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Seattle Impact Fee Study

FEHR & PEERS

DRAFT

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INTRODUCTION

Seattle, well known for its commitment to inclusivity and thoughtful modal plans, is a leader in progressive transportation planning, design, and implementation. To support the City's multimodal planning, this report documents the methods and assumptions used to develop a Growth Management Act (GMA) compliant multimodal Transportation Impact Fee (TIF) program that supports growth anticipated by the Seattle 2035 Comprehensive Plan over the next 12 years. This multimodal TIF would help fund a project list that includes complete streets, transit supportive infrastructure, freight network improvements, and investments to create a more complete network for walking and biking. The proposed TIF program is based on person trips rather than vehicle trips given the strong nexus between new development and the need to expand the City's multimodal transportation network. The proposed TIF also includes reduced rates for certain areas of the City, including Urban Centers (UC), Urban Villages (UV), and areas within ½ mile of light rail stations since these areas are less likely to produce vehicle trips, which have a larger impact on the City's transportation network than trips made by other modes.

METHODOLOGY

The multimodal impact fee structure for the City of Seattle was designed to determine the fair share of multimodal transportation improvement costs that may be charged to new development. The GMA allows impact fees for system improvements that are reasonably required to support and mitigate the impacts of new development. The GMA also specifies that fees are not to exceed a proportionate share of the costs of improvements.

The following key points summarize the impact fee structure (refer to **Figure 1)**:

- A single TIF project list was developed from the following adopted City plans:
  - Bicycle Master Plan;
  - Freight Master Plan;
  - Pedestrian Master Plan;
  - Transit Master Plan;
  - Move Seattle Plan; and
  - Capital Improvement Program
- Projects from these plans were evaluated for impact fee eligibility (non-capacity investments were eliminated, these were primarily maintenance and safety improvement projects).
- Of the remaining eligible projects, the portion of those projects addressing existing deficiencies or carrying non-city growth were subtracted from eligible costs, this included removing the portions of project costs earmarked for pavement preservation.
- The remaining list of eligible program costs were divided by Seattle's expected growth in person trips over the next 12 years based on growth projected in the City's Comprehensive Plan.
- A land use-based fee schedule was developed using the cost per person trip calculated above. Person trip rates for multiple land use categories were estimated using vehicle trip generation rates from the Institute of Transportation Engineers Trip Generation Manual 11th Edition and the ratio of person trips to vehicle trips from the PSRC Household Travel Survey.
- TIF rates are scaled in different areas of the City based on estimated SOV mode share and needed transportation infrastructure.

Figure 1 – Impact Fee Structure

TRANSPORTATION IMPACT FEE (TIF) PROJECT LIST

Washington State law (RCW 82.02.050) specifies that TIFs are to be spent on "transportation system improvements." Transportation system improvements can include physical or operational changes to existing transportation facilities, as well as new transportation connections that are built in one location to benefit projected needs at another location. Projects on the multimodal TIF list must add new multimodal capacity (new streets, additional lanes, sidewalks, bike lanes, low-stress bike routes, signalization, roundabouts, etc.). One important limitation identified in the GMA relates to where TIFs can be spent—notably that TIFs can only be spent on "streets and roads." Most jurisdictions in Washington have interpreted 'streets and roads' as including "complete streets" facilities that are typically included in the roadway right-of-way and/or documented on roadway standard plans, including travel lanes, bike lanes, planting strips, sidewalks, crosswalks, midblock crossings, traffic signals, roundabouts, overhead signage, lighting, etc. Note that trails and pathways that are not within the public transportation right-of-way are typically not included in the TIF project list. An exception to this are rails-to-trails projects, which are considered roadway facilities in Washington State (RCW 47.30.070). Many trails and pathways are through park properties or on access easements through private property and thus ineligible for TIF funding.

The City's goal is to adopt and implement a TIF program that supports the City's growth and helps meet its future transportation needs. This multimodal TIF is specifically designed to meet these goals by funding multimodal projects that provide capacity for future growth and meet the requirements of the GMA.

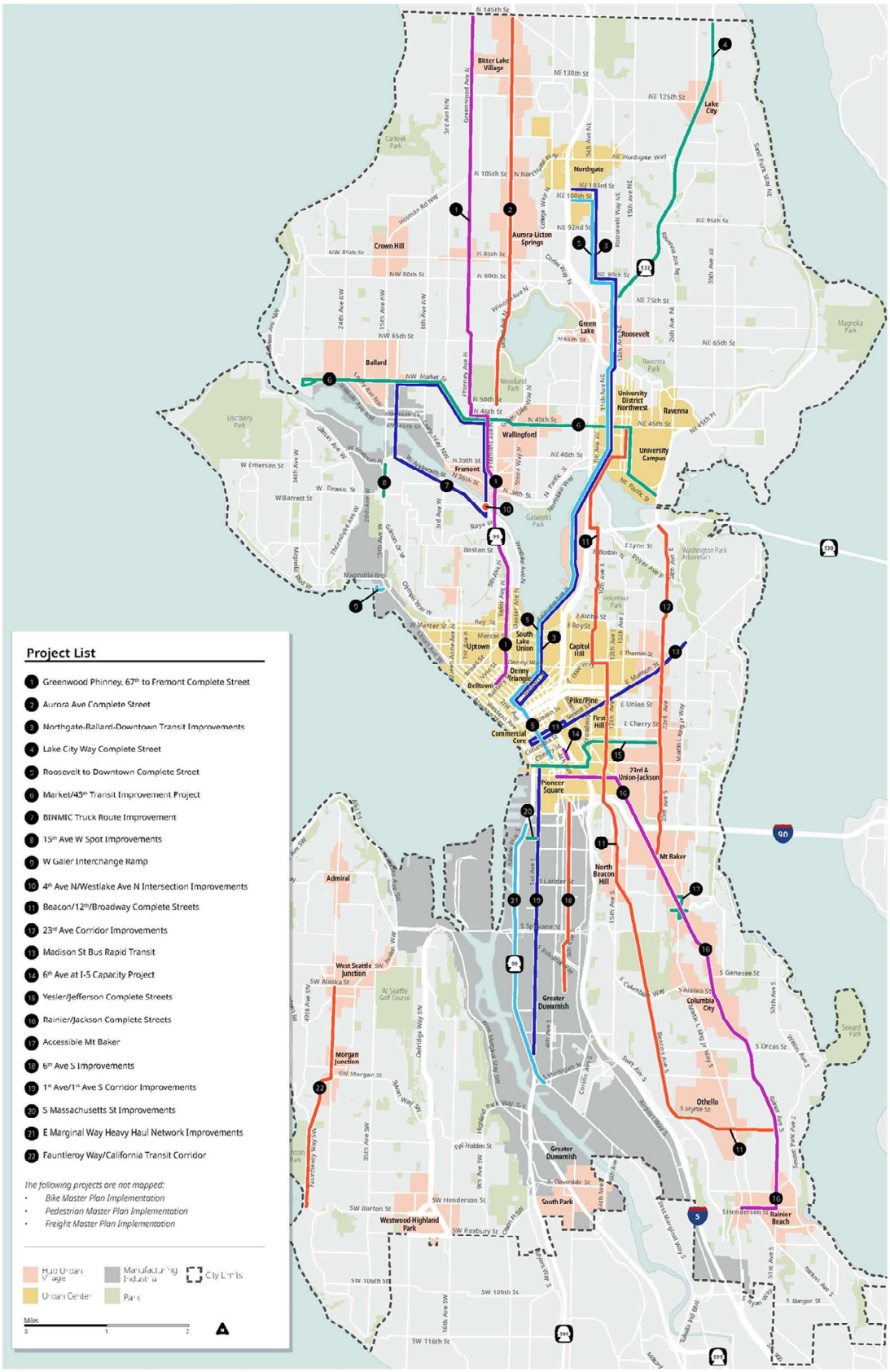
The multimodal TIF project list was based on the Bicycle Master Plan, Freight Master Plan, Pedestrian Master Plan, Transit Master Plan, Move Seattle Plan, and the Capital Improvement Program, which identified multimodal transportation projects needed in the next 12 years. Fehr & Peers worked with the City to develop the TIF project list by removing projects that were not eligible for TIF funding. These included projects that did not add multimodal capacity or addressed only maintenance or safety needs. As a result, the TIF project list includes a network of complete streets, biking, walking, freight and transit-supportive projects on the city's roadway system. In addition to removing non-capacity adding projects, the cost of pavement rehabilitation was extracted from the eligible cost of each project.

PROJECT COSTS

The project cost estimates included in this report are based on information provided in City plans or discussions with City staff. Ineligible costs, such as pavement rehabilitation, were removed. Any secured funding from other sources (for example, funding from the Move Seattle Levy) is assumed to be applied to funding project costs that are ineligible for impact fees. The resulting project list is shown in **Appendix C** and has 2022 total eligible project costs of $1.07 billion. **Figure 2** shows the proposed multimodal projects

with the exception of projects included in the Bicycle and Pedestrian Master Plans, and Freight Spot Improvements, as these projects are spread throughout the City or large areas of the City.

Figure 2 – Map of Projects



TRAVEL GROWTH

Determining the growth in travel demand caused by future development is a key requirement for a TIF program. In nearly every TIF program across Washington, the total eligible costs of building new transportation capacity are divided by the total growth in trips to determine a cost per trip. In this way, the cost to provide the new transportation infrastructure is fairly apportioned to new development regardless of scale or type. For Seattle's program, Fehr & Peers developed a method to calculate growth in PM peak hour person trips using the regional travel demand forecasting model and household survey data from the Puget Sound Regional Council (PSRC), and trip rates from the Institute of Transportation Engineers (ITE). In calculating PM peak hour person trips, a trip was considered as travel between an origin and a destination. Each trip has two trip ends, one each at the origin and destination. As described in the introduction, this updated multimodal TIF is based on person trip ends rather than vehicle trip ends because the project list includes multimodal improvements that add capacity for all modes, not just vehicles. Since person trips can use any mode, they provide the greatest nexus for a multimodal project list.

The calculation of person trips required the steps summarized below:

1. Translate the Seattle land use data in the PSRC travel model into a format used for impact fees.
2. Estimate the person trip ends associated with the vehicle trip growth using a ratio of the person trip rate to vehicle trip rates from the PSRC Household Travel Survey and vehicle trip rates from the ITE.
3. Calculate total PM peak hour person trip growth over a 12-year period.

The following three sections go into detail on each of the steps above.

TRANSLATING LAND USES FOR IMPACT FEES

- First, total household growth from the PSRC model was converted into single family and multi-family units; single family households generate more trips than multi-family households, on average, since the average household size for single-family homes is larger. While existing households are assumed to be split evenly between single-family and multi-family dwelling units, net household growth over the next 12-year period is assumed to be from an increase in multi-family dwelling units.

- Next, employees were converted by different land use sectors into square footage using standard estimates of square feet per employee, listed below (these rates are based on Fehr & Peers' experience developing and applying dozens of travel demand forecasting models across the state):

- 500 square feet per retail employee
- 250 square feet per office/government service employee
- 1,000 square feet per manufacturing/warehouse employee
- 350 square feet per all other employees

ESTIMATING PERSON TRIP ENDS

Person trip ends associated with growth in each land use type were estimated using a ratio of the person trip rate to vehicle trip rates. The person trip rate was developed from the PSRC Household Travel Survey and vehicle trip rates generally from the ITE Trip Generation Manual, 11th Edition. How each data source was used is outlined below.

- PM peak hour vehicle trip rates were taken from the ITE Trip Generation Manual. The ITE Manual contains person trip rates for some land uses, but these data are not universal, and the sample sizes can be small. PM peak hour vehicle trip rates were taken from ITE Manual for the six major use categories in the travel model:
  - Residential
  - Retail
  - Office (finance, insurance, real estate, other services)
  - Government
  - Educational employment/school enrollment
  - Manufacturing/warehousing
- To convert from ITE vehicle trip rates to person trip rates, Fehr & Peers started with a vehicle-to-person trip conversion factor from the 2014 PSRC Household Travel Survey. With the ratio of person trips to vehicle trips identified, the ITE vehicle trip rates were factored. **Table 1** below summarizes vehicle-to-person trip ratio for each generalized land use category. These land use categories were further used to develop the full impact fee rate table shown in **Appendix A.**

Table 1 – Vehicle Trip to Person Trip Ratio

Generalized Land Use Category	*Vehicle-to-Person Trip Ratio*
Residential/Hotel	1.45
Office/Government/ Higher Education	1.22
Primary Education	1.26
Industrial/Warehousing	1.08
Retail/Recreation/ Restaurant	1.25

CALCULATING TOTAL PM PEAK HOUR PERSON TRIPS

Total PM Peak Hour Person trips within the City were ultimately based on the growth in trip ends based on the expected 12-year growth in jobs and households in the City. The following summarizes the calculation:

- 2034 Total PM Peak Hour Person Trip Ends = 784,366
- 2022 Total PM Peak Hour Person Trip Ends = 699,266
- Growth in PM Peak Hour Person Trips = 85,100

This total PM peak hour person trip growth was used in calculating the TIF rate.

COST ALLOCATION

To meet GMA requirements, the TIF methodology must separate the share of project costs that address existing deficiencies from the share of project costs that add multimodal capacity and serve new growth. The resulting growth-related improvement costs are then further separated to identify the share of growth related to land development in Seattle versus growth from outside of the City. New development in Seattle cannot be charged a fee to pay for the capacity needs generated by development outside of the City.

TRANSPORTATION DEFICIENCIES

Impact fees cannot be used to pay the costs of addressing safety, maintenance, or existing level of service deficiencies. Based on an initial review of the project list, several projects that predominantly addressed current safety and state-of-repair issues were removed from the final TIF project list.

EXISTING SYSTEM VALUE

To ensure that development in Seattle was not being asked to pay for a level of transportation infrastructure that exceeds what the City provides today, Fehr & Peers calculated the value of Seattle's existing transportation system and divided those costs over trips that are occurring on the network today. This methodology is similar to approaches that have been applied to develop TIF programs in Oakland, California and Portland, Oregon. This appraisal includes City eligible assets, such as sidewalks, traffic signals, bridges, and arterial pavement. The total value of Seattle's transportation system was calculated to be over $21.1 billion. This total existing system value in relation to the 2022 PM peak hour person trips (which amount to 699,266) sets the maximum allowable cost per trip that could be assessed by impact fees at $30,297 per PM peak hour person trip. (Note: This maximum allowable cost per trip is substantially higher than the rate justified by the TIF project list.) More information about how the existing system value was calculated can be found in **Appendix B**.

PERCENT OF GROWTH WITHIN SEATTLE

With deficiencies accounted for, all the remaining project costs are related to supporting new growth in trips. However, not all the growth comes from Seattle development – there is a portion of growth that comes from surrounding jurisdictions. Seattle does not have the authority to charge growth in neighboring jurisdictions for their share of building new transportation infrastructure. To account for this legal limitation, adjustments were made for trips that pass through Seattle or only have one end of the trip starting or ending in Seattle. Since a substantial share of traffic on some Seattle roads is generated by growth outside of the City, sources other than impact fees would have to pay the cost to accommodate growth outside of Seattle.

To calculate the share of trip growth associated with Seattle and non-Seattle development the PSRC travel model was used. The travel model is the best tool for this analysis because of the complex nature of how people travel and what facilities they use. For example, travelers on I-5 are more likely to begin or end the trip outside of the City of Seattle than those travelling on city streets. Therefore, Fehr & Peers analyzed traffic forecasts generated by the PSRC travel model for each project to find the portion of trips relating to outside growth in each area. Depending on the location, 49-90% of all vehicle trips are related to City growth. The PSRC model does not have a similar tool to estimate the share of non-motorized trip growth associated with development outside of Seattle. However, given Seattle's size and the relatively short

average trip lengths for pedestrian and bicycle trips, 75% of bicycle[1] and 90% of pedestrian trip growth that use the TIF projects are assumed to be related to growth in Seattle.

Appendix C shows the resulting percentages of growth within Seattle for each project.

COMMITTED EXTERNAL FUNDING

Some near-term projects that are on the City's Transportation Improvement Program include committed funding from levy portions and funding secured from other sources. In total, the projects on the TIF list include more than $45 million in committed levy funding.

COST ALLOCATION RESULTS

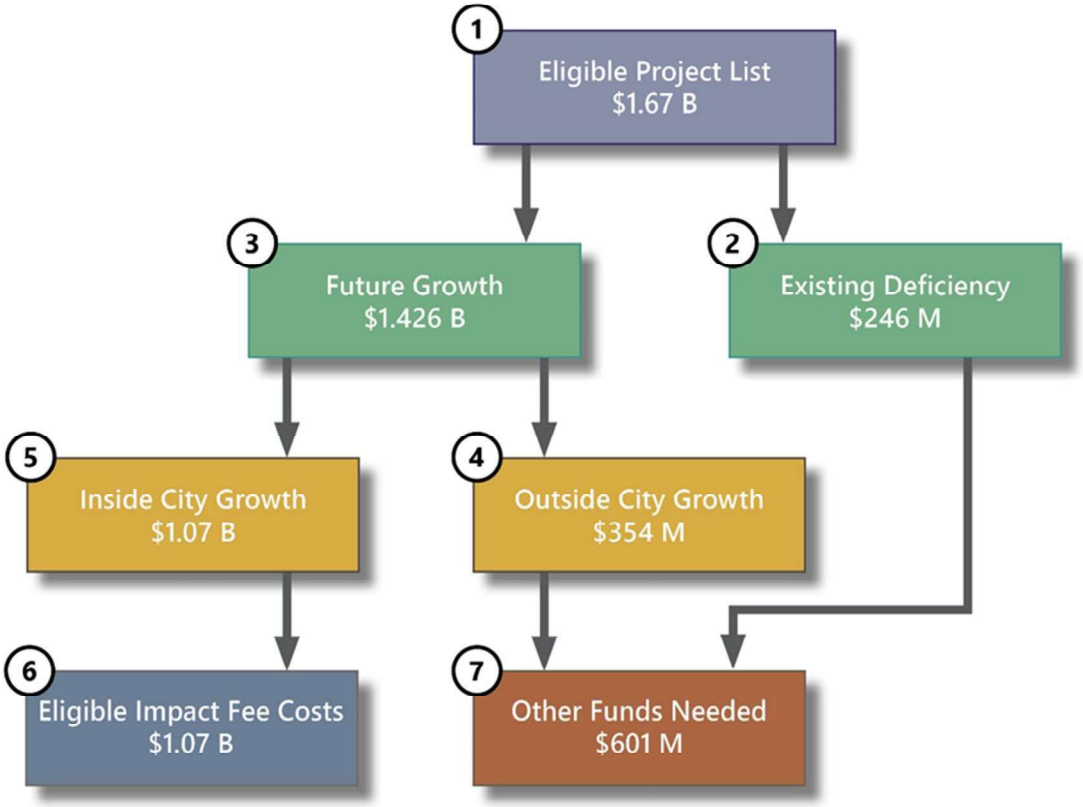
Figure 3 summarizes how the total project costs are distilled down to the eligible costs that can be included in the multimodal TIF. As shown on the figure:

1. The total cost of the multimodal transportation projects on the TIF-eligible project list is $1.67 billion.
2. The portion of project costs related to addressing existing deficiencies in pavement or capacity amounted to $246 million and are not TIF-eligible.
3. The subtotal net TIF-eligible project list amounts to $1.43 billion, which is then split into:
4. 'Outside City growth' amounting to $354 million, which is not TIF-eligible.
5. 'Inside City growth' amounting to $1.07 billion and
6. The net total of TIF-eligible project costs amounts to $1.07 billion.
7. Non-TIF funds amounting to $601 million will be needed to cover existing deficiencies and growth outside of the city.

   The details of this calculation as they are applied to each individual project is shown in **Appendix C**. A description of each item in **Figure 2** is presented below.

[1] This proportion is the average share of the vehicle traffic that travels through the roadway TIF projects. Since bicycle trips are shorter, on average, than vehicle trips and since there are a greater concentration of bicycle trips toward the center of Seattle, this growth share for bicycle trips is considered to be conservative. Realistically, the share of bicycle trips on the bikeway projects is likely higher than 75%, but without a detailed bicycle origin-destination survey, there is inadequate evidence to substantiate a higher number.

Figure 3 – Impact Fee Cost Allocation



1. **Eligible Project List:** Complete streets, vehicle capacity, sidewalks, bicycle facilities, and arterial crossing projects identified by the Consultant and City Staff team as projects that add system capacity which accommodates new growth. This box represents the total estimated capital cost of these eligible projects, which are broken into two groups:
2. **Existing Deficiencies:** This is the share of project costs that address existing deficiencies in the transportation system. New growth cannot be charged to fix existing deficiencies. Each project was evaluated for its eligibility and any portion that is for maintenance or not adding capacity was removed. The sum of those costs is shown in this box.
3. **Future Growth:** The share of the project costs that is not addressing existing deficiencies and can therefore be charged to new growth. This share of project costs is further divided into two groups described below.
4. **Outside City Growth:** This box represents the share of project costs that benefit development that occurs outside of the City of Seattle. This includes trips passing through the City (which are not included in the TIF at all) and trips that have one end inside of the City and one end outside of the City (these trips are included at 50% of the TIF rate). The City does not have legal authority to charge impact fees to developers outside of the City limit. Note also that Seattle developers are not assessed impact fees for capacity projects in other cities or the County. Outside city growth must be funded through other sources and are not included in the TIF.

5. **Inside City Growth:** This box represents the share of project costs that benefit development that occurs within the City and can be included in the TIF program.
6. **Eligible Impact Fee Costs:** This box is the culmination of the impact fee calculations and represents the share of total project costs that can be included in the TIF program. In summary, it is calculated according to the formula shown in **Table 2**.
7. **Other Funds Needed:** This box summarizes the additional external funding that Seattle would need to raise over the 12-year span of the TIF program to implement the projects on the list. This box is the sum of the Existing Deficiency and Outside City Growth boxes. When combining boxes 2 and 4, Seattle will need to cover at least 35% of the total project costs (shown in box 1) with external funding. Any additional external funding will reduce the costs that are included in the TIF. These external funding inputs are considered each year when the City calculates the new TIF rate.

Table 2 – Calculation of the Fee Per Trip

Eligible Project List Costs (1)	$1,673,295,079	New PM Peak Hour Person Trip Ends	**Cost per PM Peak Hour Person Trip End**
Existing Deficiency (2)	- $246,850,000		
Growth Attributable to Seattle (5)	x 49%-90% (range based on project type and location)		
Impact Fee Costs (6)	$ 1,072,077,372	\ 85,100	= **$12,598**

It is important to note that the $12,598 cost per PM Peak Hour Person Trip represents *the maximum TIF amount that can be charged based on legal and technical requirements*. In other words, this impact fee represents the upper end of the TIF. When taking all the above calculations into consideration, the multimodal TIF program *could* contribute up to 65 percent of the total $1.67 billion cost of the improvement projects. City matching funds, new grants, developer contributions, and other sources would provide the remaining 35 percent of the total project costs. However, the TIF rate can be set at a lower rate for many reasons:

- **Larger Share of External Funding:** The TIF is reduced if Seattle successfully secures external funding.
- **Implementation of Fewer Projects:** The project list is based on the Comprehensive Plan's vision for the transportation system over the next 12 years. Depending on growth pressures, changing travel preferences, funding availability, and many other reasons, the City may choose to implement fewer system expansion projects, which could lower the TIF rate.
- **Balancing the Cost to Developers:** While Seattle seeks growth paying for growth, there are economic realities that must be considered when setting the TIF rate including what costs can reasonably be carried by developers. Many cities elect to adopt a lower rate than the legal maximum to ensure TIF rates are in-line with neighboring jurisdictions while continuing to have developers pay a reasonable share of expanding the transportation system.

IMPACT FEE SCHEDULE

The impact fee schedule was developed by adjusting the "cost per trip end" information to reflect differences in trip-making characteristics for a variety of land use types within the City of Seattle. The fee schedule is a table where fees are represented as dollars per unit for each land use category which creates predictability in the calculation of impact fee rates. **Appendix A** shows the various components of the fee schedule (vehicle trip generation rates, person trip rates, and new trip percentages).

TRIP GENERATION

As described on page 9, trip generation rates for each land use type were derived by combining ITE vehicle trip generation rates with vehicle-to-person trip ratios derived from the PSRC household travel surveys and travel models.

PASS-BY AND DIVERTED TRIP ADJUSTMENT

The ITE trip generation rates represent total persons entering and leaving a development. For certain land uses (e.g., retail, convenience stores, etc.), a substantial amount of motorized travel is already passing by the property and merely turns into and out of the driveway. These pass-by (also known as diverted) trips do not significantly impact the surrounding street system and therefore can be subtracted out prior to calculating the impact fee. The resulting trips are considered "new" trips and are therefore subject to the impact fee calculation. The pass-by and diverted trip percentages are based on the ITE *Trip Generation Handbook* (3rd Edition).[2]

SCHEDULE OF RATES

The proposed impact fee rates are shown in **Appendix A**. In the fee schedule, fees are shown as dollars per unit of development for various land use categories. The impact fee program is flexible in that if a use does not fit into one of the ITE land use categories, an impact fee can be calculated based on the development's projected PM peak hour person trip generation and multiplied by the cost per trip as shown on page 15. In

[2] 'New' trip percentages are based on vehicle trips surveyed at land use sites. No comparable non-motorized data are available.

addition to land uses that are not listed in the impact fee schedule, detailed trip generation studies are also generally used for mixed-use developments where some of the person trips would be expected to stay on-site. ITE, the Transportation Research Board (TRB), and the United States Environmental Protection Agency (US EPA) all have recommended methods to calculate the number of internal project trips associated with mixed use development. Methods like the ITE calculate vehicle trips and the same ratio of vehicle-to-person trips that can be calculated from the impact fee rate schedule.

TRANSPORTATION IMPACT FEE (TIF) REDUCTIONS

While it is fairly straightforward to translate reduced vehicle trips to a lower vehicle-based TIF, the transition to person trips and a multimodal TIF required a slightly different approach because a multimodal TIF does not distinguish between modes. The following sections describe how differences in urban form, transit availability, and mix of uses influence travel behavior. The end of this section outlines the recommended options for applying TIF reductions to UCs, UVs, and areas near light rail stations.

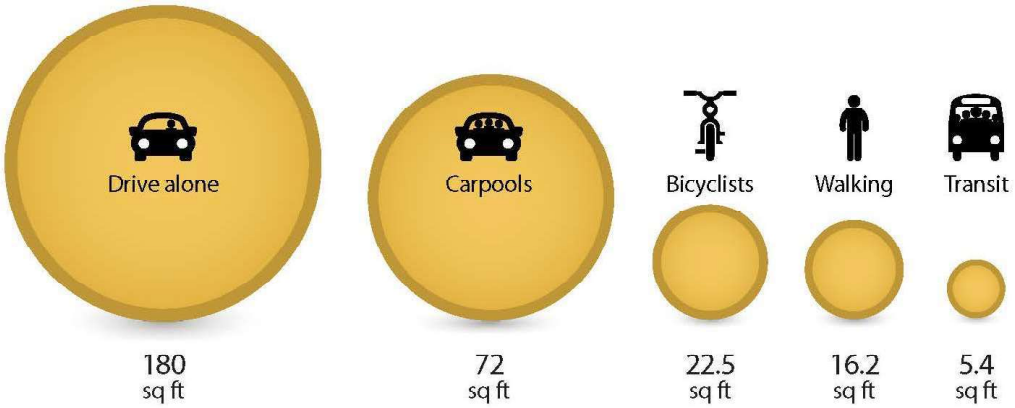
NOT ALL PERSON TRIPS HAVE THE SAME IMPACT

As noted above, mode neutral (person trip) TIF programs do not inherently account for the differential impact that trips have on the transportation system based on travel mode (e.g., walking trips require far less infrastructure and public investment compared to drive alone trips). In fact, this is the fundamental justification for why vehicle-based TIF programs allow for a fee reduction for areas/developments that generate fewer vehicle trips. For a person trip-based TIF program, however, there are a variety of ways to measure this differential impact. In a mature city like Seattle where roadway expansion is difficult, expensive, and often infeasible, one simple way to assess the differential impact of trips by different modes is through their use of physical space. Different modes have varying footprints on the City's transportation system, which is described below and illustrated in **Figure 4**. This approach is modeled after a similar approach developed and adopted by the City of Portland, Oregon.

- **Drive Alone** trips take up 180 square feet on average, based on the size of a typical passenger vehicle.
- **Carpools** take up 60% less space than driving alone per person trip. This was estimated using the PSRC regional travel model estimate that the average carpool carries 2.4 people.
- **Bicyclists** use 87.5% less space per person trip. This estimate was developed using a conservative assumption that bicycles are roughly a quarter the size of a car and no more than half of cyclists (and more likely fewer than 20%) are using arterial travel lanes (the remaining cyclists are using existing exclusive facilities, which include trails, cycle tracks, and bike lanes).

- **Walking** takes virtually no space from vehicles in built-out areas with sidewalks. However, for the purposes of this program, it is assumed that pedestrians consume 91% less of the roadway space than drive alone travel. This percentage was based on the fact that pedestrians crossing the street reduce vehicle capacity slightly and that bulb-outs, crossing islands, and other pedestrian crossing treatments can consume roadway space.
- **Transit** requires roughly 97% less space per person trip than driving alone. This was based on each full bus requiring 5 square feet of space per passenger.[3]

Figure 4 – Physical Space by Mode



Based on the information above, a TIF reduction is justifiable to the extent that new growth in the UCs, UVs, and areas near light rail stations generate a greater proportion of non-drive alone trips.

LOCATION ADJUSTMENT DISCOUNTS TO RATE SCHEDULE

Using data from the PSRC 2014 Household Travel Survey[4], the mode shares were extracted for different locations of the City. This was used to calculate an average weighted location adjustment per person trip within each area of the City. The location adjustment is a trip conversion calculated as how much roadway space each mode uses per trip compared to a trip made driving alone.

[3] The Transit Capacity and Quality of Service Manual identifies a range of 4.5-5.3 sq. ft / passenger as "comfortable."

[4] All trips to, from, and within each location area during the 3-6 PM period were analyzed. For the UV analysis, F&P's MXD+ tool was applied as well because the survey recorded trips at the census block group level, which are generally larger than UVs.

Based on the expected land use and location of growth from the Comprehensive Plan, the total impact fee project list's eligible costs were divided by the growth in person trips[5], which produced an impact fee rate of $12,598 per trip. This is the rate used in the fee rate schedule in **Appendix A** and **Table 3** describes the location adjustment for each area of the City.

Table 3 – Urban Center and Urban Village Mode Share and Location Adjustment Requirements

	SOV	*HOV*	*Transit*	*Walk*	*Bike*	*Total*	*Avg. Weighted Location Adjustment*	*Basic Rate Discount*
Location Adjustment Factor	*100%*	*40%*	*3%*	*9%*	*13%*	*-*		
Location								
Seattle (not in UC/UV)	39%	33%	11%	14%	4%	100%	100%	0%
UV/area within ½ mile of LRT Station	36%	30%	15%	16%	4%	100%	93%	-7%
Urban Center	27%	17%	31%	22%	4%	100%	69%	-31%

Source: Fehr & Peers, 2016.

The location adjustment places a larger weight for trips generated in areas where trips are more likely to be made by modes that take up more roadway space (i.e. a drive alone trip compared to a walk trip). This reflects the City's desire to encourage more multimodal travel and aligns well with the proposed change in the LOS standard to a drive alone mode share target.

LAND USE ELIGIBILITY

All land uses proposed within an UC and UV are eligible for the TIF reduction except for auto-oriented land uses, such as drive-through coffee stands and restaurants, tire stores, and auto repair businesses that would likely not have non-auto mode shares.

[5] The total person trip growth was 85,100.

APPENDIX A – IMPACT FEE SCHEDULE

Table 1 – Impact Fee Schedule

Land Use Group	*ITE Code*	*ITE Land Use Category*	*PM Peak Vehicle Trip Rate[1]*	*Vehicle-to-Person Trip Ratio[2]*	*PM Peak Person Trip Rate*	*% New Trips[3]*	*Net New Person Trips per Unit of Measure[4]*		*Within Urban Center Location Adjustment per person trip =*	*Within UV[5] or 1/2 Mile of Light Rail Station Location Adjustment per person trip =*	*All Other Seattle Locations Adjustment per person trip =*	*Unit of Measure*
									69%	*93%*	*100%*	
Industrial	110	Light Industrial	0.65	1.08	0.70	100%	0.70	1,000 sq ft	$ 6.06	$ 8.19	$ 8.19	Square foot
	140	Manufacturing	0.74		0.80	100%	0.80	1,000 sq ft	$ 6.90	$ 9.33	$ 9.33	Square foot
	150	Warehouse	0.18		0.19	100%	0.19	1,000 sq ft	$ 1.68	$ 2.27	$ 2.27	Square foot
Residential	210	Single family house	0.94	1.45	1.36	100%	1.36	dwelling	$ 11,766.68	$ 15,906.04	$ 15,906.04	dwelling
	220	Multifamily Housing (Low-Rise)	0.51		0.74	100%	0.74	dwelling	$ 6,384.05	$ 8,629.87	$ 8,629.87	dwelling
	221	Multifamily Housing (Mid-Rise)	0.39		0.57	100%	0.57	dwelling	$ 4,881.92	$ 6,599.32	$ 6,599.32	dwelling
	222	Multifamily Housing (High-Rise)	0.32		0.46	100%	0.46	dwelling	$ 4,005.68	$ 5,414.82	$ 5,414.82	dwelling
	See Note 1	Residential Suite/"Apodment"	N/A		0.62	100%	0.62	dwelling	$ 5,352.41	$ 7,235.32	$ 7,235.32	dwelling
Mix Use Comm/Res	231	1st Floor Commercial; Mid-Rise Apts	0.36	1.45	0.52	100%	0.52	dwelling	$ 4,506.39	$ 6,091.68	$ 6,091.68	dwelling
	232	1st Floor Commercial; Mid-Rise Apts	0.31		0.45	100%	0.45	dwelling	$ 3,880.50	$ 5,245.61	$ 5,245.61	dwelling
Hotel	310	Hotel	0.6	1.45	0.87	100%	0.87	room	$ 7,510.65	$ 10,152.79	$ 10,152.79	room
	320	Motel	0.36		0.52	100%	0.52	room	$ 4,506.39	$ 6,091.68	$ 6,091.68	room
Recreation	420	Marina	0.21	1.25	0.26	100%	0.26	berth	$ 2,266.14	$ 3,063.34	$ 3,063.34	berth
	444	Movie Theater	0.09		0.11	100%	0.11	seat	$ 971.20	$ 1,312.86	$ 1,312.86	seat
	492[6]	Health/Fitness Club	3.45		4.31	100%	4.31	1,000 sq ft	$ 37.23	$ 50.33	$ 50.33	Square foot
Public Education	520	Public Elementary School[7]	1.37	1.26	1.73	100%	1.73	1,000 sq ft	$ 14.90	$ 20.14	$ 20.14	Square foot
	530	Public High School[7]	0.97	1.22	1.18	100%	1.18	1,000 sq ft	$ 10.22	$ 13.81	$ 13.81	Square foot
	550	University/College[7]	1.17		1.43	100%	1.43	1,000 sq ft	$ 12.32	$ 16.66	$ 16.66	Square foot
Office	710	General Office	1.44	1.22	1.76	100%	1.76	1,000 sq ft	$ 15.17	$ 20.50	$ 20.50	Square foot
	715	1 Tenant Office	1.76		2.15	100%	2.15	1,000 sq ft	$ 18.54	$ 25.06	$ 25.06	Square foot
	720	Medical/Dental Office	3.93		4.79	100%	4.79	1,000 sq ft	$ 41.39	$ 55.95	$ 55.95	Square foot
Retail/Service	820	Shopping Center	3.4	1.25	4.25	66%	2.81	1,000 sq ft	$ 24.22	$ 32.73	$ 32.73	Square foot
	850	Supermarket	8.95		11.19	64%	7.16	1,000 sq ft	$ 61.81	$ 83.56	$ 83.56	Square foot
	851	Convenience market-24 hour	49.11		61.39	49%	30.08	1,000 sq ft	$ 259.68	$ 351.03	$ 351.03	Square foot
	912	Drive-In Bank	21.01		26.26	65%	17.07	1,000 sq ft	$ 147.37	$ 199.21	$ 199.21	Square foot
Restaurant/Drinking	932	Restaurant: sit-down	9.05	1.25	11.31	57%	6.45	1,000 sq ft	$ 55.67	$ 75.25	$ 75.25	Square foot
	934	Fast food, w/drive-up	33.03		41.29	50%	20.64	1,000 sq ft	$ 178.22	$ 240.91	$ 240.91	Square foot
Auto Retail/Services	843	Auto Care Center	4.91	1.25	6.14	100%	6.14	1,000 sq ft	$ 52.98	$ 71.62	$ 71.62	Square foot
	944	Gas station	13.91		17.39	58%	10.08	pump	$ 87,060.90	$ 117,687.80	$ 117,687.80	pump
	945	Gas Station w/convenience	18.42		23.03	44%	10.13	pump	$ 87,460.17	$ 118,227.53	$ 118,227.53	pump
	Fee Rate	**$12,597.90**										

1. ITE Trip Generation 11th Edition: 4-6 PM Peak Hour Vehicle Trip Generation Rates for the Adjacent Street Traffic (weekday 4-6PM); This worksheet represents only the most common uses in Seattle and is NOT all-inclusive
2. The ratio of vehicle trips to person trips as extracted from the 2014 PSRC Household Travel Survey
3. Excludes pass-by trips: see "*Trip Generation Handbook: An ITE Proposed Recommended Practice*" (2014).
4. PM Peak Person Trip Rate multiplied by the % New Trips percentage
5. Urban Village
6. ITE Code 492 not in ITE 11th Ed. Daily Rate. The Daily Rate for ITE Code 495 for a Recreational Community Center, which is similar, was used instead.
7. ITE Trip Generation 10th Edition: 4-6 PM Peak Hour Vehicle Trip Generation Rates for the Adjacent Street Traffic (weekday 4-6PM) used instead of 11th Edition

Notes:

1. City of Renton trip rates.
2. Land Use Group: Categories of land use used to assess the impact fees for Seattle
3. ITE Code: Code assigned by ITE
4. PM Peak Vehicle Trip Rate: the number of PM Peak Hour vehicle trips as reported by ITE 11th Edition
5. Vehicle-to-Person Trip Rate: The ratio of vehicle trips to person trips as extracted from the 2014 PSRC Household Travel Survey
6. PM Peak Person Trip Rate: The trip rate resulting from multiplying the PM Peak Vehicle Trip Rate by the Vehicle-to-Person Trip Ratio
7. % New Trips: The percent of trips that are new (not diverted link or passing)
8. Net New Person Trips per Unit of Measure: The result of multiplying PM Peak Person Trip Rate by the % New Trips
9. Urban Center (UC) Location Adjustment: The recommended TIF rate per unit of development in the UCs.
10. Urban Village (UV) Location Adjustment: The recommended TIF rate per unit of development in the UVs or areas within ½ mile of light rail stations.
11. Seattle Location Adjustment: The recommended TIF rate per unit of development in all areas outside of UCs and UVs

APPENDIX B – EXISTING SYSTEM VALUE

MEMORANDUM

Date: June 8, 2021 (Updated)

To: Ketil Freeman, Seattle City Council Central Staff

From: Josh Steiner & Kendra Breiland, Fehr & Peers

Subject: Calculation of Existing System Value for Use in Seattle's Transportation Impact Fee Proposal

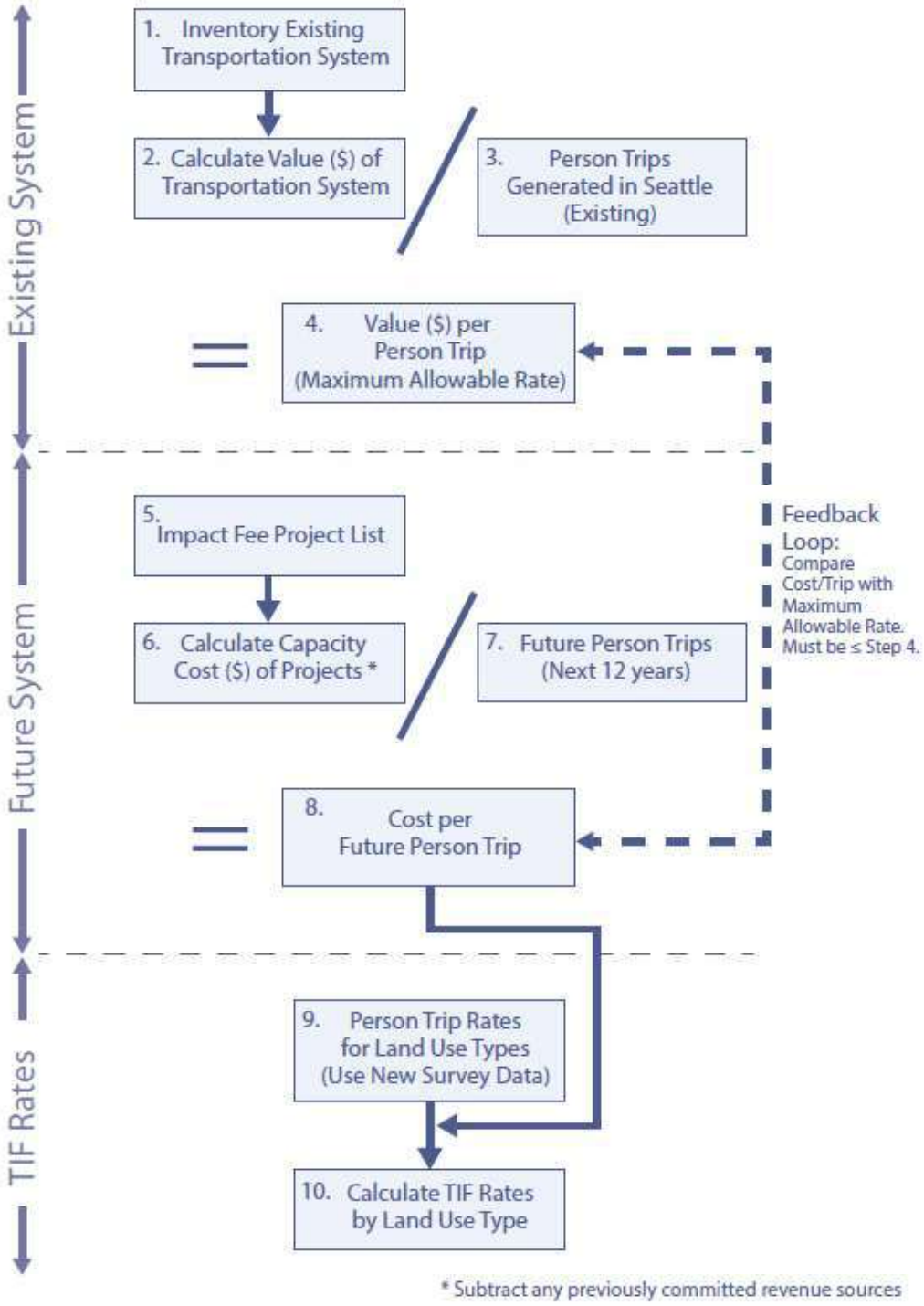
SE19-0672.01

Fehr & Peers has been working with Council Central Staff to develop a proposal for the City of Seattle to implement a transportation impact fee (TIF) program. One important aspect of this program will be establishing how the City accounts for existing deficiencies. One approach that the City may want to consider, which has been implemented in Portland, Oregon and Oakland, California, is determining the system value per trip of Seattle's existing transportation system. This is an alternative method to determining existing deficiencies which states that the City cannot charge development impact fees that exceed the value (on a cost per trip basis) of the system that is on the ground today (also normalized to a per trip basis). This memo provides specific details on two key calculations:

- **Existing system value per person trip**, which is calculated by summing the existing value of the transportation system and dividing it by the existing number of person trips per PM peak hour.
- **Future system transportation impact fee cost per person trip**, which is based on the total impact fee eligible components of the TIF project list, divided by forecast growth in PM peak hour person trips over the next 12 years.

Figure 1 on the next page summarizes the proposed approach, with details provided below. Note that the two main calculations described in this memo are the maximum allowable impact fee per person trip (Steps 1-4) and recommended impact fee per person trip (Steps 5-8).

Figure 1: TIF Rate Calculation Flow Chart



EXISTING SYSTEM VALUE TIF RATE

This rate is calculated by summing the value of the City's existing transportation system and dividing it by the existing number of person trips per PM peak hour, as shown in Steps 1-4 in **Figure 1**. The resulting rate will be considered the maximum allowable TIF rate per PM peak hour person trip, even if the value is lower than the rate calculated using the future (12-year) project list and trip growth.

The inventory of the existing transportation system was based on data to be included in the Seattle Department of Transportation's *Asset Management: Seattle Status and Condition Report from 2021*. This report includes an inventory of the existing transportation system, along with the replacement value and condition for each facility type. The following facilities were included in the calculation of the transportation system value:

- Pavement (arterials only)
- Pedestrian System
- Structures
- Signals
- Streetcars
- Street Signs
- Pavement Markings
- Right-of-Way (ROW)

The value of the existing transportation system was calculated by adding the infrastructure value and ROW value. The ROW value was calculated using King County Assessor data from 2017 to establish the value of commercial and residential land. Using this methodology, we estimate Seattle's total land value at roughly $44.9 billion. Personal communications with the SDOT Traffic Engineer, Dongho Chang, indicated that approximately 28% of the City's land is ROW and 40% of that ROW is made up of arterials. This establishes a total arterial ROW value of approximately $5 billion.

The value of the existing transportation system was calculated to be $21.2 billion, as itemized in **Figure 2**. This value includes applicable ROW value.

The City of Seattle travel demand model provided the basis for the existing year PM peak hour person trips. The travel demand model provides 2015 and 2035 PM peak hour person trip estimates, and 2022 and 2034 trip estimates were interpolated. As of 2022, the City of Seattle generates approximately 643,668 person trips during the PM peak hour.

Dividing the $21.2 billion by the 699,266 PM peak hour person trips results in a system value of $30,297 per PM peak hour person trip. This rate can be considered the maximum allowable TIF rate.

FUTURE SYSTEM TIF RATE

The future system TIF rate is calculated by summing the eligible costs of the recommended TIF project list and dividing it by the forecast number of new person trips added to Seattle's transportation system over the next 12 years – the expected timespan of Seattle's impact fee program (see Steps 5-8 in **Figure 1**).

The City of Seattle travel demand model was used to estimate growth in PM peak hour person trips over the next 12 years. Over that period, it is expected that Seattle will see PM peak hour person trips grow by around 85,100 trips.

FIGURE 2: EXISTING SYSTEM VALUE

Facility	Quantity	Measurement	unit cost	Replacement Value	Include for Impact Fees	Deficiency	Value for Impact Fees
Pavement							
Arterial	1,548	lane mile	$ 3,021,964	$ 4,678,000,000	$ 4,678,000,000		$ 4,678,000,000
Total	1,548			**$ 4,678,000,000**	**$ 4,678,000,000**	**$ -**	**$ 4,678,000,000**
Pedestrian System							
Sidewalks	16,065	block faces	$ 151,121	$ 2,427,803,381	$ 2,427,803,381		$ 2,427,803,381
Stairways	497		$ 59,817	$ 29,729,210	$ 29,729,210		$ 29,729,210
Marked Crosswalks	5,649		$ 657	$ 3,713,050	$ 3,713,050		$ 3,713,050
Total				**$ 2,461,245,642**	**$ 2,461,245,642**	**$ -**	**$ 2,461,245,642**
Bicycle Network							
Bikeways							
Structures							
Bridges	122		$ 58,557,377	$ 7,144,000,000	$ 7,144,000,000		$ 7,144,000,000
Retaining Walls	606		$ 2,246,226	$ 1,361,213,000	$ 1,361,213,000		$ 1,361,213,000
Guardrails	925	units	$ 10,163	$ 9,401,000	$ 9,401,000		$ 9,401,000
Elevator	2		$ 1,500,000	$ 3,000,000	$ 3,000,000		$ 3,000,000
Tunnel	1		$ 2,624,000	$ 2,624,000	$ 2,624,000		$ 2,624,000
Total				**$ 8,520,238,000**	**$ 8,520,238,000**	**$ -**	**$ 8,520,238,000**
Signals							
Signals	1,118		$ 262,500	$ 293,475,000	$ 293,475,000		$ 293,475,000
Communications Network	150	miles	$ 547,487	$ 82,123,000	$ 82,123,000		$ 82,123,000
Network Hubs	14		$ 76,714	$ 1,074,000	$ 1,074,000		$ 1,074,000
Total				**$ 293,475,000**	**$ 293,475,000**	**$ -**	**$ 293,475,000**
Streetcar							
Streetcar	2	Lines	$ 66,703,892	$ 133,407,783	$ 133,407,783		$ 133,407,783
Total				**$ 133,407,783**	**$ 133,407,783**	**$ -**	**$ 133,407,783**
Street Signs							
Street Signs	76,148		Varies ($250 - $3,500)	28,788,718	28,788,718		$ 28,788,718
Total				**$ 28,788,718**	**$ 28,788,718**	**$ -**	**$ 28,788,718**
Pavement Markings							
Pavement Markings				$ 1,923,225	$ 1,923,225		$ 1,923,225
Total				**$ 1,923,225**	**$ 1,923,225**	**$ -**	**$ 1,923,225**
Total Infrastructure				**$ 16,158,676,868.00**	**$ 16,158,676,868.00**	**$ -**	**$ 16,158,676,868.00**
						0%	
Total Right-of-Way							$ 5,026,936,600
TOTAL SYSTEM VALUE				**$ 16,158,676,868**	**$ 16,158,676,868**		**$ 21,185,613,468**
					Existing (2022) PM Peak Hr Person Trip Ends		699,266
					Cost/PM Person Peak Hr Trip Ends		$ 30,297

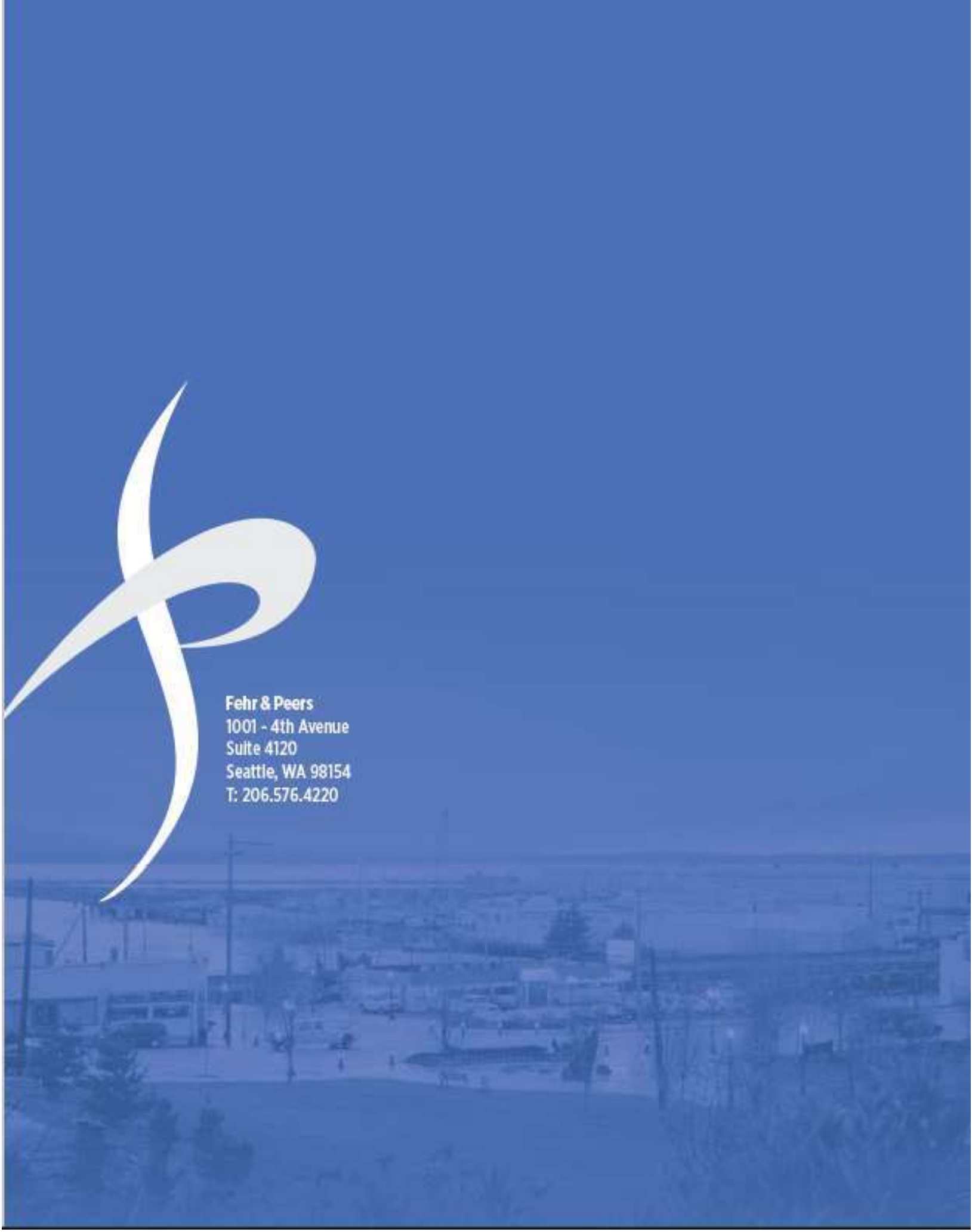
APPENDIX C – PROJECT LIST AND COST ALLOCATION RESULTS

The table on the following pages describe all the projects with costs included in the multimodal TIF and how the impact fee project costs (shown in **Table 1**) were divided into growth-related costs attributable to the City. The first adjustment is for existing deficiencies, as described in the report text. The next adjustment is to calculate the 'Percent of Growth within Seattle', which contains the results of the analysis to separate Seattle and non-Seattle growth. For motorized projects, the City's travel demand model was used to identify the portion of trips associated with Seattle and non-Seattle traffic. A technique called "select-link analysis" was used to isolate the vehicle trips in five different areas based on project location. The growth percentages for pedestrian and bicycle improvement projects are also applied, as described in the report text. The final column of the table shows the growth cost for each project that can be allocated to impact fees.

Project Name	***Project Description***	***Cost Estimate 2022***	Ineligible Costs %	Ineligible Costs Totals	Growth Accomodating Costs	% Seattle Trips	**Fee Program Cost Estimate**	Levy Amt 2022
Northgate-Ballard-Downtown Transit Improvements	This project will design and construct transit speed and reliability improvements and upgraded bus stop passenger facilities. Improvements to the route, which connects Downtown, South Lake Union, Fremont, Ballard, and Northgate, will support conversion to RapidRide service by partner agency King County Metro.	$ 24,166,000.00	0%	$0	$24,166,000	84%	**$13,727,642.15**	$ 7,732,000
Madison Street Bus Rapid Transit (TC367480)	This project will include concept design and environmental review of multimodal improvements in the Madison corridor between Alaskan Way and Martin Luther King Jr. Way, connecting the Central Area with the First Hill, Downtown, and Waterfront neighborhoods.	$ 144,482,354.00	0%	$0	$144,482,354	79%	**$102,375,999.05**	$ 15,000,000
Market / 45th Transit Improvement Project (TC367790)	This project enhances transit speed and reliability on one of the city's primary east-west corridors and most chronically congested routes. The project adds intelligent transportation systems such as transit signal priority to improve bus travel times. It installs upgrades to transit stops and offers other rider amenities and enhances connections to northwest Seattle as well as the Ballard-Interbay Manufacturing Industrial Center.	$ 15,054,000.00	0%	$0	$15,054,000	83%	**$5,440,530.14**	$ 8,504,000
Rainier / Jackson Complete Street (TC367770)	This project enhances transit speed and reliability. The project will upgrade bus stops and add transit signal priority at intersections and improve facilities for people who walk along the corridor.	$ 8,461,000.00	0%	$0	$8,461,000	73%	**$704,391.68**	$ 7,499,000
Roosevelt to Downtown Complete Street (TC367380)	This project will develop and implement a range of transit and street improvements in the Eastlake Avenue corridor connecting the University District, Eastlake and South Lake Union neighborhoods between Downtown and the Roosevelt Link LRT station area. This project will identify, prioritize, design and construct the highest priority "speed and reliability" improvements to existing bus service without excluding the potential for longer-term implementation of High Capacity Transit options. The project will also consider an improved ROW profile to best accommodate the corridor's multimodal demands, along with the recommendations reflected in each of the City's adopted modal transportation plans and the respective neighborhood plans.	$ 113,457,000.00	0%	$0	$113,457,000	83%	**$94,338,838.50**	
Accessible Mt Baker (TC367800)	This project will implement pedestrian and bicycle capacity improvements identified in the Accessible Mt. Baker plan.	$ 3,900,000.00	0%	$0	$3,900,000	73%	**$2,860,792.24**	
E Marginal Way Heavy Haul Network Improvements (TC367590)	This program supports freight mobility by funding roadway improvements on the Heavy Haul Network (Ordinance 124890) to meet the needs of freight transported on our streets between Port facilities, rail yards, and industrial businesses. Current projects include E Marginal Way between S Atlantic St and S Michigan St. The Port of Seattle, through Memorandum of Understanding, is to provide partnership funding. Improvements will include rebuilt roadways, signal and ITS enhancements and safety measures to reduce conflicts between freight and non-motorized users.	$ 64,394,725.00	0%	$0	$64,394,725	49%	**$28,616,190.82**	$ 6,502,000
Bike Master Plan Implementation (TC367910 and TC366760)	This ongoing program implements the Seattle Bicycle Master Plan. Typical improvements may include creating and enhancing the bikeway system by installing bike lanes and sharrows, bicycle route signing, completing key links in the urban trails network, adding bicycle/pedestrian signals to complete the network, and reconstructing key sections of the trails. The goals of the program are to increase the number of people walking and biking; and to improve walking and biking access to schools, trails, parks, transit, places of employment, and neighborhood businesses. This program includes funding for street improvement and trail construction and is consistent with the focus in the City's Transportation Strategic Plan (TSP) on encouraging walking and biking.	$ 418,580,000.00	0%	$0	$418,580,000	75%	**$313,935,000.00**	
Pedestrian Master Plan Implementation (TC367150, TC367600, and TC367170)	These ongoing programmatic investments implements the Pedestrian Master Plan. Typical improvements may include the installation of new marked crosswalks, curb bulbs, pedestrian signals, curb ramps, and pedestrian lighting. The goals of the program are to make Seattle a more walkable city for all through equity in public engagement, service delivery, accessibility, and capital investments; develop a pedestrian environment that sustains healthy communities and supports a vibrant economy; and enhance citywide pedestrian systems to increase walking as a transportation mode.	$ 200,200,000.00	0%	$0	$200,200,000	90%	**$180,180,000.00**	

Project Name	***Project Description***	***Cost Estimate 2022***	Ineligible Costs %	Ineligible Costs Totals	Growth Accomodating Costs	% Seattle Trips	**Fee Program Cost Estimate**	Levy Amt 2022
Freight Spot Improvements (FMP Implementation)	This project includes small scale mobility improvements to the City's street system to improve connections between port facilities, railroad intermodal yards, industrial businesses, the regional highway system, and the first and last miles in the supply chain. Project types include turning radius adjustments, channelization changes, left-turn improvements, and signage to direct freight to destinations and alert drivers to steep grades or sharp turns.	$ 21,000,000.00	0%	$0	$21,000,000	50%	**$10,500,000.00**	
Greenwood Phinney, 67th to Fremont Complete Street	The Greenwood Complete Street project expands on a transit-oriented corridor to improve safety and traffic operations for all modes by upgrading existing sidewalks and adding new sidewalks to fill numerous gaps in pedestrian connectivity; improving transit speed and reliability through signal coordination and active traffic management; and building transit station upgrades, bus bulbs, and rider/pedestrian amenities.	$ 90,300,000.00	70%	$63,210,000	$27,090,000	75%	**$20,183,656.71**	
Yesler/Jefferson Complete Streets	The Yesler Way Complete Street project will complete the trolley (bus) system along a key transit corridor and reroute several high-ridership routes to improve traffic efficiency. This project also improves stops and stations and operational improvements for buses and incorporates protected bike lanes.	$ 23,100,000.00	20%	$4,620,000	$18,480,000	83%	**$15,356,659.42**	
1st/1st Av S Corridor	The 1st Ave/1st Ave S project improves operating efficiency and safety for all modes by adding extensive intelligent transportation systems including traffic cameras, vehicle detection, and traffic responsive signals; improving freight flow on a key Port of Seattle and Duwamish industrial district route; and upgrading existing sidewalks and adding pedestrian crossings.	$ 12,000,000.00	40%	$4,800,000	$7,200,000	63%	**$4,532,587.64**	
23rd Av - Phase 4	Extending improvements within Phases 1-3, the Phase 4 project reconstructs 23rd Ave to a consistent 3-lane cross-section throughout the corridor. This includes redesigned intersections and allows for wider cross-sections at areas with unique traffic demands and promotes safe and efficient operations for all modes, emphasizing safe traffic interactions for people who bike and walk.	$ 33,000,000.00	80%	$26,400,000	$6,600,000	82%	**$5,398,080.43**	
Aurora Avenue Complete Street	The Aurora Avenue Complete Street project redesigns a major transit and freight arterial with a strong focus on safety, access, and transit operations. The project supports development of Rapid Ride Line E, streamlines traffic operations and promotes safe interactions for all modes, ensures reliable business access and loading, and adds sidewalks and shorter pedestrian crossings.	$ 130,000,000.00	0%	$0	$130,000,000	70%	**$91,047,228.99**	
Beacon/12th/Broadway Complete Streets	The Beacon/12th/Broadway Complete Streets project updates obsolete infrastructure and roadway designs to provide smooth and integrated traffic flow for all modes. This includes capacity upgrades bicycle facilities and sidewalk improvements and improvements to transit services with features like queue jump or transit-only lanes, bus bulbs, and rider amenities.	$ 131,000,000.00	50%	$65,500,000	$65,500,000	84%	**$55,115,100.37**	
Fauntleroy Way/California Transit Corridor	The Fauntleroy Transit Corridor project enhances transit services and rider amenities along one of west Seattle's primary transit corridors. The project adds real-time arrival information at all bus stops and transit centers, links discontinuous bus-only lanes along the corridor to complete the transit-priority system, and installs a full transit station on Fauntleroy near the West Seattle Bridge.	$ 90,300,000.00	80%	$72,240,000	$18,060,000	75%	**$13,501,841.26**	
Lake City Way Complete Street	The Lake City Way Complete Street project reinvents an obsolete street design to enhance transit efficiency, non-motorized access, and safety for all modes. The project installs traffic-adaptive signalization and transit signal priority to improve traffic flow, adds sidewalks and bus stops for transit users and people who walk along the corridor, and redesigns intersections, driveways, and pedestrian crossings to maximize safety for vulnerable users.	$ 12,600,000.00	80%	$10,080,000	$2,520,000	70%	**$1,766,686.57**	

Project Name	*Project Description*	*Cost Estimate 2022*	Ineligible Costs %	Ineligible Costs Totals	Growth Accomodating Costs	% Seattle Trips	**Fee Program Cost Estimate**	Levy Amt 2022
15th Ave W Spot Improvements at W Dravus St and W Emerson St	This project addresses turn radii issues for trucks and enhanced multimodal operations through small-scale geometric and intersection operational improvements along 15th Ave W. Trucks of all sizes experience challenges traveling on the elevated structures at W Emerson St and W Dravus St. 15th Ave W, W Emerson St, and W Dravus St are vital connections for freight traveling to and from the Ballard-Interbay-Northend Manufacturing/Industrial Center (BINMIC). This project includes two components to implement changes at these locations. •The W Emerson St ramp over 15th Ave W serves trucks going to and from W Nickerson St. This component includes moving the centerline on the ramp to provide a greater turning radius for trucks and making adjustments to the stop bars channelization at the intersection on the west side of the ramp. •W Dravus St is used by trucks of all sizes, including overlegal vehicles unable to pass underneath the bridge on 15th Ave W. Northbound trucks have particular difficulty turning left onto W Dravus St from the off-ramp. This component of the project includes upgrading signal timing and hardware at the ramp terminals to ensure vehicle queues on the bridge clear to allow trucks adequate space to turn at the intersection. This project can be bundled with Ballard Bridge Access improvements	$ 40,000,000.00	0%	$0	$40,000,000	87%	**$34,851,685.76**	
W Galer St Interchange Ramp	Construct ramp to improve access over BNSF mainline tracks and storage yard	$ 25,000,000.00	0%	$0	$25,000,000	87%	**$21,817,923.65**	
S Massachusetts St Rebuild (access road - Colorado Ave S to 1st Ave S)	Reconstruct S Massachusetts St to improve safety and access to North SIG Yard, while maintaining two-way operations. Seek to provide separated travel lanes for general purpose and truck traffic. Provide improved truck access/operations at the 1st Ave S / S Massachusetts St intersection	$ 6,300,000.00	0%	$0	$6,300,000	79%	**$4,998,425.26**	
6th Ave at I-5	Mobility along I-5 - req working with WSDOT, there's lots of vegetation. Yesler Way over I-5. The pork chop between Yesler, 6th, and I-5 can be used to help build capacity where there is often a bottleneck	$ 50,000,000.00	0%	$0	$50,000,000	78%	**$39,144,042.79**	
Intersection improvements at 4th Ave N, Westlake Ave N, Dexter Ave N, and Nickerson St	Intersection improvements at 4th Ave N, Westlake Ave N, Dexter Ave N, and Nickerson St to improve freight mobility.	$ 7,350,000.00	0%	$0	$7,350,000	90%	**$6,582,498.42**	
BINMIC Truck Route Improvements (Area bounded by W Dravus St, W Nickerson St, NW Market St, and Fremont Ave N)	This project will evaluate truck freight movements to identify projects to address geometric and operating challenges for trucks. The projects will be focused on readily implementable improvements with primary consideration given to safety and freight connectivity. They may include signal timing adjustments, additional signage or wayfinding, larger intersection turn radii, lane width adjustments, and joint use of bus lanes. - Phase I: Collect data on needs through a detailed assessment of truck volumes, truck sizes, and over-dimensional truck activity. Build from the forecasts developed in the Freight Access Project and work with stakeholders to identify and prioritize specific truck route projects. - Phase II: Implement top priority projects given funding availability and opportunities. Develop a long-term budget and funding strategy to implement remaining projects.	$ 250,000.00	0%	$0	$250,000	87%	**$218,535.44**	
6th Ave S Reconstruction	Make operational, ITS, and multimodal improvements to 6th Ave S.	$ 8,400,000.00	0%	$0	$8,400,000	73%	**$4,883,035.20**	$1,700,000
	TOTAL	$1,673,295,079		$246,850,000	$1,426,445,079		**$ 1,072,077,372.48**	



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