September 1, 2016

Lucy Garliauskas, Associate Administrator for Planning and Environment
Office of Planning and Environment, Office of Capital Project Development
Federal Transit Administration
1200 New Jersey Avenue SE, East Building
Washington, DC 20590

Dear Ms. Garliauskas:

On behalf of the Seattle Department of Transportation, I am very pleased to provide this submittal of the information required for Small Start project evaluation and rating of the Seattle Streetcar – Center City Connector Project. As one of the nine Small Starts project sponsors that were recommended for the full amount of Capital Investment Grant program funding in your FY17 Annual Report on Funding Recommendations, we have updated information and templates per your recommendation and seek to also be included for funding in the FY18 Annual Report.

As you have acknowledged, this transformational 1.2 mile project will provide mobility through the core of downtown, serving major event and visitor destinations, employment centers, a growing residential population, and areas of significant development. The project provides affordable and convenient access to employment, services, and neighborhoods within last-mile connections from regional transit services. The project also provides a critical linkage to leverage the existing South Lake Union Streetcar (operating since 2007) and the First Hill Streetcar (operating since January 2016), creating a 5-mile system serving the broader Center City.

Enclosed please find the completed and updated “Small Starts Template” file, Standard Cost Categories’ worksheets file, and the companion files including the “Project Narrative” and other narrative responding to the Small Starts Templates.

If you have any additional questions, please do not hesitate to contact me or our Streetcar program lead, Michael James, at 206-386-4012 or michael.james2@seattle.gov. We appreciate your ongoing support for the implementation of this significant project.

Sincerely,

Scott Kubly
Director, Seattle Department of Transportation

cc: Linda Gehrke, FTA Regional Administrator
Maurice Foushee, FTA Office of Planning and Environment
John Wittmer, Community Planner, FTA Region 10
Carrie Deichl, Transportation Program Specialist, FTA Region 10
MEMORANDUM

Date: September 1, 2016
To: Lucy Garliauskas, FTA, Associate Administrator for Planning & Environment
From: Michael James, Seattle Department of Transportation
Subject: Center City Connector Streetcar – Summary of changes from previous submittal

This memorandum serves to highlight some of the distinct changes made in the “Small Starts Template” and “Standard Cost Categories” worksheets from the previous application submittal that was made in 2015. (Changes in the Small Starts Template are noted with green shading.)

- Project Schedule – The overall schedule has been shifted back to an opening of revenue operations in March 2020 with construction of fixed infrastructure starting in February 2017 and continuing through December 2019. This schedule shift assumes NEPA clearance in February 2017. This schedule adjustment has corresponding cost escalation.

- Project Costs – The project costs have been updated to reflect additional detail and scope for relocating water utilities, updated costs associated for coordination with King County Metro on power and trolley wire installation, cost escalation associated with a 2020 opening date, and other civil design project refinements. The updated cost of the project in constant 2016 dollars is $159.7 million. The updated total cost of the project in year of expenditure dollars is $166.5 million.

- Project Capital Funding – Project funding sources have been updated to reflect the revised project cost and planned sources, now planned to be a mix of municipal bonds and municipal utility reimbursements.

- Project Operating and Maintenance (O&M) Costs – Estimated project O&M costs have been updated slightly to reflect the planned 2020 opening date. Current Transit System Operating Characteristics have been updated to reflect opening of the First Hill Streetcar in early 2016.

- Project Team - The SDOT project Team has been updated to reflect a new Lead Agency contact (Andrew Glass Hastings), a new project Manager (CJ Holt), and a new key agency staff (Michael James). The project team and budget has been augmented by additional program management staff resources with extensive experience in streetcar design and construction implementation.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1-1</td>
</tr>
<tr>
<td>1.1</td>
<td>1-1</td>
</tr>
<tr>
<td>1.1.1</td>
<td>1-1</td>
</tr>
<tr>
<td>1.1.2</td>
<td>1-1</td>
</tr>
<tr>
<td>1.1.2.1</td>
<td>1-1</td>
</tr>
<tr>
<td>1.1.2.2</td>
<td>1-1</td>
</tr>
<tr>
<td>1.1.2.3</td>
<td>1-2</td>
</tr>
<tr>
<td>1.1.2.4</td>
<td>1-3</td>
</tr>
<tr>
<td>1.1.2.5</td>
<td>1-4</td>
</tr>
<tr>
<td>1.1.2.6</td>
<td>1-5</td>
</tr>
<tr>
<td>1.1.3</td>
<td>1-6</td>
</tr>
<tr>
<td>1.2</td>
<td>1-14</td>
</tr>
<tr>
<td>1.2.1</td>
<td>1-14</td>
</tr>
<tr>
<td>1.2.1.1</td>
<td>1-14</td>
</tr>
<tr>
<td>1.2.1.2</td>
<td>1-15</td>
</tr>
<tr>
<td>1.2.2</td>
<td>1-15</td>
</tr>
<tr>
<td>1.2.2.1</td>
<td>1-15</td>
</tr>
<tr>
<td>1.2.2.2</td>
<td>1-16</td>
</tr>
<tr>
<td>1.2.2.3</td>
<td>1-19</td>
</tr>
<tr>
<td>1.2.2.4</td>
<td>1-20</td>
</tr>
<tr>
<td>1.2.2.5</td>
<td>1-22</td>
</tr>
<tr>
<td>1.2.2.6</td>
<td>1-26</td>
</tr>
<tr>
<td>1.2.2.7</td>
<td>1-28</td>
</tr>
<tr>
<td>1.2.2.8</td>
<td>1-28</td>
</tr>
<tr>
<td>1.2.3</td>
<td>1-29</td>
</tr>
<tr>
<td>1.3</td>
<td>1-31</td>
</tr>
<tr>
<td>1.3.1</td>
<td>1-31</td>
</tr>
<tr>
<td>1.3.2</td>
<td>1-32</td>
</tr>
<tr>
<td>1.3.3</td>
<td>1-33</td>
</tr>
<tr>
<td>1.4</td>
<td>1-36</td>
</tr>
<tr>
<td>1.4.1</td>
<td>1-36</td>
</tr>
<tr>
<td>2</td>
<td>2-1</td>
</tr>
<tr>
<td>2.1</td>
<td>2-1</td>
</tr>
<tr>
<td>2.2</td>
<td>2-1</td>
</tr>
<tr>
<td>2.3</td>
<td>2-1</td>
</tr>
<tr>
<td>2.4</td>
<td>2-1</td>
</tr>
<tr>
<td>2.4.1</td>
<td>2-1</td>
</tr>
<tr>
<td>2.4.2</td>
<td>2-2</td>
</tr>
<tr>
<td>2.4.2.1</td>
<td>2-2</td>
</tr>
</tbody>
</table>
2.4.2.2 Existing Corridor and Station Area Development Character ................................................................. 2-6
2.4.2.3 Existing Station Area Pedestrian Facilities, Including Access for People with Disabilities .......... 2-14
2.4.2.4 Existing Corridor and Station Area Parking Supply .................................................................................. 2-17
2.4.2.4 Existing Affordable Housing ........................................................................................................................... 2-20

2.4.3 Supporting Documentation .......................................................................................................................... 2-23

2.5 Economic Development .......................................................................................................................... 2-22

2.5.1 Supplemental Economic Development ......................................................................................................... 2-22

2.5.2 Transit-Supportive Plans and Policies .............................................................................................................. 2-24
2.5.2.1 Transit Supportive Corridor Policies .............................................................................................................. 2-24
2.5.2.2 Supportive Zoning Regulations Near Transit Stations ............................................................................... 2-30
2.5.2.3 Tools to Implement Transit-Supportive Policies ........................................................................................... 2-33

2.5.3 Performance and Impacts of Land Use Policies .......................................................................................... 2-35
2.5.3.1 Performance of Land Use Policies ................................................................................................................. 2-35
2.5.3.2 Potential Impact of Transit Project on Regional Land Use ........................................................................ 2-38

2.5.4 Tools to Maintain or Increase the Share of Affordable Housing in the Corridor ............................................................. 2-42
2.5.4.1 Evaluation of Corridor-Specific Affordable Housing Needs and Supply ..................................................... 2-42
2.5.4.2 Plans and Policies to Preserve and Increase Affordable Housing in the Region and/or Corridor ........................................................................................................................................... 2-44
2.5.4.3 Adopted Financing Tools and Strategies Targeted to Preserving and Increasing Affordable Housing in the Region and/or Corridor ........................................................................................................................................... 2-44
2.5.4.4 Evidence of Developer and Public Sector Activity to Preserve and Increase Affordable Housing in the Corridor ........................................................................................................................................... 2-45
2.5.4.5 Extent to Which Plans and Policies Account for Long-Term Affordability and Needs of the Very- and Extremely-Low Income Households in the Corridor ........................................................................ 2-47

2.5.5 Supporting Documentation .......................................................................................................................... 2-48

2.6 Environmental Benefits .......................................................................................................................... 2-50

3 Local Financial Commitment .......................................................................................................................... 3-1

3.1 Capital Cost .............................................................................................................................................. 3-1

3.2 Operations and Maintenance Costs .............................................................................................................. 3-1

3.3 Local Financial Commitment .......................................................................................................................... 3-3

3.3.1 Summarized Financial Plan & Local Capital Funding Plan ........................................................................... 3-3

3.3.2 Streamlined Financial Evaluation .................................................................................................................. 3-4

3.4 Supporting Documentation .......................................................................................................................... 3-4
## Table of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1-1</td>
<td>Project Overview Map</td>
<td>1-7</td>
</tr>
<tr>
<td>Figure 1-2</td>
<td>Existing and Planned Transit Services</td>
<td>1-8</td>
</tr>
<tr>
<td>Figure 1-3</td>
<td>Center City Neighborhoods</td>
<td>1-9</td>
</tr>
<tr>
<td>Figure 1-4</td>
<td>Land Use</td>
<td>1-10</td>
</tr>
<tr>
<td>Figure 1-5</td>
<td>Zoning</td>
<td>1-11</td>
</tr>
<tr>
<td>Figure 1-6</td>
<td>Major Activity Centers</td>
<td>1-12</td>
</tr>
<tr>
<td>Figure 1-7</td>
<td>Proposed Center City Connector Operating Plan</td>
<td>1-13</td>
</tr>
<tr>
<td>Figure 1-8</td>
<td>Existing and Planned Streetcar Operating Hours and Frequency (Table)</td>
<td>1-17</td>
</tr>
<tr>
<td>Figure 1-9</td>
<td>Streetcar Headway by Line and on Center City Connector Segment</td>
<td>1-18</td>
</tr>
<tr>
<td>Figure 1-10</td>
<td>Average Streetcar System Weekday Ridership</td>
<td>1-19</td>
</tr>
<tr>
<td>Figure 1-11</td>
<td>Center City Connector Average Weekday Project Trips</td>
<td>1-20</td>
</tr>
<tr>
<td>Figure 1-12</td>
<td>Total Boardings and Project Trips, 2014</td>
<td>1-21</td>
</tr>
<tr>
<td>Figure 1-13</td>
<td>Total Boardings and Project Trips, 2035</td>
<td>1-21</td>
</tr>
<tr>
<td>Figure 1-14</td>
<td>District-District Travel Forecasts Map, 2014</td>
<td>1-23</td>
</tr>
<tr>
<td>Figure 1-15</td>
<td>District-District Travel Forecasts Map, 2035</td>
<td>1-23</td>
</tr>
<tr>
<td>Figure 1-16</td>
<td>Analysis District Map</td>
<td>1-24</td>
</tr>
<tr>
<td>Figure 1-17</td>
<td>District-District Daily Project Trips Summary, 2014</td>
<td>1-25</td>
</tr>
<tr>
<td>Figure 1-18</td>
<td>District-District Daily Project Trips Summary, 2035</td>
<td>1-25</td>
</tr>
<tr>
<td>Figure 1-19</td>
<td>Preliminary Operations and Maintenance Cost Budget</td>
<td>1-33</td>
</tr>
<tr>
<td>Figure 1-20</td>
<td>Project Components: Exclusive Transit and Mixed-Traffic Segments</td>
<td>1-34</td>
</tr>
<tr>
<td>Figure 1-21</td>
<td>Project Components: On- and Off-Wire Zones and Substation Locations</td>
<td>1-35</td>
</tr>
<tr>
<td>Figure 2-1</td>
<td>High Trip Generators</td>
<td>2-2</td>
</tr>
<tr>
<td>Figure 2-2</td>
<td>High Trip Generators</td>
<td>2-5</td>
</tr>
<tr>
<td>Figure 2-3</td>
<td>Existing Building Footprints</td>
<td>2-7</td>
</tr>
<tr>
<td>Figure 2-4</td>
<td>Detailed Aerial of North Station Areas</td>
<td>2-8</td>
</tr>
<tr>
<td>Figure 2-5</td>
<td>Detailed Aerial of South Station Areas</td>
<td>2-9</td>
</tr>
<tr>
<td>Figure 2-6</td>
<td>Station Areas</td>
<td>2-10</td>
</tr>
<tr>
<td>Figure 2-7</td>
<td>Pedestrian Conditions and Walksheds</td>
<td>2-15</td>
</tr>
<tr>
<td>Figure 2-8</td>
<td>Bicycle Network</td>
<td>2-16</td>
</tr>
<tr>
<td>Figure 2-9</td>
<td>Parking Supply around Station Areas</td>
<td>2-18</td>
</tr>
<tr>
<td>Figure 2-10</td>
<td>CBD Parking Cost and Supply</td>
<td>2-18</td>
</tr>
<tr>
<td>Figure 2-11</td>
<td>Location of Off-Street Parking</td>
<td>2-19</td>
</tr>
<tr>
<td>Figure 2-12</td>
<td>Affordable Housing Units at 60% AMI</td>
<td>2-20</td>
</tr>
<tr>
<td>Figure 2-13</td>
<td>Location of Income-restricted Affordable Housing</td>
<td>2-21</td>
</tr>
<tr>
<td>Figure 2-14</td>
<td>Home Locations of Low- to Moderate-Income Workers</td>
<td>2-22</td>
</tr>
<tr>
<td>Figure 2-15</td>
<td>Development Projects Underway</td>
<td>2-39</td>
</tr>
<tr>
<td>Figure 2-16</td>
<td>Corridor Redevelopment Opportunities</td>
<td>2-39</td>
</tr>
<tr>
<td>Figure 2-17</td>
<td>Commercial Redevelopment Capacity</td>
<td>2-41</td>
</tr>
<tr>
<td>Figure 2-18</td>
<td>Residential Development Capacity</td>
<td>2-41</td>
</tr>
<tr>
<td>Figure 2-19</td>
<td>Affordable Housing along Streetcar System</td>
<td>2-43</td>
</tr>
<tr>
<td>Figure 3-1</td>
<td>Projected Streetcar Operating and Maintenance Costs, 2019</td>
<td>3-2</td>
</tr>
</tbody>
</table>
Attachments
Attachment A Fare Policy Methodology
Attachment B Annualization Factor Documentation
Attachment C Additional Rider Markets
Attachment D Affordable Housing Methodology

Project Template Excel Files
Small Starts Template File - Attached
SCC Template File - Attached

Travel Forecasts Supporting Documentation
STOPS Model Runs
Supporting Tabulations
Center City Connector Transit Study, Visitor and Special Event Market Analysis (Attachment D)
South Lake Union Streetcar Survey Analysis

Supporting Documentation
Washington State
- Growth Management Chapter

Puget Sound Regional Council
- Vision 2040
- Transportation 2040 Plan
- Growing Transit Communities Strategy
- Growing Transit Communities Compact
- Growing Transit Communities. A Regional TOD Fund
- Growing Transit Communities. Implementing Equitable Transit Communities

King County
- Comprehensive Plan 2012

City of Seattle
- Comprehensive Plan 2004-2019 (Adopted)
- Draft Comprehensive Plan 2015-2025 (Proposed)
- 2015-2016 Seattle City Budget
- Capital Improvement Program 2015-2025 (Adopted)
- Transit Master Plan
- Bicycle Master Plan
- Pedestrian Master Plan
- ADA Transition Plan for Curb Ramps and Sidewalks
- Climate Action Plan
- On-street Paid Parking Occupancy Annual Report
- Right of Way Improvements Manual
- City of Seattle Race and Social Justice Initiative
- Streetcar Network Report
- Streetcar Center City Connector Urban Design Report
- Route 99 and SLU Streetcar Survey Results
- Seattle Department of Transportation Adopted Budget
- Downtown Urban Center Neighborhood Development Plan
- Commercial Core Neighborhood Development Plan
- Pioneer Square Neighborhood Development Plan
- Center City Connector Transit Study
- Center City Connector Environmental Assessment

**Seattle Planning Commission**
- Transit Communities Citywide Strategy
- Transit Communities Report
- Housing Seattle Report

**Seattle Audited Financial Statements**
- Comprehensive Annual Financial Report 2014
- Comprehensive Annual Financial Report 2013
- Comprehensive Annual Financial Report 2012
1 GENERAL REPORTING

1.1 PROJECT BACKGROUND

1.1.1 Project Description Template

The Project Description template is provided in the “Small Starts Template“ file, Project Description worksheet. This file is located in the Small Starts Template folder of the application submittal.

1.1.2 Project Narrative

1.1.2.1 Project Identification

The Center City Connector will improve connectivity and access, reduce congestion, and provide mobility through the core of downtown Seattle, serving major event and visitor destinations, employment centers, a growing residential population, and areas of significant development. The project provides a critical link between two existing streetcar lines serving downtown Seattle and adjacent neighborhoods: the South Lake Union Streetcar and the First Hill Streetcar. See Figure 1-1 for a project overview map.

The Center City Connector will run along Stewart Street and First Avenue, between the Westlake Intermodal Hub and Jackson Street in the Pioneer Square neighborhood. Over 85% of the new track will operate in an exclusive transit lane, including all of the First Avenue alignment. The project includes a new turn-around track in the South Lake Union neighborhood (Republican Street between Westlake Avenue and Terry Avenue), four new streetcar stations, modifications to the Westlake and Occidental Stations, and expansion of the Seattle Streetcar fleet with seven additional vehicles and three replacement vehicles that can operate in off-wire segments.1 It also includes expansion of the existing streetcar operation and maintenance facilities to accommodate the larger vehicle fleet.

With the Center City Connector, Seattle will be able to operate the City’s streetcar lines as a unified system, maximizing the utility of previous transit investments with this short connection. The full streetcar system will provide service from 5:00 a.m. to 1:00 a.m. Monday through Saturday, and 6:00 a.m. to 11:00 p.m. on Sundays and holidays. The Center City Connector, along with a portion of the system between the Thomas Street Station in South Lake Union and the 7th Avenue S Station in the International District, will operate with 5-minute headways between 6:00 a.m. and 8:00 p.m. on weekdays, and 8:00 a.m. to 8:00 p.m. on Saturdays and Sundays (with 7.5-minute headways at other times). See Figure 1-7 for the proposed Center City Connector operating plan.

1 Streetcar vehicles serving the First Hill Streetcar and portions of the proposed alignment utilize on-board energy storage systems (OESS) to operate through wireless segments with no external power supply. The elimination of overhead wires in portions of the corridor reduces conflicts with existing wires for trolley buses and minimizes visual and aesthetic impacts.
1.1.2.2 The Setting

The Center City Connector will operate in a high-density corridor with a mix of land uses and major activity centers, as shown in Figure 1-4, Figure 1-5, and Figure 1-6. The project will provide service to Pike Place Market (over 10 million unique annual visits), the Washington State Convention Center, the Seattle Art Museum, the Seattle Aquarium, Century Link Field, and a myriad of hotels, restaurants, office towers, and residences.

The project will connect Seattle’s three downtown intermodal hubs: Westlake Intermodal Hub, Colman Dock Intermodal Hub, and King Street Intermodal Hub, as shown in Figure 1-7. In addition, the project will provide convenient transfers to the Third Avenue Transit Spine at both ends of downtown Seattle, to Link light rail via multiple Downtown Seattle Transit Tunnel (DSTT) station entrances, and to Sounder commuter rail and Amtrak at King Street Station. The primary public transit providers serving these facilities include: King County Metro, providing local bus service and passenger-only ferry service; Sound Transit (ST), offering ST Express bus, Sounder commuter rail, and Link light rail; Community Transit, providing commuter bus service; and the Washington State Department of Transportation (WSDOT), operating ferry service. The Center City Connector will also support on-going projects to replace the Alaskan Way Viaduct (State Route [SR] 99) a double-decked elevated highway that runs through the Center City and to redevelop the Seattle Central Waterfront, one of Seattle’s most significant destinations.

1.1.2.3 Current Conditions

Seattle’s Center City neighborhoods contain nearly 200,000 workers and 69,000 residents, the highest employment and population densities citywide. Meeting the mobility needs of these residents, employees, and over 10 million annual visitors poses clear challenges for the city’s transportation network.

Seattle already suffers from frequent congestion, ranking fifth among all U.S. cities in 2015. Interstate 5 (I-5), which passes directly through downtown, is heavily congested, carrying 200,000 daily vehicles. On the local street network, there is limited ability to enhance surface street capacity through the downtown core. Seattle’s Center City resembles an hourglass where a limited set of north-south arterial corridors carry people and goods through the narrow neck of the hourglass. Connectivity within the network is already constrained due to discontinuous streets and freeway ramp configurations that funnel traffic to a limited number of streets.

The transit mode share for downtown Seattle commute trips is quite high (45% in 2014), with several high-ridership transit services that provide regional and citywide connections.

---

2 The Third Avenue Transit Spine includes Third Avenue between Jackson Street in the Chinatown-International District at the south end, through the Commercial Core, to the north end of Belltown at Denny Way. This corridor is restricted to transit during peak-hour periods, providing enhanced cross-city reliability and travel-time efficiency on downtown Seattle’s most heavily used transit corridor. More than 2,500 buses travel the corridor every weekday, with about 42,000 people boarding at bus stops on the corridor each day.

3 PSRC, Land Use Targets Maintenance Release 1 (LUT-MR1), 2014. Statistics cited are for Center City neighborhoods (see Figure 1-3).


5 TomTom Traffic Index, 2015


7 Link light rail, connecting downtown to SeaTac International Airport, carries a daily average of 32,924 passengers. Sounder commuter rail, with service between Lakewood (south of Tacoma) and Everett (north of Seattle), carries a daily average of 12,694 passengers. Sound Transit
major north-south arterials (Second, Third, Fourth, and Fifth Avenues) and the DSTT carry transit through downtown, but high utilization, limited expansion capacity, and increased future demand limit the ability of existing transit to provide access between major transit hubs, key employment centers, retail destinations, attractions, and residential populations. Despite the intensity of bus service in and through the Center City Connector corridor, few routes are directly oriented to last-mile connections and local circulation within downtown Seattle.

The lack of direct last-mile connections within the Center City particularly impacts the region’s low income households. Over 9,000 affordable housing units are currently located in the Center City as well as the highest concentration of services for homeless and vulnerable populations in the Puget Sound region. The Center City Connector corridor needs affordable transportation access within the Center City and convenient connections to employment, services, and housing throughout the larger region.

Local transit service within downtown Seattle has been challenged by the removal of continuous transit service from First Avenue in 2011 and the elimination of the Ride Free Area in downtown (resulting in slower boarding times). Furthermore, services that do provide local circulation are at or near capacity (e.g., bus routes traveling through the Commercial Core from frequently run at 130% to 150% or more of seated capacity during peak periods). These conditions all point to the need for transit service oriented to Center City travel markets and last-mile connections from the area’s regional transit hubs.

1.1.2.4 Conditions in the Horizon Year

By 2035, growth targeted for the Center City area is expected to result in over 100,000 residents and over 300,000 jobs, a 45% increase in population and 54% growth in employment over 2010. Within ½ mile of the Center City Connector station areas alone, the Puget Sound Regional Council (PSRC) projects a 35% increase in population and a 50% increase in employment, with 31,000 people and 190,000 jobs expected to be located in the corridor by 2035. Recent upzoning amendments to the Seattle Comprehensive Plan will further encourage high-density residential housing in areas of the Center City as well as greater office development downtown. There are currently 53 projects in development along the corridor, including 9.2 million square feet of commercial development, 11,300 residential units, and 3,300 hotel rooms. Figure 1-5 illustrates zoning in the corridor.

The upzoning regulations will also increase the number of affordable housing units over the next 20 years. In South Lake Union, over 11,000 additional housing units are anticipated by 2031 under the upzoning regulations approved by the Seattle City Council in 2013, beyond the number of units that were either completed or received a building permit in 2012. Over 4,000 of these new units are targeted to be affordable units for households earning 0% to 80% of the Express regional buses carry a daily average of 60,944 passengers. RapidRide, a network of limited-stop bus routes in King County, has an average daily ridership of 57,000 passengers.

8 Based on King County Metro APC data, Fall 2013.
9 PSRC, Land Use Targets Maintenance Release 1 (LUT-MR1), 2014. Statistics cited are for Center City neighborhoods (see Figure 1-3).
10 Based on permit data from Seattle in Progress, as of August 2015. The corridor is defined as a half-mile buffer around the four new Center City Connector stations, consistent with reporting in the Land Use Template.
area median income (AMI). Such growth in affordable housing points to current and future need for affordable transportation access within the Center City corridor.

The extension of Link light rail to Capitol Hill and the University District in 2016 is expected to dramatically increase transit ridership. However, this expanded service will operate in the DSTT forcing the remaining bus routes currently operating in the tunnel onto downtown surface streets by 2020 or sooner. In addition, the upcoming replacement of the Alaskan Way Viaduct will result in the relocation of numerous bus routes to surface streets. These shifts will limit the speed and reliability of commuter bus routes (citywide and regional) that will be rerouted and the local circulation routes that already operate in mixed-traffic corridors downtown. The Center City Connector project, with dedicated street right-of-way for transit, exemplifies the City of Seattle’s commitment to respond to these challenges with significant transit enhancements that improve mobility for downtown residents, employees, and visitors.

The South Lake Union Streetcar currently carries an average of 2,500 daily passengers, and the First Hill Streetcar is projected to average between 3,000 and 3,500 boardings per day. These numbers will continue to grow as development intensifies within the Center City, but each line is limited in its ability to improve connectivity to downtown’s regional transit hubs if they are not integrated into a larger network.

The City of Seattle is committed to addressing environmental impacts associated with growth. To meet the objectives of Seattle’s Climate Action Plan (which aims to achieve zero net greenhouse gas emissions by 2050), the city is relying heavily on efficient public transportation systems connecting key residential and employment areas to encourage travel by transit. The Center City Connector will help achieve this goal by satisfying unmet travel demand while attracting ridership from untapped markets.

1.1.2.5 Purpose of the Center City Connector Project

The purpose of the project is to serve the growing demand for Center City circulation trips with a mode and alignment that are easy to use, and to provide continuity of travel between the downtown commercial core and Center City neighborhoods. Specifically, the project will accomplish the following:

- **Address current and future mobility needs for residents, workers, and tourists.** Seattle’s Center City neighborhoods are forecast to see tremendous growth in employment and population densities. Additionally, tourist activity within these areas is projected to steadily increase. The project will provide convenient, easy-to-understand transit service to meet Seattle’s mobility needs.

- **Meet the growth in demand for Center City circulation trips.** The project will provide service between Center City neighborhoods while also accommodating “last mile” connections for trips using existing and planned local and regional transit services.

- **Address constraints on expansion of Center City transportation.** There are limited north-south through streets available for transit, and existing and planned transit will use much of this capacity. Additionally, many bus routes will be relocated from the

---

11 Ridership projections estimate that the University Link will add 71,000 riders to the system by 2030, for a systemwide total of 114,000 (http://www.soundtransit.org/Projects-and-Plans/University-Link-Extension).
Downtown Seattle Transit Tunnel to surface streets as Link light rail headways increase and constrain available capacity for buses in the tunnel. As a high frequency service with signal priority and sections of exclusive right-of-way, the Center City Connector will increase transit capacity for north-south travel.

- **Provide affordable transportation access to key social and human services located in the Center City.** Many social service agencies in the Center City rely on good transit connections for their clients. The Center City Connector will improve mobility and accessibility options for people in need of these services.

- **Mitigate greenhouse gas emissions resulting from vehicles and traffic congestion.** Seattle’s Climate Action Plan to reduce greenhouse gas emissions relies on providing higher-capacity transit to support dense, mixed-use neighborhoods in the Center City. By connecting two high-ridership streetcar networks along a high-frequency corridor, the Center City Connector will play a vital role in reducing vehicle trips and traffic congestion by attracting choice riders.

### 1.1.2.6 Merits of the Project

The City of Seattle analyzed alternative corridors to connect the First Hill and South Lake Union streetcars and meet the demand for mobility in the Center City. Following development of the project purpose and need, screening criteria based upon project goals were used to evaluate seven potential alignments and mode options. The alignments were based on the Seattle Transit Master Plan and public input at an open house on February 6, 2013. Based on an “Initial Screening” process, First Avenue and Fourth/Fifth Avenue alignments were selected for further study. Based on a “Tier 1 Screening” process, alternatives using a First Avenue alignment rated more favorably on project evaluation measures, such as shorter transit travel time, fewer multimodal conflicts including bus passenger delay, and better placemaking and economic development opportunities. Public and stakeholder input strongly favored the First Avenue alternatives. A “Tier 2 Evaluation” process then evaluated Mixed-Traffic and Exclusive Streetcar alternatives on First Avenue in more detail. Other modal options reviewed included diesel-electric hybrid bus and electric trolley bus. Both rubber-tired options were eliminated due to strong public preference for continuing rail streetcar service, inefficiency of required transfers between rail and bus modes at either end of downtown, and special constraints to allow for an efficient streetcar to bus transfer on S Jackson Street and at McGraw Square (Westlake Hub).

The locally preferred alignment, mode, and stop placement was determined to best meet the purpose of the project because it will:

- **Provide a convenient and easy-to-understand transit service that forms a cohesive link between two existing streetcar lines.** Public and stakeholder comments emphasized the important of a seamless connection between the streetcar lines, and a strong majority supported a modern streetcar mode.

- **Improve travel time, reliability, and service frequency for transit riders,** with a 10-minute peak hour travel time between Westlake and King Street intermodal hubs using exclusive transit lanes and 5-minute headways on the portion of the streetcar system that is projected to have the highest ridership demand. Public input emphasized the importance of speed and reliability in order to make the Center City Connector attractive and competitive with other modes. Based on input at an open house on
October 29, 2013 and an online survey, the First Avenue Exclusive Streetcar alternative received the strongest public support and rated more favorably than the Mixed-Traffic Streetcar alternative on several metrics identified by the public as key decision factors.

- **Support growing residential and employment densities in Center City** with convenient last-mile transit service.
- **Increase connectivity to regional transit intermodal hubs**, including Westlake, Colman Dock, and King Street Intermodal Hubs.
- **Improve access to downtown social services and affordable housing.**
- **Ensure consistency with the goals of Seattle’s Climate Action Plan.**

1.1.2.7 Summary

The City Center Connector will improve public transit through the heart of downtown Seattle, an area that already has the highest population and employment density in the city (with a projected 50% increase in jobs and 35% increase in residents in the project corridor) and attractions that draw many of Seattle’s over 10 million annual overnight visitors. The project will maximize use of existing resources, connecting two existing streetcar lines into a 5.4-mile system that spans ten neighborhoods. It will improve accessibility to regional transit hubs while meeting the growing demand for local circulation and last-mile trips downtown. Additionally, the project will serve as an affordable transportation option for riders requiring access to downtown’s supply of affordable housing and human services.

The Center City Connector will increase the movement of people through Seattle’s congested downtown corridors while alleviating capacity issues for the current transit spine. By 2035, the Center City Connector will carry more than seven million riders annually—including over 4,000 new transit trips per day—and will combine with Seattle’s existing streetcar lines to provide 5-minute service between 6:00 a.m. and 8:00 p.m. on weekdays, and 8:00 a.m. to 8:00 p.m. on Saturdays and Sundays. The Center City Connector will improve connectivity and access, reduce congestion, and provide mobility through the core of downtown, serving major event and visitor destinations, employment centers, a growing residential population, and areas of significant development.

1.1.3 Project Maps

This section provides the following project maps:

- Project Overview
- Existing and Planned Transit Services
- Center City Neighborhood Boundaries
- Land Use
- Zoning
- Major Activity Centers
- System Operating Plan
Figure 1-1  Project Overview Map
Figure 1-2 Existing and Planned Transit Services

Seattle, Washington
Streetcar System

Existing Transit Services
- 3rd Ave Transit Spine
- Link Light Rail
- RapidRide Lines
- Existing Streetcar
- Existing Maintenance Facility Access Track
- Maintenance Facility
- Monorail
- King County Metro Route 99
- Bus Routes
- Downtown Seattle Transit Tunnel
- Marion St Pedestrian Bridge
- Intermodal Hub
- Sound Transit Link Light Rail Station
- Ferry
- Major Landmarks

Planned / Proposed System
Center City Connector
- Proposed Alignment and Stops
- Proposed Turnaround Track
- Proposed Maintenance Facility Expansion Site

Other Services
- Madison BRT
- Broadway Streetcar Extension
- Planned Link Light Rail
- Planned RapidRide C-Line Extension

Data Sources: King County GIS, City of Seattle, PSRC
Figure 1-3  Center City Neighborhoods
Figure 1-4  Land Use
Figure 1-5  Zoning
Figure 1-7  Proposed Center City Connector Operating Plan

Seattle, Washington
Streetcar System
System Operating Plan

Trains up to every 10 min
(South Lake Union - International District)

Trains up to every 5 min
(Thomas - 7th & Jackson)

South Lake Union to International District
Capital Hill to South Lake Union
Overlapping Service (Up to every 5 min)

Existing and Planned Streetcar Stations
Proposed Center City Connector Stations
Intermodal Hubs
1.2 TRAVEL FORECASTS

This section describes travel forecast results for the Center City Connector. Travel demand forecasts were generated using the FTA Simplified Trips-on-Project Software (STOPS), version 1.51. The underlying population and employment forecasts are based on demographic estimates provided by the Puget Sound Regional Council (PSRC), for a 2010 current year and a 2035 horizon year. The 2010 baseline was the most up to date information available in the format needed to run STOPS for the current year conditions.

1.2.1 Travel Forecasts Template

1.2.1.1 Trips on the Project

The Travel Forecasts Template includes information on the number of trips on the project for transit dependent users, non-transit dependent users, and four special markets. Highlights include:

- 11,000 daily linked trips without special markets on the project in the current year and 20,100 in the horizon year
- 2,800 daily linked trips by the visitor special market in the current year, and 5,000 in the horizon year
- For the sporting events special market, 135 linked trips per game by patrons of Seahawks National Football League (NFL) sports events and 90 linked trips per game by patrons of Sounders Major League Soccer (MLS) sports events at CenturyLink Field; and 20 trips per game by patrons of Mariners Major League Baseball (MLB) sports events at Safeco Field in the current year

The annualization factor for trips by residents and visitors is 315, which is consistent with local experience in the existing transit system, comparable streetcar services in San Francisco and Portland that serve broad ridership markets, and the proposed operating plan. For the sports-related special market project trips, annualization factors for the current year are based on the number of home games at each venue. There are 10 Seahawks home games and 24 Sounders home games at CenturyLink Field, and 81 Mariners games at Safeco Field.

Details regarding annualization factors can be found in Attachment B.

Highlights for annual trips include:

- 3.0 million annual linked trips on the project by non-transit dependent users in the current year and 5.5 million trips in the horizon year, not including special markets
- 441,000 annual linked trips on the project by transit-dependent users in the current year and 819,000 in the horizon year, not including special markets
- 882,000 annual linked trips on the project by special markets (visitors and patrons of Seahawks, Sounders, and Mariners home games) in the current year, and 1.6 million in the horizon year
- A total of 4.3 million annual linked trips on the project in the current year and 7.9 million trips in the horizon year
1.2.1.2 Vehicle-Miles of Travel

The Travel Forecasts Template also includes information on Vehicle-Miles of Travel (VMT) estimates generated from the STOPS Model. An auto occupancy rate of 1.15 was used to adjust passenger miles (from STOPS) to vehicle miles for inclusion in the template. The City Center Connector is estimated to reduce automobile VMT by 8.7 million miles in the current year and 10.9 million miles in the horizon year.

1.2.2 Travel Forecasts Results Report

1.2.2.1 Travel Markets

The Center City Connector will provide an affordable and convenient mobility option for residents and visitors in Seattle, serving major special event and visitor destinations, employment centers, a growing residential population, and areas of significant development. The project will connect Seattle’s three downtown intermodal hubs and improve mobility between Center City neighborhoods and through the core of downtown. The project will benefit several types of ridership markets. First, it will benefit commuters to and from downtown and Seattle’s other Center City neighborhoods. The project will provide convenient circulation for commuter and other trips within/between Center City neighborhoods. The Center City Connector will also link the major intermodal hubs in downtown Seattle, serving ferry, light rail, commuter rail, local bus, intercity bus, and passenger rail connections. Finally, the project will provide last-mile connections from existing services and transportation hubs, for low-income households to access jobs and services throughout the region.

Key challenges in serving these markets were recently explored with the travelling public, transit service providers, and other stakeholders through development of the Seattle Transit Master Plan, which recommended the Center City Connector as a key transportation priority for the city. Current challenges serving the anticipated transit markets include:

- Visitors and residents that do not regularly visit downtown have trouble navigating the complexity of existing transit services and connecting between intermodal hubs.
- Commuters arriving in downtown on ferry, commuter rail, and buses have few options for last-mile connections within the Center City. Few bus routes are oriented to provide local circulation.
- Transit services that provide local circulation for visitors, residents, and workers in downtown are highly utilized and at capacity.
- Seattle is likely to experience capacity constraints along the 3rd Avenue Transit Spine and in the Downtown Seattle Transit Tunnel.
- Major new development occurring north of downtown in South Lake Union will increase travel demand on major north-south arterial surface streets that are already congested.
- Low-income residents along the corridor require affordable and reliable transit connections to jobs, services, and educational opportunities.
1.2.2.2 Improvements to Transit Service - Proposed Operating Plan

The Center City Connector will improve connectivity between existing modes of transportation in downtown Seattle. The project will connect the intermodal transit hubs and modes in downtown Seattle, including ferry, commuter rail, local bus, intercity bus, and passenger rail transportation services.

The proposed operating plan would expand the span of “peak” frequency to 6 AM to 7 PM, (recognizing the high mid-day demand for many of the trip purposes served by the Center City Connector), and would expand the overall span of service on the system to match the 20-hour Monday through Saturday span of Link light rail service. Figure 1-8 provides a table comparing existing operating hours and frequency for the South Lake Union and First Hill streetcar lines with the proposed operating plan for the Center City Connector.

The proposed operating plan features two lines of service that would overlap through the Center City Connector segment. One line would originate on Capitol Hill and continue through the Center City Connector segment to the proposed turnaround at Republican Street in South Lake Union; the other line would originate at the north terminus of the South Lake Union Line (Fairview and Campus Drive) and continue through the Center City Connector segment to the existing turnback track at 8th Ave S and S Jackson Street (see Figure 1-7 above).

As shown in Figure 1-9, this operating plan would feature ten-minute peak frequency and 15 minute off-peak frequency on each of the overlapping segments. As a result of the service overlap, service on the Center City Connector segment would feature 5-minute peak frequency and 7.5 minute off-peak frequency.
Figure 1-8  Existing and Planned Streetcar Operating Hours and Frequency (Table)

<table>
<thead>
<tr>
<th>Hours of Operation</th>
<th>South Lake Union Streetcar</th>
<th>First Hill Streetcar</th>
<th>Center City System with Center City Connector*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday - Thursday</td>
<td>6 am to 9 pm</td>
<td>5 am to 1 am</td>
<td>5 am to 1 am</td>
</tr>
<tr>
<td>Friday</td>
<td>6 am to 11 pm</td>
<td>5 am to 1 am</td>
<td>5 am to 1 am</td>
</tr>
<tr>
<td>Saturday</td>
<td>6 am to 11 pm</td>
<td>6 am to 1 am</td>
<td>6 am to 1 am</td>
</tr>
<tr>
<td>Sunday &amp; Holidays</td>
<td>10 am to 7 pm</td>
<td>10 am to 8 pm</td>
<td>6 am to 11 pm</td>
</tr>
</tbody>
</table>

**Streetcar Headway: Weekdays (Monday-Friday)**

<table>
<thead>
<tr>
<th>Time</th>
<th>South Lake Union Streetcar</th>
<th>First Hill Streetcar</th>
<th>Center City System with Center City Connector*</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 a.m. to 6 a.m.</td>
<td>N/A</td>
<td>18-25 min</td>
<td>15 min</td>
</tr>
<tr>
<td>6 a.m. to 9 a.m.</td>
<td>15 min</td>
<td>10 min</td>
<td>10 min</td>
</tr>
<tr>
<td>9 a.m. to 4 p.m.</td>
<td>15 min</td>
<td>12 min</td>
<td>10 min</td>
</tr>
<tr>
<td>4 p.m. to 6 p.m.</td>
<td>10 min</td>
<td>10 min</td>
<td>10 min</td>
</tr>
<tr>
<td>6 p.m. to 7 p.m.</td>
<td>15 min</td>
<td>10 min</td>
<td>10 min</td>
</tr>
<tr>
<td>7 p.m. to 9 p.m.</td>
<td>15 min</td>
<td>18 min</td>
<td>15 min</td>
</tr>
<tr>
<td>9 p.m. to 11 p.m.</td>
<td>N/A</td>
<td>18 min</td>
<td>15 min</td>
</tr>
<tr>
<td>11 p.m. to 1 a.m.</td>
<td>N/A</td>
<td>18-25 min</td>
<td>15 min</td>
</tr>
</tbody>
</table>

**Streetcar Headway: Weekends/Holidays**

<table>
<thead>
<tr>
<th>Time</th>
<th>South Lake Union Streetcar</th>
<th>First Hill Streetcar</th>
<th>Center City System with Center City Connector*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturday</td>
<td>15 min</td>
<td>12 min until 11 pm</td>
<td>10 min, 8 am – 8 pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18-25 min, 11 pm - 1 am</td>
<td>15 min other times</td>
</tr>
<tr>
<td>Sunday/Holiday</td>
<td>15 min</td>
<td>15-18 min</td>
<td></td>
</tr>
</tbody>
</table>

Note: * Headways for the Center City Streetcar System with the Center City Connector are per line, resulting in combined headways of 5 to 7.5 minutes between Westlake Avenue & Thomas Street and 7th Avenue S & S Jackson Street.
Figure 1-9  Streetcar Headway by Line and on Center City Connector Segment

<table>
<thead>
<tr>
<th>Operating Segment</th>
<th>Span of Service</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weekdays &amp; Saturdays</td>
<td>5 AM to 6 AM</td>
<td>6 AM to 7 PM</td>
<td>7 PM to 1 AM</td>
</tr>
<tr>
<td>Cars in Operation</td>
<td>South Lake Union to International District</td>
<td>Fairview &amp; Campus Drive to 8th &amp; Jackson</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Capitol Hill to South Lake Union</td>
<td>Broadway &amp; Roy to Terry &amp; Thomas</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Headway</td>
<td>South Lake Union to International District</td>
<td>Fairview &amp; Campus Drive to 8th &amp; Jackson</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Capitol Hill to South Lake Union</td>
<td>Broadway &amp; Roy to Terry &amp; Thomas</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Center City Connector</td>
<td>Westlake &amp; Thomas to 7th &amp; Jackson</td>
<td>7.5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Sundays/Holidays</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>South Lake Union to International District</td>
<td>Fairview &amp; Campus Drive to 8th &amp; Jackson</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Capitol Hill to South Lake Union</td>
<td>Broadway &amp; Roy to Terry &amp; Thomas</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>South Lake Union to International District</td>
<td>Fairview &amp; Campus Drive to 8th &amp; Jackson</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Capitol Hill to South Lake Union</td>
<td>Broadway &amp; Roy to Terry &amp; Thomas</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Center City Connector</td>
<td>Westlake &amp; Thomas to 7th &amp; Jackson</td>
<td>7.5</td>
<td>5</td>
</tr>
</tbody>
</table>
1.2.2.3 Overall Transit Ridership Changes

Ridership is expected to be very strong on the Center City Connector because the project connects two existing streetcar projects, the South Lake Union Streetcar, which opened in 2007, and the First Hill Streetcar, which currently in start-up. Figure 1-10 provides forecasted ridership for the current year (2014), the projected first full year of revenue service after opening (2019), and the horizon year (2035) for the full streetcar system under No-Build and Build conditions. Highlights include:

- No-Build South Lake Union Streetcar and First Hill Streetcar ridership of 6,700 riders per day based on current land use (2014) and 11,200 in the horizon year (2035).
- With the Center City Connector, ridership on the full system is forecast to be 16,600 riders per day in the current year, with nearly 66% of these with some portion of their trip to/from or through the Center City Connector segment.
- In the horizon year ridership of the system is forecast to grow to 29,500 riders per day with approximately 68% of trips to/from or through the Center City Connector segment.

The table also provides estimates of ridership related to visitors that the Center City Connector would serve. These estimates were developed using a peer-based approach, drawing on information and data from similar cities and streetcar operations throughout the United States in conjunction with local data. Daily visitor ridership is estimated to be 2,800 to 5,000 riders, for total system ridership of 19,400 in the current year and 34,500 in the horizon year.

Ridership related to sporting events is not included in the table since it is not a daily occurrence but is estimated to range from 135 to 270 additional riders per Seahawks game, 90 to 175 additional riders per Sounders game, and 20 to 35 additional riders per Mariners game.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>2014</th>
<th>2019*</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No-Build Streetcar System</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Lake Union, First Hill [1]</td>
<td>6,700</td>
<td>8,600</td>
<td>11,200</td>
</tr>
<tr>
<td><strong>Build Streetcar System not Including Special Markets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Lake Union, First Hill, Center City Connector (1)</td>
<td>16,600</td>
<td>21,700</td>
<td>29,500</td>
</tr>
<tr>
<td><strong>Build Streetcar System Including Special Markets</strong> [2]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visitors</td>
<td>2,800</td>
<td>3,300</td>
<td>5,000</td>
</tr>
<tr>
<td>Total with Special Markets</td>
<td>19,400</td>
<td>25,000</td>
<td>34,500</td>
</tr>
</tbody>
</table>

Note: * 2020 is now the projected opening year. **Sporting event special market trips are not included in average weekday ridership.


Attachment C provides details on the estimates of visitor and special event trips.
1.2.2.4 Project Ridership Changes

The Center City Connector is expected to generate high ridership at the project stations and increase ridership at existing South Lake Union Streetcar stations and the southern First Hill Streetcar stations. Figure 1-11 provides the number of total daily trips and total daily new transit trips forecast by STOPS for the current year (2014), projected opening year (2019), and horizon year (2035) on the Center City Connector. Highlights include:

- There are 11,000 forecast project trips traveling on or through the Center City Connector segment in the opening year and 20,100 project trips in the horizon year.
- New transit users make up approximately 24% of total daily trips on the project in the current year and 21% of total daily trips on the project in the future year.

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2019*</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Project Trips</td>
<td>11,000</td>
<td>14,400</td>
<td>20,100</td>
</tr>
<tr>
<td>New Transit Users</td>
<td>2,600</td>
<td>3,500</td>
<td>4,200</td>
</tr>
</tbody>
</table>

Note: Not including special markets. * 2020 is now the projected opening year.

Source: Federal Transit Administration. 2015. Simplified Trips-on-Project Software. Version 1.51

The majority of trips on the project are projected to be from riders currently using another transit option. This includes trips on the existing South Lake Union or First Hill Streetcar lines that use the new segment to travel into downtown, even though the trip was on streetcar before the project. Riders may also come from other routes that provide service to/through downtown Seattle where the Center City Connector segment improves the trip. For example, without the project a transit trip from the south end of the downtown area to the South Lake Union area would have been possible on Link light rail with a transfer to the South Lake Union Streetcar or with a long walk from the Link Westlake Station. The Center City Connector project allows this trip to be completed without a transfer or a long walk.

Figure 1-12 and Figure 1-13 illustrate forecast project trips at each station in 2014 and 2035 in relation to total streetcar ridership.
Note: Not including special markets.
1.2.2.5 District to District Ridership Changes

Travel analysis districts were developed to help understand travel patterns served by the Center City Connector. These districts were aggregated from overall Transportation Analysis Zone (TAZ) boundaries defined by PSRC, including analysis districts to isolate each of the new Center City Connector stations and broader analysis districts served by the integrated streetcar system. Figure 1-14 and Figure 1-15 provide maps illustrating the most significant travel flows (300 or more trips).

Figure 1-17 and Figure 1-18 summarize district-to-district project trips (in production/attraction format) for 2014 and 2035 in tabular form. Figure 1-16 provides a map showing the individual analysis districts and the zones summarized in these tables.

The analysis indicates that:

- About 25% of project trips are within the Seattle CBD Urban Center zone, which includes about 75% of all destinations and about 30% of origins. Approximately 15% of project trips to this area originate from the South Lake Union and First Hill Streetcar service area. The strongest and most highly concentrated patterns are between the Spring district and the Denny Triangle and Stewart districts.
- Within the Seattle CBD, over 40% of trips are destined to districts immediately surrounding the four new project stations.
- The project serves travel demand originating from Queen Anne to the Seattle CBD Urban Center zone.
- Over 40% of trips originate from areas outside of downtown. These include destinations in the Denny Triangle and South Lake Union districts. These are the trips for which the Center City Connector would provide “last mile” or circulator type service, bringing passengers that arrive on other transit services to destinations in the Seattle Center City.

Additional maps showing the analysis districts and Transportation Analysis Zones (TAZs) are included in the supporting documentation.
Figure 1-14 District-District Travel Forecasts Map, 2014

Figure 1-15 District-District Travel Forecasts Map, 2035

Note: Not including special markets
### Figure 1-17 District-District Daily Project Trips Summary, 2014

<table>
<thead>
<tr>
<th>Attractions</th>
<th>Seattle CBD*</th>
<th>South Lake Union</th>
<th>First Hill Streetcar**</th>
<th>Queen Anne</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seattle CBD*</td>
<td>2,635 (24%)</td>
<td>167 (2%)</td>
<td>202 (2%)</td>
<td>56 (1%)</td>
<td>49 (0%)</td>
<td>3,109 (28%)</td>
</tr>
<tr>
<td>South Lake Union</td>
<td>640 (6%)</td>
<td>0 (0%)</td>
<td>23 (0%)</td>
<td>0 (0%)</td>
<td>42 (0%)</td>
<td>705 (6%)</td>
</tr>
<tr>
<td>First Hill Streetcar**</td>
<td>1,020 (9%)</td>
<td>62 (1%)</td>
<td>0 (0%)</td>
<td>70 (1%)</td>
<td>76 (1%)</td>
<td>1,228 (11%)</td>
</tr>
<tr>
<td>Queen Anne</td>
<td>1,048 (10%)</td>
<td>11 (0%)</td>
<td>46 (0%)</td>
<td>0 (0%)</td>
<td>85 (1%)</td>
<td>1,190 (11%)</td>
</tr>
<tr>
<td>Other</td>
<td>2,504 (23%)</td>
<td>547 (5%)</td>
<td>245 (2%)</td>
<td>270 (2%)</td>
<td>1,151 (11%)</td>
<td>4,717 (43%)</td>
</tr>
<tr>
<td>Total</td>
<td>7,847 (72%)</td>
<td>787 (7%)</td>
<td>517 (5%)</td>
<td>396 (4%)</td>
<td>1,413 (13%)</td>
<td>10,960 (100%)</td>
</tr>
</tbody>
</table>

**Notes:** Not including special markets.
* "Seattle CBD Urban Center" includes analysis zones around the four new stations (Stewart, Pike, Spring, Pioneer Square North) and the CBD, Belltown, and Denny Triangle analysis zones illustrated on the maps.
** "First Hill Streetcar" includes the zones along the First Hill Streetcar line.

### Figure 1-18 District-District Daily Project Trips Summary, 2035

<table>
<thead>
<tr>
<th>Attractions</th>
<th>Seattle CBD*</th>
<th>South Lake Union</th>
<th>First Hill Streetcar**</th>
<th>Queen Anne</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seattle CBD*</td>
<td>5,873 (29%)</td>
<td>468 (2%)</td>
<td>275 (1%)</td>
<td>61 (0%)</td>
<td>84 (0%)</td>
<td>6,761 (34%)</td>
</tr>
<tr>
<td>South Lake Union</td>
<td>1,089 (5%)</td>
<td>0 (0%)</td>
<td>29 (0%)</td>
<td>0 (0%)</td>
<td>114 (1%)</td>
<td>1,232 (6%)</td>
</tr>
<tr>
<td>First Hill Streetcar**</td>
<td>1,947 (10%)</td>
<td>191 (1%)</td>
<td>0 (0%)</td>
<td>169 (1%)</td>
<td>112 (1%)</td>
<td>2,420 (12%)</td>
</tr>
<tr>
<td>Queen Anne</td>
<td>1,469 (7%)</td>
<td>29 (0%)</td>
<td>57 (0%)</td>
<td>0 (0%)</td>
<td>215 (1%)</td>
<td>1,770 (9%)</td>
</tr>
<tr>
<td>Other</td>
<td>4,082 (20%)</td>
<td>1,657 (8%)</td>
<td>348 (2%)</td>
<td>469 (2%)</td>
<td>1,383 (7%)</td>
<td>7,939 (39%)</td>
</tr>
<tr>
<td>Total</td>
<td>14,460 (72%)</td>
<td>2,345 (12%)</td>
<td>709 (4%)</td>
<td>699 (3%)</td>
<td>1,908 (9%)</td>
<td>20,122 (100%)</td>
</tr>
</tbody>
</table>

**Notes:** Not including special markets.
* "Seattle CBD Urban Center" includes analysis zones around the four new stations (Stewart, Pike, Spring, Pioneer Square North) and the CBD, Belltown, and Denny Triangle analysis zones illustrated on the maps.
** "First Hill Streetcar" includes the zones along the First Hill Streetcar line.
1.2.2.6 Uncertainty in Forecast Results

Areas of uncertainty in the ridership forecasts for the Center City Connector include: land use assumptions, transit service integration, transit fares, and transit operations (which determine the travel times along the project and connecting streetcar services). Finally and perhaps most important for this project, there is uncertainty around the visitor and special events travel markets. The following sections describe each of these areas of uncertainty in more detail.

Land Use

Land use assumptions for this project reflect current year (2010) population and employment data from PSRC. However, the Seattle Center City has seen significant employment growth over the past four years, notably around the South Lake Union Streetcar. More up-to-date land use data from 2014 was not readily available from PSRC but sensitivity tests were completed to assess the impact updated figures might have on project ridership. The results were not significantly different and after review with FTA staff, the ridership projections were completed with the existing 2010 land use and demographic information.

In terms of horizon year demographic assumptions, the project corridor is expected to see growth in households and employment of approximately 35% and 50%, respectively. The horizon year forecasts are based on a rigorous process used by PSRC to predict growth. While the assumptions used in this project are not overly aggressive, land use forecasts can change. Given the current growth trends in downtown Seattle, it is possible that growth may exceed PSRC projections. Changes in demographics in downtown Seattle relative to the demographic assumptions could impact project ridership positively or negatively.

Transit Service Integration

The major transportation projects underway or planned in the Seattle region present uncertainty in the project assumptions about regional transit services. The underlying transit network inputs to STOPS for this project assumed Fall 2014 service levels along with adjustments to reflect rerouting/service changes that are anticipated with the opening of the Center City Connector project and other planned projects, both near term (2015-2018) and long-term (2035), such as opening of Link light rail extensions and closure of the Alaskan Way Viaduct. Specific information about transit service changes for both the current year and the horizon year are included as part of supplemental information for this project. The project team developed assumptions for service changes and reviewed them with SDOT and King County Metro staff. In addition, in November 2014 Seattle voters approved Proposition 1, which provided funding for transit service improvements. The project team incorporated high-level assumptions for these improvements (such as additional peak-hour trips on overcrowded routes) however specific details on improvements were not known at the time.

Uncertainty related to changes in the transit network and service levels reflects the fact that changes to transit services may affect passenger travel patterns in ways that were not fully anticipated as part of this analysis. Changes that increase transit ridership into downtown Seattle may have a positive impact on project ridership, by creating additional demand for last-mile connections, or could reduce streetcar ridership by providing a more attractive connection for some travel markets.
Transit Fares

Several transit agencies operate services in the project area. Adult one-way fares for Seattle Streetcar ($2.25) are currently slightly lower than King County Metro fares ($2.50 off-peak and $2.75 peak) and the same as Sound Transit Link light rail fares (approximately $2.25, distance-based). STOPS does not explicitly use transit fare as an input, thus the difference in fares could not be tested directly in this work. A series of tests was conducted using STOPS to assess the potential impact of lower fares on ridership. As noted, STOPS does not include an explicit fare variable and as a result, the project team worked with the developer of STOPS to develop a methodology for approximating the ridership change that would result from the fare differential. The project team tested both a $0.25 cent fare reduction and a $0.50 cent reduction, expressed as a time equivalent saved for each trip. The reductions resulted in ridership increases on the streetcar. These tests were done using an earlier version of STOPS (1.03).

Transit Operations for Streetcar

Travel times for the Center City Streetcar were developed through microsimulation analysis (VISSIM), which assumed that the streetcar would primarily operate in a dedicated transit right-of-way along the alignment, with signal priority at key intersections. While a rigorous process was used for this analysis, there is some uncertainty in the actual travel times for the streetcar depending on future traffic conditions. To test the sensitivity of current year project ridership to the projected travel times, a +/-10% travel time change along the alignment (approximately 55 seconds in each direction) was coded into the inputs for STOPS. The STOPS run that included a 10% increase in travel time on the project segment resulted in a 10.15% decrease in project ridership and the STOPS run that included a 10% decrease in travel time on the project segment resulted in an 11.78% increase in project ridership.

Visitors and Special Events

A final area of uncertainty is the impact that visitors and special events will have on streetcar ridership. The project corridor is rich with attractions that draw upwards of 10 million visitors to Seattle annually. In addition, Century Link Field and Safeco Field near the southern end of the Center City Connector host a total of 115 NFL, MLB, and MLS events per year. Average attendance at these events is approximately 68,000 (Seahawks), 21,000 (Mariners), and 44,000 (Sounders) each. While ridership related to these events is not as significant as the visitor market, transit service in and out of the stadium area is a very important potential connection to and through downtown Seattle, given parking limitations around the facilities. STOPS does not directly model visitor and event ridership so these markets are not included in the ridership forecasts that come directly from the STOPS model. A separate analysis of these trips was completed using a peer-based approach utilizing information from the Muni F-Line in San Francisco and found there will likely be additional riders on the project (beyond STOPS estimates) because of the high number of visitors and events that are directly served by the project. The analysis resulted in low- and high-end estimates of visitor ridership (2,800 to 5,000 daily riders) that would use the Center City Connector. The low-end estimate was based on the

current visitor mode share of the South Lake Union Streetcar. The high-end estimate was based on the Muni F-Line. The analysis used Visit Seattle’s 2012 estimate of annual visitors: 10.2 million. The current (2015) Visit Seattle annual visitor estimate is even higher than was used for the analysis: 18.7 million. Applying even the low-end visitor mode share from the South Lake Union Streetcar to this higher number of annual visitors is approximately equal to the high-end visitor ridership estimate.

The analysis of visitor and special event trips is provided in Attachment C. A summary report on the South Lake Union Streetcar survey is included in the supporting documentation.

Principal Markets in the Trips-On-Project Prediction

As previously noted, the majority of people projected to use the project are existing transit riders who choose to use the streetcar system as part of their transit trip. This appears to be consistent with the routes that show decreases in ridership with the introduction of the project (e.g., Link light rail). However, if transit riders do not make changes the way the model indicates they will, ridership on the project might be lower.

A number of changes to the STOPS model were made during the course of study for this project and some of these changes directly affected the non-home based trip market. This market is anticipated to be a large potential source of ridership because of the strong attractions and visitor market that exist directly along the project alignment. A recent survey of South Lake Union streetcar riders indicates a higher percentage of non-home based travel than STOPS is reporting. This market is definitely one of the uncertainties both in magnitude and share of overall streetcar ridership.

1.2.2.7 Summary of Project Mobility Benefits

The primary travel markets served by the project are (1) circulation trips that begin and end within the Seattle Center City and (2) last-mile connections for trips produced from outside the Center City and attracted to destinations within the Center City. The Center City Connector will provide broad access to jobs, service, and other attractions. It will benefit commuters to and from downtown Seattle and other Center City neighborhoods: nearly 37% of current-year trips projected by the STOPS model are home-based work trips, not including special market trips. The project will also serve significant demand for non-work trips to, within, and between Center City neighborhoods: about 35% of current-year trips projected by STOPS are “home-based other” trips and 28% are “non-home-based” trips. Two other markets, trips that begin in the Center City and are attracted to locations outside the Center City and trips that both start and end outside the CBD, make up a small portion of project trips.

1.2.2.8 Index of Supporting Documentation

Forecasts for the Center City Connector were done using STOPS version 1.51. Electronic versions of the full model runs are being provided to FTA. The files are located in the STOPS_RUN folder of the flash drive and include the following:

- Generalized Transit Specification Feed (GTFS) files for Existing, No Build and Build conditions for both 2014 and 2035
- Households and Employment information by Transportation Analysis Zone (TAZ) for the PSRC region for 2010 and 2035
- Travel time and distance by origin, destination from PSRC
- TAZ and District definitions for use in STOPS (provided as shapefiles)
- All STOPS files related to 2014 and 2035 forecasts for the Center City Connector

**Attachments:**
- Attachment A: Fare Policy Methodology
- Attachment B: Annualization Factor Documentation
- Attachment C: Visitor and Special Event Market Analysis

### 1.2.3 Supporting Tabulations

Supporting tabulations are provided on a flash drive. Because the STOPS model was used for this project a number of the items required as part of this set of information are included with the STOPS directories. An index of all documentation related to the STOPS model is provided in the STOPS_RUN folder at the top-level of flash drive (see “Supporting Documentation Index - STOPS Files.xlsx”).

The list below is a condensed version of the Supporting Tabulations in the FY17 Guidance and next to each is a note indicating if it is from STOPS or if it is included as a separate set of information provided along with this submittal.

1. Demographic and socio-economic characteristic (STOPS Directories)
2. Highway speeds (STOPS Directories)
3. Linked transit trips (for the no-build and build alternatives, including horizon year if applicable) (STOPS Directories)
4. Weekday total and home-based-work person trip tables (STOPS Directories)
5. Weekday transit trip tables (STOPS Directories)
6. Change in automobile VMT summarized at the district-to-district level (STOPS Directories)
7. Transit weekday ridership (STOPS Directories)
8. A map (in PDF format) showing the boundaries of TAZs and summary districts, the name and number of each district, and the alignment and station locations of the project, with the park and ride stations clearly marked. Generally, sponsors should include between 15 and 20 districts that are designed specifically to focus on the project, with smaller districts near the project and larger districts elsewhere in the region. (Separate PDF in Supporting Documentation Folder on the Flash Drive [see 1 General Reporting, 1.2 Travel Forecasts, Maps])
9. A map (in PDF format) and supporting tables of information that show changes in the coded transit route alignments, stop locations, and/or service frequencies between the
no build and build scenarios. *(Separate PDF in Supporting Documentation Folder on the Flash Drive [see 1 General Reporting, 1.2 Travel Forecasts, Maps]*)

10. GIS layers (ArcGIS shape file preferred) *(Separate Directory in the Supporting Documentation folder on the Flash Drive [see 1 General Reporting, 1.2 Travel Forecasts, GIS_Layerfiles] with each of the requested layers included separate from the STOPS model information but consistent with those used in STOPS where applicable)*
1.3 OPERATIONS AND MAINTENANCE COSTS

1.3.1 Operations

The Center City Connector will run along Stewart Street and First Avenue, with over 85% of the new track operating in an exclusive transit lane, including all of the First Avenue alignment. Figure 1-20 illustrates the exclusive and mixed-traffic track segments. Detailed drawings of the 30% design are included in the supporting documentation.

With the Center City Connector project complete, Seattle will be able to operate the City’s streetcar lines as a unified system, improving service frequency and reliability throughout the system. Figure 1-7 (Project Maps section above) illustrates the proposed Center City Connector operating plan.

The full streetcar system will provide service from 5:00 a.m. to 1:00 a.m. Monday through Saturday, and 6:00 a.m. to 11:00 p.m. on Sundays and holidays. The Center City Connector, along with a portion of the system between the Thomas Street Station in South Lake Union and the 7th Avenue S Station in the International District, will operate with 5-minute headways between 6:00 a.m. and 8:00 p.m. on weekdays, and 8:00 a.m. to 8:00 p.m. on Saturdays and Sundays (with 7.5-minute headways at other times).

The project includes a new turn-around track in the South Lake Union neighborhood (Republican Street between Westlake Avenue and Terry Avenue). The project includes crossover tracks at Union Street and a turn-back track at the Westlake Station. The system will also take advantage of existing turn-back tracks at 6th and Jackson, 8th and Jackson, and 14th and Washington.

The project will expand the Seattle Streetcar fleet with seven additional vehicles and three replacement vehicles that can operate in off-wire segments. At peak times, up thirteen of these vehicles will be in operation. Streetcar vehicles serving the First Hill Streetcar and portions of the proposed alignment utilize on-board energy storage systems (OESS) to operate through wireless segments with no external power supply. The elimination of overhead wires in portions of the corridor reduces conflicts with existing wires for trolley buses and minimizes visual and aesthetic impacts. Figure 1-21 illustrates on- and off-wire zones.

The Overhead Contact System (OCS) will be powered by traction power substations (TPSS), which convert alternating current (AC) power from the Seattle City Light distribution network to direct current (DC) power at 750 volts, which the streetcar’s electrical system requires for operation. The north and south ends of the Center City Connector would be connected to the traction power systems of the South Lake Union and First Hill lines; one or two additional TPSS are needed in the middle segment. Figure 1-21 illustrates the existing TPSS locations, and potential TPSS locations that have been identified.

The Center City Connector project will expand the existing streetcar operations and maintenance facilities to accommodate the larger vehicle fleet and higher staffing levels.
1.3.2 Preliminary Operations and Maintenance Cost Budget

The preliminary operations & maintenance cost budget is based on detailed cost information from the South Lake Union and First Hill Streetcar lines, with staffing levels scaled up to reflect the operating plan for the full Center City system.

Through an agreement with King County, the City has been operating service on the South Lake Union line since December 2007, and is in a start-up phase for operations and maintenance of the First Hill Line, also to be operated by King County’s Metro Transit Division. Through experience with the operations, maintenance, and start-up of these existing streetcar system segments, SDOT has detailed information on the staffing levels and costs to provide streetcar operators, vehicle maintainers, supervision of operators and maintainers, and maintenance of the streetcar facilities and infrastructure.

To develop the preliminary operations & maintenance cost budget for the Center City system, the City first developed an operating plan (described in section 1.2.2.2) to identify the peak and off-peak vehicle requirements of the system. The ratio of the peak vehicle requirements of the South Lake Union and First Hill Streetcar operating plans to the peak vehicle requirements of the full system with the Center City Connector and planned Broadway Extension was then used to scale up the staffing levels and budgets for the proposed system operating plan. For staffing and budgets that are scaled to system infrastructure rather than to operating levels of service (such as maintenance of power systems), the staffing levels and budgets for the 2.5-mile First Hill line were increased by a factor of two to capture the requirements for the expanded system.

Estimated operations and maintenance costs are described in Figure 1-19.
### Figure 1-19 Preliminary Operations and Maintenance Cost Budget

<table>
<thead>
<tr>
<th>Item</th>
<th>Detail</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Streetcar Operations Staffing</strong></td>
<td>Staffing to provide 46 streetcar operators, 10 electro mechanics, 1 train controller, 10 O/M supervisors, 1 maintenance chief, 1 superintendent and management/administrative support to operations staff.</td>
<td>$8,150,000</td>
</tr>
<tr>
<td><strong>Power Systems O&amp;M</strong></td>
<td>Cost-allocated staff support for maintenance of overhead contact system, traction power substations, radio maintenance and Administrative costs for Audit Support</td>
<td>$920,000</td>
</tr>
<tr>
<td><strong>Administrative Support</strong></td>
<td>General administrative support (financial management, training, testing, insurance, M5 Parts Mgmt, etc)</td>
<td>$1,770,000</td>
</tr>
<tr>
<td><strong>Operating Materials/Supplies</strong></td>
<td>Office consumables (printing/copying), vehicle consumables (oil, filters, etc) &amp; essentials to equip operators &amp; supervisors with uniforms and cold weather gear</td>
<td>$290,000</td>
</tr>
<tr>
<td><strong>Seattle Direct Costs</strong></td>
<td>City of Seattle costs for fare inspection, platform and facility maintenance, utilities, program management, etc.</td>
<td>$900,000</td>
</tr>
<tr>
<td><strong>SUBTOTAL</strong></td>
<td></td>
<td>$12,030,000</td>
</tr>
<tr>
<td><strong>Escalation</strong></td>
<td>Conversion factor to 2020 costs</td>
<td>122%</td>
</tr>
<tr>
<td><strong>Contingency</strong></td>
<td>10%</td>
<td>$1,460,000</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td></td>
<td>$16,060,000</td>
</tr>
</tbody>
</table>

1.3.3 Supporting Documentation

A spreadsheet with details on the operating and maintenance cost estimates is provided in the Supporting Documentation folder for this section.

Conceptual 30 percent design drawings are included in the Supporting Documentation folder for General Reporting.
Figure 1-20  Project Components: Exclusive Transit and Mixed-Traffic Segments
Figure 1-21 Project Components: On- and Off-Wire Zones and Substation Locations
1.4 CAPITAL COSTS

1.4.1 Standard Cost Categories Workbook

The Standard Cost Categories workbook, reported in 2015 constant dollars, is included in the SCC Template folder of the flash drive. The total capital cost of the Center City Connector is based on a detailed cost estimate, incorporating quantity take-offs from the 30 percent (Preliminary Engineering) design submittal. Unit prices are based on SDOT’s database of Historical Unit Costs, supplemented with Bid tabulations from recent SDOT projects, including the First Hill Streetcar, as well as the design consultant’s construction staff and professionals, estimators, and prior project experience.

The Total Capital Cost includes all SDOT project costs, from project development through close-out/startup, as well as municipal utility betterments that the City plans to incorporate into construction of the project to maximize the cost-effectiveness and minimize the construction impacts of these utility upgrades.

1.4.2 Supporting Documentation

The SCC workbook provides the details necessary to support the capital cost estimate.

A summary of a design coordination workshop is included in the supporting documentation folder for this section.
2 PROJECT JUSTIFICATION CRITERIA

This section describes the performance of the Center City Connector across six project justification criteria. The Small Starts Template file includes tabs completed for Mobility, Cost Effectiveness, & Congestion Relief, Land Use, and Environmental Benefits criteria. Responses to the supplemental information required by the Reporting Instructions have been incorporated into the body of this narrative in Sections 2.4, Land Use and Section 2.5, Economic Development. Additional background on the underlying ridership calculations supporting these ratings is provided in Section 1.2, Travel Forecast Results.

2.1 MOBILITY IMPROVEMENTS

The FTA evaluates mobility improvements for Small Starts projects as the total number of linked trips using the proposed project, with a weight of two given to trips that will be made on the project by transit dependent persons. The Center City Connector is calculated to have a mobility improvement value of 5,539,208, using blended annual linked trips by transit-dependent persons in the current year and horizon year.

2.2 COST EFFECTIVENESS

The FTA evaluates cost effectiveness for Small Starts projects as the annualized capital federal share of the project per trip on the project. The Center City Connector is calculated to have a cost effectiveness value of $0.61, using blended annual linked trips in the current year and horizon year.

2.3 CONGESTION RELIEF

The FTA evaluates congestion relief based on the number of new weekday linked transit trips resulting from implementation of the proposed project. The Center City Connector is calculated to have a congestion relief value of 3,416, using blended new weekday linked trips in the current year and horizon year.

2.4 LAND USE

The FTA evaluates land use based on population, housing units, employment, affordable housing, and other factors associated with Small Starts projects. Information on land use for the Center City Connector is included in both the land use tab of the Reporting Template and in the Supplemental Land Use and Economic Development Supporting Documentation Template below.

2.4.1 Land Use Template

Highlights from the Center City Connector land use template include:

- Population Served in the Corridor (2014): 23,270
- Average Population Density in the Corridor (2014): 55,405 persons per square mile
- Share of Metropolitan Area Employment in the Corridor: 7%
• Employment at New Project Station areas (2014): 126,235
• CBD Parking Spaces per Employee: 0.31 in the current year\(^1\)
• Station-area Share of Legally Binding Affordability Restricted Housing Units: 5.7% based on the National Housing Preservation Database (7.5% based on local data)

Housing, population, and employment data for each station area are also included in the land use template. Due to the close proximity of the four stations, they have been grouped into two areas: the 3rd/4th & Stewart and 1st and Pike station area (North) and the 1st & Madison and Pioneer Square station area (South), consistent with the methodology described in the Section 5309 Reporting Instructions, Appendix A.

### 2.4.2 Supplemental Land Use Information Templates

#### 2.4.2.1 Existing Corridor and Station Area Development

The Center City Connector corridor is lined with high-density development and several more high-density projects are currently under construction along and close to the route. Seattle’s Center City neighborhoods have a significant concentration of households and employment. These neighborhoods are forecast to see employment growth of 54% and residential population growth of 45% between 2010 and 2035.

The Center City Connector will provide convenient access to numerous employment, retail, entertainment and cultural trip generators in downtown Seattle, including the high-trip generators described in Figure 2-1 and illustrated on a map in Figure 2-2.

In addition to the high trip generators within the corridor, the Center City Connector will connect high trip generators along the larger project system, including the South Lake Union streetcar and the First Hill streetcar routes. Major trip generators along these corridors include employment centers including Amazon.com headquarters at South Lake Union, the Seattle Community College campus and Seattle University campus at First Hill, and the Yesler Terrace redevelopment by the Seattle Housing Authority.

**Figure 2-1 High Trip Generators**

<table>
<thead>
<tr>
<th>Map #</th>
<th>Generator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pike Place Market</td>
<td>Pike Place Market is a beloved Seattle landmark, welcoming more than 10 million visitors a year. The Market features more than 85 local farmers and 225 craftspeople in a nine-acre historic district.</td>
</tr>
</tbody>
</table>

\(^1\) Commercial Core urban village boundary
<table>
<thead>
<tr>
<th>Map #</th>
<th>Generator</th>
<th>Description</th>
<th>Photo</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Seattle Central Waterfront and Seattle Aquarium</td>
<td>Located for approximately 4 miles along Elliot Bay, the Central Waterfront was once the hub of Seattle's maritime activity. The historic piers have been converted to recreational and retail uses, including several parks, a Ferris wheel, an aquarium, and a hotel.</td>
<td>![Photo](source: Chance Rides)</td>
</tr>
<tr>
<td>3</td>
<td>Seattle Art Museum</td>
<td>A center for world-class visual arts since 1933, the Seattle Art Museum collection includes over 25,000 pieces. The museum employs over 300 people, nearly 550 volunteers, and attracts 750,000 annual visitors.</td>
<td>![Photo](source: SeattleArtMuseum.org)</td>
</tr>
<tr>
<td>4</td>
<td>Benaroya Hall</td>
<td>Home of the Seattle Symphony, Benaroya Hall includes a 2,500 seat auditorium and a smaller 500 seat recital hall. Occupying a full city block, the venue hosts more than 700 public and private events each year.</td>
<td>![Photo](source: Seattle.gov)</td>
</tr>
<tr>
<td>5</td>
<td>State, County, and Federal Offices</td>
<td>Numerous municipal office buildings are located near the corridor, including the historic Federal building, the King County courthouse, and the Seattle Municipal offices.</td>
<td>![Photo](source: U.S. General Services Administration)</td>
</tr>
<tr>
<td>Map #</td>
<td>Generator</td>
<td>Description</td>
<td>Photo</td>
</tr>
<tr>
<td>-------</td>
<td>-----------</td>
<td>-------------</td>
<td>-------</td>
</tr>
<tr>
<td>6</td>
<td>Pioneer Square</td>
<td>Centered on a small triangular plaza near the corner of First Avenue and Yesler Way, Pioneer Square is Seattle’s original downtown. The area is home to art galleries, internet companies, cafes, sports bars, nightclubs, bookstores, the Seattle Underground Tour, and a museum and info center for the Klondike Gold Rush National Historical Park. It is a popular tourist attraction.</td>
<td><img src="image" alt="Pioneer Square.jpg" /></td>
</tr>
<tr>
<td>7</td>
<td>Century Link Field and Safeco Field</td>
<td>With combined seating for almost 120,000 people, the stadiums are home to the Seattle Seahawks of the National Football League (NFL) and Seattle Sounders FC of Major League Soccer (MLS) and Seattle Mariners of Major League Baseball (MLB).</td>
<td><img src="image" alt="CenturyLinkField.jpg" /></td>
</tr>
<tr>
<td>8</td>
<td>Washington State Convention Center</td>
<td>Located two blocks from the corridor, Convention Place includes over 400,000 sq ft of rentable space, 72 meeting rooms, 1.5 acres of landscaped outdoor plazas, and 60,000 sq ft of retail space.</td>
<td><img src="image" alt="ConventionCenter.jpg" /></td>
</tr>
<tr>
<td>9</td>
<td>Moore Theater</td>
<td>A 1,800-seat performing arts venue located at the corner of 2nd Avenue and Virginia Street, it is the oldest still-active theater in Seattle.</td>
<td><img src="image" alt="MooreTheater.jpg" /></td>
</tr>
</tbody>
</table>
Figure 2-2  High Trip Generators

Seattle, Washington

Center City Connector

Major Trip Generators

High Trip Generators

1. Pike Place Market
2. Waterfront
   a. Bell Harbor Conference Center
   b. Waterfront Park
   c. Aquarium
3. Seattle Art Museum
4. Benaroya Hall
5. State, County, and Federal Offices
6. Pioneer Square
7. Safeco Field / CenturyLink Field
8. Convention Place
9. Moore Theater

Trip Generators

- Major Attractions
- Entertainment
- College & University
- School
- Government
- Library
- Medical
- Shopping
- Hotels
- Proposed Alignment and Stops
- Analysis Zones
- 1/2 mile buffer around Stops
- Existing Streetcar
- Marion St Pedestrian Bridge
- Intermodal Hub
- Sound Transit Link
- Light Rail Station
- Ferry

Data Sources: King County PUD, Chief Seattle, PSRC
2.4.2.2 Existing Corridor and Station Area Development Character

The Center City Connector will serve a heavily developed, high-density corridor, with a mix of commercial, office, residential, and retail uses. Existing land uses along the corridor include office buildings, parking lots, retail stores/services, hotels/motels, government services, multifamily residential (including affordable housing), warehouses, vacant land, parks, art galleries, auditoriums, religious services, and sports facilities. Figure 1-4 (located in General Reporting, Project Maps) shows the existing land uses along the corridor while Figure 2-3 shows the existing building footprints.

Existing zoning in the corridor is primarily mixed use (about 89%), with industrial and residential uses at 8.8% and 2.6%, respectively. The pedestrian environment is well developed throughout the corridor, with nearly complete sidewalk coverage. Figure 1-5 (located in General Reporting, Project Maps) illustrates zoning in the corridor.

Figure 2-4 and Figure 2-5 provide aerial views of the north and south station areas, respectively. PDF versions of these maps, along with a key map, are provided in the supporting documentation.
Figure 2-3  Existing Building Footprints

Seattle, Washington

Center City Connector  Building Footprints (2012)
Figure 2-5  Detailed Aerial of South Station Areas
The Center City Connector project passes through a diverse and vibrant sequence of districts within Seattle’s downtown core (Figure 2-6). Travelling from the historic Pioneer Square storefronts and park, through the Madison Core offices and institutions, to the bustling historic Pike Place Market and onto the graceful Stewart/Olive mixed-use corridor, the Center City Connector connects significant Seattle places that have unique character, rich architecture and mature streetscapes. Descriptions of the land use mix, building footprints, and pedestrian environment for each station area district are included below.

**Figure 2-6  Station Areas**
Pioneer Square

Pioneer Square station area consists of transit terminal and sports facility, office, warehouse, multifamily residential, parking, and retail land uses. Many of the buildings within the Pioneer Square neighborhood are characterized by late 19th and early 20th century, three-to-four story brick historic buildings. There are opportunities for development infill of housing and neighborhood businesses, but building scales (primarily building heights) are regulated to maintain consistency with the historic character of this area.

The pedestrian environment in the Pioneer Square station area is good with excellent sidewalk coverage and street connectivity. However, the sidewalk conditions along some side streets in the area are fair due to disrepair. Traditionally, sidewalks throughout Seattle have been scored in twenty-four-inch squares. This pattern continues to be the city standard. In Pioneer Square, a 24-inch sidewalk scoring pattern (no troweled edge) and concrete mixed with lampblack is required for historic continuity.

Source: Center City Connector Urban Design Report
**Madison Core**

The Madison Core sector of First Avenue is one of Seattle’s most diverse areas. The street features an eclectic mix of shops, parks, restaurants, hotels and residential and governmental land uses. First Avenue is fronted by a number of hotels. Buildings in this area range from historic brick structures to modern and contemporary buildings of varying heights, materials and architectural character. This is a significant employment center with high levels of foot traffic throughout the day.

The street environment and pedestrian amenities in this station area are good with excellent sidewalk coverage. Sidewalks are generally in good condition, but due to the geography of this area, many of the streets have slope issues, requiring pedestrians to walk at greater than a 9% grade. There is a major pedestrian connection to Coleman Dock and pedestrian paths to the Seattle Waterfront are direct, level, and well-utilized.
Pike Place Market

The Pike Place Market is a designated Historical District encompassing 9 acres of farmers markets along with many restaurant, retail, residential and office uses. The market is characterized by small businesses and high pedestrian activity.

Its architecture is a mix of two- to five-story, low-rise buildings with a number of newer mid-rise structures. The market’s architecture is simple, functional and effective in supporting a unique atmosphere that serves both tourists and local residents.

Pike Place Market has signature brick intersection pavements and iconic signage.
Stewart/Olive

The Olive/Stewart station area is less bustling and cohesive than other areas along the corridor, but still maintains a distinctive character in part due to the numerous historic buildings along the street. This sector contains a rich collection of quality mid-rise terracotta-clad and terracotta trimmed buildings interspersed with more modern residential and commercial buildings. The sector also boasts several nationally and locally designated historic landmark structures, including the Josephinum Building and the Times Square Building.

The pedestrian streetscape environment here is generally excellent with sufficient sidewalk coverage and network connections. Pedestrian crossings are clearly marked at intersections and are signalized on higher-volume streets, with adequate lighting.

2.4.2.3 Existing Station Area Pedestrian Facilities, Including Access for People with Disabilities

The Seattle Department of Transportation's (SDOT) maintains an active Pedestrian Program to improve pedestrian safety and to encourage more walking by creating an environment where pedestrians can walk safely and comfortably. The City adopted a Pedestrian Master Plan in 2009 and is currently in the process of a technical update. The City Council is expected to adopt the update in early 2016.2

The Center City Connector project aligns with the City of Seattle Complete Streets (Ordinance 122386) policy and will accommodate multimodal travel along the corridor.3 Bicycle and pedestrian facilities will be integrated with the streetcar to accommodate the expected increase in people walking and bicycling through the corridor and accessing the stations. Pedestrian travel patterns may adjust in response to streetcar station locations. Figure 2-7 illustrates pedestrian conditions in the corridor. Most of the sidewalks along the alignment are in good or fair condition. Exceptions at the indicated locations along Stewart Street and Olive

---

3 Seattle Department of Transportation. [http://www.seattle.gov/transportation/compSt_what.htm](http://www.seattle.gov/transportation/compSt_what.htm)
Way are due to sidewalk cracks. The Small Starts project would upgrade sidewalks along the project alignment.

Figure 2-7 Pedestrian Conditions and Walksheds
The Center City Connector will complement the bicycle facility network in the Center City, as shown in Figure 2-8. A protected bicycle facility is currently in place on 2nd Avenue, parallel to the project alignment, and a network of additional protected bicycle facilities is proposed.

**Figure 2-8  Bicycle Network**
To ensure pedestrian connectivity around the station areas, the City will upgrade sidewalks along the Center City Connector alignment to meet Americans with Disabilities Act (ADA) standards. Sidewalks will be upgraded near the station entrances to meet or exceed existing Seattle Right-of-Way Improvement Manual standards. This will enhance the existing pedestrian environment and improve the overall appearance of the street for all roadway users.

**Documentation of Achievement of Curb Ramp Transition Plans and Milestones Required Under Code of Federal Regulations 35.150(d)(2)**

The project will be compliant with the ADA which may require modifications at some intersections to include access ramps and visual tactile strips. Further, station designs will implement universal design practices to provide accessible pedestrian access that are ADA compliant.

The City of Seattle has been proactive for many years to improve access and maintains a Sidewalk Accessibility Program that funds the installation of 200-300 curb ramps each year, based both on citizen requests and priority locations, such as schools, hospitals, parks, libraries, and community centers. The City published a draft Curb Ramp Installation Policies and Transition Plan in 2005 and revisited the transition plan as part of the Seattle Pedestrian Master Plan in 2009. Since many curb ramps throughout Seattle were built decades ago, the Seattle Department of Transportation is working to upgrade them to comply with the latest ADA standards. For example, since 2009, a portion of the Sidewalk Accessibility Program funding is set aside for Accessible Pedestrian Signal improvements that produce an audible signal and vibration to indicate when it is safe to cross the street.

Based on the current inventory, the curb ramps within the corridor meet ADA standards and are in good or fair condition. Starting in June 2015, the Seattle Department of Transportation began sending surveyors throughout the city to assess the 21,000 existing curb ramps to help determine areas that may need improvement. The results from the self-assessment will be used to update the Seattle Curb Ramp Implementation Plan over the next year.

**2.4.2.4 Existing Corridor and Station Area Parking Supply**

Figure 2-9 and Figure 2-10 provide tables with information about the off-street parking supply in the station areas and in the CBD. Figure 2-11 illustrates the locations of off-street parking along the corridor. The Center City Connector corridor includes approximately 241 off-street parking lots or garages providing 45,288 stalls. There are 0.001 stalls per square foot of commercial development and 6.6 stalls per dwelling unit.

---


The average price of on-street parking in the core CBD area (Commercial Core Urban Village) is $26 per day (Figure 2-10). There are currently 0.3 parking stalls per employee in the Commercial Core. This ratio is likely to decline with projected employment growth, given that the land area available for parking is constrained in downtown Seattle and the parking supply is likely to grow at a lower rate than other land uses. Figure 1-3 (located in General Reporting, Project Maps) illustrates the Commercial Core Urban Village boundaries. Figure 2-10 also includes values for the broader Urban Center district, which includes the Commercial Core.

**Figure 2-9 Parking Supply around Station Areas**

<table>
<thead>
<tr>
<th></th>
<th>3rd/4th &amp; Stewart and 1st &amp; Pike Station Areas (North)</th>
<th>1st &amp; Madison and Pioneer Square Station Areas (South)</th>
<th>Corridor Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Off-Street Parking Stalls [1]</td>
<td>26,058</td>
<td>19,230</td>
<td>45,288</td>
</tr>
<tr>
<td>Commercial Development (Sq. Ft.) [2]</td>
<td>37,944,878</td>
<td>26,111,186</td>
<td>64,056,064</td>
</tr>
<tr>
<td>Existing Parking Spaces per Sq. Ft. of Commercial Development</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td># of Dwelling Units [3]</td>
<td>9,196</td>
<td>5,071</td>
<td>14,267</td>
</tr>
<tr>
<td>Existing Parking Spaces per Dwelling Unit</td>
<td>2.8</td>
<td>3.8</td>
<td>6.6</td>
</tr>
<tr>
<td>Land Area within 0.5 Mile of Station Devoted to Parking [2]</td>
<td>1,297,391</td>
<td>1,015,171</td>
<td>2,312,562</td>
</tr>
</tbody>
</table>

(1) Data from Seattle Department of Transportation, updated March 2015. [https://data.seattle.gov/Transportation/Public-Garage-or-Parking-Lot-Includes-e-Park/3neb-8edu](https://data.seattle.gov/Transportation/Public-Garage-or-Parking-Lot-Includes-e-Park/3neb-8edu)

(2) City of Seattle Parcel data

(3) Number of households. PSRC, Land Use Targets Maintenance Release 1 (LUT-MR1), 2014.

**Figure 2-10 CBD Parking Cost and Supply**

<table>
<thead>
<tr>
<th></th>
<th>CBD (Commercial Core Urban Village)</th>
<th>Seattle CBD Urban Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Area (Sq. Mi.)</td>
<td>0.42</td>
<td>1.47</td>
</tr>
<tr>
<td>Number of Garages [1]</td>
<td>87</td>
<td>268</td>
</tr>
<tr>
<td>Number of Off-Street Stalls [1]</td>
<td>23,548</td>
<td>49,592</td>
</tr>
<tr>
<td>Average Rate (all day) [1]</td>
<td>$26.75</td>
<td>$20.54</td>
</tr>
<tr>
<td>Stalls per Employee (2010) [2]</td>
<td>0.30</td>
<td>0.39</td>
</tr>
<tr>
<td># Employees (2035) [2]</td>
<td>114,410</td>
<td>193,075</td>
</tr>
<tr>
<td>Stalls per Employee (2035) [2]</td>
<td>0.21</td>
<td>0.26</td>
</tr>
</tbody>
</table>

(1) Data from Seattle Department of Transportation, updated March 2015. [https://data.seattle.gov/Transportation/Public-Garage-or-Parking-Lot-Includes-e-Park/3neb-8edu](https://data.seattle.gov/Transportation/Public-Garage-or-Parking-Lot-Includes-e-Park/3neb-8edu) (2) PSRC, Land Use Targets Maintenance Release 1 (LUT-MR1), 2014.
Figure 2-11 Location of Off-Street Parking
2.4.2.4 Existing Affordable Housing

Seattle has approximately 24,000 subsidized rental units citywide, with 16,000 units serving households with low incomes at or below 50% of Area Median Income (AMI). Over 12,000 of the subsidized rental units are set aside for households with extremely low incomes (up to 30% AMI). The Seattle Planning Commission’s 2011 Housing Seattle report contained several findings regarding housing and transit service: ⁷

- Urban Centers and Urban Villages contain 40% of the total housing units in Seattle and more than half of the city’s rental units.
- Because of higher concentrations of rental and multifamily units, housing is generally more affordable in areas with frequent transit service and in Urban Centers and Urban Villages.
- Almost three-quarters of market-rate rentals in complexes with 20 or more units are near frequent transit service.

Within the ½ mile radius of the Center City Connector station areas, there are 2,927 subsidized units affordable to households at or below 60% AMI based on the National Housing Preservation Database (5,459 subsidized units affordable to households at or below 60% AMI based on local data). Many of the affordable housing units are located at either end of the Center City Connector alignment, in Pioneer Square or Belltown, as shown in Figure 2-13.

The affordable housing analysis methodology is provided in Attachment D.

Figure 2-12 Affordable Housing Units at 60% AMI

<table>
<thead>
<tr>
<th>National Housing Preservation Database</th>
<th>Local Data Sources [1]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Housing within ½ Mile of 3rd/4th &amp; Stewart and 1st and Pike Station Area</td>
<td>1,156</td>
</tr>
<tr>
<td>Affordable Housing within ½ Mile of 1st &amp; Madison and Pioneer Square Station Area</td>
<td>1,771</td>
</tr>
<tr>
<td>Total Affordable Housing within ½ Mile of Station Areas</td>
<td>2,927</td>
</tr>
<tr>
<td>Total Housing Units within ½ Mile of Station Areas</td>
<td>14,267</td>
</tr>
<tr>
<td>Ratio of Affordable Housing in the Station Areas</td>
<td>20.5</td>
</tr>
<tr>
<td>King County Total Affordable Housing</td>
<td>29,969</td>
</tr>
<tr>
<td>King County Total Housing</td>
<td>835,564</td>
</tr>
<tr>
<td>Ratio of Affordable Housing in King County</td>
<td>3.6</td>
</tr>
<tr>
<td>Ratio of Station Area to Countywide Total</td>
<td>5.7</td>
</tr>
</tbody>
</table>

[1] Seattle Office of Housing and Puget Sound Regional Council

Figure 2-13 Location of Income-restricted Affordable Housing
The Center City Connector project will also facilitate access to jobs and services by low income households living throughout the Center City. Figure 2-14 shows the home locations of low and moderate income workers. Nearly a third of low and moderate income workers who reside in Center City neighborhoods live within a half-mile of the project stations.

**Figure 2-14  Home Locations of Low- to Moderate-Income Workers**

![Map showing home locations of low- to moderate-income workers in Seattle, Washington.](image)
2.4.3 Supporting Documentation

The following supporting documents are provided on a flash drive containing supporting project documentation. Hyperlinks are also provided below.


2.5 ECONOMIC DEVELOPMENT

The FTA evaluates economic development based on transit-supportive plans and policies, the performance and impact of policies, and tools to maintain or increase the share of affordable housing in the project corridor. Information in the Supplemental Land Use and Economic Development Supporting Documentation Template for each of these elements is included below.

The Seattle City Council has demonstrated support for transit investments in the City. The Council first approved the Seattle Streetcar Network Plan in 2008 in order to address the need for rapid, affordable mobility options within the city. The Seattle Department of Transportation integrated the Streetcar Network Plan, along with the Pedestrian Master Plan, 2005 Transportation Strategic Plan, and Seattle Comprehensive Plan, into the recently completed Transit Master Plan. The Transit Master Plan is a comprehensive 20-year look ahead to the type of transit system that will be required to meet Seattle’s transit needs through 2030. The Seattle City Council adopted the Plan in April 2012.

The Transit Master Plan articulates the role of the Seattle Streetcar and other modes into a fully integrated, modern transit system. One of the highest priority projects from the Transit Master Plan and the first to move forward into planning and design is the Center City Connector project. The Plan outlines a “transit first” prioritization approach in the downtown core that prioritizes throughput for transit, bicycles, and pedestrians on downtown streets where space is limited.

2.5.1 Supplemental Economic Development

Strong regional and State planning documents are in place that establish the framework for integrating local land use and transportation plans and programs, including the Washington State Growth Management Act (GMA), the Puget Sound Regional Council VISION 2040 and Transportation 2040 Plan, and the King County Comprehensive Plan. Adopted in 1990, the Washington State GMA mandates comprehensive planning and provides a framework for managing growth and coordinating land use development with the construction of transportation facilities and other infrastructure. The GMA includes 13 planning goals for managing urban growth, protecting agricultural lands, reducing sprawl, and encouraging multimodal transportation systems. The overall goals of the GMA encourage development in urban areas where adequate public facilities and services exist or can be provided efficiently, and they encourage efficient multimodal transportation systems that are based on regional priorities that are coordinated with county and city comprehensive plans. The Center City Connector would be consistent with GMA in that it would provide a transportation alternative

8 Resolution 31091. The 2008 Seattle Streetcar Network Plan is available here: http://www.seattlestreetcar.org/network.htm
to the single-occupant vehicle where City plans and policies encourage growth in the urban area.

The Puget Sound Regional Council (PSRC) adopted Vision 2040 in 2008 and the Transportation 2040 Plan in May 2010. Together these documents serve as the integrated long-range growth management strategy for the four-county area the PSRC serves (i.e., King County, Snohomish County, Pierce County, and Kitsap County). Vision 2040 focuses on a projected additional 1.7 million people in the Puget Sound region and promotes development of a coordinated transportation system that is integrated with and supported by Statewide growth management strategies. The Center City Connector would be located within the Seattle Central Business District, which is identified as a Regional Growth Center. The project would promote growth concentrations within the Central Business District, where existing zoning and land use regulations allow for higher density development and mixed uses.

The Transportation 2040 Plan is the transportation element of Vision 2040 and identifies what improvements are needed in order to focus the anticipated growth in the central Puget Sound region. Goal: The future transportation system will support the regional growth strategy by focusing on connecting centers with a highly efficient multimodal transportation network. The approximate location of the Center City Connector is identified in Transportation 2040.

Finally, the King County Comprehensive Plan, originally adopted in October 2008 and updated in November 2013, sets urban growth areas for the Seattle region. Goals include reducing urban sprawl, protecting rural areas, providing affordable housing throughout the county and coordinating protection of environmentally sensitive areas. The Plan identifies urban centers to provide areas of concentrated employment and housing with direct service by high-capacity transit and with a wide range of land uses. The Center City Connector would support existing and future TOD within the Center City area in support of Goal U-108 in the urban communities element, “King County should support the development of Urban Centers to meet the region’s needs for housing, jobs, services, culture and recreation and to promote healthy communities. Strategies may include exploring opportunities for joint development or transit-oriented development, siting civic uses in mixed-use areas, and leveraging or utilizing existing county assets in urban centers.”

Though not required for Small Starts applicants, the Center City Connector is consistent and supports the goals of these State and regional growth management plans and policies. The Center City Connector would be located within the City of Seattle, which has adopted comprehensive plans and regulations consistent with these regional and state policies. The Center City Connector supports the Washington State Growth Management Act, Puget Sound Regional Council Vision 2040 and Transportation 2040 Plan, and the King County Comprehensive Plan in that it would provide a transportation alternative to the single-occupant vehicle where City plans and policies encourage growth in the urban area.
2.5.2 Transit-Supportive Plans and Policies

2.5.2.1 Transit Supportive Corridor Policies

<table>
<thead>
<tr>
<th>Key Citywide Development Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comprehensive Plan</strong></td>
</tr>
<tr>
<td>1994</td>
</tr>
<tr>
<td><strong>Neighborhood Plans</strong></td>
</tr>
<tr>
<td>1998</td>
</tr>
<tr>
<td><strong>Race &amp; Social Justice Initiative</strong></td>
</tr>
<tr>
<td>2009</td>
</tr>
<tr>
<td><strong>Climate Action Plan</strong></td>
</tr>
<tr>
<td>2005</td>
</tr>
<tr>
<td><strong>Transit Master Plan</strong></td>
</tr>
<tr>
<td>2005</td>
</tr>
<tr>
<td><strong>Pedestrian Master Plan</strong></td>
</tr>
<tr>
<td>2009</td>
</tr>
<tr>
<td><strong>Bicycle Master Plan</strong></td>
</tr>
<tr>
<td>2007</td>
</tr>
</tbody>
</table>

Plans and Policies to Increase Corridor and Station Area Development

Seattle has plans and policies in place to increase development around transit corridors and focus growth and development around transit station areas. Building on the foundation created by the Washington State and Regional growth management policies; Seattle has a very strong planning emphasis on transit-oriented and compact development.

The 1994 Comprehensive Plan Urban Village/Urban Center (UV/UC) strategy remains Seattle’s most critical growth management tool. Urban Village Goal 3 is to “Promote 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.” Urban Centers are regionally defined as the city’s most dense areas, while
Urban Villages are locally defined as residential, commercial, or manufacturing hubs. The UV/UC policy describes a series of connected neighborhoods with diverse housing and employment growth, and sufficient densities to take advantage of significant investment in public transportation infrastructure. Over the 20 years it has been in place, over 75 percent of new housing and new jobs located inside the urban centers and villages that together make up only about 17 percent of the city’s total land area.

Seattle’s subsequent Comprehensive Plans have continued to direct growth to existing urban centers and villages and Seattle is currently on track or exceeding growth targets in its Urban Centers. The adopted 2005 Comprehensive Plan directs 58% of future housing and 73% of employment growth within the boundaries of UV/UCs, with the greatest percentage of that growth directed at the Urban Centers of Greater Downtown.\(^{14}\) The City is currently in the process of updating the Comprehensive Plan and the draft Plan continues to direct growth into these areas. For example, Goal 3 of the Draft Plan is to “Accommodate approximately 80% of the city’s expected household growth in urban centers and urban villages and 80% of employment growth in those areas plus manufacturing/industrial centers.” \(^{15}\)

Neighborhood Plans steer the placement, scale and intensity of future development within specific areas of the city. Since 2009, the Seattle City Council (Ordinance #122799) directed the Department of Planning and Development to prioritize these plans for areas where transit stations are proposed and where significant new population and business growth is expected.\(^{16}\) In transit locations, Neighborhood Plans provide recommendations for street design and network characteristics, potential redevelopment catalyst sites, short- and long-term actions for neighborhood growth, as well as partnerships between the community and stakeholders. The Center City Connector is located in an area that has benefited from organized planning efforts that tie land use with significant transit access. Neighborhood Plans relevant to the Center City Connector project are:

**South Lake Union:** South Lake Union Urban Design Framework/Implementation Plan, South Lake Union Height and Density Study, Uptown Urban Center Plan (currently active)

**South Downtown:** South Downtown Livable Plan, King Street Station Area Plan, Stadium District Plan

**Center City:** Downtown Neighborhood Plan, the Pike/Pine Corridor Study, Downtown Waterfront Vision and Plan

**First Hill/Capitol Hill:** Capitol Hill Urban Design Framework/Development Agreement

Specifically, the Downtown Urban Center Neighborhood Plan is the primary planning document for the Center City area, including the Retail Core, the Waterfront, Pioneer Square, the Pike/Pine Corridor, and Belltown neighborhoods. It is focused on creating heterogeneous development suited to the primary use of each neighborhood. It prioritizes transportation and


\(^{16}\) Ordinance #122799 prioritizes the review and update of Neighborhood Plans where transit stations are proposed and where significant new population and business growth is expected. [http://www.seattle.gov/neighborhoods/npi/updates.htm](http://www.seattle.gov/neighborhoods/npi/updates.htm)
vertical zoning, and strongly emphasizes the need for affordable housing and public space in the district. The top two transportation goals enumerated in the plan are “T1: To develop high capacity downtown transit corridors” and “T2: Improve and expand the street level elements of the regional transit system.”

Two additional neighborhood plans take the recommendations for addressing downtown-wide housing, transportation, and human service needs enumerated in the Downtown Urban Center Neighborhood Plan and target them towards two more specific geographies along the streetcar alignment. The Commercial Core Neighborhood Plan and the Pioneer Square Neighborhood Plan both support increased development along the Central City Connector streetcar alignment. The Commercial Core Neighborhood Plan includes several transit-related policies, such as 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 spaces” and P11: “Work with transit providers to promote convenient transit and public access to and through the Commercial Core.” The Pioneer Square Neighborhood Plan also calls for the City to “provide excellent transit service to and from the area, and clear pedestrian connections to facilities within the area.”

**Plans and Policies to Enhance Transit-Friendly Character of Station Area Development**

In addition to the focus on increasing corridor and station area development, Seattle also has plans and policies in place to increase the transit-friendly character of the development around transit station areas.

At the regional level, building compact and walkable communities around high-capacity transit is a key strategy noted in the *VISION 2040* plan. For example, the regional goal for development patterns is “The region will focus growth within already urbanized areas to create walkable, compact, and transit-oriented communities that maintain unique local character. Centers will continue to be a focus of development. Rural and natural resource lands will continue to be permanent and vital parts of the region.”

To drive implementation of these goals, the Puget Sound Regional Council created the Growing Transit Communities Strategy as a *VISION 2040* companion document to provide tools and resources to local communities to implement adopted regional and local plans. The Regional Council maintains an active Regional TOD Implementation Program to support equitable development and an active Regional TOD Advisory Committee provides input on implementation, coalition building within the region, and support for state and federal legislation and funding needed to create and sustain thriving and equitable transit communities in the region. Finally, during development of the *VISION 2040* Plan, a broad coalition of

---


21 Puget Sound Regional Council. Regional TOD Advisory Committee. [http://www.psrc.org/about/advisory/rtod/](http://www.psrc.org/about/advisory/rtod/)
stakeholders, including cities, counties, transit agencies, businesses and employers, housing authorities, public health agencies, affordable housing providers, educational institutions, community-based organizations, and development interests, came together to sign a Growing Transit Communities Partnership Compact. While the Compact is not legally binding and does not mandate adoption of any particular policies or actions, it recognizes the need for diverse partners to work together over time to achieve TOD goals.22

The City of Seattle Draft Comprehensive Plan builds on this regional emphasis on transit-oriented development. One of the four goals of the growth strategy is to provide “walkable communities with good transit access.”23 And the currently adopted Comprehensive Plan includes a “Transit Communities” element that underscores the mutually reinforcing benefits that arise from mixed-use, compact land use patterns when combined with accessible, frequent transit. The Plan envisions a “Transit Community” (usually overlapping with UV/UC’s) as “A place where a neighborhood is integrated with transit, where coordinated public and private investments improve neighborhood quality, and where proactively planning for change can create or enhance a place where people of all ages and income levels can live in a complete community and access frequent, reliable transit.”24

The City of Seattle has identified several goals for land use and urban design within rail station areas and high frequency transit corridors that complement reliable, high quality transit service. These goals were conceptualized in a 2013 Seattle Planning Commission report entitled Seattle Transit Communities: A Citywide Strategy to Integrate Neighborhoods with Transit.25 This report offers policy and design guidance with regards to coordinating public and private investments within station areas and transit corridors. Mirroring the City’s urban village strategy, it defines a transit community as “a place where a neighborhood is integrated with transit, where coordinated public and private investments improve neighborhood quality, and where proactively planning for change can create or enhance a place where people of all ages and income levels can live in a complete community and access frequent, reliable transit.” The Center City Connector would be included in the Mixed-use Center classification.

Seattle has experience implementing policies related to transit oriented development to prepare for Sound Transit’s Central Link light rail.26 From 1998-2001, the Department of Planning and Development in collaboration with the Seattle Department of Transportation (SDOT) crafted a series of Station Area Overlay Districts that were adopted alongside Neighborhood Plans in the Rainer Valley, First Hill, Capitol Hill and the University District. Applicable to mixed-use zones within a quarter-mile of light rail stations (excluding single-family zoned parcels), Station Area Overlay Districts support transit by prohibiting uses such as drive-

26 Council Resolution 29867 adopted in 1998 established the goals and strategies to promote transit-oriented development in light rail stations.
through businesses and non-residential stand-alone parking, and by permitting some limited up-zoning.

**Plans to Improve Pedestrian Facilities, Including Facilities for People with Disabilities**

The Seattle Pedestrian Master Plan is a long-term action plan to make Seattle the most walkable city in the nation. The plan establishes the policies, programs, design criteria, and projects that will further enhance pedestrian safety, comfort, and access in all of Seattle’s neighborhoods. The City of Seattle is currently conducting a technical update of the Pedestrian Master Plan, and expects the City Council to adopt the update in early 2016. The technical update includes updating the data used in the prioritization process, revising the toolbox of strategies, establishing performance targets, and developing a five-year implementation plan.

The Seattle Department of Transportation maintains an active Pedestrian Program to implement the Plan by creating an environment where pedestrians can walk safely and comfortably. Seattle prioritizes pedestrian projects using three components—vibrancy (or demand), equity, and corridor function. The City published a Curb Ramp Installation Policies and Transition Plan in 2005 and revisited the transition plan as part of the Seattle Pedestrian Master Plan in 2009.27

The 2014-2019 Capital Improvement Program included $1.4 million in 2014 and $1.5 million in 2015 for new sidewalks, $500,000 annually in 2014 and 2015 for approximately 25,000 square feet of sidewalk repair, and $500,000 in 2014 and $1.5 million in 2015 for approximately 200 ramps to comply with the Americans with Disabilities Act (ADA).28 The adopted 2015-2020 Capital Improvement Program increases funding for pedestrian master plan investments, and will prioritize projects to ensure ADA compliance in the City’s right-of-way. For example, the “Pedestrian Master Plan - New Sidewalks” project includes $10.319 million in 2015 and $7.86 million in 2016 to design and construct approximately 35-60 blocks of new sidewalks during the biennium.29

The Center City Connector project aligns with the City of Seattle Complete Streets (Ordinance 122386) policy and will accommodate multimodal travel along the corridor.30 Bicycle and pedestrian facilities will be integrated with the streetcar to accommodate the expected increase in people walking and bicycling through the corridor and accessing the stations. To begin planning, design, and scoping for the corridor, the proposed 2015-2020 Capital Improvement Program provides funding for “Multimodal Corridor Development” to integrate plan recommendations, address the needs of multiple modes within constrained rights of way, and lay the foundation for addressing these corridors in a proactive and purposeful manner. In 2015, work on the 1st Avenue corridor will begin and include a complete streets assessment and consideration of green stormwater infrastructure.

---


30 Seattle Department of Transportation. [http://www.seattle.gov/transportation/compSt_what.htm](http://www.seattle.gov/transportation/compSt_what.htm)
The Seattle Right of Way Improvements Manual sets street design guidelines for the City and includes specific requirements for Roadway Width (4.6), Intersections (4.8), Sidewalks (4.11), Crosswalks (4.12), Street Trees (4.14) and Transit Operations (4.24). The introduction of the manual acknowledges the City’s commitment to a Complete Streets approach: “The Right-of-Way Improvements Manual considers and attempts to balance the access and mobility needs of all users of the street right-of-way: pedestrians, non-motorized vehicles, automobiles, transit, and freight.” Further, the design criteria for transit zones specifically notes the importance of designing to accommodate pedestrian movements between destinations and transit services, and gives accommodations to meet the Americans with Disabilities Act (ADA) top priority in the siting and design of new and existing transit zones. “Transit zones should consist of an accessible pathway and a wheelchair lift landing pad that are free from obstructions.” The minimum width of the pedestrian zone or sidewalk in the design guide is 6 feet, except in locations adjacent to high capacity transit where it should be greater.

Parking Policies

The City of Seattle is a national leader in parking management. Seattle recognizes that excess parking can be an impediment to growth management goals and can impact project design and feasibility, while too little parking affects market viability and may result in spillover parking problems. As a result, the City has implemented programs to encourage station areas in particular to develop as “places”—synergetic communities of people, jobs, retail, and other amenities—and avoid accommodation of large quantities of parking at stations. Furthermore there are no minimum residential parking requirements in Urban Centers, Urban Villages, and Station Overlay areas. Parking policies applicable in the Center City Connector include:

- Residential permit parking zones
- On-street priced parking
- No parking minimums in Urban Centers, and parking maximums for residential and commercial uses
- Design standards for parking in “pedestrian overlay areas” and commercial districts to mitigate the impact of parking on the quality of the street environment
- Pass programs (ORCA business) for employers to provide a financial incentive for employees to use transit
- Unbundling parking spaces from residential and commercial leases

Within the Downtown Core, on-street spaces are also subject to resource management. SDOT’s parking approach is to “price and manage parking to support healthy business districts and transit use and manage curb space to recognize the importance of principle arterials in moving people, goods and services.” The City of Seattle adjusts parking rates, time limits and paid hours of operation in order to:

33 https://www.orcacard.biz/ERG-Seattle-Institution/ProgramsRedirect.do
• Help customers reliably find parking within easy walking distance of their destinations, while ensuring spaces are well used
• Conserve fuel, reduce emissions, and lessen traffic congestion from drivers circling in search of parking
• Increase access to businesses by ensuring turnover of parked cars
• Based on City policy, parking is managed to target one to two available spaces on a block throughout the day, which translates to a target occupancy range of 70% – 85%. At that occupancy, parking is well utilized, and customers and visitors can reliably find an available space.  

Commercial-area curb space is to be used first for transit, then loading, short-term parking, shared-vehicle parking, and, lastly, for ordinary private-car parking. Seattle is currently at work on a Central Business District Curbspace Study, which will prioritize and allocate the use of curbspace in downtown.

2.5.2.2 Supportive Zoning Regulations Near Transit Stations

The Center City Connector passes through some of the city’s most intensive land use districts. These areas already exhibit many of the qualities that support transit use, including walkable block lengths, interesting and comfortable streetscapes, a mix of uses, and many popular destinations. The following sections provide an overview of zoning documentation within the Center City area.

<table>
<thead>
<tr>
<th>Key Land Use Policies &amp; Tools</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incentive Zoning 1980s – present</td>
<td>Based on the incentive program developed for downtown in the 1980s, this program now is used around all major ‘upzones’ and requires new projects building above base zoning to either include affordable workforce housing on-site or contribute to funds through which the City provides affordable housing. In some cases, other public benefits may also be required, such as new open space or landmark preservation.</td>
</tr>
<tr>
<td>Pedestrian Designations 1980s – present</td>
<td>Designations limiting auto-oriented uses and promoting street level vitality, P-zones strengthen business districts and help implement neighborhood plans.</td>
</tr>
<tr>
<td>Neighborhood Design Guidelines 1999- present</td>
<td>Starting in the late 1990’s, 18 neighborhoods developed neighborhood-specific guidelines that have been adopted by the City for use in the design review process that applies to larger projects in urban centers and villages.</td>
</tr>
<tr>
<td>Station Overlay Districts 2001 - present</td>
<td>Adopted in advance of planned light rail station opening to limit auto-oriented uses, especially long-term parking, light...</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Key Land Use Policies &amp; Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Neighborhood Business District Strategy 2009</strong></td>
</tr>
<tr>
<td><strong>Multifamily Zoning Update 2011</strong></td>
</tr>
<tr>
<td><strong>Regulatory Reform 2012</strong></td>
</tr>
</tbody>
</table>

**Zoning Ordinances That Support Increased Development Density in Transit Station Areas**

In 2006, the city adopted land use code changes to “create more vibrant neighborhoods, encourage affordable housing, stimulate job growth, support transit, encourage urban sustainability, and support historic preservation.” Under the revised code, downtown zones can make use of incentives that allow for higher floor area ratio (FAR) and/or building height than the base zoning allows in exchange for meeting LEED standards or providing project components such as affordable housing, public open space, or pedestrian connections.

Figure 1-5 (General Reporting, Project Maps) shows the zoning designations adjacent to the alignment. The majority of the alignment is in Downtown Retail Core (DRC), Pike Place Market (PMM), and Pioneer Square Mixed (PSM) zoning with a short portion in Downtown Office Core 2 (DOC2).

The maintenance facility expansion is located between Industrial Commercial (IC) and International District Mixed (IDM). The short turnaround track is in Seattle Mixed Incentive (SMI). Finally, the two terminal stations are in Downtown Office Core 2 (DOC2) and Pioneer Square Mixed (PSM).

The Seattle “Mixed Zones” allow a mix of residential, commercial, and office uses. In general, this zone is most appropriate in Urban Centers and Urban Villages where density is being concentrated and a high level of transit exists or is planned. It is currently used in the South Lake Union (SLU) Urban Center, North Rainier Hub Urban Village, and in the West Dravus area.
The downtown land use code relies upon location-specific overlays to regulate street level uses and building design attributes such as transparency requirements, property line façade locations, and pedestrian and green street standards. Seattle’s Design Review program contributes to achieving high-quality buildings and pedestrian-friendly qualities.

**Zoning Ordinances That Enhance Transit-Oriented Character of Station Area Development and Pedestrian Access**

Seattle has a variety of context-sensitive and area-based design standards that help to maintain the quality of the street environment in most of Seattle’s Urban Centers/Urban Villages and in all of the Downtown Zones. Design standard overlays contribute to land use patterns that engage pedestrians and provide comfort and safety at the street level through weather protection, entrances, and lighting. Standards also identify modal priorities. Overlays include the following elements:

- Street level use
- Property line façade requirements
- Overhead weather protection
- Green Street standards
- Pedestrian street standards
- Parking uses permitted, etc.

The downtown, the City of Seattle offers property owners that provide transit amenity features that improve public access to transit stations a floor area bonus.\(^{36}\)

**Zoning Allowances for Reduced Parking**

Seattle does not have either short- or long-term parking minimums in downtown, though there are requirements for bicycling parking.\(^{37}\) Parking maximums are in place for all non-residential development at one parking space per 1,000 square feet.\(^{38}\) The Pike Place Mixed Zone prohibits parking, except principal use parking.\(^{39}\) The City of Seattle zoning code also encourages shared parking, which is allowed between two or more uses to satisfy all or a portion of the minimum off-street parking requirement.\(^{40}\)

Finally, Seattle has ridesharing and transit incentive program requirements in the Zoning Code that apply to all new structures containing more than 10,000 square feet of new non-residential use, and to structures where more than 10,000 square feet of non-residential use is proposed to be added.\(^{41}\)

---


\(^{37}\) Seattle Municipal Code. Chapter 23.49.019. Section A.

\(^{38}\) Seattle Municipal Code. Chapter 23.49.019. Section C.

\(^{39}\) Seattle Municipal Code. Chapter 23.49.338. Section A.

\(^{40}\) Seattle Municipal Code. Chapter 23.54.020 - Parking quantity exceptions. Section G.

\(^{41}\) Seattle Municipal Code. Chapter 23.49.019. Section D.
2.5.2.3 Tools to Implement Transit-Supportive Policies

Outreach to Government Agencies and the Community in Support of Transit-Supportive Planning

To prepare the Transit Master Plan, which emphasizes the importance of the Center City Connector project, Seattle hosted a series of 5 open houses to share information about the TMP Draft Summary Report and to get feedback from the community. Over 100 people attended the fall 2011 open houses. In addition, from October 2010 through February 2011, Seattle reached out to commuters, neighborhood organizations, large organizations, businesses, and transit agency planners and operators to learn what they believe to be the city’s greatest transit needs and to gather suggestions for improvements and ideas for the future. The outreach included interviews and focus groups, with 41 participants representing 26 organizations, and an online survey, which had over 12,000 responses. The survey respondents answered questions about their use of transit services within Seattle.\(^\text{42}\)

- 54% of respondents use public transit five or more times per week
- 25% said they use public transit between one and four times per week
- 70% said their entire commute takes place within Seattle and does not involve a transfer
- 81% said that they walked to the bus or train on their most recent transit trip

The Seattle Transit Master Plan also included a public advisory group appointed by the Mayor and City Council to help ensure that the views of Seattle’s diverse residents and employers had an active role in shaping the plan.\(^\text{43}\)

Regionally, government agencies and community members have been engaged in transit-supportive planning and outreach for some time. The Seattle Planning Commission published the Seattle Transit Communities Report in 2010 and has promoted a citywide transit development strategy that would support more inclusive, affordable, and diverse neighborhoods and help maximize investment in major transit projects by locating housing, jobs, and services close enough to transit so that more people will have a faster and more convenient way to travel.

Finally, the Puget Sound Regional Council and a variety of organizations, institutions, and municipalities developed the Growing Transit Communities Partnership as part of the Vision 2040 planning effort. Funded by a grant from the federal Partnership for Sustainable Communities, the Partnership focuses on developing policies and tools applicable to key transit nodes within the region’s long-range light rail corridors.

The Growing Transit Communities Partnership has been a resource for transit-related infill redevelopment efforts by providing research, demonstration projects, catalyst projects, and extensive outreach. A Growing Transit Communities Partnership - initiated Typology Framework released in 2013 provides technical support for the numerous study areas including Capitol Hill, Westlake Station, University Street, Pioneer Square, International District, and Stadium


\(^{43}\) Members of the Advisory Group and the Charter can be found at: [http://www.seattle.gov/transportation/tmpag.htm](http://www.seattle.gov/transportation/tmpag.htm)
The report helps to shape actionable strategies and prioritizes improvements and programming needed to achieve equitable transit communities.

**Regulatory and Financial Incentives to Promote Transit-Supportive Development**

Washington state law allows for a plan-level review of impacts through an upfront State Environmental Policy Act (SEPA) process designed to eliminate SEPA appeals (SEPA, RCW 43.21C). The planned action ordinance process allows one in-depth Environmental Impact Statement (EIS) evaluation for the entirety of a plan area. If a project proposal falls within the scope of the planned action, the city is not required to make a threshold determination and is not allowed to require any further environmental review.

Combining a planned action ordinance with an area plan and rezone is an increasingly popular tool for cities seeking to adapt station locations, downtowns, and regional centers to changing circumstances and to facilitate infill redevelopment. In 2010, a version of the planned action ordinance (PAO, Planned Action Transit Infill II) was tailored specifically to promote transit-friendly land use actions and expedite transit-oriented development (TOD). Tacoma adopted the first Transit Infill PAO in 2013. In April 2011, the City of Seattle adopted a Planned Action Final EIS for Yesler Terrace, a Seattle Housing Authority-led TOD redevelopment adjacent to the First Hill Streetcar, the first application of this approach in Seattle.

In addition, the Multifamily Tax Exemption program (MFTE) is a component of a financing package for multifamily development, available for use in all of Seattle’s transit station areas. To participate, the program requires that 20% of all units be made affordable for up to 12 years, with a range of affordability levels tied to different unit types. Two recent unsubsidized projects, the Station at Othello Park and GreenHouse in Columbia City, both near light rail stations, were developed using the Seattle’s MFTE program. The Station and GreenHouse are offering affordability for middle-income households (80-90% AMI) for 96 of 476 total units.

**Efforts to Engage the Development Community in Station-Area Planning and Transit-Supportive Development**

Over the past decade Seattle’s Department of Planning and Development spearheaded a number of major transit supportive land use planning initiatives. This work included engaging developers and other stakeholders in the creation of Urban Design Frameworks. These planning documents recommended and produced significant density increases in our light rail station areas. The Department has also brokered development agreements between transit agencies, developers and community organizations—examples include the Capitol Hill Station TOD agreement and the Northgate Station Urban Design Plan. Seattle has also engaged the development community in planning around station area development through many of the same initiatives, compacts, and advisory groups as used to engage the community and other government organizations. Examples include the Growing Transit Communities Partnership as part of the Vision 2040 planning effort, the Seattle Planning Commission Transit Communities work, and the Seattle Transit Master Plan Advisory Group.

---

Public Involvement in Corridor and Station Area Planning

As noted above, Seattle did extensive public engagement in the process of preparing the Transit Master Plan, which includes the Center City Connector project. The process included a public advisory group appointed by the Mayor and City Council to help ensure that the views of Seattle’s diverse residents and employers had an active role in shaping the plan.45 Community members also participate in The Growing Transit Communities Partnership to promote greater TOD across the region.

2.5.3 Performance and Impacts of Land Use Policies

2.5.3.1 Performance of Land Use Policies

Demonstrated Cases of Developments Affected by Transit-Supportive Policies

Recent development activity in the Center City has been robust and recent upzoning amendments to the Seattle Comprehensive Plan will further encourage high-density residential housing in areas of the Center City as well as greater office development in the downtown core.

The following sections highlight several recent TOD projects that demonstrate the effectiveness of the City’s transit supportive policies and plans.

Terry Avenue, Westlake Avenue, and Amazon Headquarters

The redevelopment of South Lake Union includes several projects that are pedestrian-oriented, relate well to streetcar stations, achieve generous open space requirements, or use historic TDRs to help preserve and enhance the public realm. One recent example is the headquarters of Amazon, which included three office towers with nearly 3.3 million sq. ft. of office space and 66,000 sq. ft. of commercial space on three blocks near the Westlake/ 7th Avenue streetcar stop. As part of the Amazon headquarters public benefits package, the developer agreed to fund $5.5 million in enhanced South Lake Union Streetcar service, including the purchase of a fourth streetcar and enhancements to streetcar stops. This will result in increased frequencies, and trains that will come every 10 minutes, 12 hours a day. Amazon’s headquarters complex will also provide access to Zipcar, electric-car charging stations, bike storage rooms, and showers in each building. Additionally, the project features

45 Members of the Advisory Group and the Charter can be found at: [http://www.seattle.gov/transportation/tmpag.htm](http://www.seattle.gov/transportation/tmpag.htm)
wayfinding for transit routes and streetcar stops and midblock pedestrian walkways. The public benefits package includes construction of a cycle track along 7th Avenue in downtown Seattle and the extension of pedestrian boulevard treatments on Westlake Avenue.

**New Holly HOPE VI /Othello Light Rail Station Stop**

Othello Station is one of 12 stations built during the first segment of the Central Link light rail, completed in 2009. The City of Seattle, Sound Transit, and the Seattle Housing Authority began working to prepare this site for light rail when the station was initially selected in the late 1990s. Developer-community conversations facilitated by the Othello Station Community Advisory team were supported by Small Sparks and Small and Simple Grants from the city’s Department of Neighborhoods.

The urban town center features a 7.6 acre park, and a culturally diverse small business district. Seattle Housing Authority leveraged local and federal funding sources to build 1,400 units of mixed-income rental and affordable housing. Funding for the New Holly project came from the Federal HOPE VI program.

TOD developer Othello Partners constructed 351 units of market-rate apartments in a six-story mixed-use project bordering the station and a new park (Othello Park). The project opened in 2012. There are only 200 parking spaces in the building, leased separately.

According to the Puget Sound Regional Council’s TOD Fund Report, “Over the five year period between when construction began on Central Link in 2004 and it was completed in 2009, the values of the mixed-use zoned parcels in Othello station’s vicinity rose by 585% [...] This was a period of active growth in the larger real estate market, as commercial land in all of south Seattle appreciated by 180% over the same time period, but the appreciation in the Othello Station area was more than 400% higher.”

---

**Stadium North Lot/Stadium District/King Street Station**

Directly to the south of the proposed 1st Avenue streetcar corridor at Jackson Street near 2nd Avenue, Stadium Place is a mixed-use, transit-oriented development under construction on the largest piece of previously undeveloped land (3.85 acres) in Seattle’s urban core. The lot is arguably the most transit-rich location in the city. It is located on a former parking lot adjacent to the King Street Station/International District Multimodal Hub and north of CenturyLink Field. When all phases of Stadium Place are complete, it will feature up to 740 residential units, 170,000 sq. ft. of office space, 50,000 sq. ft. of retail space, and a 297-room hotel and conference center.

The $517 million development’s first tower is a 10-story building with 109 apartments. It is part of 1.5 million sq. ft. of residential, office, retail, and hotel space that eventually will cover two square blocks. This action is in direct response to the rezone of the South Downtown area and Livable South Downtown Plan, which encourages greater density and mixed-use development and enhancements of the public realm.

A Stadium District Plan for the area surrounding the north lot was released in 2012. The plan represents actions taken by the private sector development community to improve and intensify the area, using transit as a key strategy. The district plan guides development to ensure it is complementary to the public interest and a catalyst for economic development.

**Capitol Hill TOD LINK Light Rail Station**

Sound Transit has been working collaboratively with the community and the City of Seattle since 2008 on an Urban Design Framework for the Capitol Hill station area to carefully consider the opportunities and constraints for future redevelopment. Sound Transit and city staff have negotiated a development agreement term sheet to provide land use guidance for future development. Released in April 2013, the TOD plans outline design and use goals for five sites adjacent to the station, with 100,000 sq. ft. of planned development. Building heights were increased to 85 feet, with less parking than typical developments nearby. This agreement also represents the first time the city has established a parking maximum for a site—set at a unit-to-parking ratio of 0.7. Developers will ultimately be responsible for building on the sites, estimated at 400 apartments, 36% of which will be affordable (up to 50% AMI). A developer Request for Qualifications was initiated by the City in 2014. At the same time, SRM and RD Merrill are currently building a 235-unit apartment building on the block next to the Capitol Hill station. Three blocks north of the station Avalon Bay is planning a project that will feature 380 apartments and 12,000 sq. ft. of retail.
Station Area Development Proposals and Status

Downtown Seattle continues to experience a significant upturn in construction with increasing development demand concentrating in the Center City. There are currently 53 projects in development along the corridor, including 9.2 million square feet of commercial development, 11,300 residential units, and 3,300 hotel rooms. Most are mixed-use projects with ground floor retail and upper level hotel or residential use. Other projects mix retail and office uses. The majority of these projects are located east of First Avenue, along Stewart Street, and in the Denny Triangle (far northern part of the corridor). The residential activity in the Denny Triangle and South Lake Union to the north represents a shift in the character of this area. As described in more detail in subsequent sections, the city has put in place incentives and other programs to encourage affordable housing units as a part of redevelopment activity. Figure 2-15 illustrates locations of recent development activity in the corridor.

2.5.3.2 Potential Impact of Transit Project on Regional Land Use

Adaptability of Station Area Land for Transit-Supportive Development

Existing development capacity and distance from other transit service create the potential for transit investment to influence development. In addition to recent investment or reinvestment along the corridor, Figure 2-16 illustrates identifies vacant or potentially redevelopable parcels, including older or low quality buildings, vacant lots, or surface parking.

47 Based on permit data from Seattle in Progress, as of September 1, 2015. The corridor is defined as a half-mile buffer around the four new Center City Connector stations, consistent with reporting in the Land Use Template.

48 Based on City of Seattle Land Use Capacity Analysis, 2015. This analysis classifies properties as redevelopable using different methods, but within the study area generally based on a ratio of improvements to land value of 0.5 or less.
Corridor Economic Development

As part of early-stage evaluation of potential Center City Connector alignments, preliminary economic development analysis was conducted to understand how well the 1st Avenue Streetcar corridor would promote new development. This analysis considered the capacity for new investment, potential for transit to influence future development, and connections to jobs and housing. Figure 2-17 and Figure 2-18 highlight the potential for redevelopment along the corridor. They illustrate the commercial and residential redevelopment capacity within the Center City Connector corridor, based on the City’s capacity analysis (2015). The analysis results are based on observed development patterns within the past ten years.

The greater impact of a 1st Avenue Streetcar on the region will be its status as a connecting link between employment centers, and as a tool to resolve constraints on downtown economic expansion resulting from congestion, and limited options for north-south travel. The 1st Avenue Streetcar alignment leverages existing city and regional partner investments by linking existing transportation termini at the north and south ends of downtown (Westlake and King Street Intermodal Hubs). This is consistent with the long-term economic development strategies for the city and the region. The Seattle Jobs Plan for 2012 calls for connecting “Seattle’s neighborhoods with high capacity transit, including rail, to provide residents and businesses with an affordable, reliable way to get around (the) city.”

2.5.4 Tools to Maintain or Increase the Share of Affordable Housing in the Corridor

2.5.4.1 Evaluation of Corridor-Specific Affordable Housing Needs and Supply

As described in section 2.4.2.4 above, there are over 5,000 income-restricted housing units in the project’s half-mile station areas, comprising more than half of the nearly 9,000 income-restricted units in the Center City overall. Figure 2-19 shows the location of income-restricted housing along the overall streetcar system, the number of overall units, and the number of units restricted to households earning 60% or less of median AMI or up to 80% AMI. Affordable housing is primarily located at either end of the Center City Connector project, in Pioneer Square and Belltown, but is also located throughout the overall streetcar system corridor.

As noted in the City's HUD Consolidated Plan, there continues to be a need for housing affordability throughout Seattle and King County as “low- and moderate-income people, as well as many workers, cannot afford to live in Seattle.”51 According to the Seattle Comprehensive Plan, in order to accommodate its growing population, Seattle needs to produce 70,000 units of new housing in the next 20 years and 28,000 of those units need to be affordable to people making 80% AMI or less. If the city keeps pace with its 2000-2010 home-building rates (about 3,700 new units each year) then it will be able to meet the 70,000-unit goal, but it will not produce enough affordable units. Seattle comes up about 23,500 units short for those earning 0-30% AMI; and 25,000 units short for those in the 0-50% AMI bracket.52

Seattle is actively working to address these housing needs using a variety of tools, from levies to incentive zoning. The South Lake Union streetcar project provides an example of the tools in place to begin to address these issues. Beginning in 2004, Seattle updated the South Lake Union Neighborhood Plan, worked with the community to develop the South Lake Union Urban Design Framework, and developed an incentive zoning ordinance that was adopted by the City Council in 2013. Through the incentive zoning program, projects may gain extra floor area or height by providing affordable housing and participating in a regional transfer of development rights program. This program will provide capacity for up to 12,000 households and 22,000 new jobs over the next 20 years. This program is expected to generate approximately $45 million for affordable housing and $27 million in new infrastructure investments, and will preserve 25,000 acres of rural farm and forest land over the next 25 years.53

Figure 2-19 Affordable Housing along Streetcar System
2.5.4.2 Plans and Policies to Preserve and Increase Affordable Housing in the Region and/or Corridor

Seattle has a range of plans and policies in place related to support affordable housing, using both public and private market tools. Seattle’s adopted Comprehensive Plan Housing Element identifies policies and goals for supplying housing addressing a variety of income levels and promotes the use of incentives, financial assistance, and other tools. One of the goals of the plan HG14 is to “Preserve existing low-income housing, particularly in urban centers and urban villages where most redevelopment pressure will occur.”

Another affordable housing goal in the Comprehensive Plan, HG12, is to reduce the number of low-income households in need of housing assistance. In line with these policies and goals, policies H37-H44 calls for using a combination of tools—including local discretionary housing subsidy resources, partnerships, and public funds—to encourage the preservation, rehabilitation, and development of affordable housing.

The Seattle Planning Commission’s 2011 Housing Seattle report provides recommendations to tailor the Comprehensive Plan affordable housing policies to current housing needs. In particular, the Commission recommended “linking housing affordability to transportation costs,” a recognition that low- and very low-income households are more likely to be transit dependent. As such, the city is working to create new policy goals that will direct the vast majority of new affordable housing into transit communities, with frequent and reliable transit.

Seattle’s Regulatory Reform legislation adopted in 2012 addresses housing affordability by:

- Streamlining regulatory requirements in Urban Centers and station areas
- Providing greater ability to mix residential uses on the ground floor of commercial zones
- Expanding opportunities for accessory dwelling units such as backyard cottages

Finally, the Seattle draft Comprehensive Plan (2015 – 2035) builds on the experience of linking housing and transportation affordability, noting “The majority of new housing is planned for urban centers and urban villages where investments in transportation, open space, and services have been made or are planned.” Draft Comprehensive Plan Policy H5.5 “Increase housing choice and opportunity by funding extremely low-, very low-, and low income rental housing throughout Seattle, especially in areas where less rent/income restricted housing is available, including in high-cost areas with high frequency transit, parks, quality public schools, and other amenities where greater subsidies may be needed” and Policy H5.6 “Consider access to high frequency transit and estimated housing and transportation costs when funding extremely low-, very low-, and low-income housing.”

---

54 City Council adopted Ordinance 123939 in July 2012. More information available at: 
http://www.seattle.gov/dpd/vault/regulatoryreform/accomplishments/
2.5.4.3 Adopted Financing Tools and Strategies Targeted to Preserving and Increasing Affordable Housing in the Region and/or Corridor

In addition to city policy, there are a variety of efforts underway to alleviate the lack of affordable housing in Seattle. Programs that provide funding to subsidize affordable housing, such as the Seattle Housing Levy, Incentive programs, and Seattle Housing Authority housing assistance are described below.

**City of Seattle, Office of Housing, Housing Levy**

In 2013, the City of Seattle’s Office of Housing directed $34.8 million towards affordable housing through the city’s Rental Housing Program. Much of this funding is generated by Seattle’s voter-approved, seven-year property tax levy to provide affordable housing for low-income residents. Passed in 2009 for a fifth time, the levy generates $145 million for programs to create and preserve affordable housing, provide homebuyer assistance, rental assistance, and acquisition and opportunity loans. From 2005-2015 the Housing Levy (and other city sources) helped to develop a total of 3,671 rental units.56

**Consolidated Plan**

The city’s Consolidated Plan (2009-2012) is currently being updated.57 This plan implements the Comprehensive Plan and includes a detailed strategic plan outlining priorities for the city’s housing and community development programs for the U.S. Department of Housing and Urban Development (HUD). The city’s Office of Housing uses federal Community Development Block Grant (CDBG) and HOME funds to provide for the preservation and development of affordable housing, assistance to qualifying homeowners in need of home repairs, and assistance benefiting qualifying homebuyers.

**Incentive Zoning**

Seattle allows additional residential or non-residential floor area beyond base height or floor area ratio (FAR) limits to be achieved in certain zones. SMC 23.58A (Incentive Provisions) is Seattle’s primary land use code chapter guiding incentive zoning. Generally, residential developers opting to seek additional floor area in incentive zoning-eligible zones with maximum height limits less than 85 feet must include a percentage of units as affordable to households with incomes up to 80% of AMI (rental) or 100% of AMI (ownership). Non-residential and high rise residential developers also have the option of making a cash contribution (in-lieu fee) to the city to contribute to a low-income housing fund. The city is currently undertaking a review of its affordable housing incentive zoning program.58

**Transferable Development Rights Potential (TDP)**

This option helps Seattle maintain a more variable building scale by allowing density to be moved from one site to another.59 Excess development rights from a certified TDP site can be

---


59 [http://www.seattle.gov/housing/incentives/TDPbonus.htm](http://www.seattle.gov/housing/incentives/TDPbonus.htm)
sold to developers needing residential floor area beyond a base height or floor area ratio (FAR) limit. The proceeds of TDP sales are used for preservation of priority uses. The TDR Agreement includes covenants that will run with the land including 50 years of affordable housing primarily affordable to households with incomes up to 50% of AMI.

2.5.4.4 Evidence of Developer and Public Sector Activity to Preserve and Increase Affordable Housing in the Corridor

A major public-private partnership intended to preserve and increase affordable housing in Center City is the Yesler Terrace redevelopment project. Yesler Terrace is a 30-acre site near Center City that was developed by the Seattle Housing Authority in the early 1940s as the city’s first publicly subsidized housing. The Seattle Housing Authority has spent the past eight years working to replace Yesler Terrace’s aging 561 public housing units with a new mixed-income community, in partnership with a private sector master developer. The property is located adjacent to a station on the First Hill Streetcar alignment and offers opportunities for a mixed-use, mixed-income community well-served by transit, increased affordable housing, and a high level of sustainability and urban design.

Seattle City Council passed supportive implementing agreements, including the Cooperative Agreement between the city and Seattle Housing Authority, the Land Use Code amendment and rezone ordinance, the Street Vacation Petition, and the Planned Action Ordinance in 2012. 60 Under the adopted rezone the existing 561 homes will be replaced by:

- 661 units serving people with incomes below 30% AMI, consisting of 561 units to replace those currently there and 100 additional units developed with partners
- 290 additional low-income units affordable for 30-60% AMI
- 850 workforce housing units serving people with incomes below 80% AMI
- 1,200-3,200 market-rate housing units
- 65,000 square feet for neighborhood services
- 1.8-acre central park, three pocket parks, half-mile “Green Street” loop and one acre for community gardening
- 88,000 square feet of retail space
- 900,000 square feet of office space

The first private sector project – Anthem Apartments – broke ground in June 2013. The six-story workforce- and transit-oriented project has a fifth of the units set aside for households earning

60 More information on the projects underway available at: http://www.seattle.gov/council/issues/yesler_terrace.htm
up to 50% AMI ($34,700 for a family of two). The remaining units will be for households earning up to 85% AMI ($52,600 for a family of two).

Kebero Court, owned and managed by the Seattle Housing Authority, opened in April of 2015 with 103 apartments in a six-story apartment building with three townhome buildings. There are a mix of 1, 2, 3, and 4 bedroom units with 83 subsidized units for households making 30 percent or less of AMI, with priority for Yesler Terrace residents previously relocated and 20 affordable units for households making 60 percent or less of AMI.

In late 2015 and early 2016, additional residential buildings, a new health clinic at Bailey Gatzert Elementary and multilingual Community Health Educators, and the Epstein Opportunity Center are expected to come online.

The City made a commitment to all people residing at Yesler Terrace before the redevelopment began that they would be provided with comparable housing and moving expenses if they had to relocate, a priority right to return to new housing at Yesler Terrace, or an opportunity to move straight from old housing into new if they are in areas where the phasing enables that on-site transition. That promise is being fulfilled with prior residents moving back to the site as building renovations and construction are completed.  

2.5.4.5 Extent to Which Plans and Policies Account for Long-Term Affordability and Needs of the Very- and Extremely-Low Income Households in the Corridor

The adopted Seattle Comprehensive Plan includes goals and policies to ensure that affordable housing is available to very low income households over the long term. Policy H34(a) indicates that Seattle plans for at least 25% of the housing supply in the city to be affordable to households who have very low incomes (up to 50% of AMI).

The Comprehensive Plan also includes Policy H30 which contains affordable housing production targets for three income categories. The plan targets 9,400 units or 20% of expected housing growth to be affordable to households earning up to 50% AMI, almost 8,000 units or 17% to be affordable to households earning between 50-80% AMI, and 12,690 units or 27% to be affordable to households earning between 80-120% AMI. Affordable housing production targets for the first two of these AMI income categories were adopted into Seattle’s Comprehensive Plan to align with specific policy direction from the King County Comprehensive Plan.

The Seattle draft Comprehensive Plan (2015 – 2035) emphasizes the need to balance increasing rent/income-restricted housing with preservation of quality low-cost housing that is becoming an increasingly important element of the City’s housing affordability strategy. The plan estimates to meet housing affordability needs associated with projected population growth, 27,500 to 36,500 additional housing units affordable at or below 80% of AMI are estimated to be needed by 2035. This includes 10,500 rent/income-restricted housing units for extremely low-income households.  

2.5.5 Supporting Documentation

The following supporting documents are provided on a flash drive containing supporting project documentation. Hyperlinks are also provided below.


2.6 ENVIRONMENTAL BENEFITS

The FTA evaluates environmental benefits using the following subfactors: change in air quality criteria pollutants, change in energy use, change in greenhouse gas emissions, and change in safety. The monetized and weighted values of the various environmental benefits are summed and compared to the annualized Federal share of the proposed project. The Center City Connector is calculated to have an environmental benefits value of 76.4%, using a blended calculation approach (average of current and horizon year values).

Seattle has a history of leadership around environmental sustainability. For example, in 2000 Seattle became the first city in the nation to adopt a green building goal for all new municipal facilities, and in 2001 the City created a LEED incentive program for private projects. In 2005, after decades of investment in conservation and renewable energy, Seattle City Light was the nation’s first large electric utility to become carbon neutral. That same year, Mayor Nickels, concerned about federal inaction on climate change, launched the Mayor’s Climate Protection Initiative and challenged U.S. mayors to do what the federal government would not: meet the GHG emission reduction targets of the Kyoto Protocol—7% below 1990 levels by 2012. More than 1,000 mayors representing nearly 89 million Americans joined Seattle in making the pledge to take climate action.

In 2006, Seattle was one of the first cities in the nation to adopt a Climate Action Plan and the city continues to be committed to reducing vehicle miles travelled to improve air quality. The recently updated Seattle Climate Action Plan, adopted in June 2013, focuses on city actions that reduce greenhouse emissions and also support vibrant neighborhoods, economic prosperity, and social equity. The plan targets reducing vehicle miles travelled by 20% by 2030; reducing center city and all commute trips, and increasing transit mode share and service levels. The subsequent Implementation Plan includes the Center City Connector as Action TLU4.

Recently, the City has also worked to improve environmental quality through the development of green streets designed to improve stormwater runoff. The Seattle Green Factor is a unique performance-based, point program that increases overall livability and comfort in Seattle’s mixed-use zones by requiring creative provision of green landscaped areas and low impact development.

---

3 LOCAL FINANCIAL COMMITMENT

3.1 CAPITAL COST

This section describes total capital cost of the Center City Connector project. Highlights from the Small Starts Finance Template include:

- Estimated Cost of Project Development (YOE dollars): $13,819,000
- Total capital costs (YOE dollars): $166,551,000
- Section 5309 Small Starts Funding Anticipated (YOE dollars): $74,999,999
- Section 5309 Small Starts Funding Share: 45%

The City of Seattle received a $900,000 FTA Planning Grant in 2011 to study potential alignments and modes and analyze benefits, costs, and impacts of the Center City Connector.

3.2 OPERATIONS AND MAINTENANCE COSTS

Operations and maintenance highlights from the Small Starts Template file include:

- Opening year operating costs (YOE): $5,680,000
- Total SDOT operating budget (YOE): $307,476,000\(^1\)
- Total Seattle Streetcar System operating costs (YOE): $16,060,000\(^2\)
- Estimated annual farebox revenues (YOE): $9,016,920

Figure 3-1 provides a breakdown of projected operating and maintenance costs and revenue sources for (1) the streetcar system without the proposed Small Starts project, (2) incremental or net new costs with the project, and (3) the overall streetcar system with the project.

---

\(^1\) Projected SDOT Operating Budget, 2018.
\(^2\) See Figure 3-1; see also Seattle Streetcar Fund Financial Plan in Supporting Documentation. Note, the City’s adopted Fund Financial Plans do not yet include new revenues and costs associated with the Center City Connector segment.
### Figure 3-1  Projected Streetcar Operating and Maintenance Costs, 2019

<table>
<thead>
<tr>
<th></th>
<th>Existing South Lake Union</th>
<th>Planned First Hill Streetcar</th>
<th>Broadway Extension</th>
<th>Total without Project</th>
<th>Estimated Operating Costs [2]</th>
<th>Proposed with Center City Connector Small Starts Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Vehicles</td>
<td>4</td>
<td>6</td>
<td>0</td>
<td>10</td>
<td>$3.3 M</td>
<td>$5.7 M</td>
</tr>
<tr>
<td>Farebox Recovery %</td>
<td>30%</td>
<td>20%</td>
<td>0</td>
<td>25%</td>
<td></td>
<td>$0.3 M</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$0.01 M</td>
<td>$0.3 M</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$0.3 M</td>
<td>$1.1 M</td>
</tr>
</tbody>
</table>

#### Notes:

[1] The Center City Connector operating plan increases service levels on portions of the existing South Lake Union and First Hill Streetcar lines.

[2] Based on actual King County Metro 2015 O&M budgets for South Lake Union Streetcar and First Hill Streetcar, scaled up to projected peak operations with the Center City Connector. The proposed Small Starts project would operate as part of the overall streetcar system; costs for the Small Starts project are the incremental cost.

[3] Fare revenues for the Center City Connector are budgeted at 75% of the estimated level. Fare assumptions are described in more detail in Attachment A, Figure A-2, and include a $2.75 adult one-way fare in 2019 and a $1.49 average fare. Ridership annualization assumptions are described in Attachment B.

[4] No changes assumed from the City’s minimum floor allocation and the City’s internal allocation between Monorail and Streetcar.

[5] Budgeted sponsorship revenue assumes making half of the streetcar fleet available for sponsorship. Potential sponsorship of new stations is not included in the budgeted revenues, and would be additional. Station sponsorships are included in existing South Lake Union Streetcar and planned First Hill Streetcar revenues. South Lake Union Streetcar revenues also include a service contribution from Amazon.com.

[6] King County Metro contribution to South Lake Union Streetcar operating costs. The current agreement is effective through 2019, subject to extension.

[7] Sound Transit contribution to First Hill Streetcar operating costs. The current agreement is effective through 2023, subject to extension.
3.3 LOCAL FINANCIAL COMMITMENT

3.3.1 Summarized Financial Plan & Local Capital Funding Plan

The City funds capital projects through its six-year Capital Improvement Program process. The Capital Improvement Program identifies the total project cost, cash flow (spending plan by year), and sources of funds for proposed projects. The appropriation authority for unspent funds appropriated in a given year automatically carries over into the following year, to simplify the process of matching spending authority to project activity.

Unsecured sources of funds, such as projected grant funds, are typically identified as “To Be Determined” in the Capital Improvement Program until a grant award has been announced. Similarly, funding that is expected to be supported by municipal bonds is identified as “To Be Determined” until the City has formally incorporated this funding into its debt management plan.

The City of Seattle coordinates capital improvements in the public right-of-way among its Department of Transportation and City-owned municipal utilities. Municipal utility improvements that may be incorporated into Transportation construction projects are typically funded within the Capital Improvement Programs of the municipal utilities.

All proposed sources of funds are identified in the Project Description Template, and are also summarized here.

The City previously received a planning grant from the FTA for $900,000, and the City’s capital funding for the Center City Connector anticipates up to $74,999,999 in Small Starts grant funding, with the balance of funding from the following local capital funding sources:

- **Municipal Bonds.** The City of Seattle plans to allocate revenues from municipal bonds to support the Center City Connector project. The planned funding level is identified in the City of Seattle Proposed 2016-2021 Capital Improvement Program. Commitment of construction funds is anticipated in 2016, with adoption of the City of Seattle 2017 Budget. City of Seattle municipal bonds are backed by the full faith and credit of the City, and the City enjoys a AAA General Obligation bond rating from Standard & Poor’s Ratings Services. Although the City’s general obligation bonds are backed by the City’s General Fund revenues, the City expects to identify net revenues to the City, anticipated from a pending request for proposals for an on-street advertising program, as the primary source of additional General Fund revenues that will justify issuing the municipal bonds to support the project. $58,923,020.

- **Municipal Utility Reimbursements.** The City of Seattle coordinates capital improvements in the public right-of-way among its Department of Transportation and City-owned municipal utilities. The municipal utilities are encouraged to complete planned asset replacements and upgrades in corridors that are planned for significant transportation improvements, and to provide funding so that these utility betterments can be completed with construction of the transportation improvement. Through this coordination process, City utilities have identified betterments to be included in the project scope and plan.
to provide $31,727,780 in Project funding. A portion of these funds may be appropriated in 2016 as part of the City’s quarterly supplemental budget process, if the City determines that it would be advantageous to begin utility relocation.

The City’s operating funding plan is summarized in Figure 3-1 above. The Center City Connector segment will operate as part of the Seattle Streetcar system. Existing revenue streams from intergovernmental agreements, farebox revenues, sponsorships and grant funds will be augmented by the additional farebox revenues generated by connecting and extending the existing streetcar lines. The operating funding plan is conservative in that it includes an operating cost contingency of 10%, farebox revenue projected at 75% of forecast, and a projected operating surplus of 10%. Total contingencies of in cost and revenue are therefore 45% of the projected operating cost. The City has the significant resources of its Transportation Operating Fund (projected $307 M in 2018) as an additional backstop.

3.3.2 Streamlined Financial Evaluation

The City of Seattle, through its Department of Transportation is eligible for a streamlined financial evaluation of the Center City Connector project based on:

- A reasonable plan to secure funding for local capital costs, as detailed above.
- The additional projected operating & maintenance cost for the Seattle Streetcar System including the Center City Connector ($5,680,000) is less than 2% of the agency operating budget of $307,476,000 (2018 Projected). This is below the maximum 5% threshold to be eligible for the streamlined evaluation.
- The City of Seattle is in good financial condition, as demonstrated by the three years of audited financial statements (2012 – 2014), included as supporting documentation. For more information, see the City’s Comprehensive Annual Financial Reports at [http://www.seattle.gov/financial-services/comprehensive-annual-financial-report](http://www.seattle.gov/financial-services/comprehensive-annual-financial-report) (also included in supporting documentation).

3.4 SUPPORTING DOCUMENTATION

The following are provided on the flash drive containing supporting project documentation. Hyperlinks are also provided below.


Previously appropriated funds as well as future funds are identified in the City of Seattle 2015 Adopted and 2016 Endorsed Capital Improvement Program at: [http://www.seattle.gov/financedepartment/1520adoptedcip/default.htm](http://www.seattle.gov/financedepartment/1520adoptedcip/default.htm)