

DIRECTOR'S REPORT AND RECOMMENDATION

2030 Challenge High Performance Existing Building Pilot Program

Introduction

In 2016 the City Council adopted Ordinance 125163 updating the Living Building Pilot Program. This ordinance also directed the Office of Sustainability and the Environment and the Department of Construction and Inspections to work with the Seattle 2030 District on recommendations for an additional pilot program to promote the development of more high-performing green buildings that includes the renovation of existing buildings.

Proposal Summary

SDCI recommends the following changes to the Land Use Code:

Establish a new 2030 Challenge Pilot

- Establish a new pilot program to promote the renovation, construction, and operation of buildings that meet the highest green standards and promote environmental quality. The 2030 Challenge High Performance Existing Building Pilot (a.k.a. 2030 Challenge Pilot) would allow the City to study the resulting buildings and their performance and develop permanent standards for high performing buildings in the Land Use Code.
- Allow 20 projects to be built prior to the pilot expiring in 2025.
- Require the buildings to meet standards for energy, water and transportation efficiency based on the goals of the Seattle 2030 District.
- Allow additional development capacity (floor area and structure height) for buildings that meet the pilot program standards.

Update the Living Building Pilot Program

- Allow the same zoning incentives as proposed for the 2030 Challenge Pilot.
- Update penalty provisions to be consistent with those proposed for the 2030 Challenge Pilot.

Background

The Living Building Pilot Program was adopted by the City Council in December 2009, amended in 2012, in July 2014, and in 2016 to facilitate the development of buildings that would meet the Living Building. The Program was developed to provide flexibility for projects seeking Living Building certification to encourage the use of this very high and difficult to achieve standard.

The Living Building is a sustainable building certification program that focuses on a performance-based approach to certification with the aim of producing buildings that are less harmful to the environment than conventional buildings and contribute positively to their surroundings. It was created by International Living Future Institute (ILFI) as a green building rating system in order to recognize buildings that achieve the highest level of sustainability.

To date, two projects are participating in the Living Building Pilot Program: the Bullitt Center and a residential project in the Fremont neighborhood. The Bullitt Center pursued full Living Building

(achieved in April 2015). The Fremont Project is still in the permit review process and may receive permits soon. Two other projects in the permit review process are exploring using the Living Building Pilot. The Stone34, or Brooks Building, met requirements under the former Seattle Deep Green program. While these are important buildings, the current and prior pilot programs have not garnered the attention of developers or been used to the extent intended by the Mayor and City Council.

"The Seattle 2030 District is an interdisciplinary, public-private collaborative working to create a high-performance building district in downtown Seattle. With the Architecture 2030 Challenge for Planning providing [their] performance goals, [they] seek to develop realistic, measurable, and innovative strategies to assist district property owners, managers, and tenants in meeting aggressive goals that reduce environmental impacts of the construction and operations of buildings."¹

2030 District Goals for new buildings and major renovations

- Energy Use: A 70% reduction below the national median with incremental targets, reaching carbon neutral by 2030.
- Water Use: Manage combined annual stormwater runoff and potable water use by 50% below the District baseline.
- CO₂e emissions from auto and freight: A 50% reduction below the current District average.

Proposed Land Use Code Changes

The City of Seattle has a long history of environmental stewardship. Environmental goals are inherent throughout the City's work. One of the primary objectives is to protect, conserve and enhance the region's environmental resources by setting a community standard of sustainable building practices. The proposed 2030 Challenge Pilot program would be one of the tools employed to further this commitment to environmental, economic and social stewardship. The buildings in the 2030 Challenge Pilot program must operate within the energy use target, water requirement, and transportation mode split goals identified below for a full year after occupancy in order to meet the City's compliance requirements and receive documentation of such.

Proposed Energy Standard

The proposed performance standard would be a 25 percent reduction below the 2015 Seattle Energy Code (approximately equivalent to a 70 percent reduction from the national median energy use), calculated as a 25 percent reduction below the targets set forth in the Seattle Energy Code's Target Performance Path.

The Target Performance Path (TPP) is an optional energy code compliance approach that allows the design team, contractor, and owner to determine the most effective methods to achieve energy efficiency. Rather than complying with all the details of the Prescriptive Path of Seattle Energy Code, designers are permitted to submit energy models demonstrating that their proposed buildings will meet specific energy use targets and to then document compliance with these targets once the building is operational.

Tying the Program's energy requirement to the energy use targets set in the Seattle Energy Code will simplify the process for applicants and staff in determining and measuring project performance. There will also be the option to rely on alternative energy use targets in cases where the unique aspects of the

¹About Seattle 2030 District. <http://www.2030districts.org/seattle/about> (accessed January 2, 2018)

building design or program warrants an approach not contemplated by the Energy Code. This will need to be approved by the Director during the application submittal.

In addition to the energy standard described above, none of the building's space heating or water heating is permitted to be provided using on-site combustion of fossil fuel.

Proposed Water Standard

The proposed performance standard would require management of the combination of stormwater and potable water use by 50 percent below a baseline. Stormwater is measured in annual stormwater volume (gallons/ square foot of total site area) and the baseline would be based on modeling simulation of impervious surfaces of the project site. Managed stormwater flow equates to the volume of stormwater runoff that is reused (in the case of rainwater harvesting), removed by evaporation or infiltration into native soils, or slowed through the use of detention systems or engineered soil media. Potable water would generally be reduced by the use of efficient fixtures and/or the use of rainwater or greywater for non-potable use (e.g. toilet flushing).

Proposed Transportation Standard

In lieu of a standard that adheres to the Seattle 2030 District carbon reduction target, the proposed performance standard for the 2030 Challenge Pilot would instead use a reduction in Single Occupancy Vehicle travel as a more quantifiable alternative. Travel modes of transit, bike, car/van pool, and pedestrian (travel modes other than driving alone) would need to exceed the 2014 mode share baselines and achieve meet the targets for 2035, from the City's Comprehensive Plan as shown for Mode Share for Work Trips and Non-work Trips in the tables below.

Urban Center	2014 Mode Share Baselines for Work Trips	Mode Share for Work Trips
Downtown	77 percent	85 percent
First Hill/Capitol Hill	58 percent	70 percent
Uptown	48 percent	60 percent
South Lake Union	67 percent	80 percent
University District	73 percent	85 percent
Northgate	30 percent	50 percent

Urban Center	2014 Mode Share Baselines for Non-Work Trips	Mode Share for Non-work Trips
Downtown	88 percent	90 percent
First Hill/Capitol Hill	80 percent	85 percent
Uptown	82 percent	85 percent
South Lake Union	76 percent	85 percent
University District	79 percent	90 percent
Northgate	46 percent	55 percent

The applicant will provide a Transportation Management Plan (TMP) consistent with requirements for TMPs that demonstrates to the satisfaction of the SDCI Director in consultation with the Director of Transportation, that Single Occupancy Vehicle trips to and from the development will meet the stated percentages in the tables.

Project Eligibility

In order to participate in the Pilot Program, a project would be required to:

- Include renovation of an existing building meeting the proposed size thresholds;
- Participate in the Design Review Program;
- Be located in an urban center, outside the Chinatown/International District and shoreline areas;
- Meet the energy, water and transportation standards; and
- Maintain these requirements for the life of the building.

Minimum size of existing building per zone

The pilot program is intended to promote the retention and rehabilitation of existing buildings. In order to focus on buildings that are appropriately sized, the proposal includes a minimum height that a building must be for the site to be eligible to participate in the program. For multiple buildings on a development site, the heights of individual buildings would be pro-rated based on the size of the building footprint and averaged to apply the minimum height standard. The minimum size requirements would vary by zone.

Zones with height limits of 85 feet or less

The existing structure must be at least 47 percent (this equates to an existing building that is about 40 feet tall in an 85-foot zone) of the height limit of the zone. Additions to the building footprint (the site area covered by buildings) cannot exceed 20 percent of the area of the existing building footprint.

Zones with height limits greater than 85 feet

The existing structure must be at least 60 percent (this equates to an existing building that is about 75 feet tall in a 125-foot zone) of the height limit of the zone. Additions to the building footprint (the site area covered by buildings) cannot exceed 20 percent of the area of the existing building footprint.

Land Use Code Incentives and Departures

Incentives

In order to promote full use of the 20 projects eligible to participate in the 2030 Challenge Pilot as well as the remaining eligible projects under the Living Building Pilot, the proposal includes the following incentives for both pilot programs:

- 25 percent more FAR than allowed in the zone, with an allowance for space occupied by mechanical equipment*;
- 30 percent more FAR than allowed in the zone is proposed for development that includes renovation of an unreinforced masonry (URM) building**;
- Additional height for residential buildings - 12.5 feet for zones under 85 feet in height, and 25 feet for zones with a height limit greater than 85 feet;
- Additional height for non-residential buildings - 15 feet for zones with a height limit under 85 feet, and 30 feet for zones with a height limit greater than 85 feet.

- * An FAR exemption is proposed as an allowance for infrastructure and equipment. For example, a Heat Recovery Ventilation System can take up 150 square foot on each floor that they are needed, which takes up chargeable FAR.
- **An unreinforced masonry (URM) building is typically built of brick or concrete block and lacks structural reinforcement, making it vulnerable in an earthquake.

For a mixed-use building (containing residential and non-residential uses) the incentive that corresponds to the use that occupies the most floor area in the development would apply. These increases would be additive to any additional floor area or height gained by other programs such as incentive zoning or Mandatory Housing Affordability (MHA). Additional height and/or floor area gained through the proposed pilot program would not be subject to incentive zoning or MHA requirements.

Departures

In addition to the general Design Review departure criteria, departures are available to projects participating in either the Living Building or 2030 Challenge Pilots when an applicant demonstrates that approval of a departure would better meet adopted design guidelines.

The following Design Review departures currently may be pursued through the Design Review process for any project enrolled in the Living Building Program and are proposed to apply to the 2030 Challenge Pilot as well:

- Residential density limits;
- Reduction in quantity of parking;
- Permitted, prohibited or conditional use provisions for accessory uses that would directly address meeting a goal of the Pilots;
- Maximum size of use;
- Standards for storage of solid-waste containers;
- Quantity of open space required for major office projects in Downtown zones;
- Standards for the location of access to parking in Downtown zones; and
- Structural building overhangs and minor architectural encroachments.

The proposal would add the following additional standards that may be considered for Design Review departures for both pilot programs:

- Tower spacing requirements in Downtown Mixed Commercial zones;
- Tower floor area limits and tower width limits for portions of structures in residential use in Downtown Mixed Commercial zones;
- Structure height limits in Downtown zones and Seattle Mixed-South Lake Union zones.

The ability for the Design Review Board to consider these additional departures is intended to help pilot program participants to use the height and floor area incentives while meeting applicable design guidelines.

Updates and Clarifications

Various standards are proposed to be clarified and updated based on experience administering and interpreting provisions in the existing LBC and prior green building pilots. The goal is to make these pilots easier to use while staying true to Council's original intent to provide incentives for high performing buildings that can be studied to inform future efforts to make buildings high performing broadly across the city.

Compliance and Penalties

While the goal of the existing Living Building Pilot Program and the proposed 2030 Challenge Pilot has always been to encourage buildings to meet their respective targets, SDCI recognizes that the 2030 Challenge and Living Building Pilots are innovative and ambitious programs. Penalizing a project that strives to meet these goals but falls slightly short is a deterrent to interest in the existing Living Building Pilot program and a potential future barrier to interest and participation in the proposed 2030 Challenge Pilot. The current approach is difficult to use upfront to assess an applicant's risk should they fall short of the performance standards.

In addition, lending institutions may require the developer to set aside the equivalent of the estimated penalty or bond in anticipation of the potential to have to pay a penalty. This set-aside can be required for a long period as compliance is confirmed after construction and after the building has been in use for at least one year. This can act as a disincentive to participation. Therefore, the proposal is to adjust the penalties for the LIVING BUILDING Pilot program to match a new penalty proposed for the 2030 Challenge Pilot. In addition, the new formulas in the penalty calculations are intended to be more transparent and lend themselves to a more predictable approach that provides developers with a clearer understanding of potential fines.

- Compliance: Applicants must submit a third-party report demonstrating compliance within two years after issuance of a final Certificate of Occupancy. This allows one year of post-occupancy operations to ensure proper performance and may include retro-commissioning to resolve any problems that may have been encountered during design and construction. The applicant may request an extension if they demonstrate additional time is warranted and likely to result in the intended outcome. No changes are proposed to the current approach to compliance.
- Maximum Penalty for Non-compliance: SDCI proposes reducing the maximum penalty from the current maximum of 5 percent to instead be a maximum of 3 percent of a project's construction value. SDCI would monitor and evaluate whether the penalty is sufficient as more projects enroll and achieve compliance. If it is demonstrated that the penalty is not high enough to ensure that projects fully comply with the requirements, SDCI will evaluate an increase to the maximum penalty.

Comprehensive Plan

The proposed code amendments are consistent with the goals and policies of the Comprehensive Plan. Applicable goals and policies include:

EN G2 - Foster healthy aquatic systems, including Puget Sound, lakes, creeks, rivers, and the associated shorelines, to provide a high-quality of life in Seattle for all its residents and a valuable habitat for fish and wildlife.

EN 2.1 - Protect and improve water and sediment quality by controlling pollution sources and treating stormwater through best management practices.

EN 2.2 - Reduce combined sewer overflows by reducing stormwater inflows and increasing storage in combined system areas.

EN G3 - Reduce Seattle's greenhouse gas emissions by 58 percent from 2008 levels by 2030, and become carbon neutral by 2050.

EN 3.1 - Expand transit, walking, bicycling, and shared-transportation infrastructure and services to provide safe, affordable and effective options for getting around that produce low or zero emissions, particularly for lower-income households and communities of color.

EN 3.4- Encourage energy efficiency and the use of low-carbon energy sources, such as waste heat and renewables, in both existing and new buildings.

Further Considerations

Additional program development is anticipated after adoption of the recommended code amendments. SDCI and OSE recommend potential expansion of the area of the City where both Pilots apply to include urban villages (this would apply to the 2030 Challenge, as Living Building is already applicable in urban villages), and upland lots in shoreline environments where the height limits are established by underlying zoning. In addition, SDCI and OSE recommend consideration of the use of a Transfer of Development Rights (TDR) program to further facilitate use of the Pilots, especially for projects in the shoreline or the Pioneer Square Historic District, and that include designated landmark structures, and allowing development below Design Review thresholds to be eligible to participate in the pilot programs and maintain their exemption from Design Review. Recommendations will include consideration of an analysis of the use of the current TDR programs in the City currently underway by the Office of Planning and Community Development, which is anticipated to be completed by the end of 2018.

Recommendations

In order to help meet the City's goals for environmental quality and address carbon emissions that contribute to climate change, the Director recommends adoption of the proposed 2030 Challenge Pilot and the amendments to the incentives and penalties for the existing Living Building Pilot.