PORTLAND • TIGARD • TUALATIN
SW Corridor
Light Rail Project

Attachment G
to the Scoping Booklet

Marquam Hill Connection Options for Scoping

September 1, 2016

Overview

The Southwest Corridor Light Rail Project is a proposed 12-mile Metropolitan Area Express (MAX) light rail line connecting Southwest Portland, Tigard and Tualatin. After several years of early planning and refinement, project partners have compiled a package of investments proposed for federal environmental review, known as the "proposed range of alternatives." The proposed range of alternatives includes options for the light rail line itself, as well as complementary investments such as sidewalks or bikeways that would improve access to the line. Public and agency input on the proposed range of alternatives will be solicited during the "scoping" period in September 2016. To learn more and to share your comments, visit the project website at www.swcorridorplan.org.

The purpose of this document is to provide additional information on the concepts that have been developed for a mechanized pedestrian and bicycle connection between a proposed light rail station on either SW Barbur Boulevard or SW Naito Parkway near SW Gibbs Street and the Marquam Hill medical campuses, including Oregon Health & Science University (OHSU), the Veterans Affairs Portland Health Care System (VA) and the Shriners Hospital for Children. This connection is included in the proposed range of alternatives, but requires further refinement before the environmental analysis can be completed.

A **scoping survey** is available on the project website to gather public input regarding the range of alternatives, including Marquam Hill connection options. Specifically, input is requested on:

- What are the most important factors for decision makers to consider when choosing the Marquam Hill connection options(s) to study in the DEIS?
- Is there another connection option to Marquam Hill that should be studied?

Background and context

A direct light rail tunnel connection to Marquam Hill was removed from further study by the Southwest Corridor Steering Committee in July 2015 because of the adverse construction impacts and high costs relative to the projected ridership gains. As a result, the connection between the light rail alignment and the major employment, health and educational center of Marquam Hill will be provided by an accessible pedestrian and bicycle connection. Because of the elevation difference between Marquam Hill and the proposed light rail station, this connection will be mechanized.

The Marquam Hill connection will be linked to a proposed light rail station in the Lair Hill neighborhood on either Barbur Boulevard or Naito Parkway. Because the Lair Hill neighborhood is separated from Marquam Hill and South Waterfront by both geography and past transportation projects, connecting the proposed light rail line station with these destinations must overcome access barriers. Recent completion of the Darlene Hooley Pedestrian Bridge at Gibbs Street has created a direct connection between Lair Hill and the South Waterfront. As a result, the Lair Hill station is proposed for the vicinity of Gibbs Street to provide the best connection to the South Waterfront, and the proposed Marquam Hill connection concepts focus on the intersection of Gibbs Street and Barbur Boulevard. In addition to the Marquam Hill connection, the light rail project would provide bicycle and pedestrian improvements to connect Barbur Boulevard and Naito Parkway along Gibbs Street.

On Marquam Hill, the desired connection point is the common ninth floor circulation level that allows access to most buildings on the OHSU, VA and Shriners campuses. The OHSU Kohler Pavilion has been identified as an opportunity to make the desired connection because it has a bank of three elevators that connect to the ninth floor. The site of the former School of Dentistry has also been identified as an opportunity for a connection, though a future building has not yet been envisioned for that site.

Concept development

In the fall of 2014, two design teams developed a variety of Marquam Hill connection concepts with input from project partners and interested stakeholders, including OHSU, the VA, City of Portland staff, the South Portland Neighborhood Association, the Homestead Neighborhood Association, Friends of Terwilliger and the Southwest Corridor Steering Committee. The five concepts use a variety of tunnels, escalators, elevators and walkways to provide a connection between Barbur Boulevard, SW Terwilliger Parkway and the ninth floor circulation of the medical campuses on Marquam Hill. Concepts developed aspired to be "financially and structurally feasible" while meeting requirements of the Americans with Disabilities Act (ADA) for access.

Next steps

Public input on the Marquam Hill connection options will be reviewed by project partner staff, and will inform staff's recommendation on which options to study further in the Draft EIS. See the *Scoping Booklet* (available on the project website) for information on how to submit public input before the close of scoping on October 2, 2016.

Connection concepts

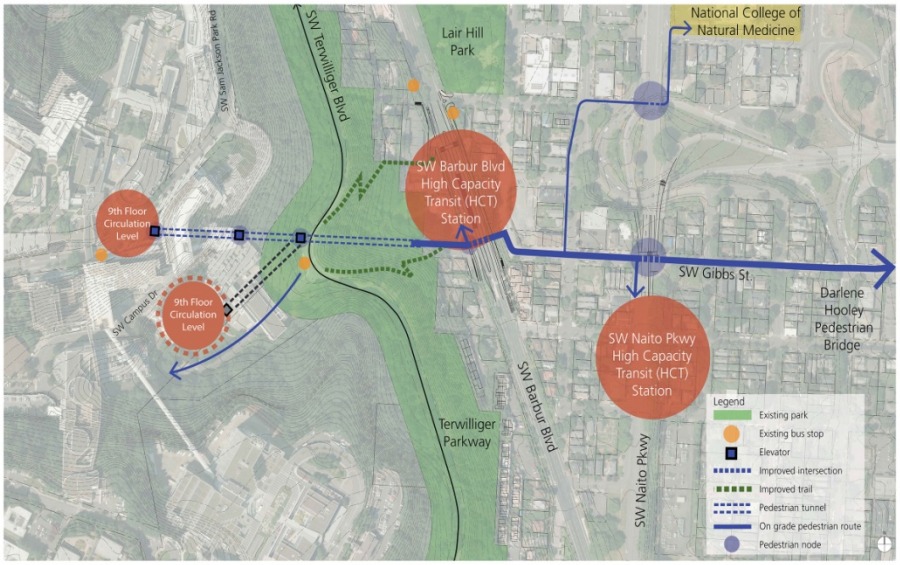
Five different connection concepts were developed, which are described in more detail with the associated visuals on the following pages.

1. Pedestrian tunnel with elevators
2. Embedded escalator, elevator and bridge
3. Escalator and inclined elevator
4. Elevator and bridge ("skybridge")
5. Elevator and bridge ("tree top walk")

1. Pedestrian tunnel with elevators

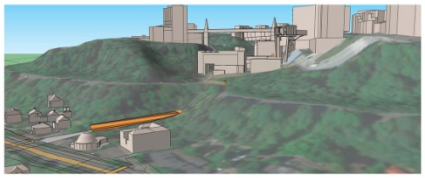
This concept is a pedestrian tunnel starting near Gibbs Street to the west of Barbur Boulevard and extending under Terwilliger Parkway and Marquam Hill. At least two elevator cores would connect to the tunnel, with one serving Terwilliger Parkway and a second serving either SW Campus Drive near the east side of the Kohler Pavilion or near the former School of Dentistry site. A third elevator core could extend deeper into the campus to the west side of the Kohler Pavilion.

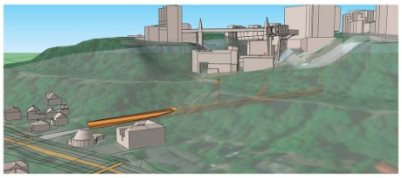
Concept A - Tunnel with elevators provide direct access



SW Corridor Connector Objectives

1. Provide 24 hour pedestrian access to OHSU & Terwilliger Parkway from Naito & Barbur.
2. Provide universal accessibility & reliable facilities.
3. Provide safety & security in all connection and modes.
4. Preserve & protect Terwilliger Parkway & views.
5. Select a type of connection that can grow with future ridership.
6. Offer alternative routes.
7. Design beautiful, human-scale connections.
8. Provide a connection to the 'heart' of OHSU.
9. Minimize vehicular & pedestrian conflict.





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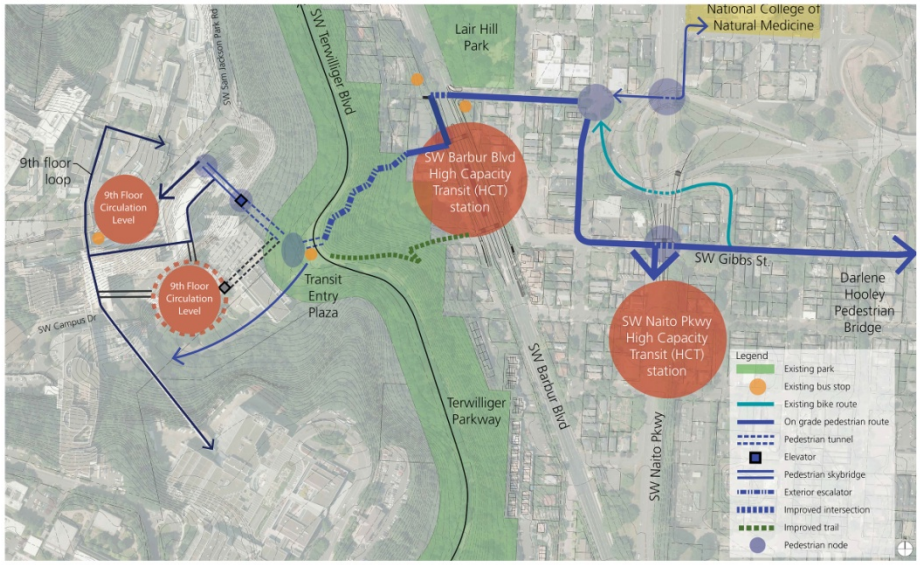
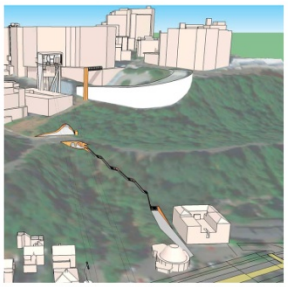
2. Embedded escalator, elevator and bridge

This concept is an escalator embedded into the hillside with a weather-protected green roof cantilevered over the escalator. The escalator would cross the hillside between Barbur and Terwilliger near Gibbs Street or Woods Street west of Barbur. Once reaching Terwilliger, a short tunnel would extend either under Terwilliger toward SW Campus Drive near the Kohler Pavilion or the old School of Dentistry site. The tunnel would terminate in an elevator core rising to either the level of Campus Drive or higher to the seventh floor of the Kohler Pavilion or the ninth floor common circulation level.

Concept B - Embedded escalator, elevator & bridge provide multiple connections





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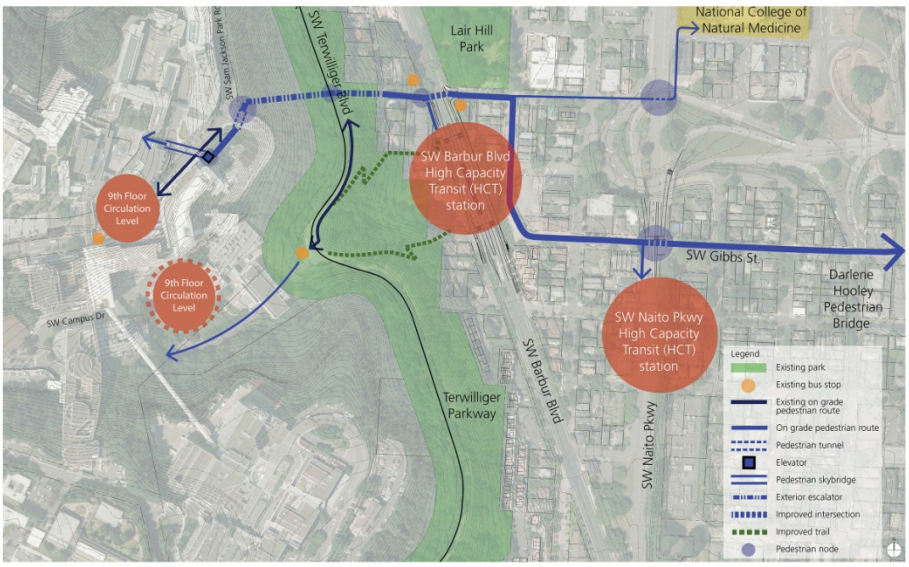
3. Escalator and inclined elevator

This concept is a covered escalator combined with an inclined elevator along a historic trail alignment, starting near Woods Street west of Barbur. The concept would include an at-grade crossing of Terwilliger Parkway and a second escalator/inclined elevator running from Terwilliger to the intersection of SW Sam Jackson Park Road and Campus Drive. A short tunnel would pass under Campus drive to connect to the courtyard area east of the Kohler Pavilion.

Concept C - Escalator up historic trail connects parks and campuses



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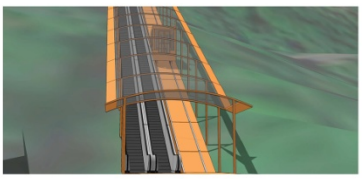

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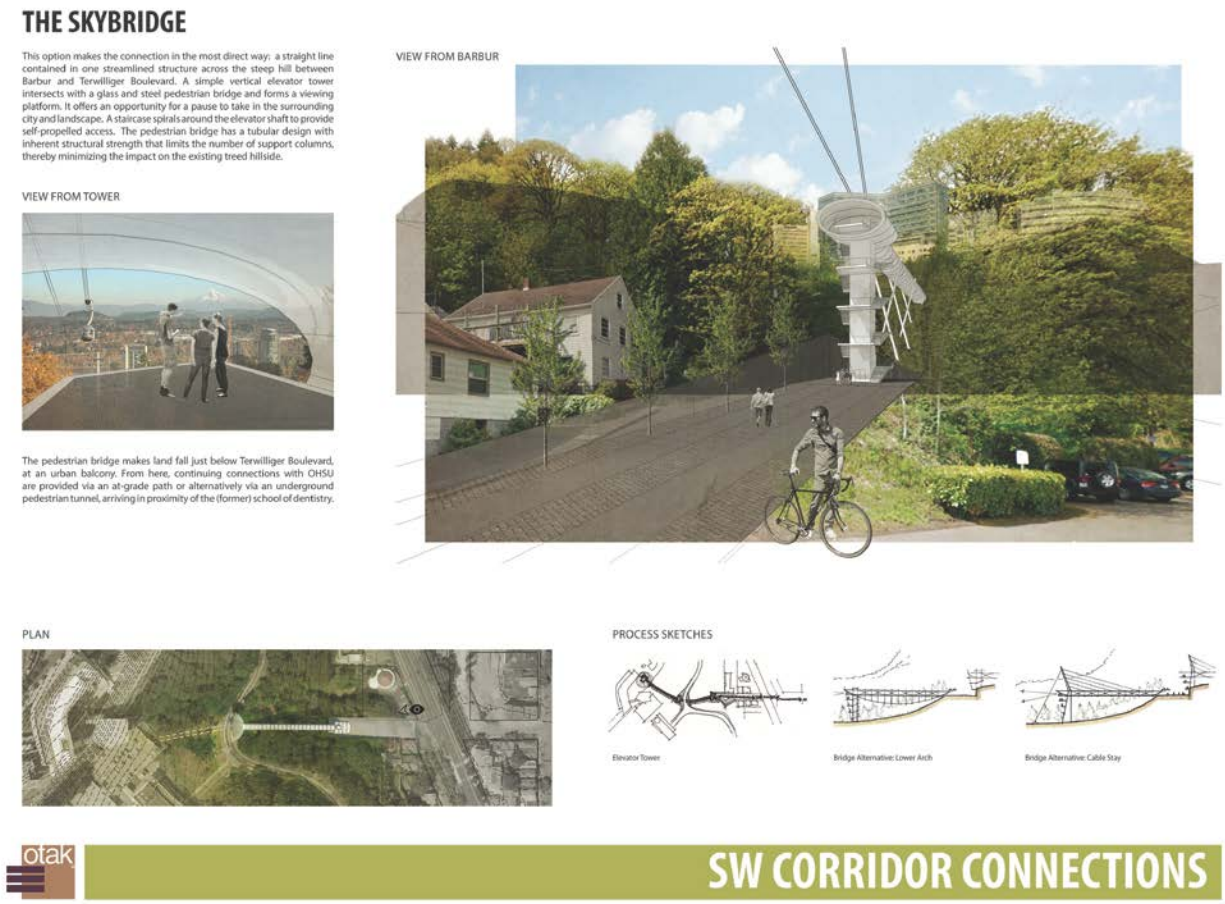
4. Elevator and bridge ("skybridge")

This concept would provide a straight line connection contained in one structure across the steep hill between Barbur Boulevard and Terwilliger Boulevard starting in the Gibbs Street right-of-way at Barbur. An elevator tower would intersect with a pedestrian bridge and form a viewing platform. A staircase would spiral around the elevator shaft to provide self-propelled access. The pedestrian bridge could have a tubular design to limit the number of support columns, thereby minimizing the impact on the existing treed hillside. The pedestrian bridge would arrive just below Terwilliger Boulevard at an urban balcony. From there, connections with OHSU would be provided via an at-grade path or an underground pedestrian tunnel, arriving near the former School of Dentistry site or at the edge of the Kohler Pavilion.



5. Elevator and bridge ("tree top walk")

This concept is an elevator connecting to a level walkway above the hillside. A pathway would extend west of Barbur at Gibbs Street to diagonally follow the grade, and then arrive at a triangular plaza near the base of the slope. From there, a simple elevator tower would travel up to an elliptical pedestrian bridge floating between the trees. The bridge would be structurally supported by the elevator tower and three bridgeheads along Terwilliger Boulevard, thus eliminating the need for vertical supports and disruptions of the hillside. The three bridgeheads would offer distinct connections to the sidewalk, maximizing route choice between origins/destinations and the bridge. A new plaza would be carved out directly northwest of Terwilliger and Campus Drive, connecting to the corner of the existing parking structure where a new elevator near the Kohler Pavilion and Campus Drive would provide further vertical access onto Marquam Hill.