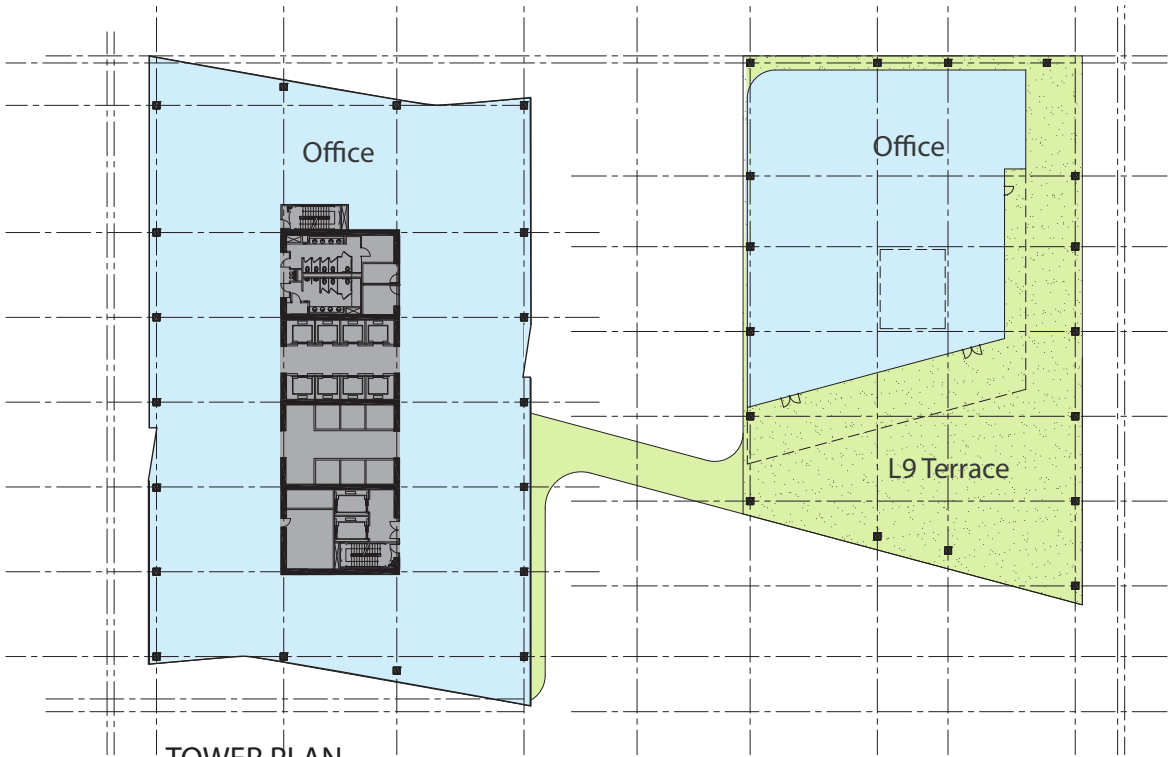
8TH AVENUE PLAN



L3 & L4 PLAN

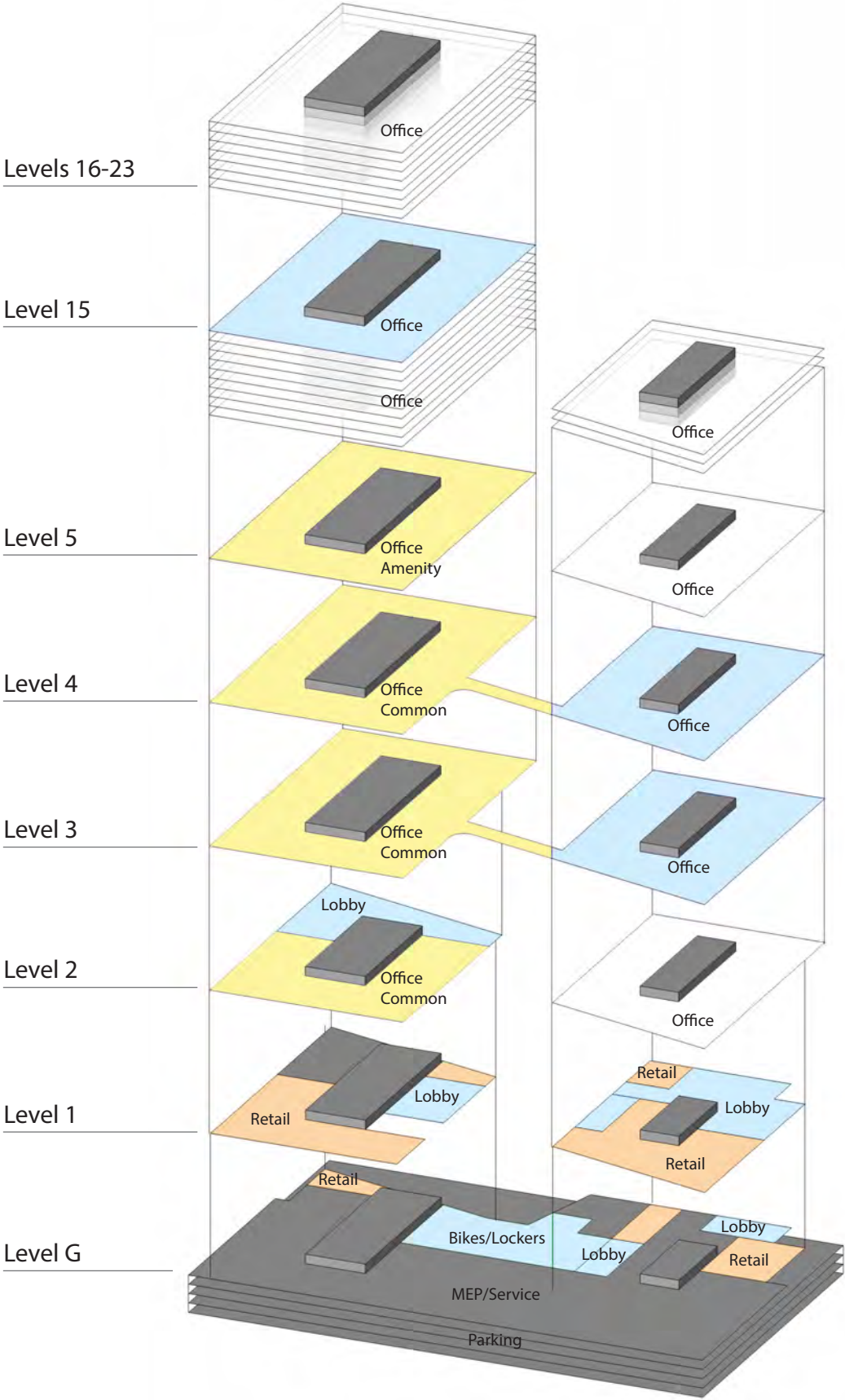


7TH AVENUE PLAN



TOWER PLAN





AERIAL LOOKING EAST



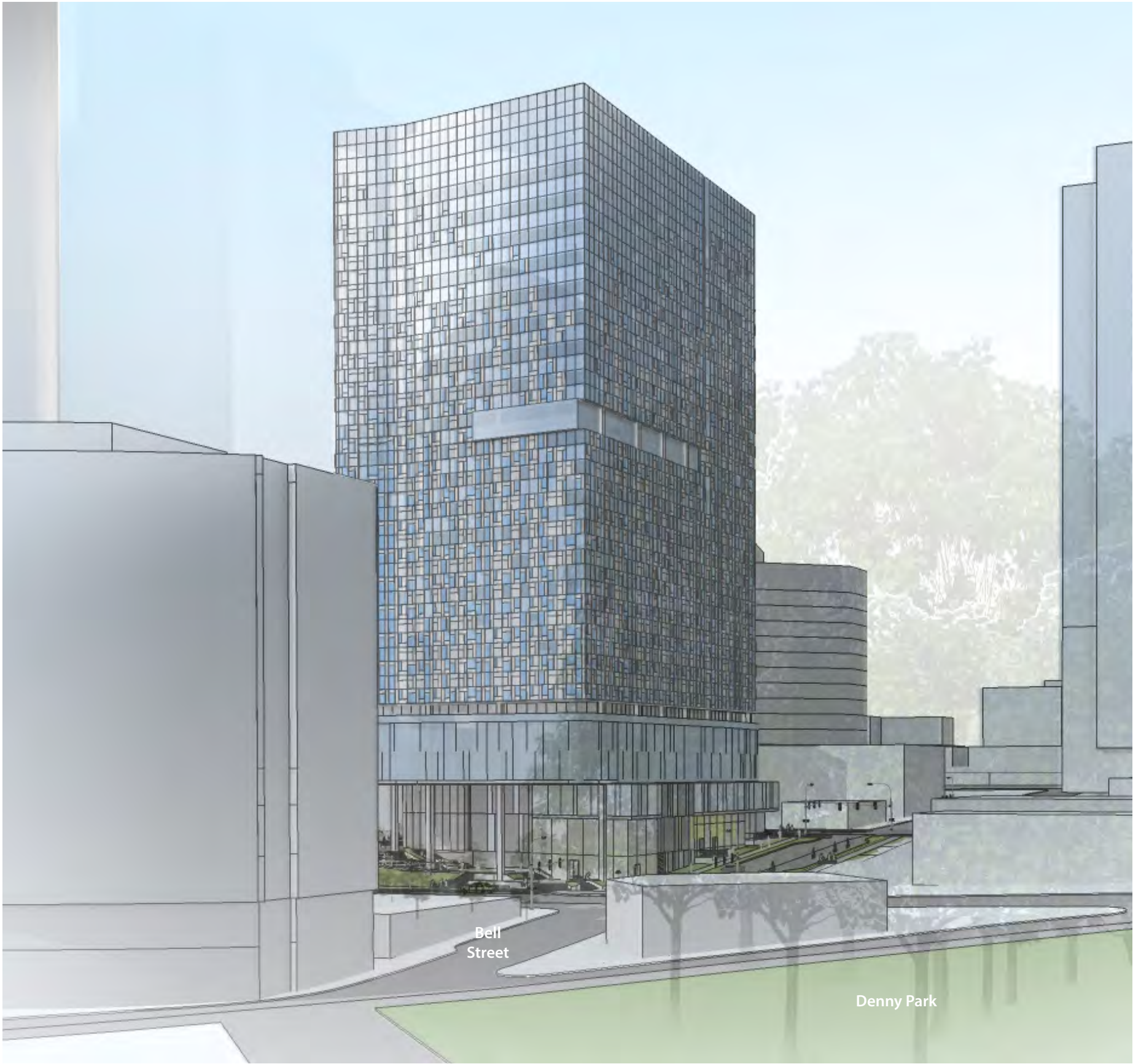


7TH AVENUE AND BELL STREET



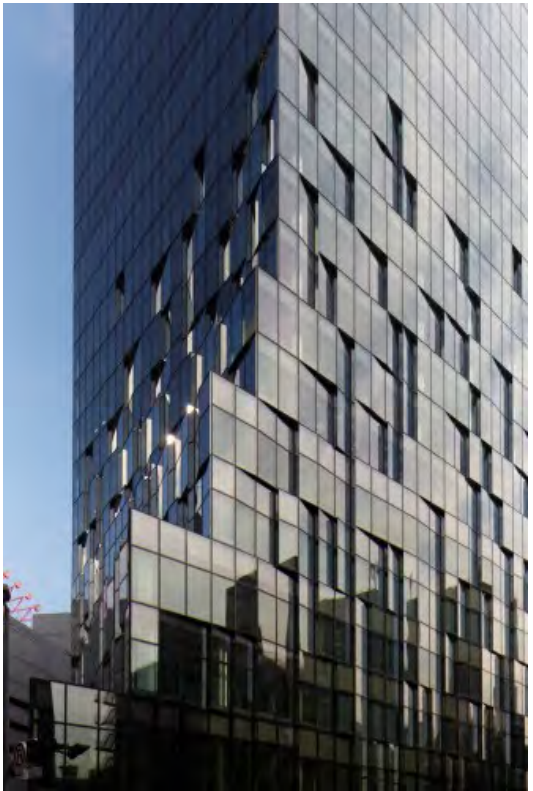


8TH AVENUE AND BELL STREET





TOWER FACADE CONCEPTS



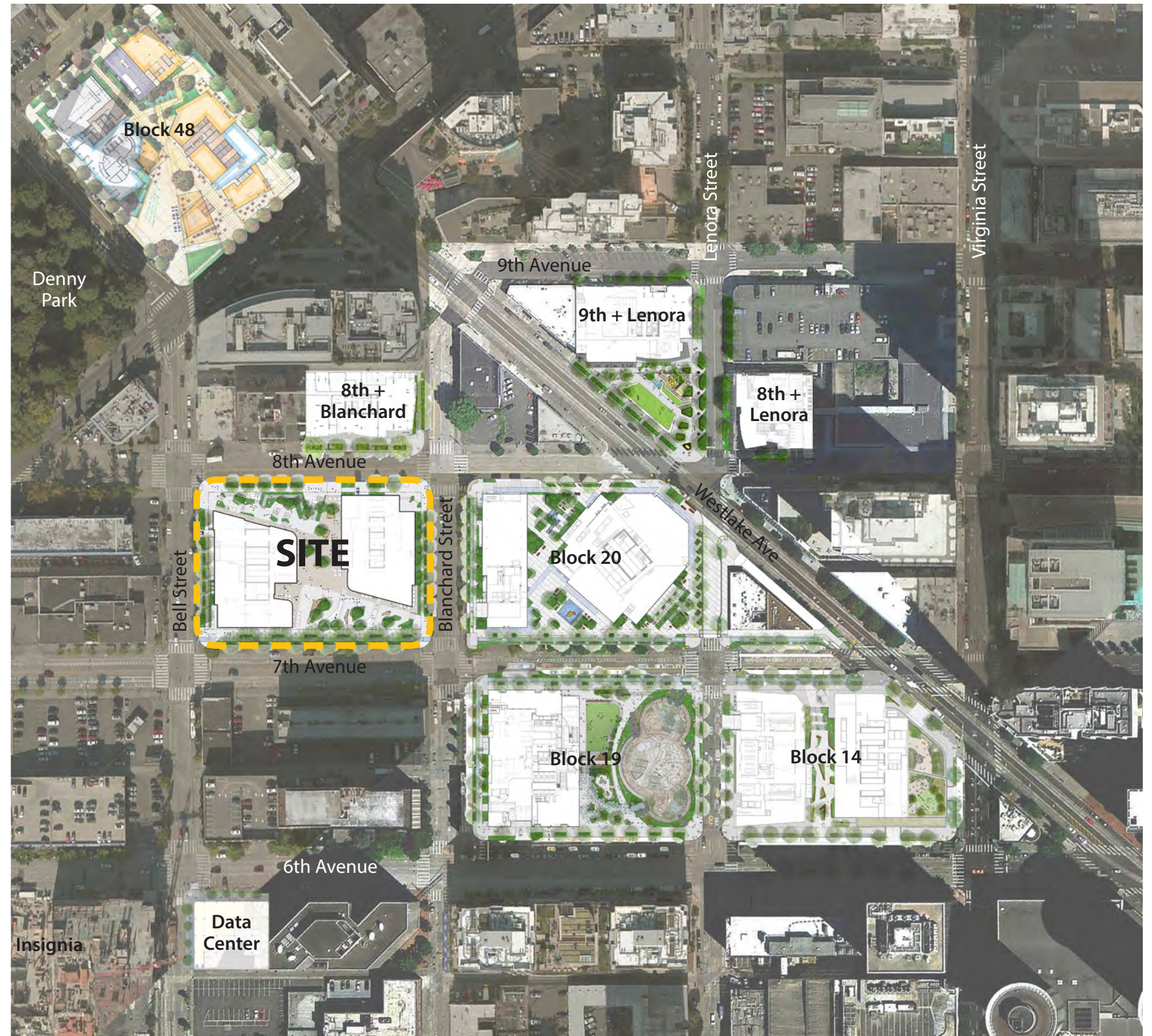
OPEN SPACE DEVELOPMENT

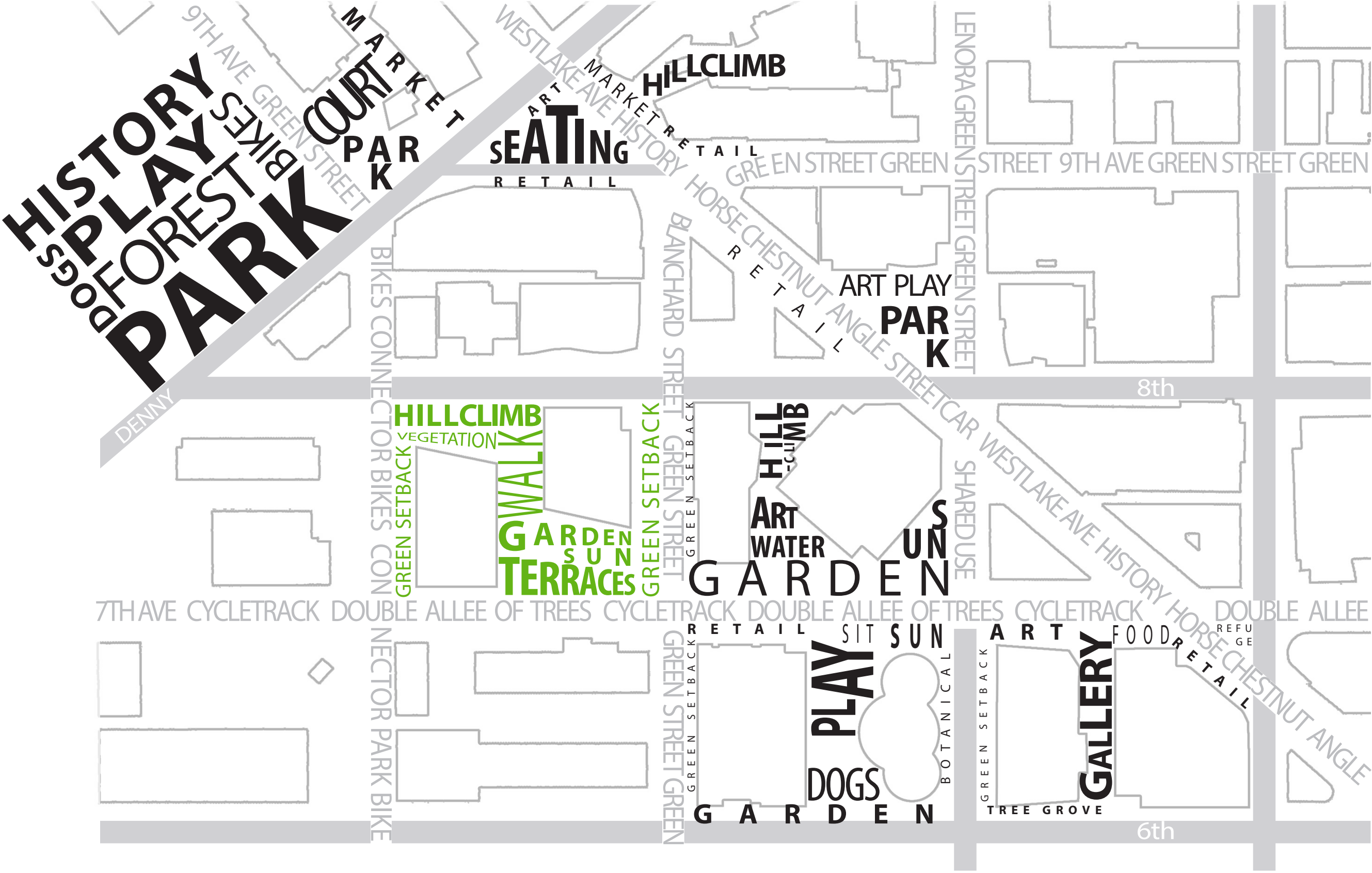


OPEN SPACE DEVELOPMENT

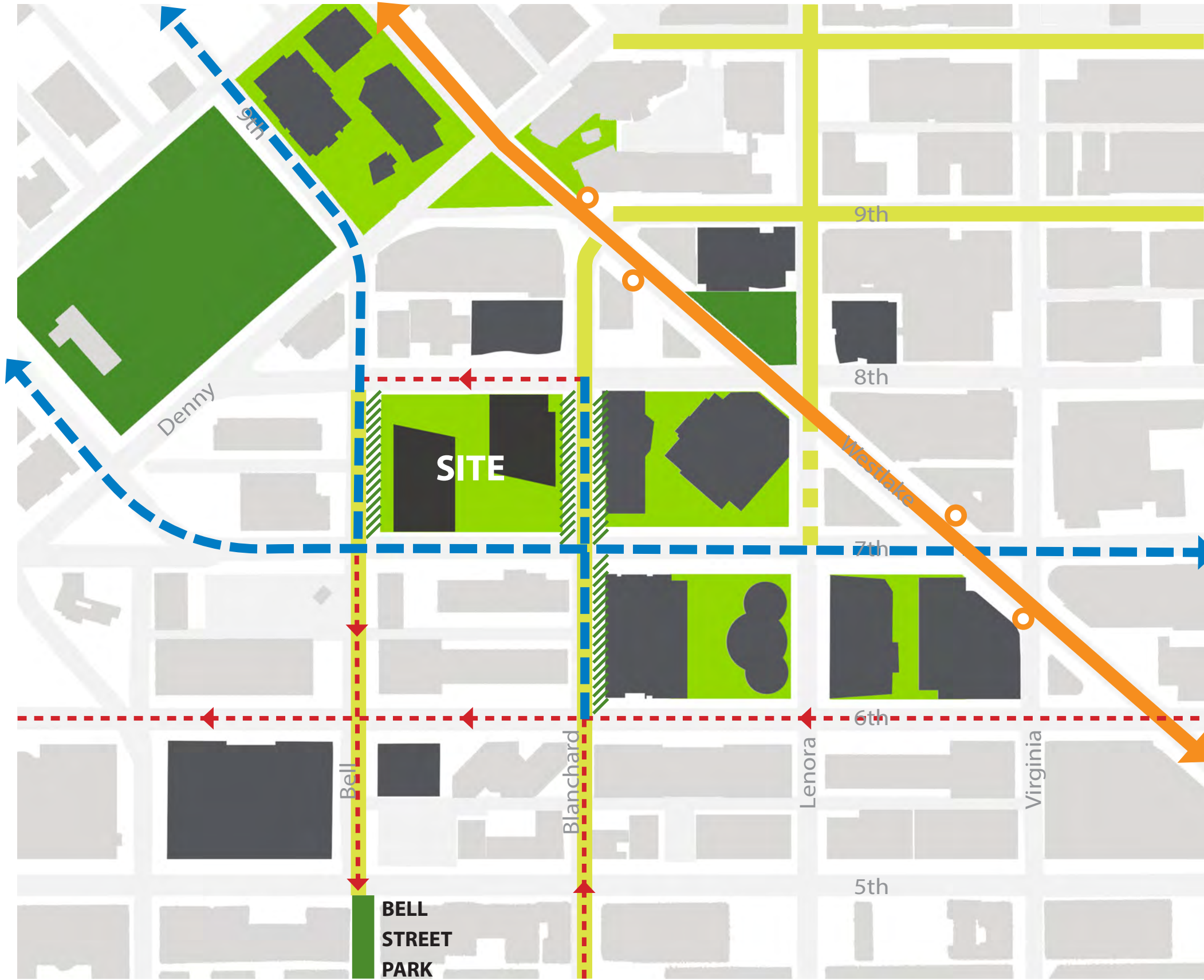
Relationship to Streets and Open Space

- Provide better open space that is easily accessed.
- Engage with the street; design a porous street edge.
- All open space should be accessible at grade.
- Setback the structures along Bell and Blanchard streets.
- Provide modulation and articulation of the tower. Redesign to be better proportioned using modulation, façade treatment and/or a tower size similar to Option 2.
- Avoid office uses along the street facing level.
- Retail and open space should relate to each other.
- Provide open space and retail space along Bell and Blanchard.





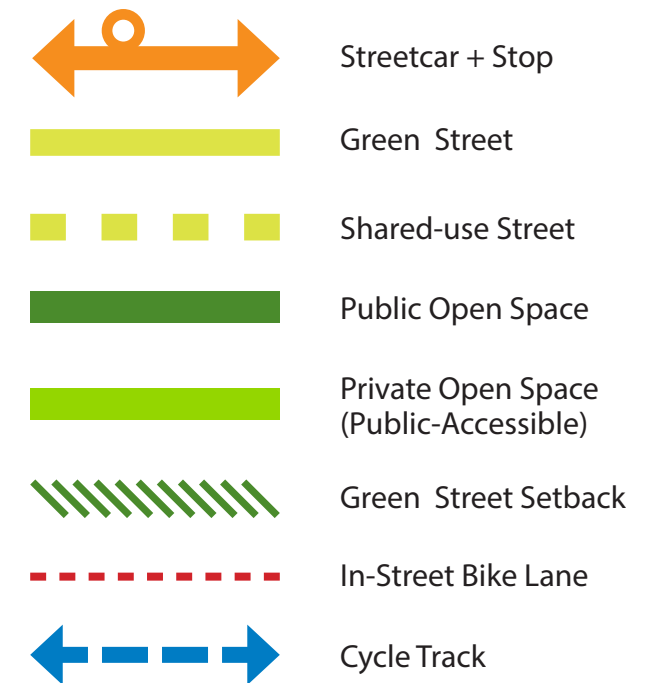
BELL STREET CORRIDOR



Bell Street Park



7th Avenue Cycle Track

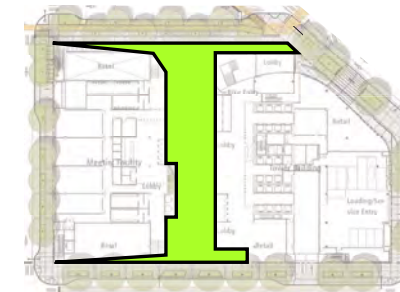




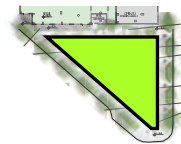
Westlake Park
~25,000 SF



325 Boren Ave. N.
(Amazon.com "Ruby + Dawson")
~16,000 SF



Block 14
~14,000 SF



9th & Lenora Park
~6,000 SF



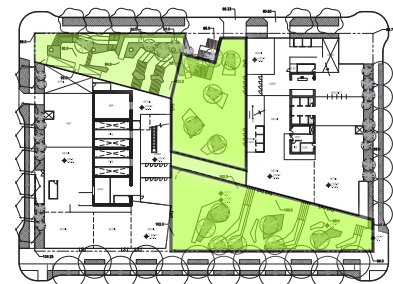
551 Boren Ave. N
(Amazon.com "Obidos")
~14,000 SF



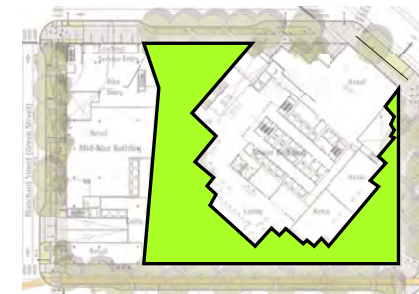
Block 19
~26,000 SF



Kenny Triangle
~3,600 SF

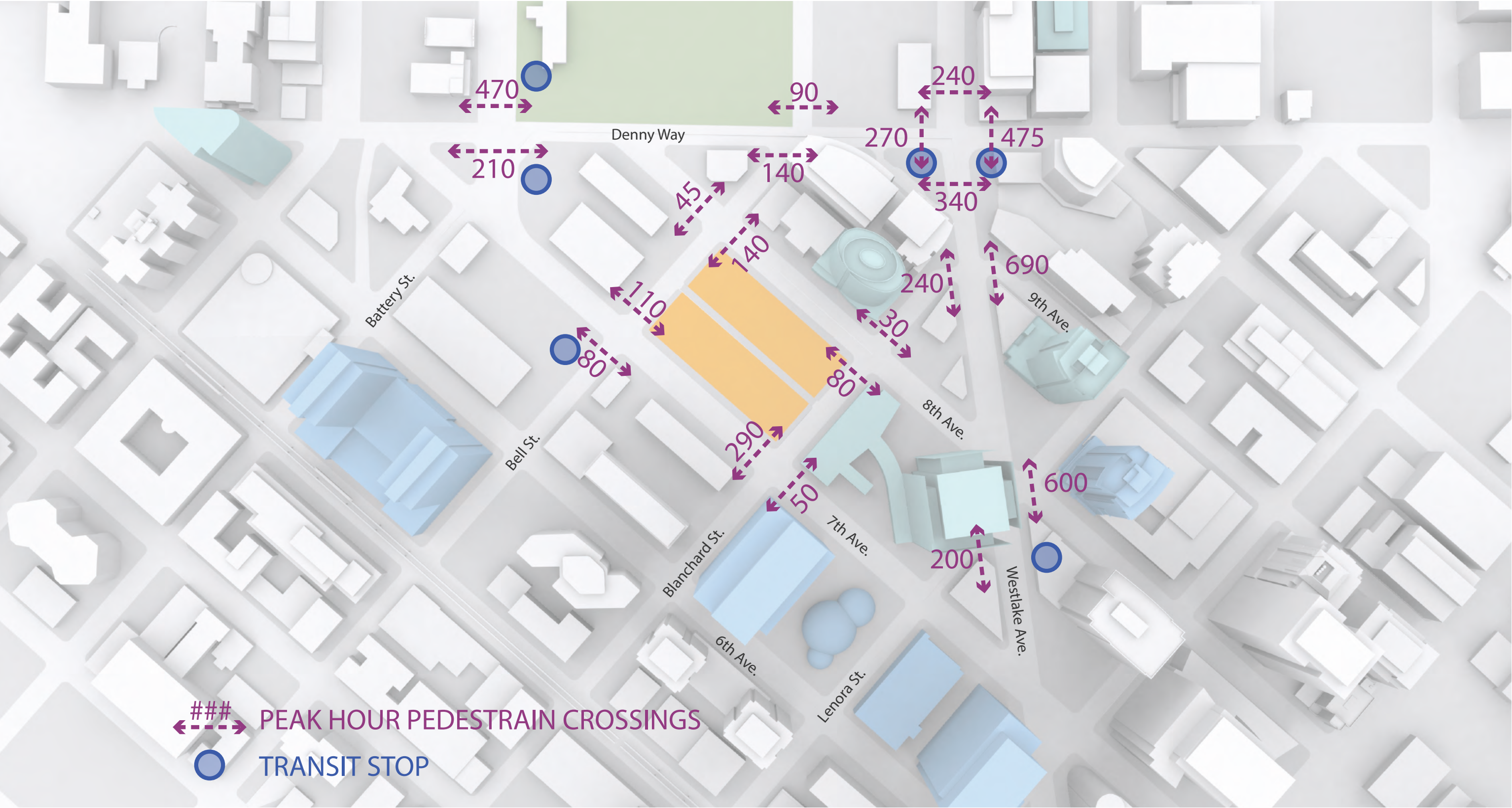


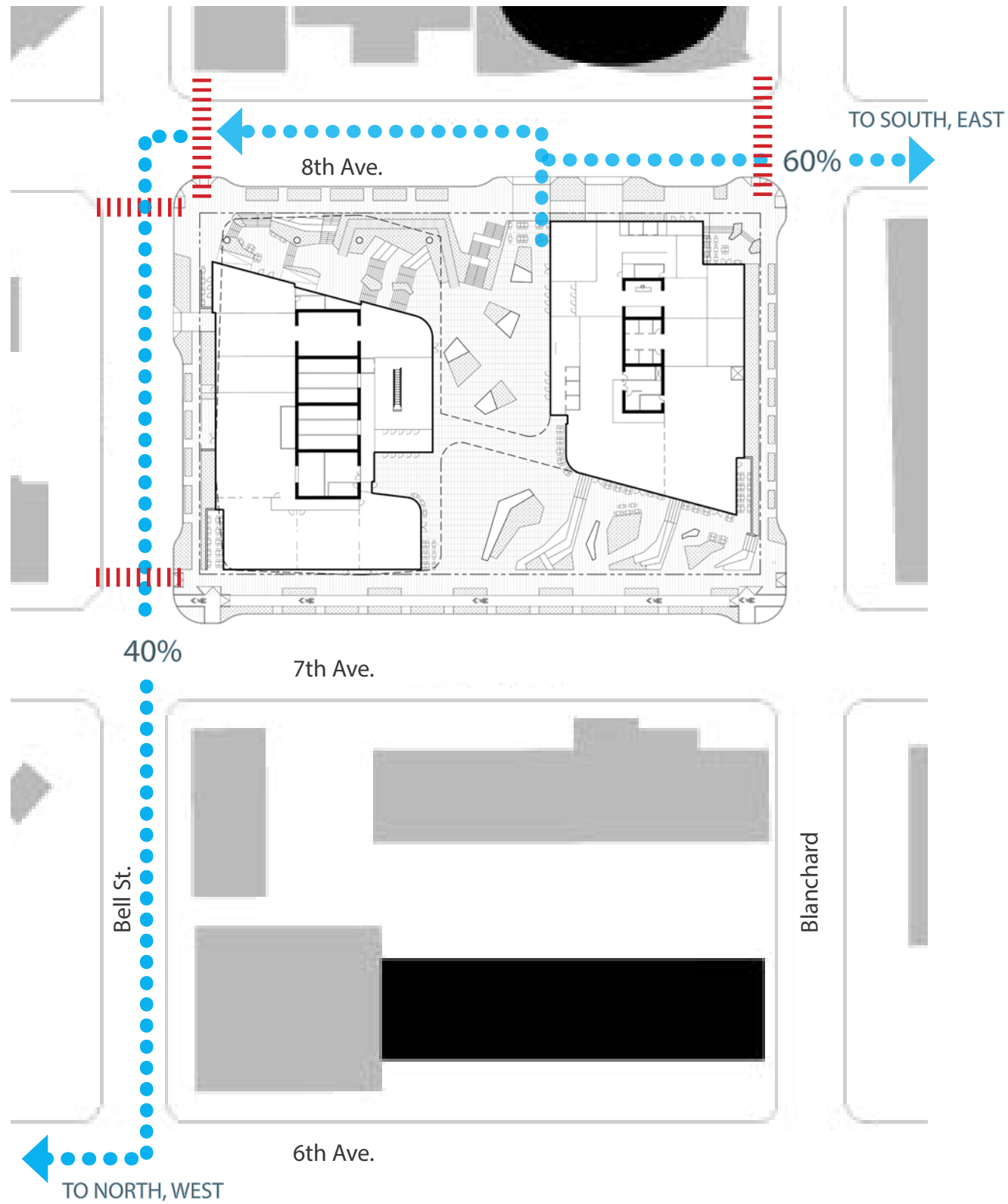
BLOCK 21
~22,800 SF Open to Sky
~8,600 SF Under Cover
~31,400 SF Total



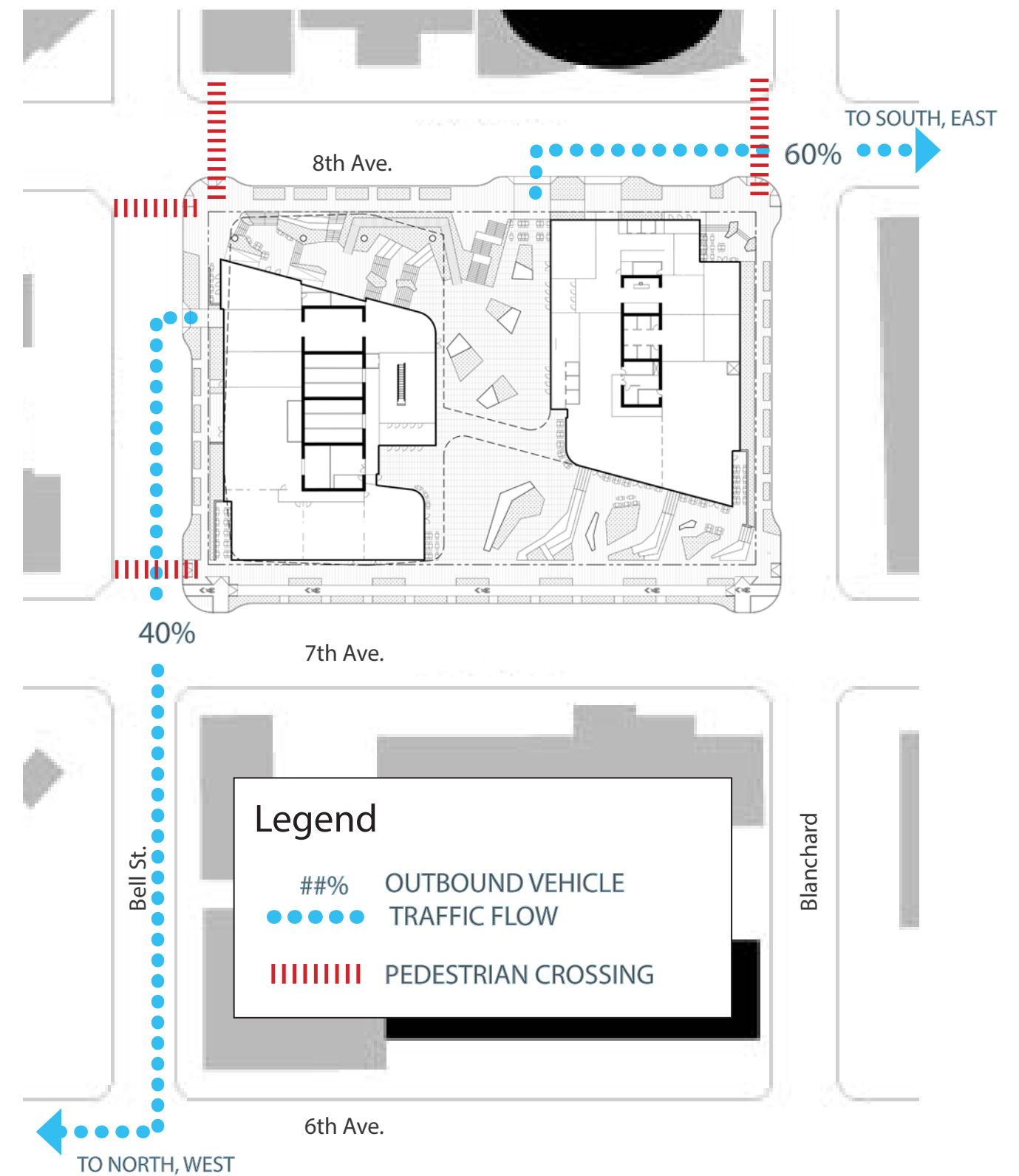
Block 20
~25,000 SF

PEDESTRIAN CROSSING VOLUMES





1: Outbound Traffic, 8th Ave. Exit Only



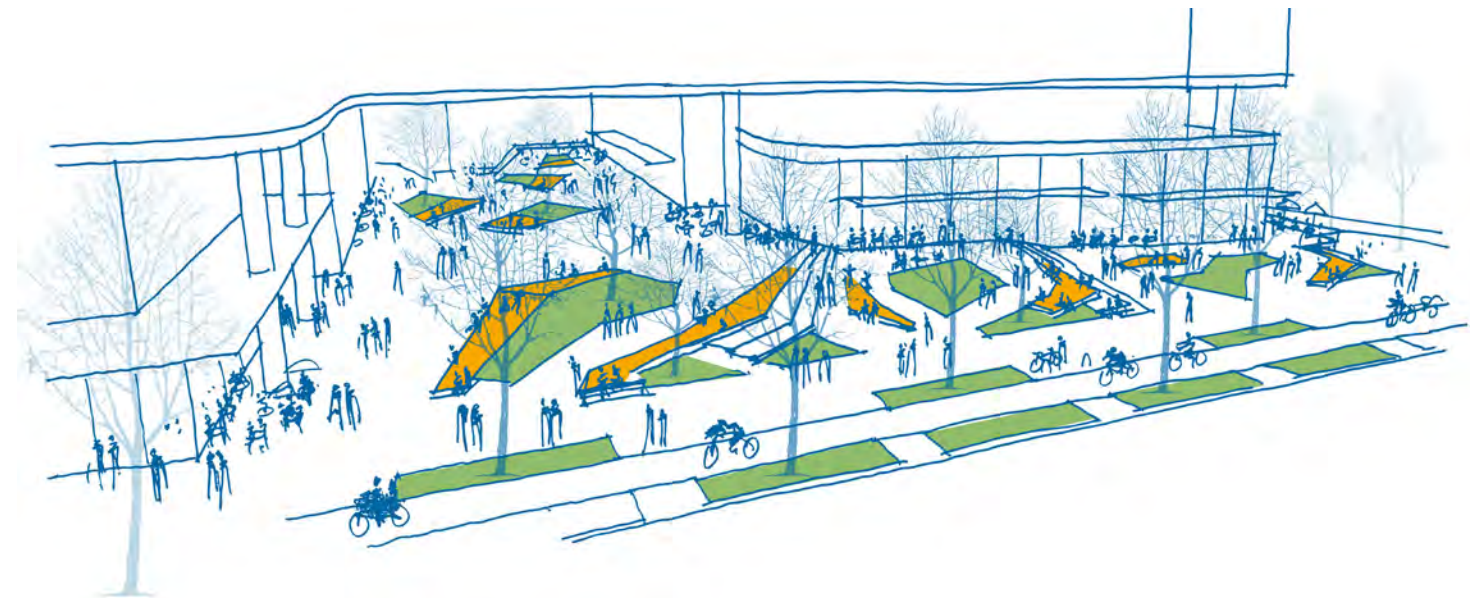
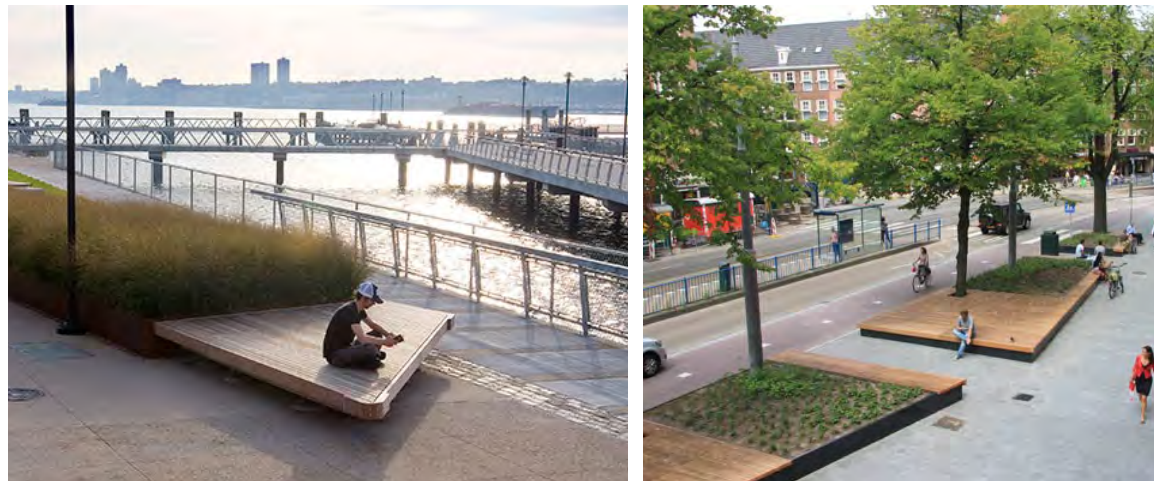
2: Outbound Traffic, 8th Ave. and Bell St. Exits

SITE PLAN

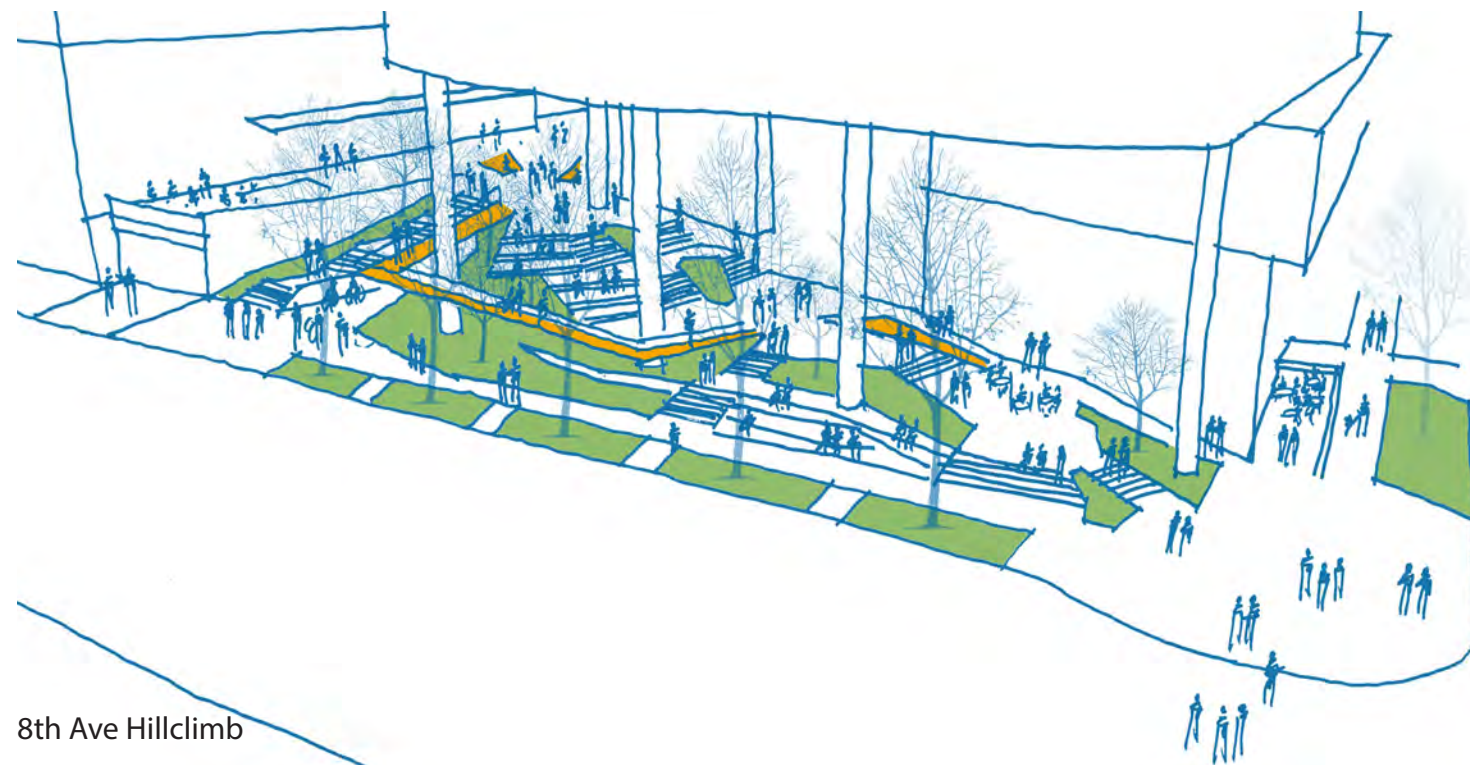


Legend

- 1 8th Avenue Open Space
- 2 Central Open Space
- 3 7th Avenue Open Space
- 4 Bell Green Street Setback
- 5 Blanchard Green Street Setback
- 6 7th Ave Cycle Track and Double Tree Alleé

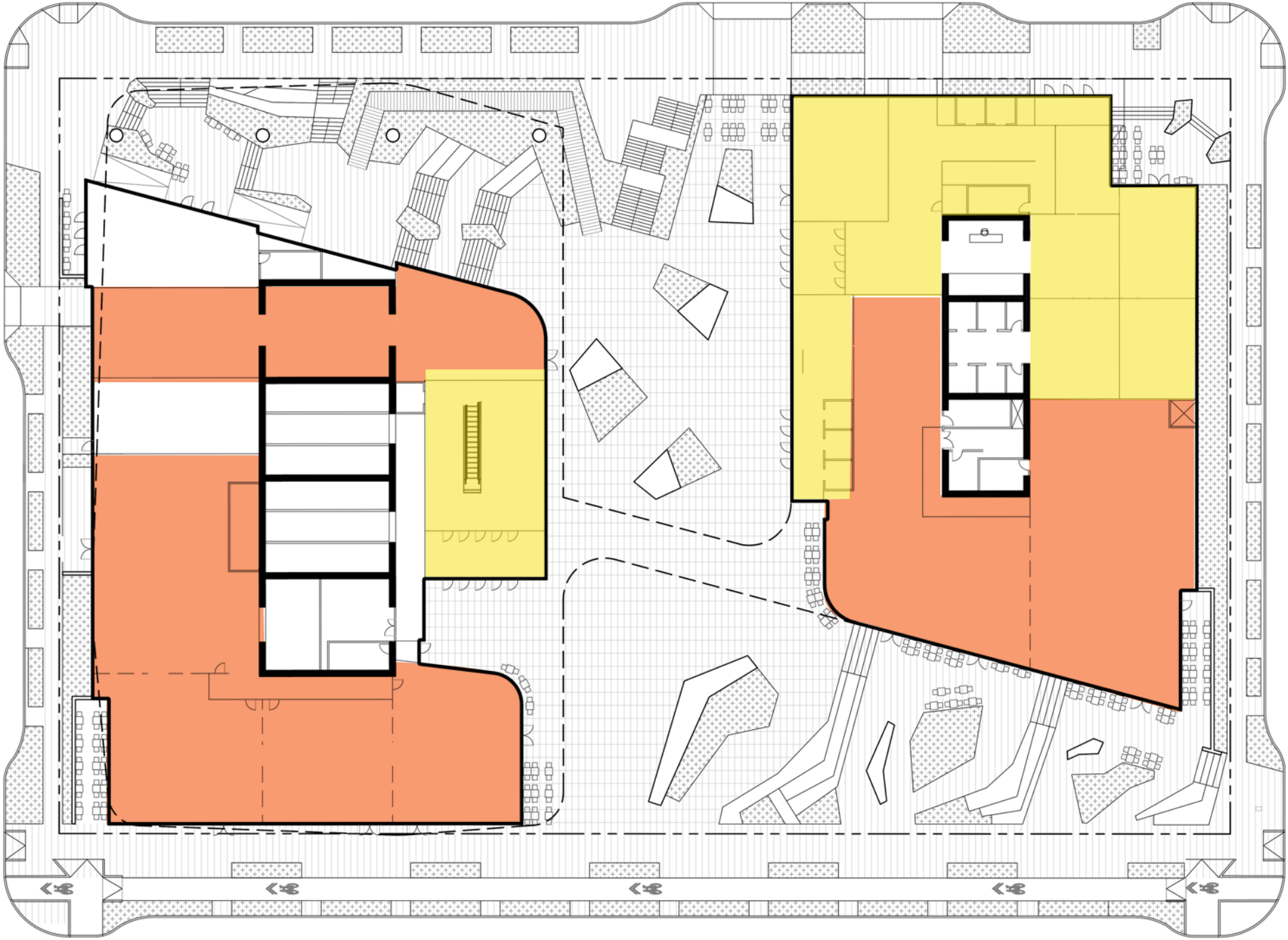


7th Ave Plaza



8th Ave Hillclimb

GROUND FLOOR USES: LEVEL 1



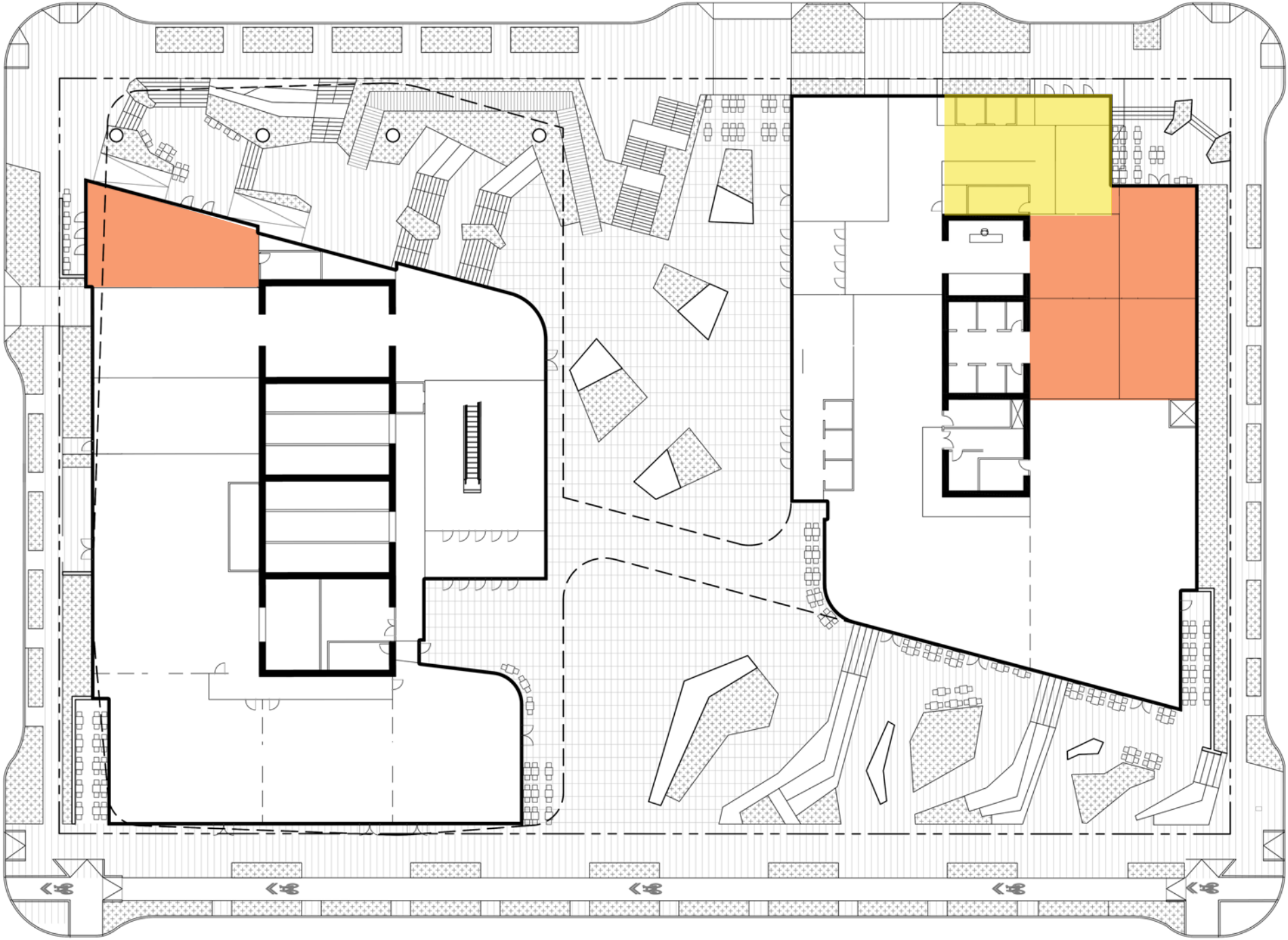
Legend



Retail



Lobby



Legend

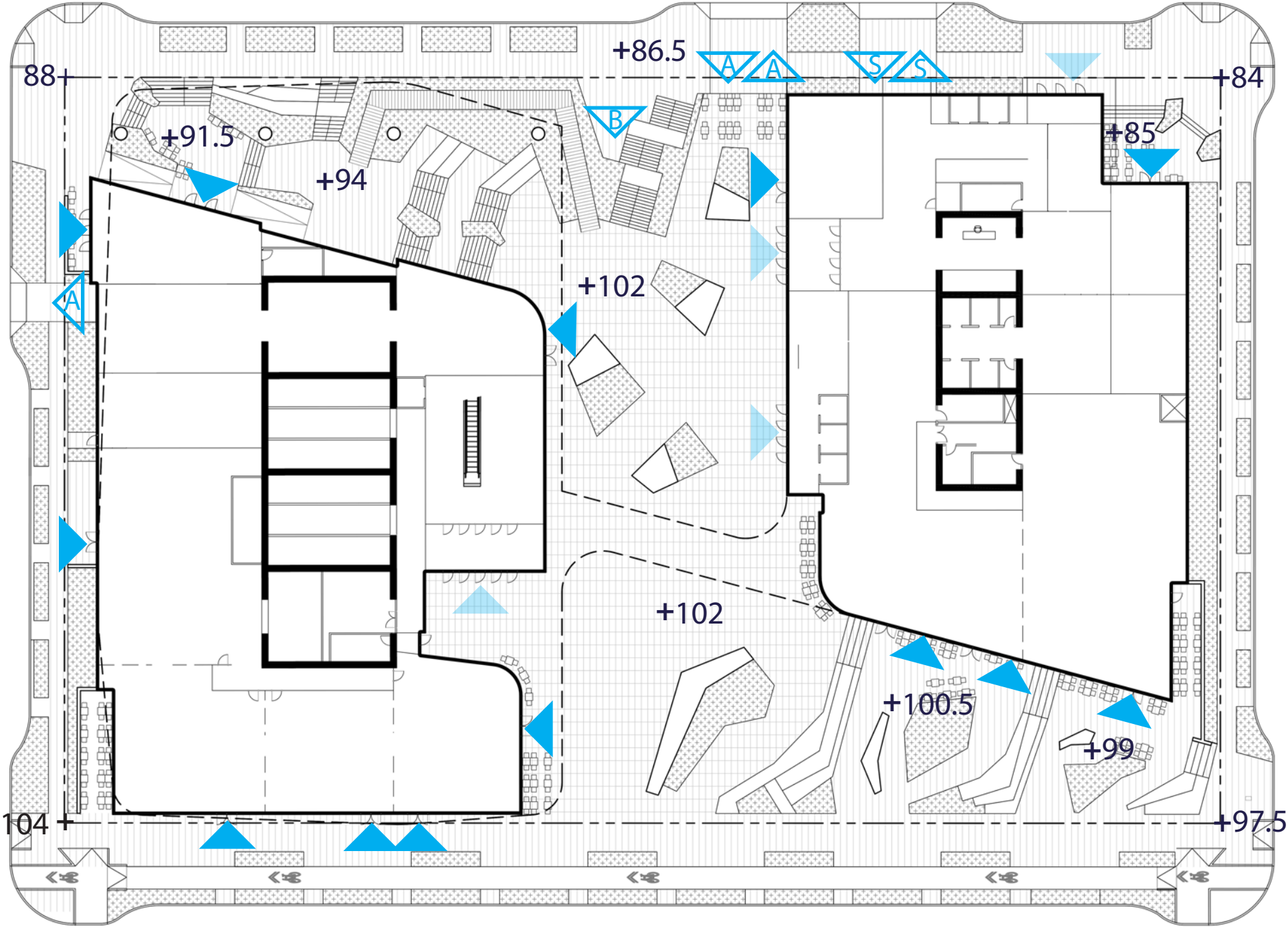


Retail








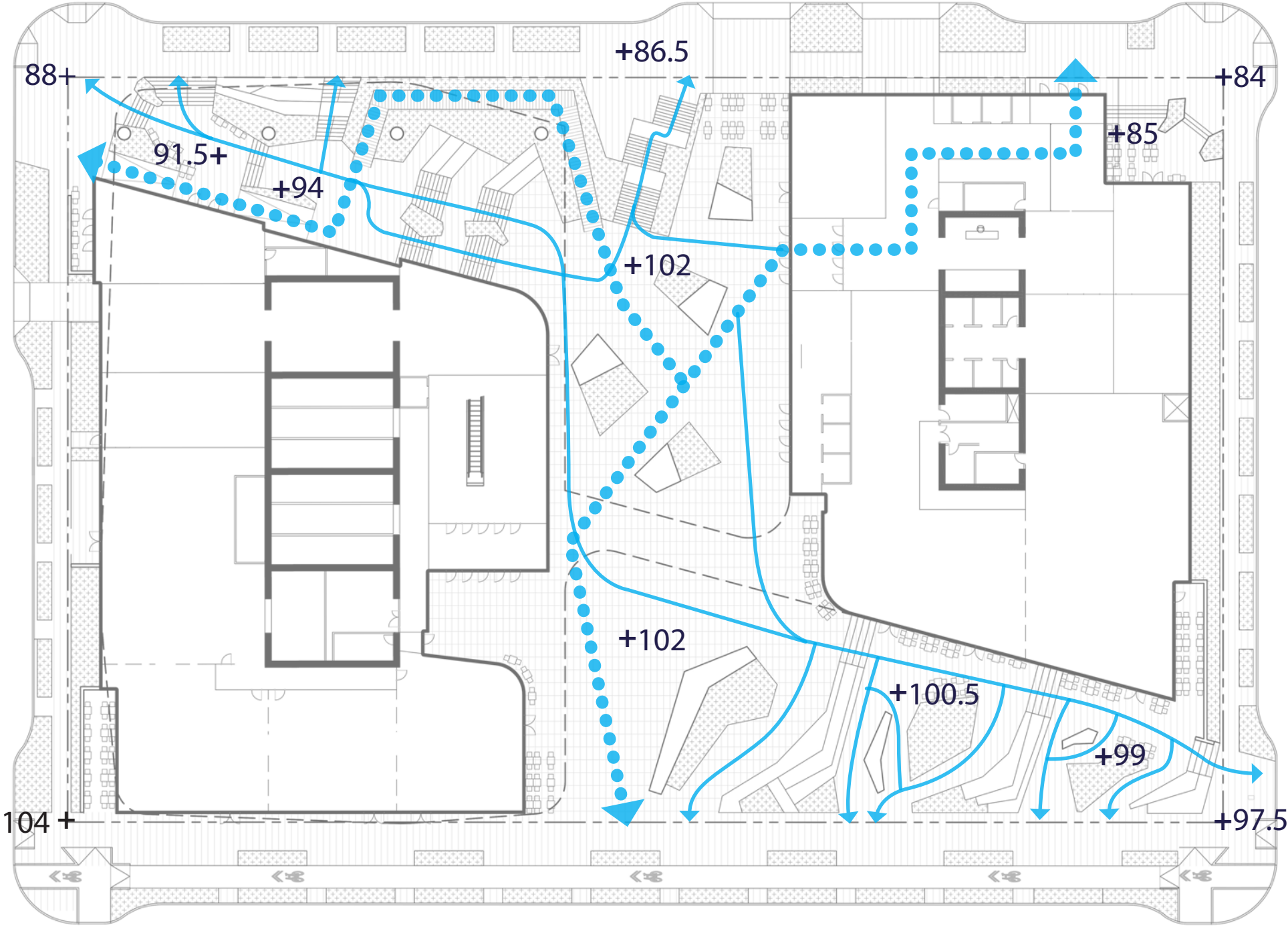
Lobby

BUILDING ENTRIES AND ACCESS



Legend

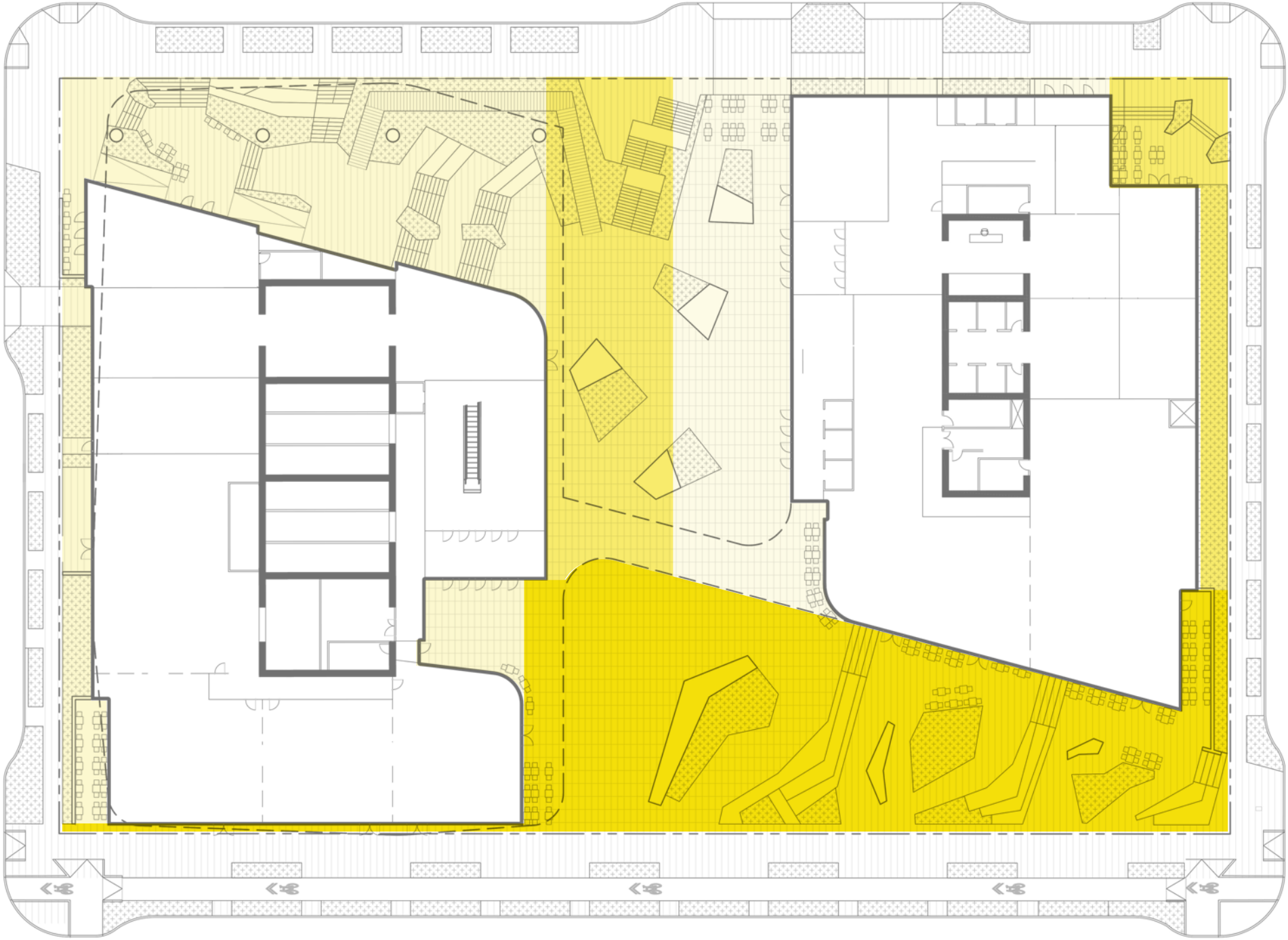
-  Retail
-  Lobby
-  Auto
-  Bike
-  Service
- +97.5 Spot Grade



Legend

Primary ADA Pathways

Pedestrian Circulation



Legend



Sun



Part Shade



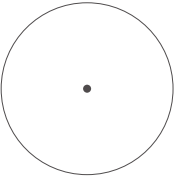
Shade



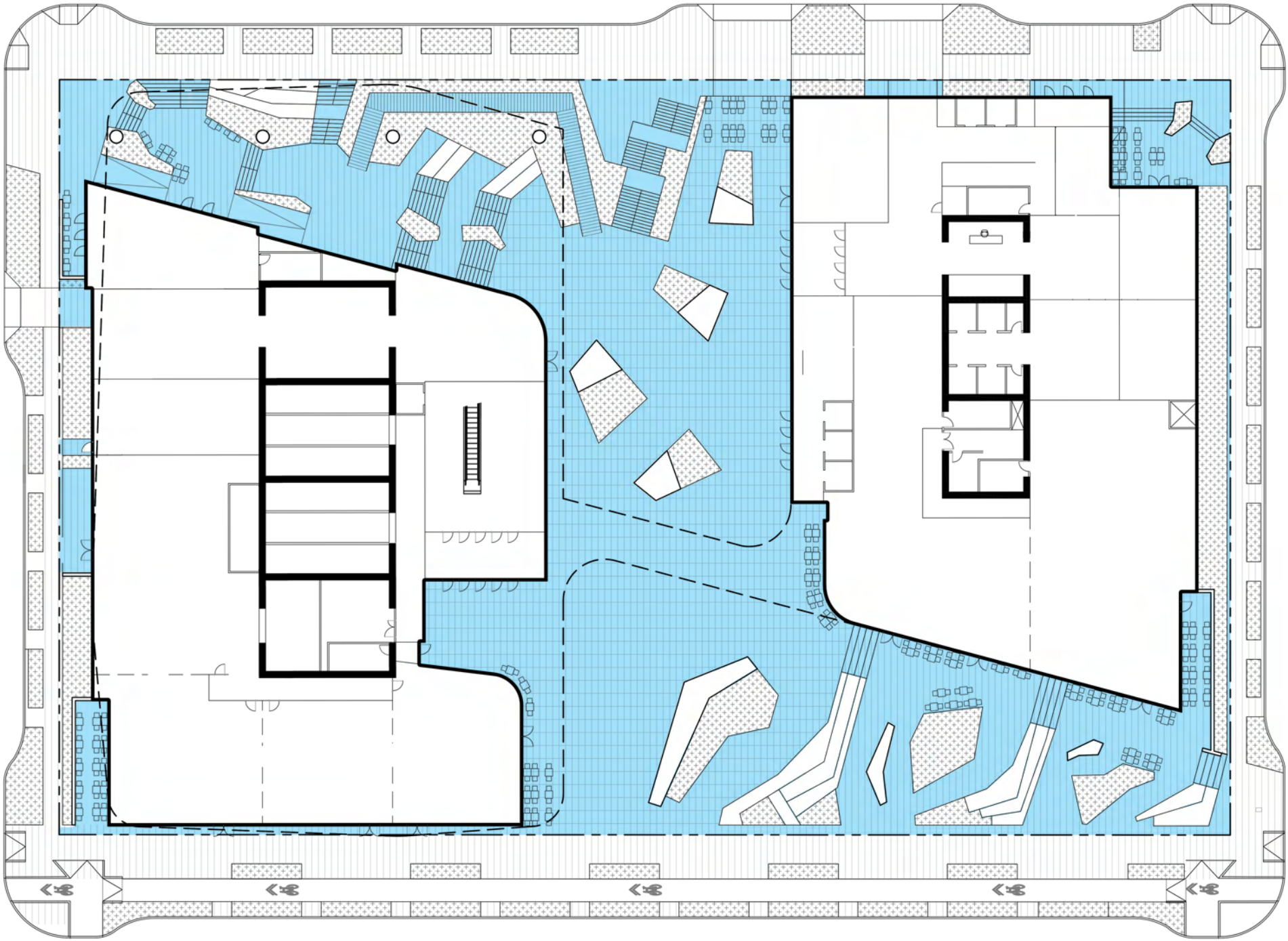
Legend



Planting



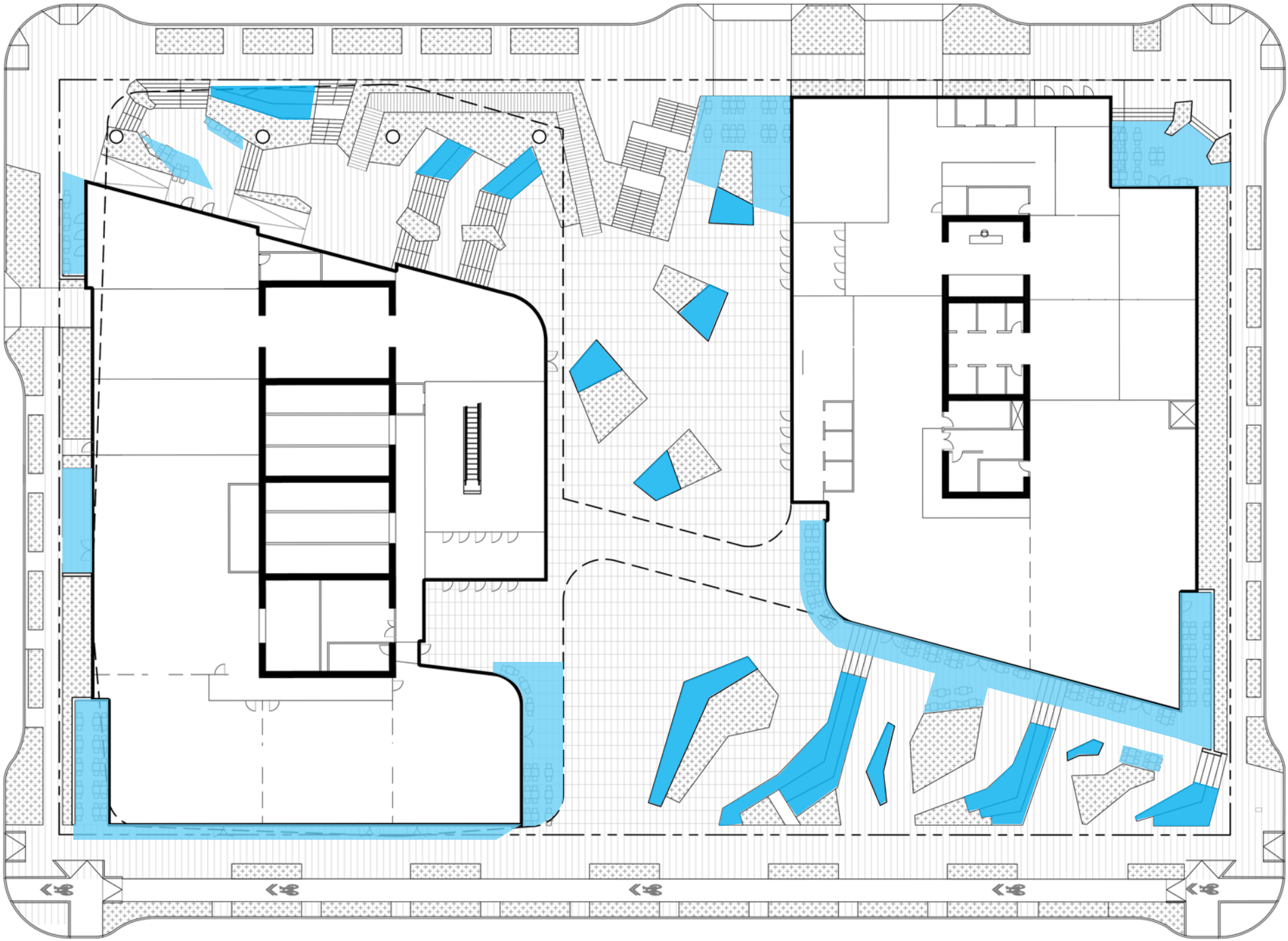
Trees



Legend



Paving



Legend



Seating Elements



Flexible Seating Zones

7TH AVENUE PLAZA

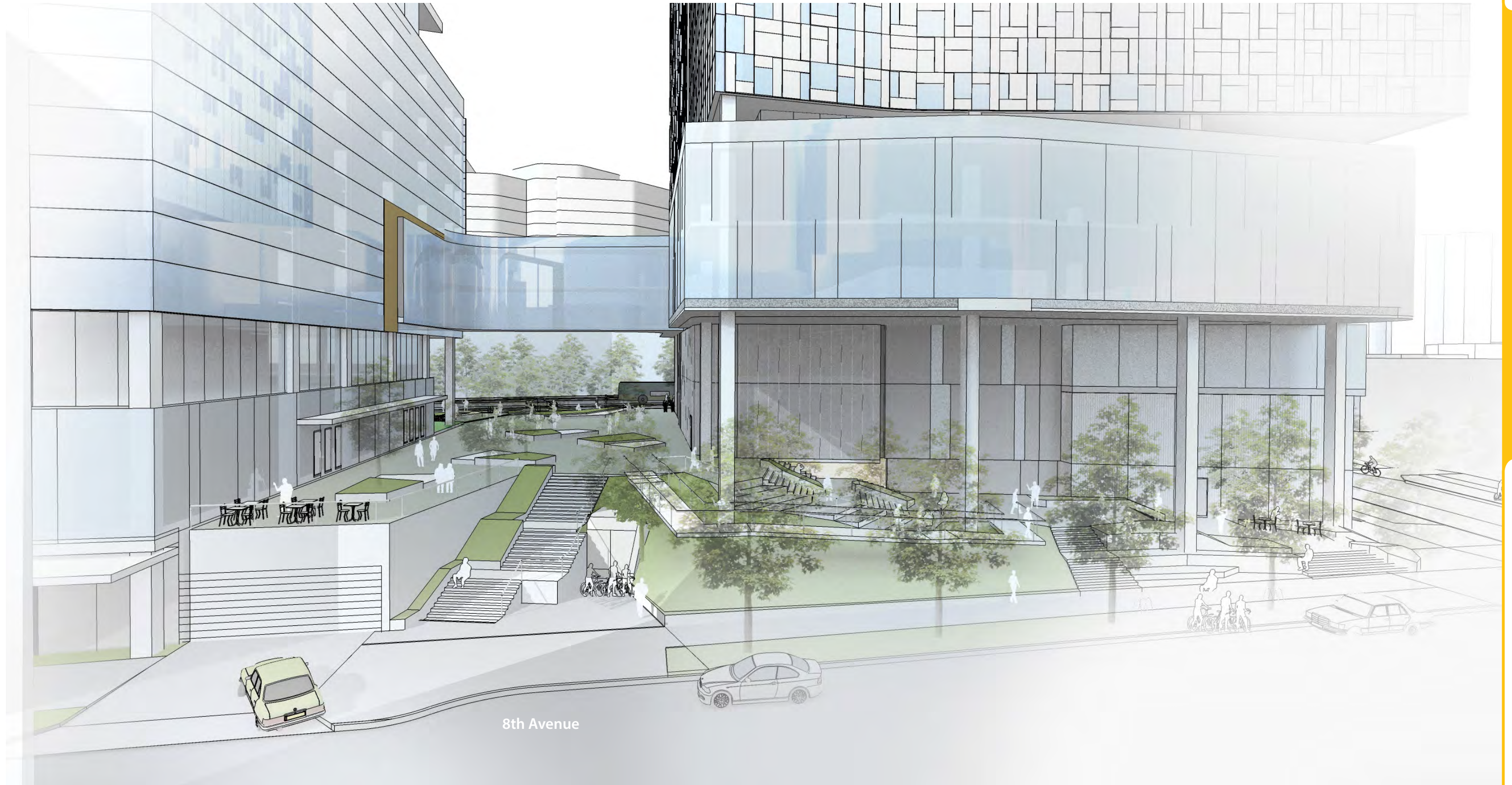




Eighth Avenue Hill Climb Looking West

7TH AVENUE PLAZA



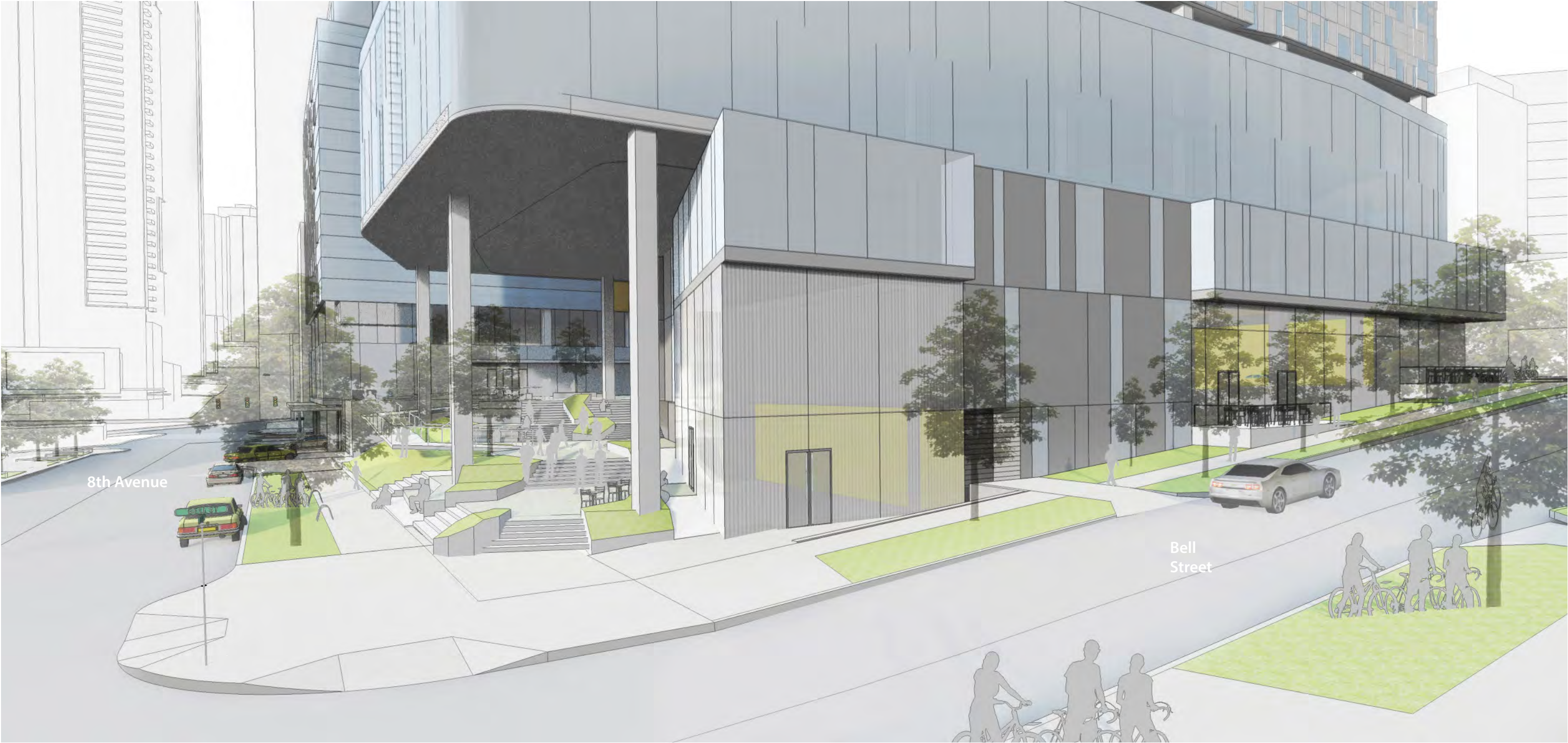


BELL STREET AND 7TH AVENUE





BELL STREET



DEVELOPMENT DEPARTURES



DEVELOPMENT DEPARTURES

Additional Setback for Green Street Departures

Item #	Development Standard	Requirement	Departure Amount Required	Rationale	Design Guidelines Reinforced	Reference
1	23.49.056 Street Facade, Landscaping, and Street Setbacks	B. Facade Setback Limits 2. General Setback Limits. The following setback limits apply on streets not requiring property line facades, as shown on Map 1H. d. The maximum setback of the facade from the street lot lines at intersections is 10 feet. The minimum distance the facade must conform to this limit is 20 feet along each street.	The setback at the corner of 8th Ave (& Bell St) exceeds the maximum setback limit by 10 feet.	The entry at this corner is enhanced and supported by a more gracious zone between the public right-of-way and the building.	A-1 Respond to physical environment B-2 Create a transition in bulk & scale B-4 Design a well-proportioned & unified building C-4 Reinforce building entries	Diagram 1
2	Same as (1) above	Same as (1) above	The setback at the corner of Bell St (& 8th Ave) exceeds the maximum setback limit by 10 feet.	The entry at this corner is enhanced and supported by a more gracious zone between the public right-of-way and the building.	A-1 Respond to physical environment B-2 Create a transition in bulk & scale B-4 Design a well-proportioned & unified building C-4 Reinforce building entries	Diagram 1
3	Same as (1) above	Same as (1) above	The setback at the corner of 8th Ave (& Blanchard St) exceeds the maximum setback limit by 10 feet.	The entry at this corner is enhanced and supported by a more gracious zone between the public right-of-way and the building.	A-1 Respond to physical environment B-2 Create a transition in bulk & scale B-4 Design a well-proportioned & unified building C-4 Reinforce building entries	Diagram 1
4	Same as (1) above	Same as (1) above	The setback at the corner of 8th Ave (& Blanchard St) exceeds the maximum setback limit by 10 feet.	The entry at this corner is enhanced and supported by a more gracious zone between the public right-of-way and the building.	A-1 Respond to physical environment B-2 Create a transition in bulk & scale B-4 Design a well-proportioned & unified building C-4 Reinforce building entries	Diagram 1

Upper-Level Development Standard Departures - Revised from EDG 1: Item 5 No Longer Required

Item #	Development Standard	Requirement	Departure Amount Required	Rationale	Design Guidelines Reinforced	Reference						
5	23.49.058 Upper-Level Development Standards	<div>B. Facade Modulation</div> <div>2. The maximum length of a facade without modulation is prescribed in Table 23.49.058A...</div> <div><table><tr><td><u>Elevation</u></td><td><u>Max length un-modulated facade w/in 15' of prop line</u></td></tr><tr><td>161-240'</td><td>125'</td></tr><tr><td>241-500'</td><td>100'</td></tr></table></div>	<u>Elevation</u>	<u>Max length un-modulated facade w/in 15' of prop line</u>	161-240'	125'	241-500'	100'	None Required	N/A	A-2 Enhance the skyline B-1 Respond to neighborhood context B-4 Design a well-proportioned & unified building	Diagram 2
<u>Elevation</u>	<u>Max length un-modulated facade w/in 15' of prop line</u>											
161-240'	125'											
241-500'	100'											

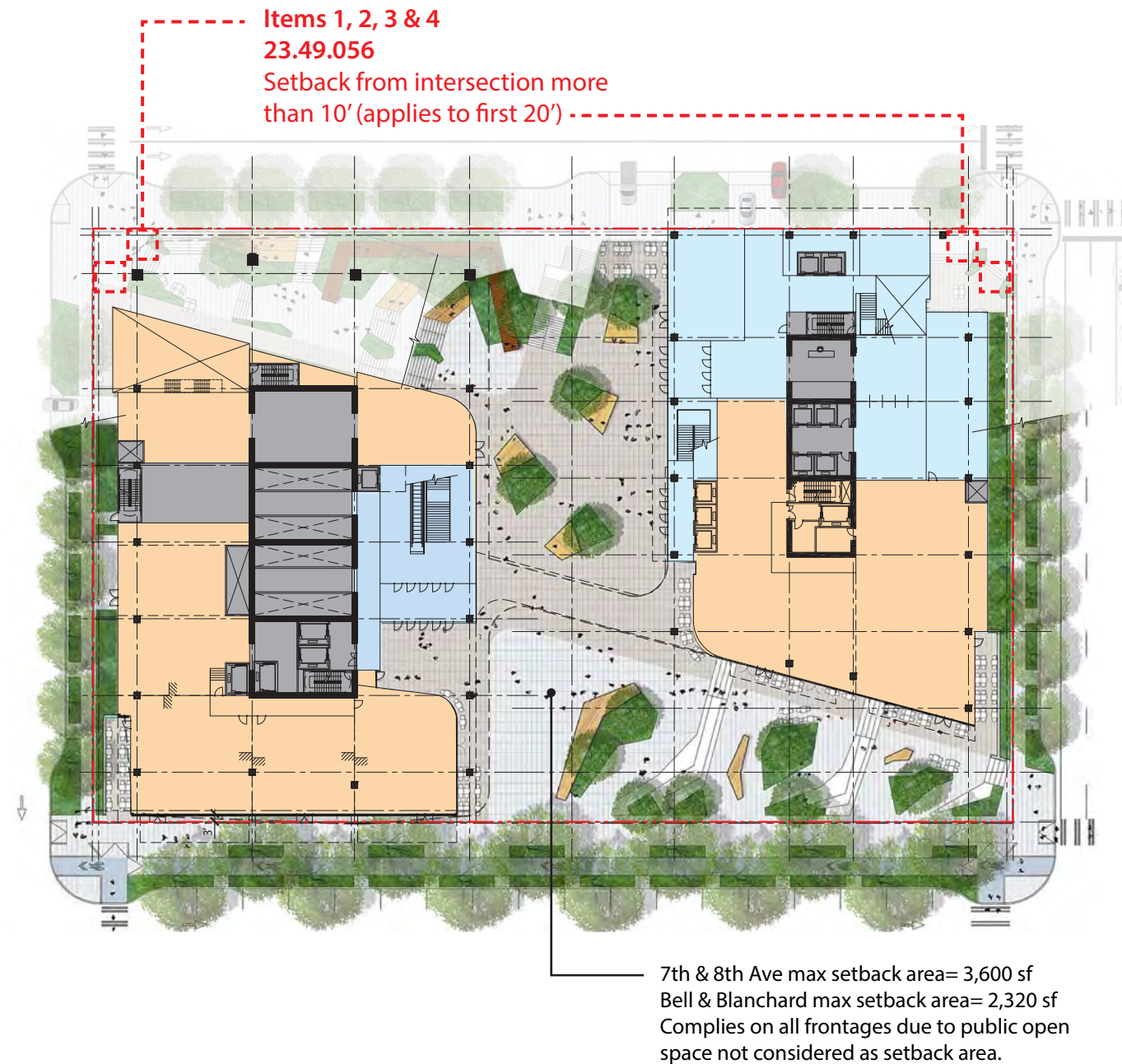


Diagram 1-
Level 1 Plan



Item 5
23.49.058
Facades do not exceed upper level facade length without modulation and no departure is required

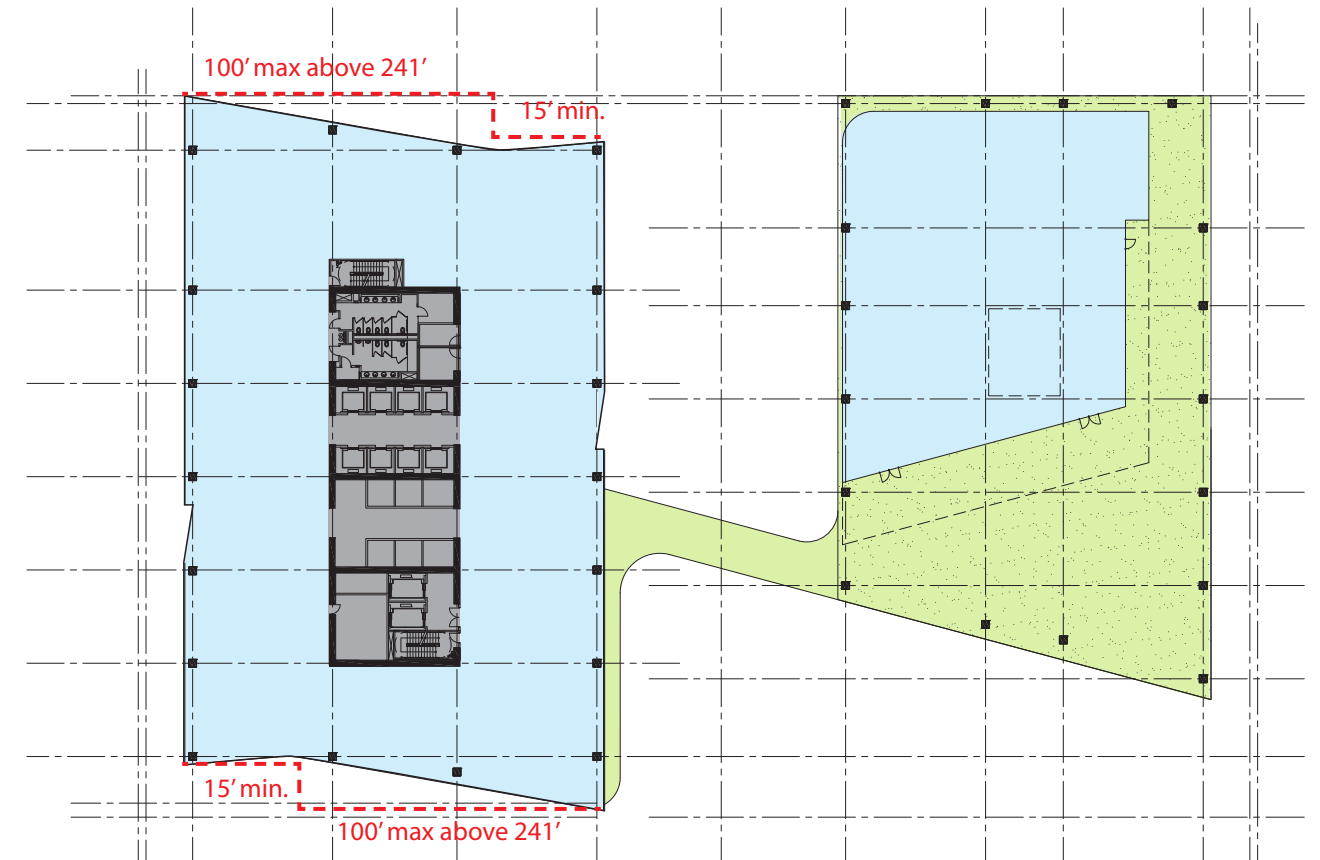


Diagram 2-
Upper Level Plan



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APPENDIX



Zone: DMC 340/290-400
Denny Triangle Urban Center Village

23.49.042 Permitted Uses

Standard
All uses are permitted outright except those prohibited by SMC 23.49.046, and parking, which shall be regulated by 23.49.045.

23.49.008 Structure Height

Standard
Nonresidential Height Maximum: 340'
Rooftop Features allowed above height limit: <ul style="list-style-type: none">• Railings, planters, skylights, clerestories, greenhouses and parapets may extend up to 4' above height limit.• Solar collectors may extend up to 7' above height limit.• Mechanical equipment, stair penthouses, etc... may extend up to 15' above the height limit.
Rooftop features may cover up to a combined coverage limit of 35%.
Elevator penthouses may extend up to 23' above the height limit (8' cab) or 25' above the limit (9' cab) plus an additional 10' if elevator provides access to usable rooftop open space.
The amount of rooftop area enclosed by screening may exceed the maximum percentage of the combined coverage of all rooftop features.
Measures may be taken to screen rooftop features from public view through the design review process. Rooftop screening may exceed ten percent of the applicable height limit or 15 feet, whichever is greater.

23.49.009 Street-level Use Requirements

Standard
None required on 7th Avenue, 8th Avenue, Bell Street, or Blanchard Street.

23.49.011 Floor Area Ratio

Standard
Base FAR: 5 Maximum FAR: 10 Additional chargeable floor area above the base FAR may be obtained as outlined in section 23.49.011 and may include generally the following: <ul style="list-style-type: none">• Amenity Bonuses• Transfer Development Rights• Rural Development Credit• Housing and Child Care
• A minimum of 5% of floor area above base FAR must be obtained through Landmark TDRs to the extent they are available. • FAR gained through housing and child care bonuses (23.49.012) together with housing (23.49.015) and landmark TDRs shall equal 75% of the area by which the total chargeable area permitted on the lot exceeds the base FAR. • At least 1/2 of the balance of the 25% shall be gained from a sending lot with a major performing arts center if available. • The balance of the 25% shall be gained through bonus floor area for amenities (23.49.013)
•The first increment above base FAR must be provided through regional development credits, pursuant to SMC 23.58.A.044 (SMC 23.49.011.A.2.a).
Areas Exempt from FAR: • Street level use (retail) that has a minimum flr-flr of 13', horizontal depth of 15', and overhead weather protection is provided. <ul style="list-style-type: none">• Child Care• Human Services• Residential use and live-work units• Museums and museum expansion spaces• Performing art theaters• Floor area below grade• Public restrooms• Shower facilities for bicycle commuters• Certain area in Landmark structures• An allowance of 3.5% of GFA for mechanical equipment after all other deductions have been taken
Rooftop mechanical equipment, whether enclosed or not, shall be counted as part of the GFA of the structure except for those structures existing prior to June 1, 1989 or replacement mechanical equipment.

23.49.013 Bonus Floor Area for Amenities

Standard
<ol style="list-style-type: none">1. Open Space and Green Street Improvements2. Hill Climb Assists (N/A)3. Human Services Per 23.49.013 A34. Public Restrooms5. Rehabilitation and Preservation of Landmark Structure6. Transit Station Access (N/A)
Amenity Ratios and Limits per 23.49.13 B3

23.49.014 Transfer of Development Rights

Standard
<ol style="list-style-type: none">a. Housing TDRb. DMC Housing TDRc. Landmark Housing TDRd. Landmark TDRe. Open Space TDR; andf. South Downtown Historic TDR
Note Table A 23.49.014

23.49.016 Open Space

Standard
Private Open Space - Office Use Requirements: <ul style="list-style-type: none">• 20 SF for every 1000 GSF of Office Use• Only applies to office use greater than 85,000 GSF; Office use less than 85,000 GSF is exempt.• Must be open to the sky, meet Downtown Amenity Standards and be accessible to all tenants.
On-site public open space <ul style="list-style-type: none">• Available for amenity feature bonus per section 23.49.013
Off-site public open space <ul style="list-style-type: none">• Available for amenity feature bonus per section 23.49.013• Must be in a downtown zone within 1/4 mile of the project site.• Must be open to the public without charge.• Minimum of 5,000 SF of contiguous area.
Payment in lieu <ul style="list-style-type: none">• Payment in lieu of open space development is permitted if the Director determines that such payment will contribute to the improvement of a green street or there is public open space abutting the lot or in the vicinity.

23.49.018 Overhead weather protection and lighting

Standard
Continuous weather protection is required along entire street frontage
Exceptions: <ul style="list-style-type: none">• If set back farther than 5' from property line• Abuts a bonused open space or amenity feature• If separated from the street property line by a landscaped area at least 2' in width• Driveways and loading docks
Dimensions: <ul style="list-style-type: none">• Min. 8' from building wall or must extend to a line 2' from curb line, whichever is less• Lower edge minimum height of 10' and a maximum of 15' above the sidewalk• Pedestrian lighting to be provided

23.49.019 Parking quantity, location and access requirements

Standard
No parking, either long-term or short-term, is required on lots in Downtown zones
<ul style="list-style-type: none">• On Blanchard Street and Bell Street (green street), parking is permitted at street level only if separated from the street by other uses
<ul style="list-style-type: none">• On 7th and 8th Avenue (class II pedestrian streets), parking is permitted at street level if it meets the standards of 23.49.019B, including:<ul style="list-style-type: none">• At least 30% of the street frontage (excluding garage doors) is separated from the street by other uses;• The façade of the separating uses meets the transparency and blank wall standards for class I ped. streets;• The portion of parking not separated by other uses is screened, and;• The street façade is enhanced by detailing, artwork, landscaping, etc...
<ul style="list-style-type: none">• Parking not at street level within structures must be located below street level or separated from street level by other uses• Up to four levels of above grade parking may be permitted if it meets the standards of 23.49.019B
Maximum parking limit for nonresidential uses <ul style="list-style-type: none">• Parking for nonresidential uses is limited to one parking space per every 1,000 square feet of gross floor area in nonresidential use.• Parking for nonresidential uses may be permitted to exceed the maximum standard as a special exception as granted by the Director.• Access to parking and loading shall be from the alley when the lot abuts an improved alley, unless the Director approves an alternate access route.
Bicycle Parking (Minimums): <ul style="list-style-type: none">• Office: 1 space per 5,000 SF• Hotel: .05 spaces per hotel room• Retail use over 10,000 SF: 1 space per 10,000 SF• Residential: 1 space for every 2 dwelling units
After the first 50 spaces are provided additional spaces are required at 1/2 the ratio noted
Structures containing more than 250,000 SF of office space shall include shower facilities
Off-street loading spaces shall be provided per 23.54.030

23.49.022 Minimum sidewalk and alley width

Standard
Minimum sidewalk width on Blanchard Street, Bell Street, 7th Avenue and 8th Avenue: 12'.
Minimum alley width: 20', achievable through setback or dedication if required.

23.49.045 Parking

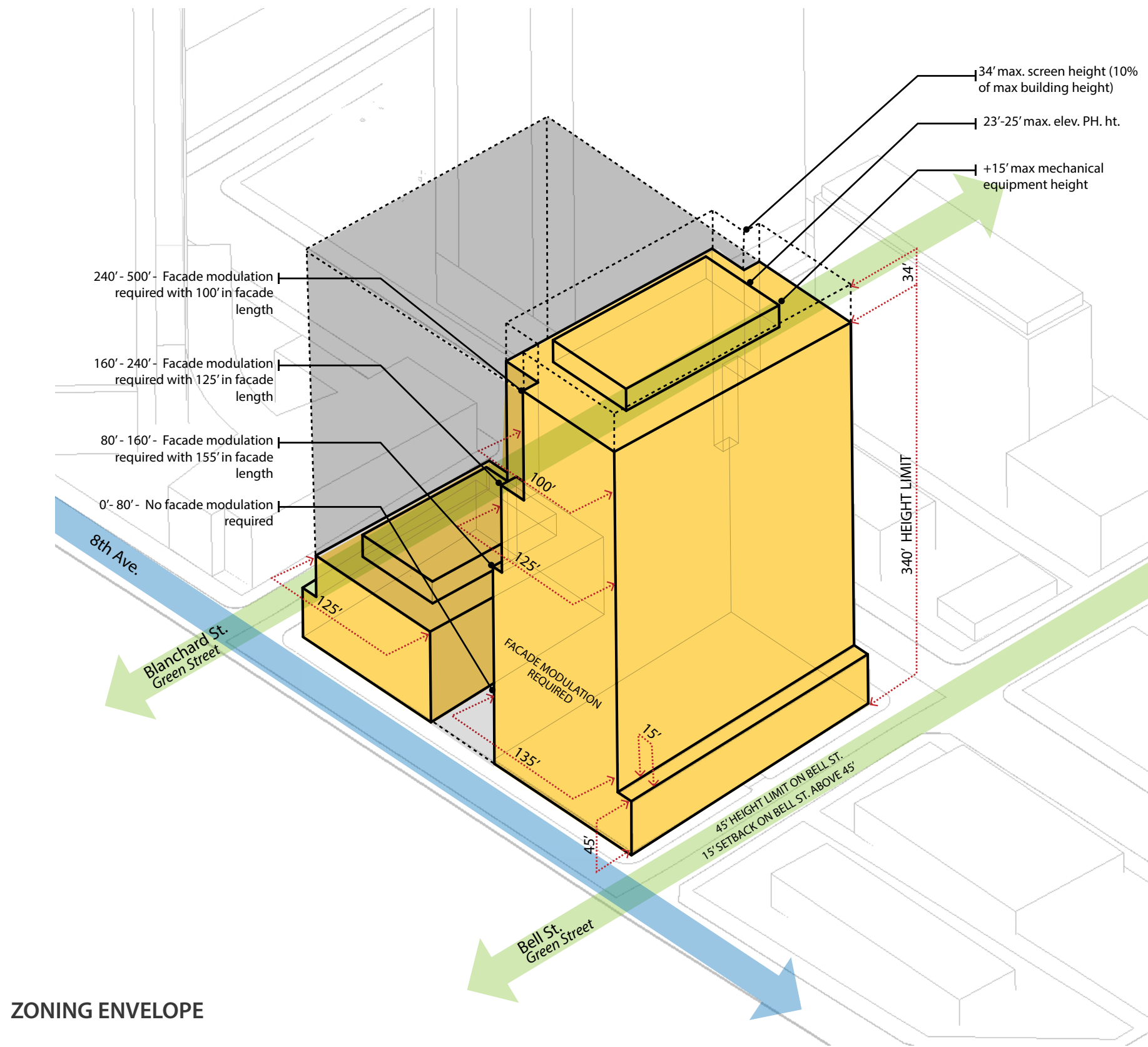
Standard
Principal use parking garages for short-term parking my be permitted as conditional use.
In DMC zones, principal use long-term and short-term surface parking may be permitted as administrative conditional use.
Accessory parking garages for both long-term and short-term parking are permitted outright up to the maximum parking limit established by 23.49.019

23.49.056 street façade, landscaping and street setback requirements

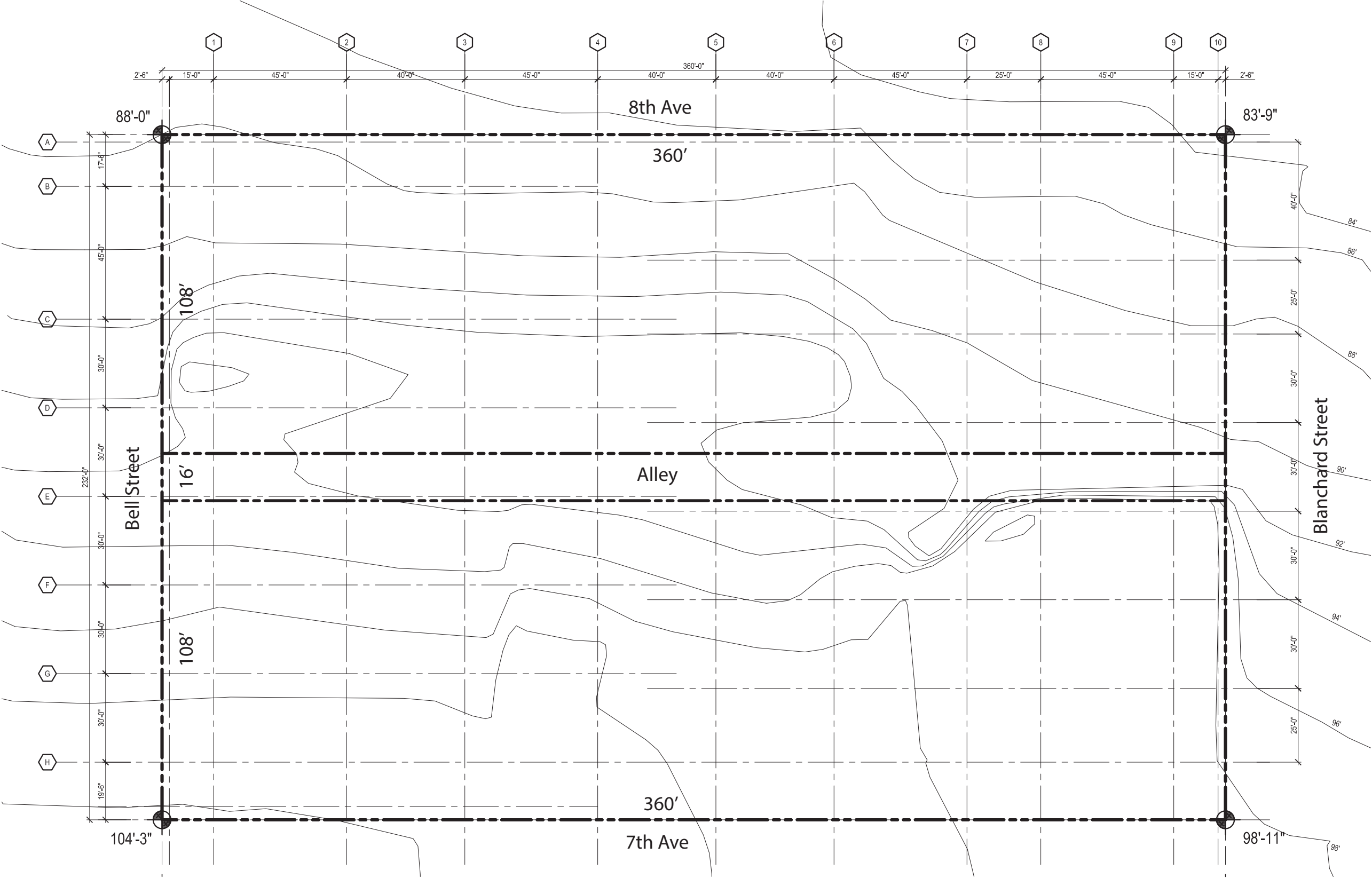
Standard
Minimum façade heights: <ul style="list-style-type: none">• 7th and 8th Avenues (class II pedestrian streets): 15'• Blanchard Street and Bell Street (green streets): 25'
Setbacks <ul style="list-style-type: none">• The max. area of all setbacks shall not exceed the area derived by multiplying the averaging factor by the width of the street frontage. The averaging factor is... ten on Class II pedestrian streets and designated green streets.• The maximum setback of the facade from the street lot lines at intersections is 10 feet. Minimum conforming distance is 20 feet along each street.• Any exterior open space that meets amenity standards is not considered part of the setback area.• If a sidewalk is widened into the lot as a condition of the development setback shall be measured from the line of the new sidewalk.
Transparency and blank façade requirements: <ul style="list-style-type: none">• Along 7th and 8th Avenues (class II ped. street) 30% of street façade to be transparent between 2' and 8' above sidewalk level.• Along Bell and Blanchard Streets (green streets) 60% of street façade to be transparent between 2' and 8' above sidewalk level.• On 7th and 8th Avenues blank façades limited to segments 30' except for garage doors which may be wider than 30'.• On 7th and 8th Avenues the total of all blank façade segments shall not exceed 70% of the street façade.• On Blanchard and Bell Streets blank façades limited to segments 15' except for garage doors which may be wider than 30'.• On Blanchard and Bell Streets the total of all blank façade segments shall not exceed 40% of the street façade.• Blank façade sections shall be separated by transparent area at least 2' wide
Street Trees are required on all streets.
Landscaping in the Denny Triangle Urban Village <ul style="list-style-type: none">• All areas abutting a street lot line that are not covered by a structure, have a depth of 10 feet or more, and are larger than 300 SF shall be landscaped.• Setbacks required to meet minimum sidewalk widths shall be exempt from landscape requirements.

23.49.058 Upper-Level Development Standards

Standard
"Tower" Definition <ul style="list-style-type: none">• Any structure where a portion is above a height of 85 feet in a structure that has any nonresidential use above 65 feet or does not have residential use above a height of 160 feet.
Façade modulation and upper-level width limits apply to: <ul style="list-style-type: none">• Structures 160 ' in height or less in which any story above 85' exceeds 15,000 SF• Portions of structures in non-residential use above a height of 160' in which any story above an elevation of 85' exceeds 15,000 SF.
Façade Modulation (non-residential) <ul style="list-style-type: none">• Required of street facing facades within 15' of street above 85'.• Maximum façade length without modulation within 15' of street lot line:<ul style="list-style-type: none">• 155' façade length from elevation 86 to 160 feet.• 125' façade length from elevation 161 to 240 feet.• 100' façade length from elevation 241 to 500 feet.• 80' façade length for elevations above 500 feet.• Modulation defined as at least 15' deep step back from property line at least 60' long.
Upper Level Width Limit <ul style="list-style-type: none">• On lots where the width and depth of the lot each exceed 200 feet, the maximum facade width for any portion of a building above 240 feet shall be 145 feet along the general north/south axis of a site.
Tower Separation <ul style="list-style-type: none">• On DMC sites zoned with a maximum height limit of more that 160' located in the Denny Triangle Urban Village, if any part of a tower exceeds 160' then all portions of the tower that are above 125' must be separated by a minimum of 60' from any portion of any other existing tower above 125' in height. From a structure allowed pursuant to the Land Use Code in effect prior to the effective date of March 20th 2006 Ordinance 122054.
Upper level setbacks <ul style="list-style-type: none">• When a lot in a DMC Zone is located on a designated green street, a continuous upper-level setback of 15' shall be provided on the street frontage abutting the green street at a height of 45 feet.

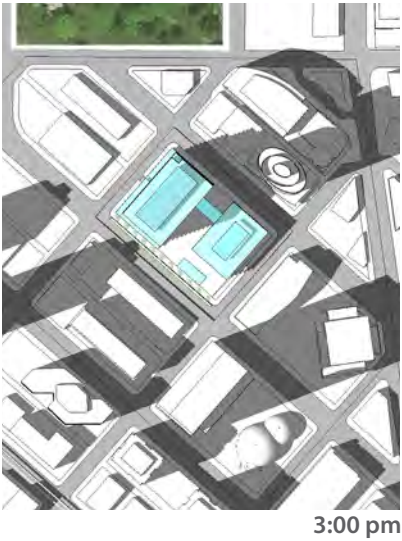


ZONING ENVELOPE

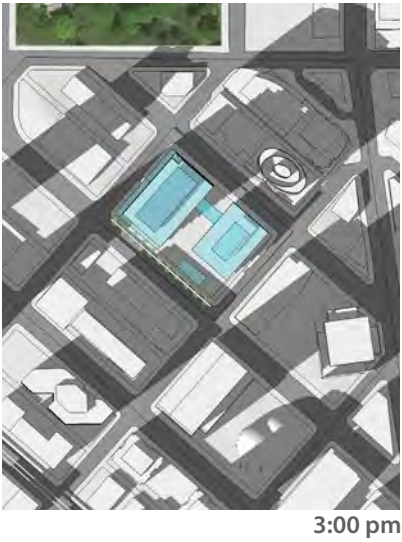
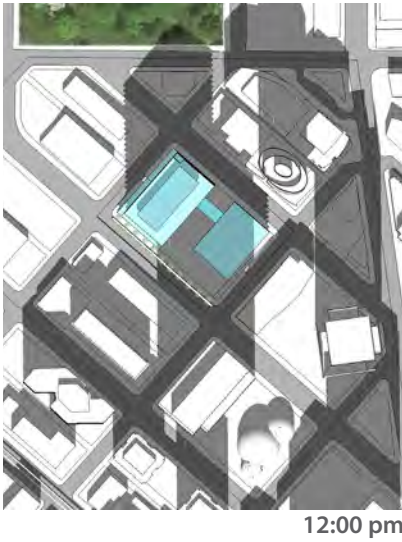


SHADOW ANALYSIS

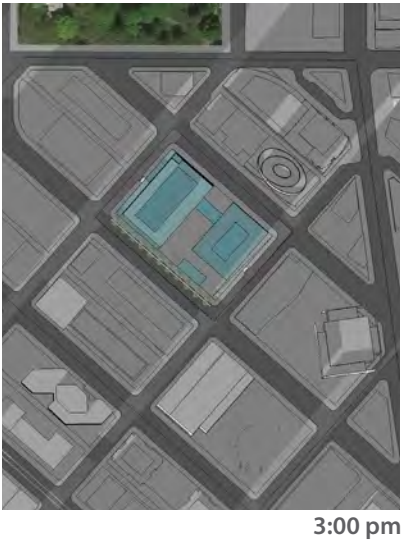
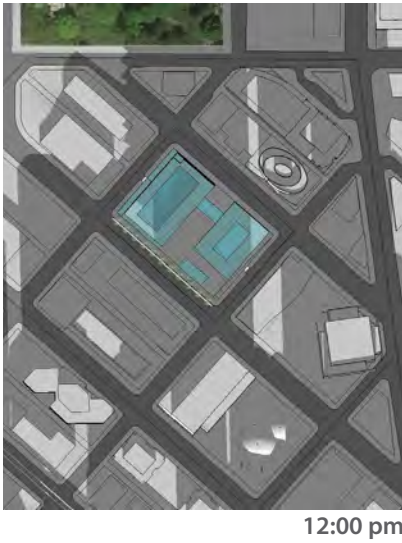
Summer- June 21st



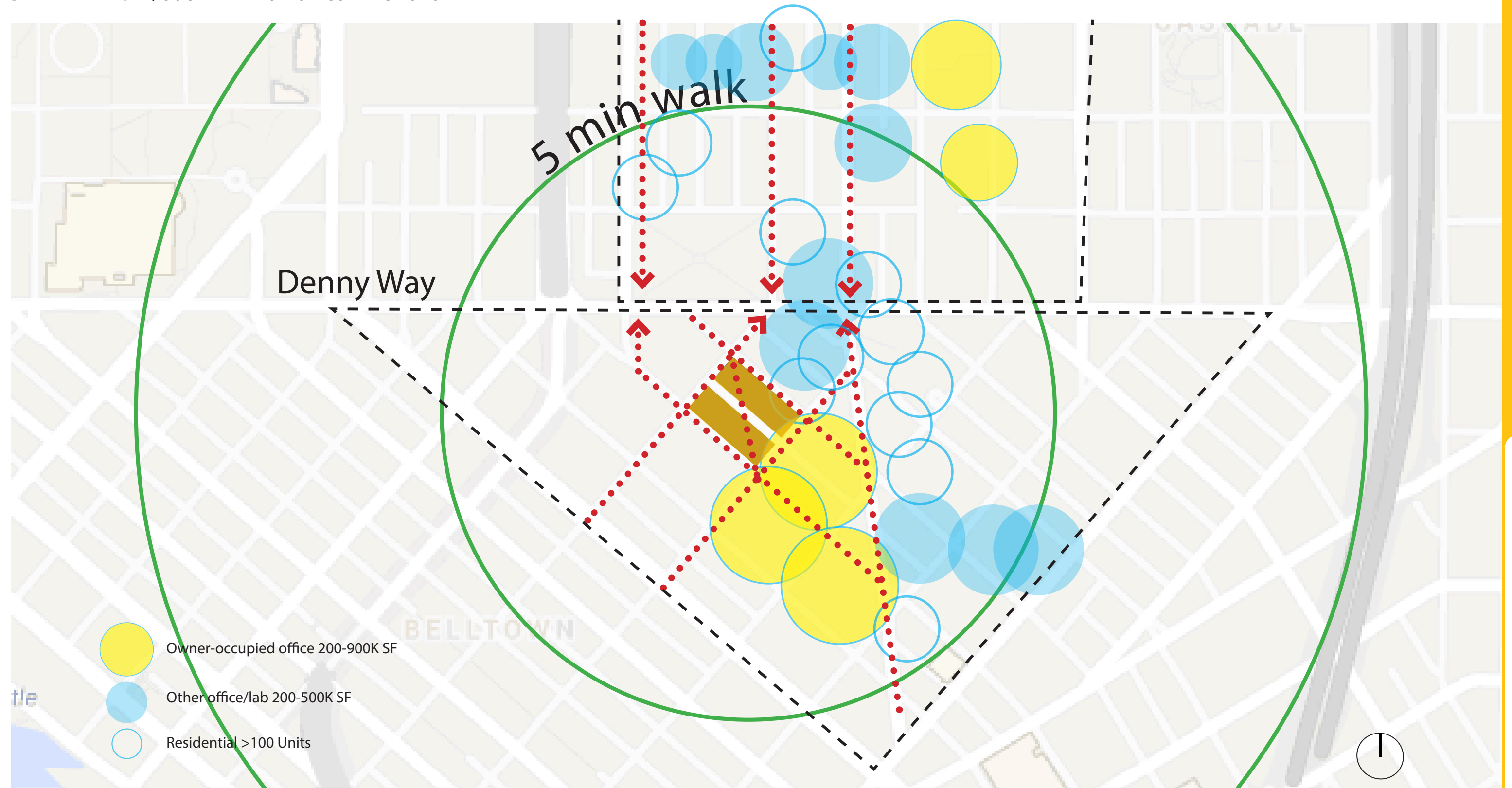
Spring & Fall- March & Sept. 20th



Winter- December 21st



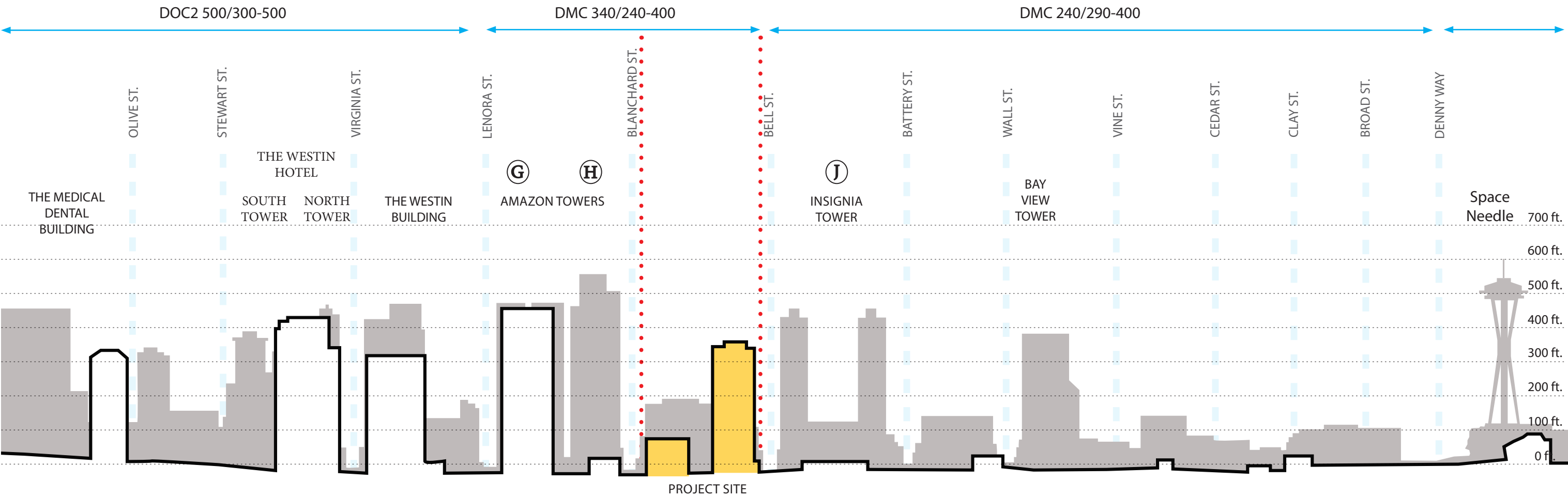
DENNY TRIANGLE / SOUTH LAKE UNION CONNECTIONS



URBAN CONTEXT- SEATTLE SECTION

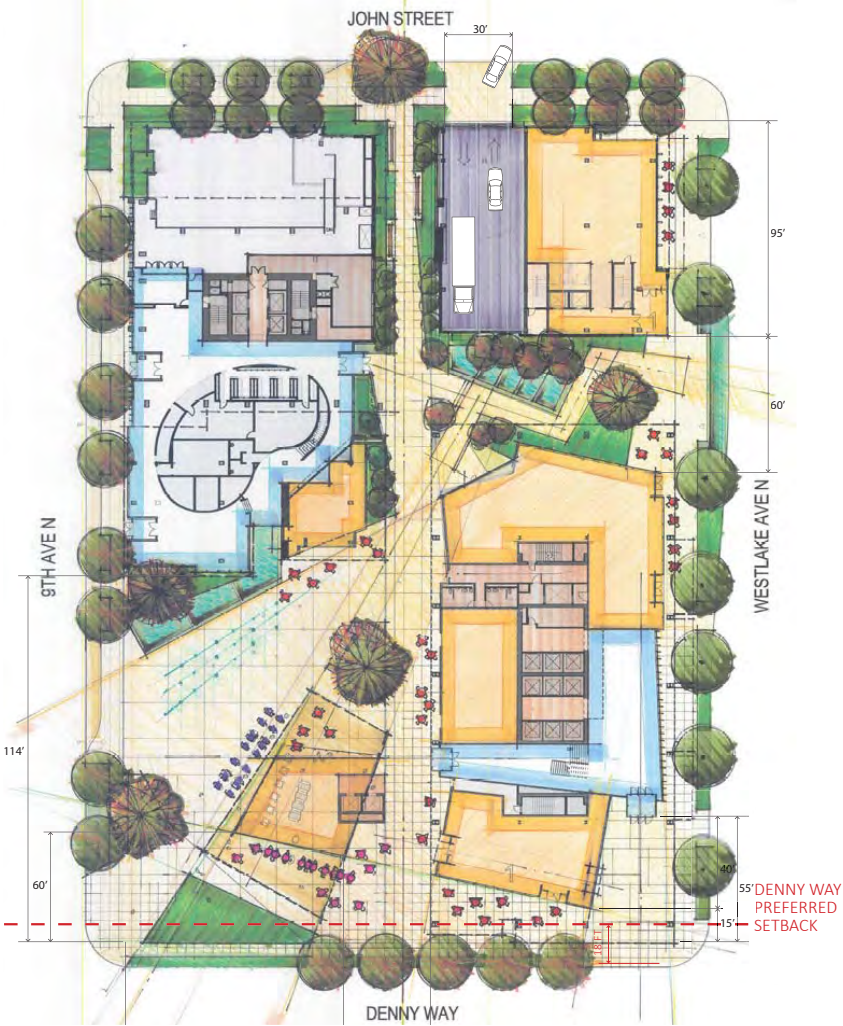


The site section taken along Eighth Avenue shows the site relative to adjacent zones and their respective height and density limits. Generally allowable heights increase as one transitions south from South Lake Union to the downtown CBD.

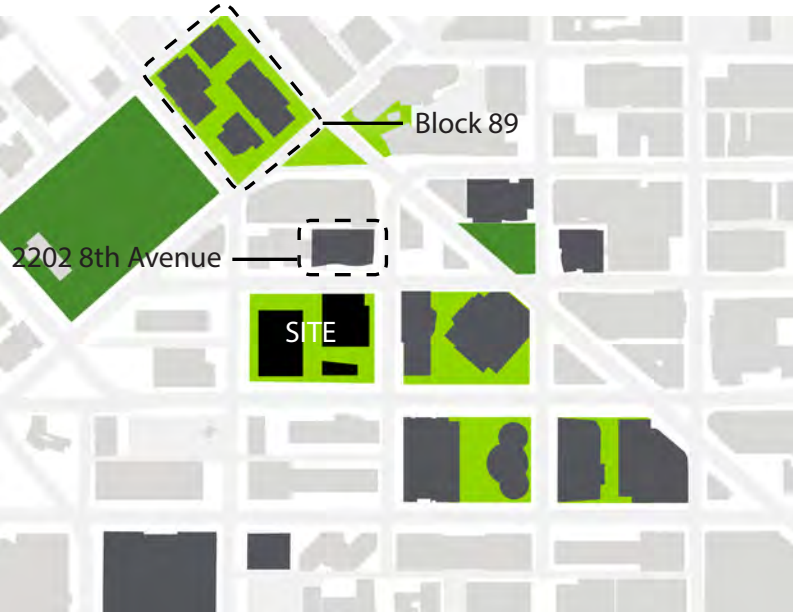




2202 8th Avenue Site Plan



Block 89 Site Plan



Vicinity Map



2202 8th Avenue Perspective View



Block 89 Perspective View

CURRENT AND PIPELINE PROJECTS



A. La Quinta Hotel



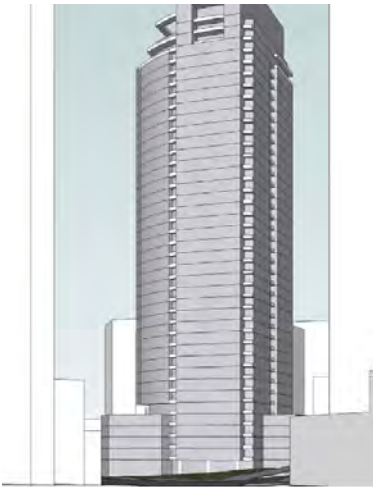
B. Proposed Apartment Tower



C. 2201 Westlake/Enso



D. 2200 Westlake/ Pan Pacific Hotel



E. Proposed Apartment Tower



F. Apartment Tower Under Construction



G. Office Tower Under Construction



H. Office Tower Under Construction



I. Apartment Towers



J. Condo Towers Under Construction



K. Office Tower Under Construction



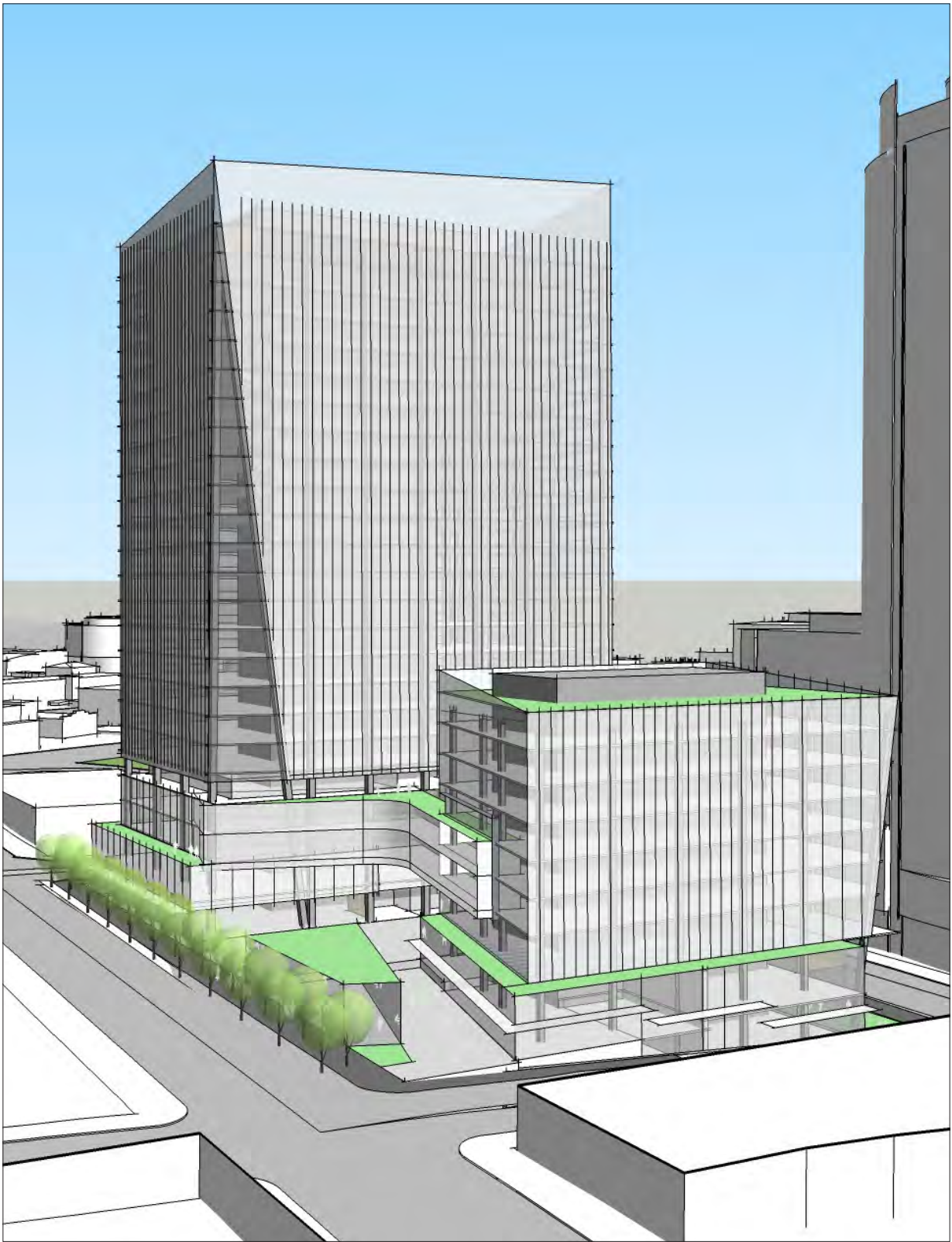
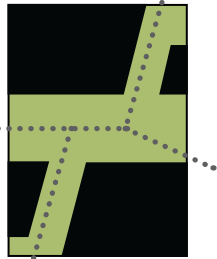
Looking SW



Looking NW



Through-block



Looking north



INITIAL EARLY DESIGN GUIDANCE OF THE DOWNTOWN DESIGN REVIEW BOARD

Project Number: 3018578

Address: 2200 7th Ave

Applicant: Peter Krech

Date of Meeting: Tuesday, November 18, 2014

Board Members Present: Matthew Albores
Anjali Grant
Murphy McCullough
Alan McWain
Gundula Proksch

DPD Staff Present: Beth Hartwick, Senior Land Use Planner

SITE & VICINITY

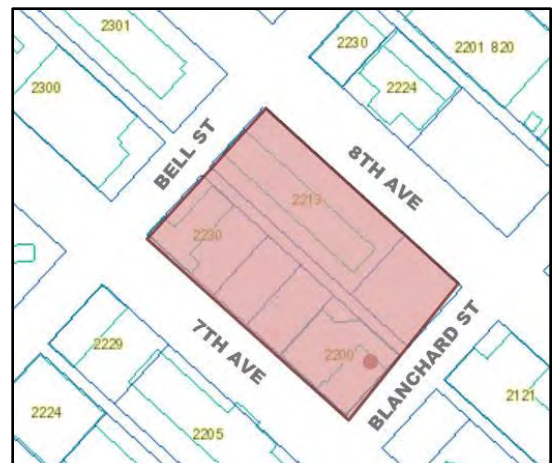
Site Zone: DMC 340/290-400

Nearby Zones: (North) DMC 240/290-400
(South) DMC 500/300-500
(East) DMC 240/290-400
(West) DMC 340/290-400

Lot Area: 77,760 Sq. Ft.

Current Development: On the west side of the alley the site is predominately surface parking with two single story structures occupied by a car rental company, and a restaurant. On the east side of the alley is a 3 story structure that was built as a hotel and is currently being used as housing for a college.

Access: The block is bound by streets on all four sides and an alley which bisects the block.



Environmentally Critical Areas: None

Surrounding Development and Neighborhood Character: The nearby blocks and neighborhood is experiencing rapid transition from a low density, under used area of surface parking and smaller scale retail structures and hotels. New high rise office development is under construction on the two blocks to the south, with another block of office use planned for the block across Blanchard St. from the site, under MUP #3013154. Across 8th Ave is a planned residential tower. A couple blocks to the west a large residential development is under construction. Across Bell St. is a single story mid-century office building and four story hotel and across 7th Ave is a 4-story hotel, and a single story retail structure.

The site is served by multiple bus lines and is within easy walking distance of Westlake Center and the Westlake Station of the downtown tunnel with metro bus and light rail service. The South Lake Union streetcar runs down Westlake Ave a few blocks to the east. 7th Avenue is a primary bike corridor, with a planned cycle track. Bike traffic crisscrosses the neighborhood on multiple streets, including Bell and Blanchard St.

Recreational opportunities and green space are available with Denny Park to the north and the proposed park at Westlake and 8th Ave.

PROJECT DESCRIPTION

The proposal is for a full block development in the Denny Triangle Urban Center Village, with approx. 835,000 sq. ft. of office space and approx. 35,000 sq. ft. of retail space at the ground level of three buildings. Approx. 835 parking spaces will be provided below grade. An alley vacation is required for approval of development.

Initial Early Design Guidance November 18, 2014

The packet includes materials presented at the meeting, and is available online by entering the project number (3018578) at this website:

http://www.seattle.gov/dpd/Planning/Design_Review_Program/Project_Reviews/Reports/default.asp.

The packet is also available to view in the file, by contacting the Public Resource Center at DPD:

Mailing Public Resource Center

Address: 700 Fifth Ave., Suite 2000
P.O. Box 34019
Seattle, WA 98124-4019

Email: PRC@seattle.gov

DESIGN DEVELOPMENT

The applicant presented three options.

Option 1 is the code compliant option, developed with one building containing 835,000 sq. ft. of office space, and 30,000 sq. ft. of at grade retail, over four full levels of below grade parking. The building is “L” shaped for the first seven stories, with a tower rising to 24 stories at the northern portion of the site. The structure is set back forty-five feet from Blanchard St., with ground level open space at the southern and southwestern portion of the site.

The pedestrian office entries are located mid-block, on 8th Ave and through the open space at 7th Ave. The entry lobby bisects retail space at the base of the office tower along 7th Ave, Bell St. and 8th Ave., and retail space facing south off the open space. Parking and loading functions are accessed from curb cuts along 8th Ave.

Option 2 is developed with two building containing 835,200 sq. ft. of office space, and 30,000 sq. ft. of at grade retail, over four full levels of below grade parking. The larger 24 story tower takes up the northern half of the block. The smaller 7-story building is located at the southwest portion of the site and is set back sixty-two feet from 8th Ave. providing ground level open space. The two structures are separated by fifty feet of open space connecting 7th and 8th Avenues creating a mid-block through block connection.

The office entries are located off the open space between the buildings, from Bell St and through the open space at 7th Ave. The entry lobby bisects retail space at the base of the office tower along 7th Ave, Bell St. and 8th Ave., and retail space facing south off the open space. Parking and loading functions are accessed from curb cuts along 8th Ave. and a curb cut on Bell St. is for exiting from the garage.

Option 3 is the applicants preferred option, developed with three building containing 835,200 sq. ft. of office space, and 30,000 sq. ft. of at grade retail, over four full levels of below grade parking. The 24 story tower takes up the northern portion of the block. The smaller 7-story building is situated at the southeast portion of the site and is connected to the tower with a two story bridge about 28’ above grade. A small single story retail building faces 7th Ave west of the 7-story structure. At grade the two smaller structures are separated from the tower by 75 feet of open space connecting 7th Ave. to a plaza along 8th Ave. that leads down to grade at Bell St. under the tower above, creating an angled through block connection. Open space between the two smaller structures provides a pedestrian connection from the corner of Blanchard St. and 7th Ave. to the mid-block open space.

The office lobbies are oriented towards 8th Ave with entries located off the mid-block open space and 8th Ave. In the tower, retail space faces Bell St., 7th Ave. and the mid-block open space. Retail space in the 7-story building fronts Blanchard St. and the open space between the three structures. Parking and loading functions are accessed from curb cuts along 8th Ave. and a curb cut on Bell St. is for exiting from the garage.

COMMENTS FROM THE DESIGN COMMISSION

The following comments were received from the Design Commission Staff and were read at the meeting by the DPD Land Use Planner:

The Design Commission has comments related to the following:

- The quality of the pedestrian environment along 8th Ave.
- High quality, functional and usable open space, there is concern that the amount of open space required to meet code may make it difficult to provide adequate public benefits on site.
- They will be interested in seeing more information about the proposed public benefit package and Green St. improvements, including how the proposed Bell St. curb cut will work on a Green street.

PUBLIC COMMENT

The following public comments were offered at the meeting:

- Encouraged the Board to ensure that the public benefits created by the alley vacation are a 'level above' what would normally be provided.
- Encouraged the Board to use their insight when providing guidance relating to the public interest and public spaces on the outside of the building, especially Bell St.

PRIORITIES & BOARD RECOMMENDATIONS

After visiting the site, considering the analysis of the site and context provided by the proponents, and hearing public comment, the Design Review Board members provided the following siting and design guidance.

INITIAL EARLY DESIGN GUIDANCE: November 18, 2014

As this project is requesting an alley vacation much of the Board's guidance was about how the proposed on site open space should interface with the streetscape. As the placement of the buildings on the site is what creates the opportunities for successful open space, much of the guidance on the massing was given in this context.

- 1. Massing at Grade: The Board gave guidance to pursue whatever massing option provides better public open space, but expressed they would support a version of the preferred Option 3 if it is well designed and provides well designed open space. (B3, B4)**
 - a. Pursue Option 3 with more transparency at the ground level open space and resolve how the through block connection will work to engage the development with the street. Erode the corner of the tower at Bell St. and 8th Ave. and the three-story plinth. (B4.1&2)
 - b. Consider development of Option 2 that incorporates a shifting and narrowing of the lower building to create better open space. (B4.1)

- c. Consider combining Options 1 and 2 to provide an option with all open space accessible at grade. (B4.1)
- d. Consider a development of Option 1 that narrows the building to provide more open space along the two green streets, Bell and Blanchard St. (B4.1)
- e. Consider moving the massing back at grade to provide relief on the green streets, Bell and Blanchard St.(B1.1, B3.3, C1.3)

2. Upper Massing: The Board gave the following guidance on the development of the upper level massing of the Options. (A2, B4.2, C2)

- a. Provide significant modulation and strong articulation of the shaft and tower in Option 3.
- b. The Board encouraged the 'gap' between the top of the podium and the tower in Option 3. (A2, B4)
- c. Work with the 'yellow ribbon' concept presented in Option 3, which represents a two to three story 'band' wrapping around and through the site. Consider bringing the ribbon up the tower. (A2, B4)
- d. Redesign the 'odd' proportions of the tower with modulation and façade treatment. (C2.1)
- e. The Board indicated some support for the massing of the tower on Option 2, noting the massing of the preferred option 3 tower was bulky. (B4)

3. Relationship to the Street: The Board emphasized the importance of how the on-site uses will interface with the street and noted that any benefits need to be for the public. Direct connect to the street is key. (B3, B4, C1, D1.1&2)

- a. Make the site porous and inviting to pedestrians along 8th Ave. (C1, D1)
- b. Pursue an Option 3 design with more transparency at the ground level open space and resolve how the through block connection will work to engage more with the street. (C1.3, C3.1)
- c. Consider lowering the through block open space in Option 3 so it accessible at grade on both 7th and 8th Avenues. The open space on the podium along 8th Ave will create a disconnect between the street and the sidewalk. (B3.1)
- d. Consider placing uses other than offices at the lower floors that would provide a different design treatment near the street. (C1.3, C3.1)
- e. Provide access to the open space at grade as presented in Option 2. (D1)

4. Open Space: The Board directed the applicant to program the on-site open space to enhance public benefits. (D1.1&2, D2, D3, D5, D6)

- a. Design the access to all open space to be easily accessible and useable for the public. (D1.1&2)
- b. Consider lowering the through block open space in Option 3 so it accessible at grade on both 7th and 8th Avenues. (B3.1)
- c. Provide easily accessible public space. Program the open space and retail space to complement each other, and relate to the two green streets, Bell and Blanchard St. (B1.1)
- d. Design the scale of the open space so that it will appear inviting when empty. (D2.1, D3, D5, D6)

- e. Resolve the open space of the preferred Option 3 to meet the street, feel comfortable, and be activated. (D1.1&2, D2.1, D3, D5, D6)

At the second EDG Meeting the applicant is to provide the following:

- Provide a plan showing the proposed interior uses facing the ground level open spaces.
- Provide a study of what amenities are proposed in the open space.

DESIGN REVIEW GUIDELINES

The priority Downtown guidelines identified by the Board as Priority Guidelines are summarized below, while all guidelines remain applicable. For the full text please visit the [Design Review website](#).

SITE PLANNING AND MASSING

A1 Respond to the Physical Environment: Develop an architectural concept and compose the building's massing in response to geographic conditions and patterns of urban form found nearby or beyond the immediate context of the building site.

A1.1. Response to Context: Each building site lies within a larger physical context having various and distinct features and characteristics to which the building design should respond. Develop an architectural concept and arrange the building mass in response to one or more of the following, if present:

- a. a change in street grid alignment that yields a site having nonstandard shape;
- b. a site having dramatic topography or contrasting edge conditions;
- c. patterns of urban form, such as nearby buildings that have employed distinctive and effective massing compositions;
- d. access to direct sunlight—seasonally or at particular times of day;
- e. views from the site of noteworthy structures or natural features, (i.e.: the Space Needle, Smith Tower, port facilities, Puget Sound, Mount Rainier, the Olympic Mountains);
- f. views of the site from other parts of the city or region; and
- g. proximity to a regional transportation corridor (the monorail, light rail, freight rail, major arterial, state highway, ferry routes, bicycle trail, etc.).

A1.2. Response to Planning Efforts: Some areas downtown are transitional environments, where existing development patterns are likely to change. In these areas, respond to the urban form goals of current planning efforts, being cognizant that new development will establish the context to which future development will respond.

A2 Enhance the Skyline: Design the upper portion of the building to promote visual interest and variety in the downtown skyline. Respect existing landmarks while responding to the skyline's present and planned profile.

A2.1. Desired Architectural Treatments: Use one or more of the following architectural treatments to accomplish this goal:

- a. sculpt or profile the facades;

- b. specify and compose a palette of materials with distinctive texture, pattern, or color;
- c. provide or enhance a specific architectural rooftop element.

A2.2. Rooftop Mechanical Equipment: In doing so, enclose and integrate any rooftop mechanical equipment into the design of the building as a whole.

ARCHITECTURAL EXPRESSION

B1 Respond to the neighborhood context: Develop an architectural concept and compose the major building elements to reinforce desirable urban features existing in the surrounding neighborhood.

B1.1. Adjacent Features and Networks: Each building site lies within an urban neighborhood context having distinct features and characteristics to which the building design should respond. Arrange the building mass in response to one or more of the following, if present:

- a. a surrounding district of distinct and noteworthy character;
- b. an adjacent landmark or noteworthy building;
- c. a major public amenity or institution nearby;
- d. neighboring buildings that have employed distinctive and effective massing compositions;
- e. elements of the pedestrian network nearby, (i.e.: green street, hillclimb, mid-block crossing, through-block passageway); and
- f. direct access to one or more components of the regional transportation system.

B1.2. Land Uses: Also, consider the design implications of the predominant land uses in the area surrounding the site.

B3 Reinforce the Positive Urban Form & Architectural Attributes of the Immediate Area.: Consider the predominant attributes of the immediate neighborhood and reinforce desirable siting patterns, massing arrangements, and streetscape characteristics of nearby development.

B3.1. Building Orientation: In general, orient the building entries and open space toward street intersections and toward street fronts with the highest pedestrian activity. Locate parking and vehicle access away from entries, open space, and street intersections considerations.

B3.2. Features to Complement: Reinforce the desirable patterns of massing and facade composition found in the surrounding area. Pay particular attention to designated landmarks and other noteworthy buildings. Consider complementing the existing:

- a. massing and setbacks,
- b. scale and proportions,
- c. expressed structural bays and modulations,
- d. fenestration patterns and detailing,
- e. exterior finish materials and detailing,
- f. architectural styles, and
- g. roof forms.

B3.3. Pedestrian Amenities at the Ground Level: Consider setting the building back slightly to create space adjacent to the sidewalk conducive to pedestrian-oriented activities such as

vending, sitting, or dining. Reinforce the desirable streetscape elements found on adjacent blocks. Consider complementing existing:

- h. public art installations,
- i. street furniture and signage systems,
- j. lighting and landscaping, and
- k. overhead weather protection.

B4 Design a Well-Proportioned & Unified Building: Compose the massing and organize the interior and exterior spaces to create a well-proportioned building that exhibits a coherent architectural concept. Design the architectural elements and finish details to create a unified building, so that all components appear integral to the whole.

B4.1. Massing: When composing the massing, consider how the following can contribute to create a building that exhibits a coherent architectural concept:

- a. setbacks, projections, and open space;
- b. relative sizes and shapes of distinct building volumes; and
- c. roof heights and forms.

B4.2. Coherent Interior/Exterior Design: When organizing the interior and exterior spaces and developing the architectural elements, consider how the following can contribute to create a building that exhibits a coherent architectural concept:

- d. facade modulation and articulation;
- e. windows and fenestration patterns;
- f. corner features;
- g. streetscape and open space fixtures;
- h. building and garage entries; and
- i. building base and top.

B4.3. Architectural Details: When designing the architectural details, consider how the following can contribute to create a building that exhibits a coherent architectural concept:

- j. exterior finish materials;
- k. architectural lighting and signage;
- l. grilles, railings, and downspouts;
- m. window and entry trim and moldings;
- n. shadow patterns; and
- o. exterior lighting.

THE STREETScape

C1 Promote Pedestrian Interaction: Spaces for street level uses should be designed to engage pedestrians with the activities occurring within them. Sidewalk-related spaces should appear safe, welcoming, and open to the general public.

C1.1. Street Level Uses: Provide spaces for street level uses that:

- a. reinforce existing retail concentrations;
- b. vary in size, width, and depth;
- c. enhance main pedestrian links between areas; and

d. establish new pedestrian activity where appropriate to meet area objectives. Design for uses that are accessible to the general public, open during established shopping hours, generate walk-in pedestrian clientele, and contribute to a high level of pedestrian activity.

C1.2. Retail Orientation: Where appropriate, consider configuring retail space to attract tenants with products or services that will “spill-out” onto the sidewalk (up to six feet where sidewalk is sufficiently wide).

C1.3. Street-Level Articulation for Pedestrian Activity: Consider setting portions of the building back slightly to create spaces conducive to pedestrian-oriented activities such as vending, resting, sitting, or dining. Further articulate the street level facade to provide an engaging pedestrian experience via:

- e. open facades (i.e., arcades and shop fronts);
- f. multiple building entries;
- g. windows that encourage pedestrians to look into the building interior;
- h. merchandising display windows;
- i. street front open space that features art work, street furniture, and landscaping;
- j. exterior finish materials having texture, pattern, lending themselves to high quality detailing.

C2 Design Facades of Many Scales: Design architectural features, fenestration patterns, and material compositions that refer to the scale of human activities contained within. Building facades should be composed of elements scaled to promote pedestrian comfort, safety, and orientation.

C2.1. Modulation of Facades: Consider modulating the building facades and reinforcing this modulation with the composition of:

- a. the fenestration pattern;
- b. exterior finish materials;
- c. other architectural elements;
- d. light fixtures and landscaping elements; and
- e. the roofline.

C3 Provide Active — Not Blank — Facades: Buildings should not have large blank walls facing the street, especially near sidewalks.

C3.1. Desirable Facade Elements: Facades which for unavoidable programmatic reasons may have few entries or windows should receive special design treatment to increase pedestrian safety, comfort, and interest. Enliven these facades by providing:

- a. small retail spaces (as small as 50 square feet) for food bars, newstands, and other specialized retail tenants;
- b. visibility into building interiors;
- c. limited lengths of blank walls;
- d. a landscaped or raised bed planted with vegetation that will grow up a vertical trellis or frame installed to obscure or screen the wall’s blank surface;

- e. high quality public art in the form of a mosaic, mural, decorative masonry pattern, sculpture, relief, etc., installed over a substantial portion of the blank wall surface;
- f. small setbacks, indentations, or other architectural means of breaking up the wall surface;
- g. different textures, colors, or materials that break up the wall's surface.
- h. special lighting, a canopy, awning, horizontal trellis, or other pedestrian-oriented feature to reduce the expanse of the blank surface and add visual interest;
- i. seating ledges or perches (especially on sunny facades and near bus stops);
- j. merchandising display windows or regularly changing public information display cases.

C5 Encourage Overhead Weather Protection: Project applicants are encouraged to provide continuous, well-lit, overhead weather protection to improve pedestrian comfort and safety along major pedestrian routes.

C5.1. Overhead Weather Protection Design Elements: Overhead weather protection should be designed with consideration given to:

- a. the overall architectural concept of the building
- b. uses occurring within the building (such as entries and retail spaces) or in the adjacent streetscape environment (such as bus stops and intersections);
- c. minimizing gaps in coverage;
- d. a drainage strategy that keeps rain water off the street-level facade and sidewalk;
- e. continuity with weather protection provided on nearby buildings;
- f. relationship to architectural features and elements on adjacent development, especially if abutting a building of historic or noteworthy character;
- g. the scale of the space defined by the height and depth of the weather protection;
- h. use of translucent or transparent covering material to maintain a pleasant sidewalk environment with plenty of natural light; and
- i. when opaque material is used, the illumination of light-colored undersides to increase security after dark.

PUBLIC AMENITIES

D1 Provide Inviting & Usable Open Space: Design public open spaces to promote a visually pleasing, safe, and active environment for workers, residents, and visitors. Views and solar access from the principal area of the open space should be especially emphasized.

D1.1. Pedestrian Enhancements: Where a commercial or mixed-use building is set back from the sidewalk, pedestrian enhancements should be considered in the resulting street frontage. Downtown the primary function of any open space between commercial buildings and the sidewalk is to provide access into the building and opportunities for outdoor activities such as vending, resting, sitting, or dining.

- a. All open space elements should enhance a pedestrian oriented, urban environment that has the appearance of stability, quality, and safety.
- b. Preferable open space locations are to the south and west of tower development, or where the siting of the open space would improve solar access to the sidewalk.

- c. Orient public open space to receive the maximum direct sunlight possible, using trees, overhangs, and umbrellas to provide shade in the warmest months. Design such spaces to take advantage of views and solar access when available from the site.
- d. The design of planters, landscaping, walls, and other street elements should allow visibility into and out of the open space.

D1.2. Open Space Features: Open spaces can feature art work, street furniture, and landscaping that invite customers or enhance the building's setting. Examples of desirable features to include are:

- a. visual and pedestrian access (including barrier-free access) into the site from the public sidewalk;
- b. walking surfaces of attractive pavers;
- c. pedestrian-scaled site lighting;
- d. retail spaces designed for uses that will comfortably "spill out" and enliven the open space;
- e. areas for vendors in commercial areas;
- f. landscaping that enhances the space and architecture;
- g. pedestrian-scaled signage that identifies uses and shops; and
- h. site furniture, art work, or amenities such as fountains, seating, and kiosks. residential open space

D2 Enhance the Building with Landscaping: Enhance the building and site with generous landscaping— which includes special pavements, trellises, screen walls, planters, and site furniture, as well as living plant material.

D2.1. Landscape Enhancements: Landscape enhancement of the site may include some of the approaches or features listed below:

- a. emphasize entries with special planting in conjunction with decorative paving and/or lighting;
- b. include a special feature such as a courtyard, fountain, or pool;
- c. incorporate a planter guard or low planter wall as part of the architecture;
- d. distinctively landscape open areas created by building modulation;
- e. soften the building by screening blank walls, terracing retaining walls, etc;
- f. increase privacy and security through screening and/or shading;
- g. provide a framework such as a trellis or arbor for plants to grow on;
- h. incorporate upper story planter boxes or roof planters;
- i. provide identity and reinforce a desired feeling of intimacy and quiet;
- j. provide brackets for hanging planters;
- k. consider how the space will be viewed from the upper floors of nearby buildings as well as from the sidewalk; and
- l. if on a designated Green Street, coordinate improvements with the local Green Street plan.

D2.2. Consider Nearby Landscaping: Reinforce the desirable pattern of landscaping found on adjacent block faces.

- m. plant street trees that match the existing planting pattern or species;

- n. use similar landscape materials; and
- o. extend a low wall, use paving similar to that found nearby, or employ similar stairway construction methods.

D3 Provide Elements That Define the Place: Provide special elements on the facades, within public open spaces, or on the sidewalk to create a distinct, attractive, and memorable “sense of place” associated with the building.

D3.1. Public Space Features and Amenities: Incorporate one or more of the following a appropriate:

- a. public art;
- b. street furniture, such as seating, newspaper boxes, and information kiosks;
- c. distinctive landscaping, such as specimen trees and water features;
- d. retail kiosks;
- e. public restroom facilities with directional signs in a location easily accessible to all; and
- f. public seating areas in the form of ledges, broad stairs, planters and the like, especially near public open spaces, bus stops, vending areas, on sunny facades, and other places where people are likely to want to pause or wait.

D3.2. Intersection Focus: Enliven intersections by treating the corner of the building or sidewalk with public art and other elements that promote interaction (entry, tree, seating, etc.) and reinforce the distinctive character of the surrounding area.

D5 Provide Adequate Lighting: To promote a sense of security for people downtown during nighttime hours, provide appropriate levels of lighting on the building facade, on the underside of overhead weather protection, on and around street furniture, in merchandising display windows, in landscaped areas, and on signage.

D5.1. Lighting Strategies: Consider employing one or more of the following lighting strategies as appropriate.

- a. Illuminate distinctive features of the building, including entries, signage, canopies, and areas of architectural detail and interest.
- b. Install lighting in display windows that spills onto and illuminates the sidewalk.
- c. Orient outside lighting to minimize glare within the public right-of-way.

D6 Design for Personal Safety & Security: Design the building and site to promote the feeling of personal safety and security in the immediate area.

D6.1. Safety in Design Features: To help promote safety for the residents, workers, shoppers, and visitors who enter the area:

- a. provide adequate lighting;
- b. retain clear lines of sight into and out of entries and open spaces;
- c. use semi-transparent security screening, rather than opaque walls, where appropriate;
- d. avoid blank and windowless walls that attract graffiti and that do not permit residents or workers to observe the street;

- e. use landscaping that maintains visibility, such as short shrubs and/or trees pruned so that all branches are above head height;
- f. use ornamental grille as fencing or over ground-floor windows in some locations;
- g. avoid architectural features that provide hiding places for criminal activity;
- h. design parking areas to allow natural surveillance by maintaining clear lines of sight for those who park there, for pedestrians passing by, and for occupants of nearby buildings;
- i. install clear directional signage;
- j. encourage “eyes on the street” through the placement of windows, balconies, and street-level uses; and
- k. ensure natural surveillance of children’s play areas.

VEHICULAR ACCESS AND PARKING

E1 Minimize Curb Cut Impacts: Minimize adverse impacts of curb cuts on the safety and comfort of pedestrians.

E1.1. Vehicle Access Considerations: Where street access is deemed appropriate, one or more of the following design approaches should be considered for the safety and comfort of pedestrians.

- a. minimize the number of curb cuts and locate them away from street intersections;
- b. minimize the width of the curb cut, driveway, and garage opening;
- c. provide specialty paving where the driveway crosses the sidewalk;
- d. share the driveway with an adjacent property owner;
- e. locate the driveway to be visually less dominant;
- f. enhance the garage opening with specialty lighting, artwork, or materials having distinctive texture, pattern, or color
- g. provide sufficient queueing space on site.

E1.2. Vehicle Access Location: Where possible, consider locating the driveway and garage entrance to take advantage of topography in a manner that does not reduce pedestrian safety nor place the pedestrian entrance in a subordinate role.

E2 Integrate Parking Facilities: Minimize the visual impact of parking by integrating parking facilities with surrounding development. Incorporate architectural treatments or suitable landscaping to provide for the safety and comfort of people using the facility as well as those walking by.

E2.2. Parking Structure Entrances: Design vehicular entries to parking structure so that they do not dominate the street frontage of a building. Subordinate the garage entrance to the pedestrian entrance in terms of size, prominence on the street-scape, location, and design emphasis. Consider one or more of the following design strategies:

- i. Enhance the pedestrian entry to reduce the relative importance of the garage entry.
- j. Recess the garage entry portion of the facade or extend portions of the structure over the garage entry to help conceal it.
- k. Emphasize other facade elements to reduce the visual prominence of the garage entry.
- l. Use landscaping or artwork to soften the appearance of the garage entry from the street.

m. Locate the garage entry where the topography of the site can help conceal it.

E3 Minimize the Presence of Service Areas: Locate service areas for trash dumpsters, loading docks, mechanical equipment, and the like away from the street front where possible. Screen from view those elements which for programmatic reasons cannot be located away from the street front.

E3.1. Methods of Integrating Service Areas: Consider incorporating one or more of the following to help minimize these impacts:

- a. Plan service areas for less visible locations on the site, such as off the alley.
- b. Screen service areas to be less visible.
- c. Use durable screening materials that complement the building.
- d. Incorporate landscaping to make the screen more effective.
- e. Locate the opening to the service area away from the sidewalk.

DEVELOPMENT STANDARD DEPARTURES

The Board's recommendation on the requested departure(s) will be based on the departure's potential to help the project better meet these design guidelines priorities and achieve a better overall project design than could be achieved without the departure(s). The Board's recommendation will be reserved until the final Board meeting.

At the time of the Initial Early Design Guidance the following departures were requested for Option 2:

1. **SMC23.49.056.B.2.d Façade Setback Limits** The Code requires on streets not requiring property line facades that the maximum setback of the facade from the street lot lines at intersections is 10 feet. The minimum distance the facade must conform to this limit is 20 feet along each street. In Option 2 the applicant proposes a setback at the corner of 8th Ave and Bell St. of 20', along Bell St..

The Board indicated that they will be inclined to grant this departure.

2. **SMC23.49.056.B.2.d Façade Setback Limits** The Code requires on streets not requiring property line facades that the maximum setback of the facade from the street lot lines at intersections is 10 feet. The minimum distance the facade must conform to this limit is 20 feet along each street. In Option 2 the applicant proposes a setback at the corner of 7th Ave and Blanchard St. of 20', along Blanchard St.

The Board indicated that they will be inclined to grant this departure.

At the time of the Initial Early Design Guidance the following departures were requested for Option 3:

1. **Façade Setback Limits (SMC23.49.056.B.2.d):** The Code requires on streets not requiring property line facades that the maximum setback of the facade from the street lot lines at intersections is 10 feet. The minimum distance the facade must conform to this limit is 20 feet along each street. In Option 3 the applicant proposes a setback at the corner of 8th Ave and Bell St. of 20', along Bell St.

The Board indicated that they will be inclined to grant this departure.

2. **Façade Setback Limits (SMC23.49.056.B.2.d):** The Code requires on streets not requiring property line facades that the maximum setback of the facade from the street lot lines at intersections is 10 feet. The minimum distance the facade must conform to this limit is 20 feet along each street. In Option 3 the applicant proposes a setback at the corner of 8th Ave and Bell St. of 20', along Blanchard St.

The Board indicated that they will be inclined to grant this departure.

3. **Façade Setback Limits (SMC23.49.056.B.2.d):** The Code requires on streets not requiring property line facades that the maximum setback of the facade from the street lot lines at intersections is 10 feet. The minimum distance the facade must conform to this limit is 20 feet along each street. In Option 3 the applicant proposes a setback at the corner of 8th Ave and Blanchard St. of 20', along Blanchard St.

The Board indicated that they will be inclined to grant this departure.

4. **Upper Level Façade Modulation (SMC23.49.058.B.2.d):** The Code requires the maximum allowed length of a facade without modulation within 15' of the property line for elevations 161-240' to be no more than 125'. The applicant is proposing the east façade of the tower facing 8th Ave to have a facade length without modulation of 135'.

The Board indicated that they may consider this departure depending on the creativity of the modulation.

5. **Upper Level Façade Modulation (SMC23.49.058.B.2.d):** The Code requires the maximum allowed length of a facade without modulation within 15' of the property line for elevations 241-500' to be no more than 100'. The applicant is proposing the east façade of the tower facing 8th Ave to have a facade length without modulation of 135'.

The Board indicated that they may consider this departure depending on the creativity of the modulation proposed.

6. **Upper Level Façade Modulation (SMC23.49.058.F.2):** The Code requires that when a lot in a DMC or DOC2 zone is located on a designated green street, a continuous upper-level setback of 15 feet shall be provided on the street frontage abutting the green street at a height of 45 feet. The applicant is proposing the elevator penthouse along Bell St. to overrun the allowable height by 10’.

The Board indicated they are not inclined to grant this departure and guided the applicant to either move or remove the elevator.

RECOMMENDATIONS

BOARD DIRECTION

At the conclusion of the Initial Early Design Guidance meeting, the Board directed the applicant to return for a second EDG meeting.