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Southwest Corridor Plan

Summary of options to improve transit access to PCC Sylvania

January 7, 2016

Overview

There are several options currently under consideration for improving transit service to the PCC Sylvania campus. High capacity transit could connect directly to the PCC Sylvania campus via Capitol Highway or an underground transit tunnel, or could remain on Barbur Blvd. If high capacity transit remains on Barbur Blvd there are several options for utilizing a high capacity transit investment to improve transit service to the campus.

Options include:

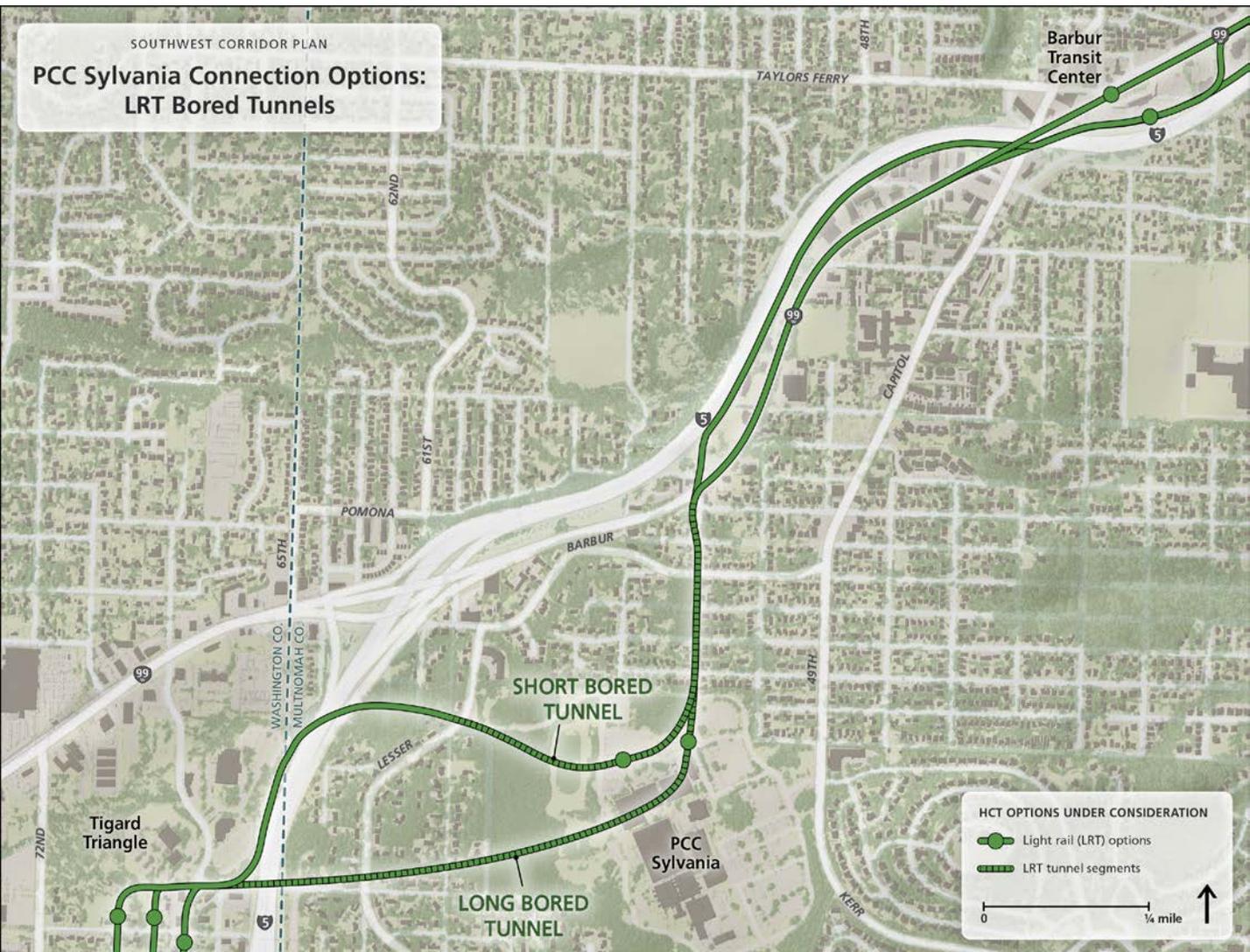
- Light rail cut-and-cover tunnel directly to PCC Sylvania campus
- Light rail bored tunnel directly to PCC Sylvania campus
- Bus rapid transit on Capitol Hwy with station on PCC Sylvania campus
- Bus rapid transit on Barbur Blvd + SW 53rd Ave walk/bike connection to campus
- Light rail on Barbur Blvd + SW 53rd Ave walk/bike connection to campus. This could be accompanied by one of the following:
 - aerial tram from Barbur to campus
 - “branded” bus routes that would include all day frequent service, use of the light rail transitway on Barbur, signal prioritization and special signage
 - local bus hub on PCC Sylvania campus with buses timed at light rail arrivals, a busway on campus, a bus-only bridge across I-5 and use of the light rail transitway in central Tigard

The information in this summary is derived from reports previously published by project staff and available on the project library (www.swcorridorplan.org) and via the links below.

- [Key Issues memo: PCC Sylvania area](#) (4/13/15, updated 5/4/15). Describes the alignment options for bus rapid transit and light rail in and around campus. *Note that some information has become outdated; e.g. the Key Issues memo only analyzes a cut and cover tunnel option, whereas bored tunnel options are now under consideration.*
- [PCC Sylvania Light Rail Connection Options technical memo](#) (8/14/15). Reports on further investigation of ways to reduce tunnel impacts, costs and risks while maintaining or improving performance. Introduces the bored tunnel approach as an option and initial concepts for improved connection between a station on Barbur Blvd and the campus.
- [PCC Sylvania Enhanced Connection Options technical memo](#) (12/31/15). Describes alternative connection options that could augment an HCT alignment remaining on Barbur Boulevard or adjacent to I-5

In February 2016 the project steering committee will consider which connection options are most promising for further study and whether any light rail tunnel to the campus will continue to be studied.

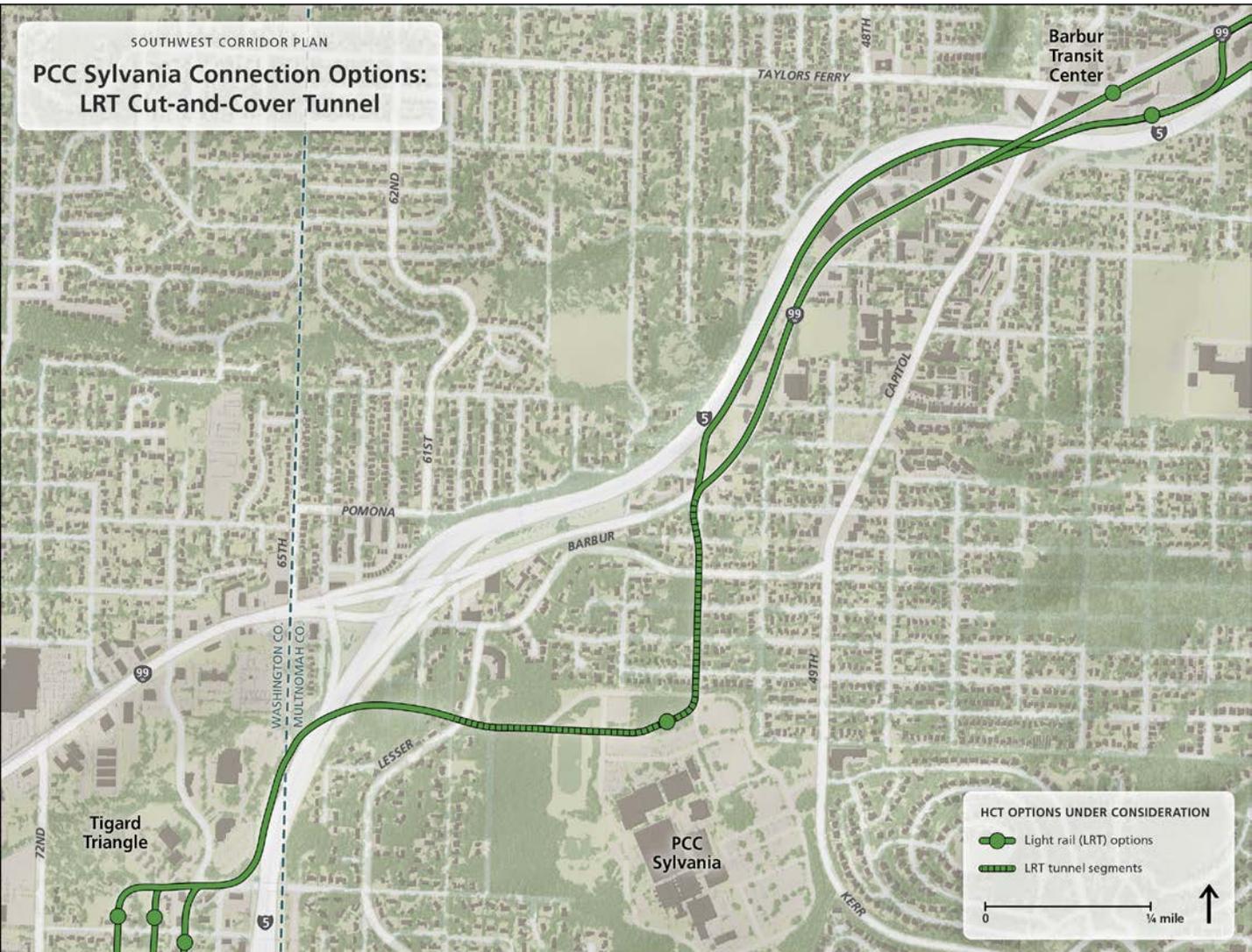
Light rail to campus via bored tunnel options



To serve PCC Sylvania campus directly with light rail (MAX) requires construction of an underground transit tunnel due to steep grades. A short bored tunnel would depart Barbur Blvd at a tunnel portal near SW 53rd Ave and exit at a portal near Lesser Road, with a bridge over I-5 connecting to the Tigard Triangle. A long bored tunnel would begin at the same location, travel under I-5 and exit in the Tigard Triangle.

- An underground station would serve PCC Sylvania near the northern edge of campus.
- The long bored tunnel option would have a shorter travel time and may cost less to construct compared to a cut-and-cover tunnel.
- Both bored tunnel options would result in higher ridership, but slower travel times compared to a Barbur light rail alignment, and significantly higher construction costs.
- A bored tunnel would have a shorter duration of construction and a reduced level of community impacts (fewer property displacements and traffic impacts) than a cut-and-cover tunnel. It would still have significant community impacts and construction risk.

Light rail to campus via cut-and-cover tunnel



This was the tunnel alignment considered by the Southwest Corridor Steering Committee in June 2015. A cut-and-cover tunnel would depart from Barbur Blvd, begin at a tunnel portal near SW 53rd Ave and exit through a portal near Lesser Road.

- An underground station would serve PCC Sylvania near the northern edge of campus.
- This option increases ridership and a slightly slower travel time compared to a Barbur light rail alignment; yet also significantly increases project costs.
- This option significantly increases construction risks and impacts including residential displacements, traffic disruption during construction, and complexities of the tunnel design and construction.
- Cut-and-cover tunnel construction involves excavating a trench and then covering up the transit tracks after construction.

Bus rapid transit to PCC campus via Capitol



This alignment is only being considered for bus rapid transit due to the steep slopes around the PCC campus that prohibit light rail operation. The route would depart Barbur Blvd and run in the center of Capitol Hwy and 49th Ave to the PCC Sylvania campus. Bus rapid transit would travel west through the campus to a new bridge structure stretching from Lesser Road across I-5 to the Tigard Triangle.

- The option could include conversion of one auto lane on Capitol Hwy in each direction for exclusive bus rapid transit use to limit impacts to adjacent properties, or not converting auto lanes with transit running in mixed traffic.
- A new bridge over I-5 could include bike and pedestrian facilities to provide a safe connection for those modes between PCC and the Tigard Triangle.

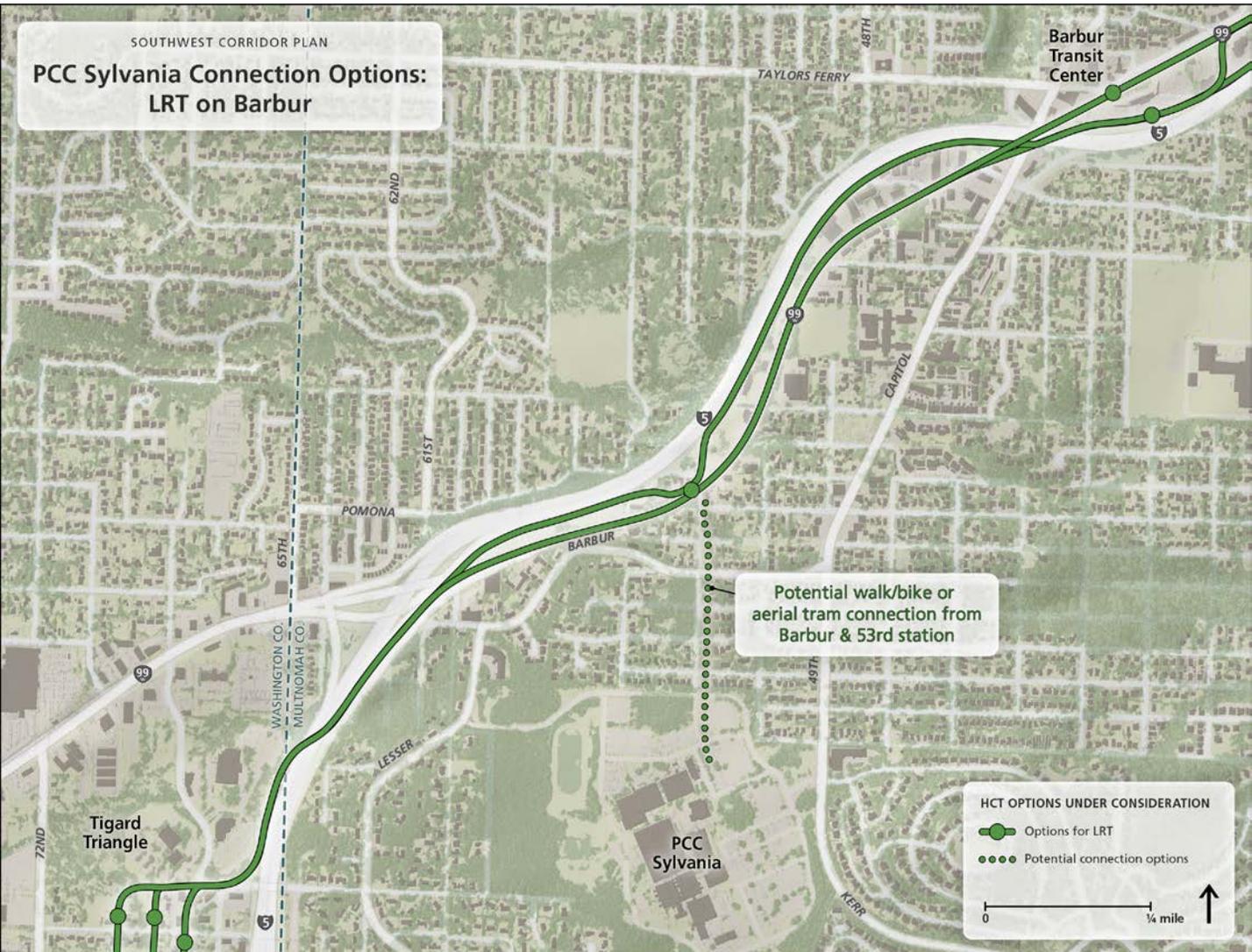
Bus rapid transit on Barbur + walk/bike connection



If bus rapid transit runs on or adjacent to Barbur Blvd between Capitol Highway and Tigard, a station will be located near SW 53rd Avenue. SW 53rd Ave is an unimproved local roadway north of campus that provides the shortest access to Barbur and is used informally as a route for pedestrians and bicyclists to travel to PCC Sylvania. Investment would be necessary to create a walkable and bikeable connection usable to the general public.

- The distance from Barbur/53rd to campus is approximately ½ mile with somewhat steep grades and limited paving and sidewalks.
- Improvements would include new bike lanes and sidewalks, lighting, safety and storm water management features; auto access would be maintained.
- Initial concepts for this walk/bike connection have been developed and would be refined into preliminary designs during the environmental review phase.
- This option is unlikely to be accompanied by additional connection options such as an aerial tram or enhanced bus service; a direct BRT connection to campus would cost less than those options.

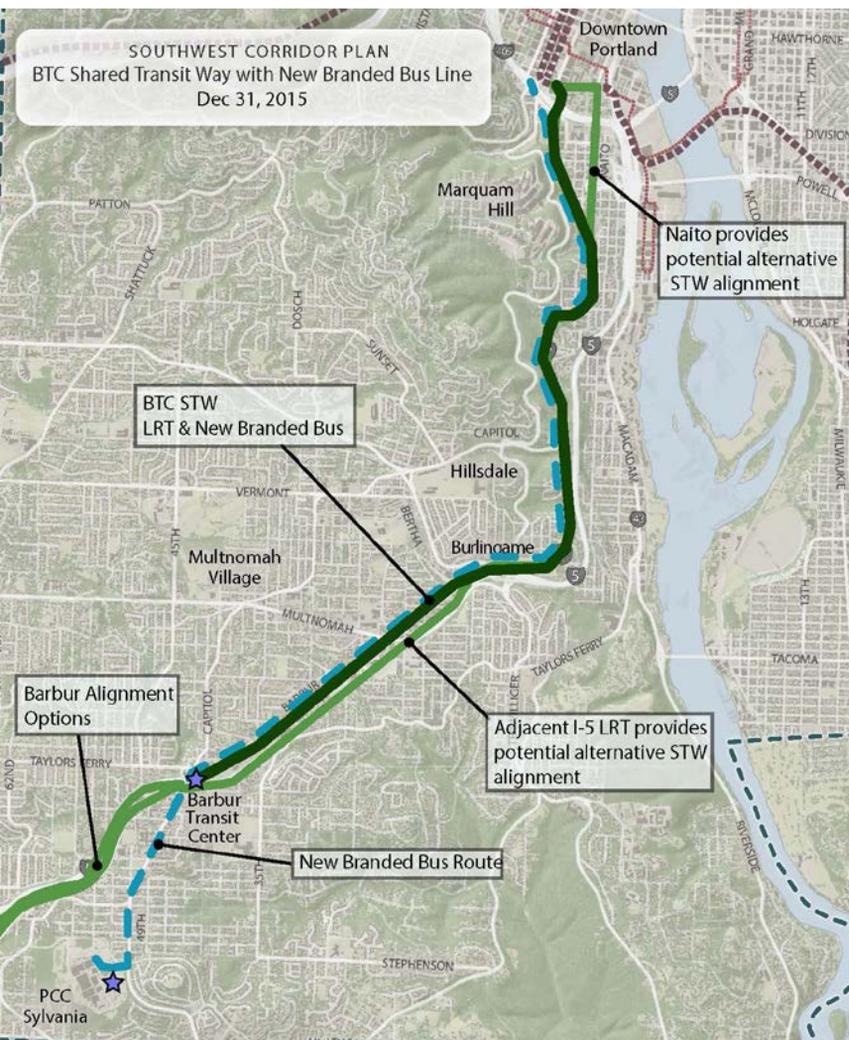
Light rail on Barbur + walk/bike connection



If light rail runs on or adjacent to Barbur Blvd between Capitol Highway and Tigard, a station will be located near SW 53rd Avenue. SW 53rd Ave is an unimproved local roadway north of campus that provides the shortest access to Barbur and is used informally as a route for pedestrians and bicyclists to travel to PCC Sylvania. Investment would be necessary to create a walkable and bikeable connection usable to the general public.

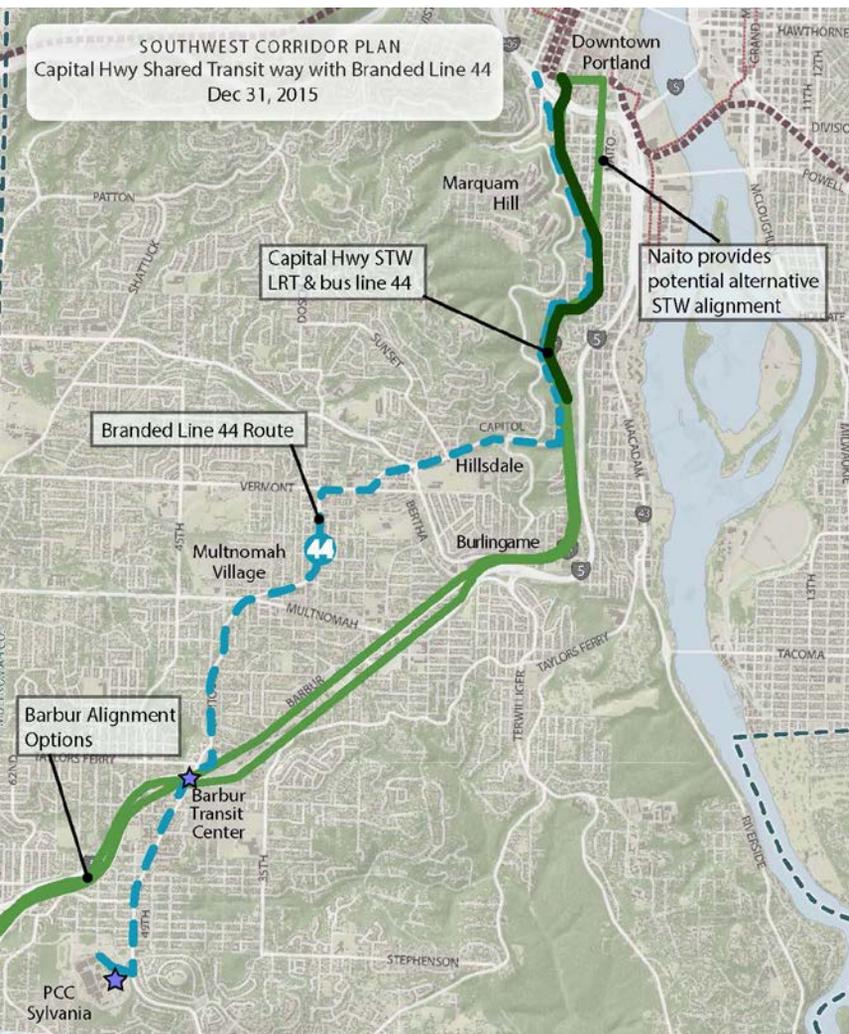
- The distance from Barbur/53rd to campus is approximately ½ mile with somewhat steep grades and limited paving and sidewalks.
- Improvements would include new bike lanes and sidewalks, lighting, safety and storm water management features; auto access would be maintained.
- Initial concepts for this walk/bike connection have been developed and would be refined into preliminary designs during the environmental review phase.
- This option could be accompanied by an aerial tram to connect a HCT stop on Barbur to campus.

Light rail on Barbur Blvd + new “branded” bus line to PCC Sylvania on shared transitway



- This route would include additional treatments for the buses and stops (“branding”) to distinguish the line from other frequent service routes.
- This new bus line would run on the light rail transitway from downtown Portland to the Barbur Transit Center, then continue in mixed traffic on Capitol Hwy to PCC Sylvania.
- The route could have five stops in the shared transitway section and three stops in the mixed traffic portion south of Barbur Transit Center.
- When on the shared transitway, the branded line would utilize transit signal improvements to enhance travel times and reliability.
- To share the transitway, longer and wider station platforms are required to accommodate buses, which increases property impacts and capital costs.
- The branded line could terminate at PCC Sylvania or extend to the Tigard Transit Center.
- Projected to improve travel times by approximately 2-3 minutes over the existing 44 line and increase bus ridership by 4,000 new system boardings per week.
- This option would also include new walk/bike improvements on SW 53rd Ave to connect light rail with campus.

Light rail on Barbur Blvd + “branded” line #44 to PCC Sylvania on shared transitway



- Under this option the existing line 44 route would be upgraded to frequent service (15 minutes or better all day) and have access to the light rail transitway between downtown Portland and Hillsdale.
- The route would include additional treatments for the buses and stops (“branding”) to distinguish the line from other frequent service routes.
- The route could have two stops in the shared transitway section and approximately eight stops in the mixed traffic portion.
- When on the shared transitway, the 44 line would utilize transit signal improvements to enhance travel times and reliability.
- To share the transitway, longer and wider station platforms are required to accommodate buses, which increases property impacts and capital costs.
- Possible terminus options for the branded 44 line include PCC Sylvania, Bridgeport Village and the Tigard Transit Center.
- Projected to improve travel times for the line 44 by 3-4 minutes . Future ridership has not yet been modeled.
- This option would also include new walk/bike improvements on SW 53rd Ave to connect light rail with campus.

Light rail on Barbur Blvd + PCC Sylvania bus hub with shared transitway



- This option would connect PCC Sylvania with communities to the north, south, east and west by extending a combination of existing local buses to create a bus hub on the campus and share a portion of light rail transitway west of I-5.
- Buses would connect with each incoming light rail vehicle at Barbur Transit Center.
- A busway could connect SW 49th Ave to Lesser Road to provide a designated path through campus and a central location for buses.
- A bus-only bridge would connect the PCC busway to the light rail transitway west of I-5.
- If the light rail alignment in Tigard constructs a new OR-217 crossing at Beveland Street, buses connecting to PCC could use it for additional time savings.
- Bus lines that could serve a PCC Sylvania bus hub include the 44, 78, 93 and new line 97; another combination of lines could be used. Changes to the route or level of service to any existing lines would require extensive community outreach and input.
- This option would also include new walk/bike improvements on SW 53rd Ave to connect light rail with campus.