Southwest Corridor Plan

Key Issues: South Portland

Executive Summary, March 2, 2015

Updated May 4, 2015

The Southwest Corridor Plan is a comprehensive approach to achieving community visions through integrated land use and transportation planning. The Southwest Corridor Plan incorporates high capacity transit (light rail or bus rapid transit) alternatives with roadway, bike and pedestrian projects and adopted local land use visions. These include the Barbur Concept Plan, the Tigard High Capacity Transit Land Use Plan, Linking Tualatin and the Sherwood Town Center Plan. The plan is exploring bus rapid transit and light rail alternatives for several alignments that connect downtown Portland, Southwest Portland, Tigard and Tualatin.

In July 2013, the Southwest Corridor Plan Steering Committee recommended a Shared Investment Strategy that includes key investments in transit, roadways, bikeways, sidewalks, parks, trails and natural areas. A refinement study was initiated in August 2013 to narrow high capacity transit options, identify a preferred alternative and create a subset of roadway, bike and pedestrian projects. In June 2014, the steering committee accepted the recommendation of a narrowed set of design options and requested additional refinement work from staff.

From March through spring 2016, the steering committee will discuss technical findings and community input to develop a Preferred Package of transportation investments to support community livability. The Preferred Package will be defined in spring 2016 and include:

- **High Capacity Transit Preferred Alternative**
  Preferred alignments, mode, terminus and associated roadway, bike and pedestrian projects to receive further environmental review through a Draft Environmental Impact Statement

What is a Southwest Corridor Key Issues memo?

The Southwest Corridor project partners are taking a place-based approach to understanding the key issues as they relate to local concerns and community aspirations. The South Portland Key Issues memo is part of a series of memos and technical information on key places throughout the corridor that the public and steering committee can review before giving input and making recommendations on major project decisions.

The full South Portland Key Issues memo is available at www.swcorridorplan.org and includes an overview of the decision-making process, description of the three proposed high capacity transit alignments to serve South Portland, summary of technical information and description of key issues for decision-makers and the public to consider. Appendices contain supplemental information including maps and project lists of Shared Investment Strategy roadway, bike and pedestrian projects being considered for the South Portland area, a discussion of general transit mode considerations, and maps highlighting demographic factors in the study area.

A summary of stakeholder feedback and findings from additional technical analysis will be incorporated into a draft recommendation document that will be available prior to the July 2015 steering committee decision.

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- **Corridor Connections** Roadway, bike and pedestrian projects identified in the Shared Investment Strategy with associated potential funding sources and timeframes
- **Land use and development strategy** Partnership agreements and other pre-development work to activate land use and place-making strategies identified in local land use visions.

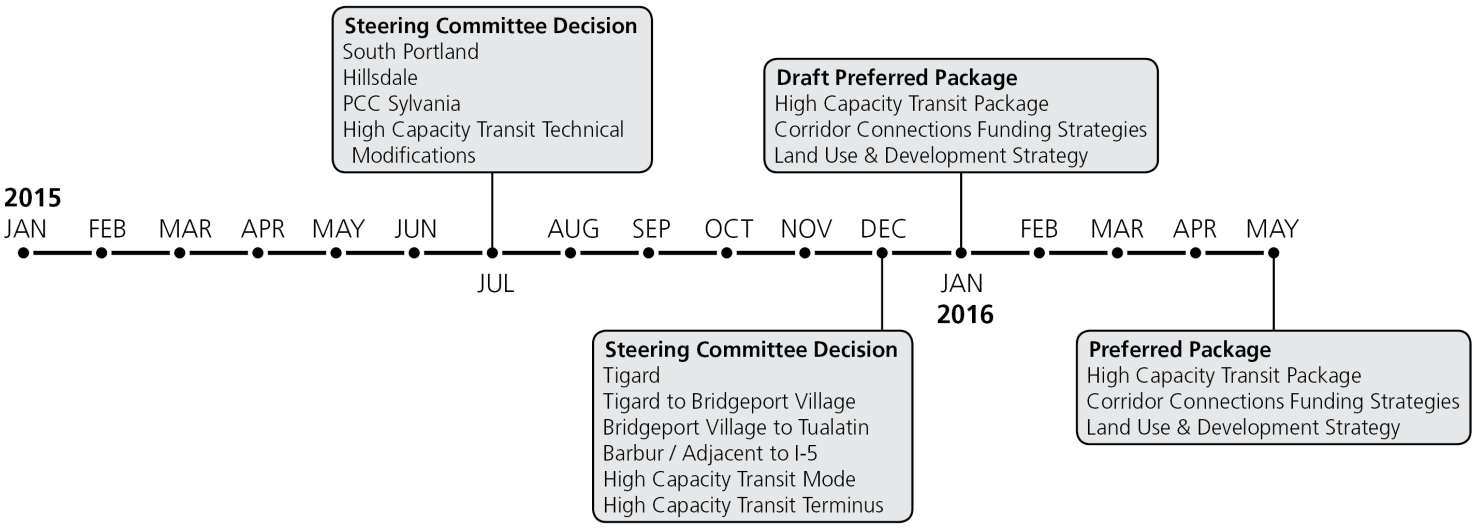
Defining a Preferred Package

To reach a Preferred Package by spring 2016, there are two key steering committee decision-making points in 2015.

In July 2015, the Southwest Corridor Plan Steering Committee will be asked to make a decision on which of the proposed high capacity transit alignment choices serving the South Portland, Hillsdale and PCC Sylvania areas will advance to further environmental review that could begin in late 2016.

While some distinctions between the Barbur Boulevard and Naito Parkway options are described in the full Key Issues memo, a decision between the two will require further detailed analysis that will be performed as part of the Draft Environmental Impact Statement. As a result, both surface alignmentsin South Portland, as well as local circulation options in the Ross Island bridgehead area will continue to be studied beyond July 2015. The South Portland Key Issues memo focuses on the substantial tradeoffs between a tunnel option and the two surface options so that the public and decision-makers can be confident that all options that will enter the Draft Environmental Impact Statement are viable and aligned with project goals. Technical analysis, place-based outreach and partner conversations will precede each steering committee discussion.

Steering Committee decisions



July 2015: Major decisions for South Portland

- Should the Marquam Hill-Hillsdale tunnel be studied in the Draft Environmental Impact Statement?

The December steering committee decision will focus on the remaining alignment and terminus options as well as a high capacity transit mode decision between light rail and bus rapid transit.

December 2015: Major decisions for South Portland

- Is bus rapid transit or light rail the preferred mode to be studied in the Draft Environment Impact Statement?
- What is the best implementation approach for roadway, bike and pedestrian projects that are not included as part of the high capacity transit project but are defined in the Shared Investment Strategy in South Portland?

In January 2016, the steering committee will identify a draft Preferred Package, including high capacity transit mode, alignment options, terminus options, and associated roadway, bike and pedestrian projects for further study in a Draft Envrionmental Impact Statement anticipated to begin as early as late 2016 pending steering committee direction. The Preferred Package will also include a funding strategy for additional priority roadway, bike and pedestrian projects throughout the corridor and integrated land use and development strategies.

Draft Environmental Impact Statement (anticipated completion in 2017): Major decisions for South Portland

- Is Naito Parkway or Barbur Boulevard the preferred surface alignment in South Portland?
- If the Marquam Hill-Hillsdale tunnel is studied in the Draft Environmental Impact Statement, will the tunnel or the surface alignment be selected?

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South Portland findings

Deliberation and decision-making will be driven by how well each element of the proposed project meets the Southwest Corridor Plan overarching goals, including improved mobility and safety for all users and modes of transportation, efficient and reliable transportation choices, wise use of public resources, improved access to key places and equitable distribution of the benefits and burdens of transportation and land use development.

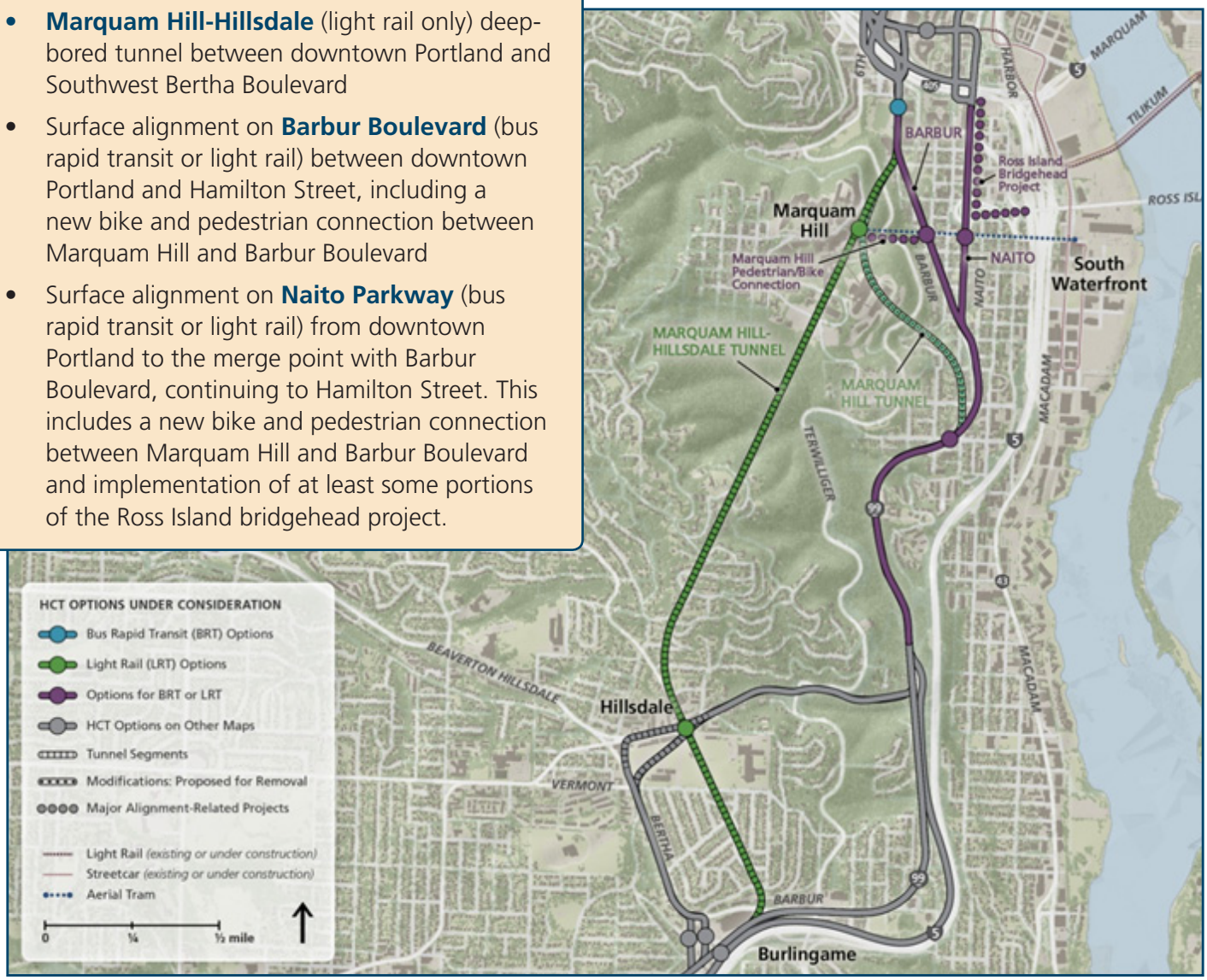
The South Portland area encompasses the portion of the Southwest Corridor between the Portland Transit Mall and Southwest Hamilton Street, but also includes a high capacity transit tunnel alignment option that extends to the Hillsdale and Burlingame areas. The South Portland Key Issues memo focuses on the following three options under consideration for the South Portland area:

- **Marquam Hill-Hillsdale** (light rail only) deep-bored tunnel between downtown Portland and Southwest Bertha Boulevard
- Surface alignment on **Barbur Boulevard** (bus rapid transit or light rail) between downtown Portland and Hamilton Street, including a new bike and pedestrian connection between Marquam Hill and Barbur Boulevard
- Surface alignment on **Naito Parkway** (bus rapid transit or light rail) from downtown Portland to the merge point with Barbur Boulevard, continuing to Hamilton Street. This includes a new bike and pedestrian connection between Marquam Hill and Barbur Boulevard and implementation of at least some portions of the Ross Island bridgehead project.

The following South Portland Key Issues table highlights data collected through technical analysis, community knowledge and discussions with partners that will influence this decision, including:

- **transit performance** ridership, travel time, reliability
- **community development** station access, redevelopment opportunities
- **mobility** connectivity, freight movement, safety, traffic, bike and pedestrian access
- **cost:** initial capital cost estimates
- **engineering complexity and risk** construction impacts, engineering risks
- **community impacts** distribution of benefits and burdens, property impacts.

A full copy of the South Portland Key Issues memo and appendices is available at www.swcorridorplan.org.



South Portland summary

The following table summarizes evaluation factors, key considerations, and analysis results for consideration in the South Portland area.

Key considerations	Evaluation factors	Marquam Hill-Hillsdale Tunnel (LRT)	Surface Alignments	
			Barbur	Naito
Transit Performance • How would a Marquam Hill-Hillsdale tunnel alignment perform relative to a surface alignment? • Do the performance differences justify the higher capital costs, complexity, and risk associated with a tunnel? • How would an HCT project affect Marquam Hill transit and auto usage?	*2035 new transit trips*	New Transit Trips: 16,900	New Transit Trips: • 15,700 (LRT) • 8,400 (BRT-estimated)	New Transit Trips: • 15,700 (LRT) • 8,400 (BRT)
	2035 line riders	Line riders: 52,400 *(High number of bus transfers to LRT in Hillsdale results in high line ridership relative to new transit trips)*	Line riders: • 44,100 (LRT) • 31,200 (BRT-estimated)	Line riders: • 43,500 (LRT) • 30,800 (BRT)
	Travel time (PSU to Tualatin)	Travel Time: 29 minutes	Travel Time: • 30 minutes (LRT) • 33 minutes (BRT-estimated)	Travel Time: • 31 minutes (LRT) • 34 minutes (BRT)
	2035 Marquam Hill station usage and auto volume impacts	• Increases Marquam Hill transit ons & offs by 28% • Daily auto volumes on streets providing access to Marquam Hill would decline by 3%	• Increases Marquam Hill transit ons & offs by 14% (with LRT) • Daily auto volumes on streets providing access to Marquam Hill would decline by 2% (with LRT)	• Increases Marquam Hill transit ons & offs by 14% (with LRT) • Daily auto volumes on streets providing access to Marquam Hill expected to decline similar to Barbur alignment
Community Development • Do surface or tunnel alignments offer the most desirable redevelopment opportunities for communities in South Portland? • Can effective bicycle and pedestrian connections be developed so that a surface alignment can provide a good connection for transit riders to Marquam Hill?	*Access*	• Direct access to Marquam Hill • No connection between Lair Hill and Marquam Hill • No direct station access to South Waterfront (access via tram) • Includes sidewalk/bike improvements to access station	• Indirect access to Marquam Hill (via new pedestrian connection) • Potential stations at Hamilton and Gibbs in Lair Hill/South Portland • Walk access to South Waterfront via Gibbs St ped bridge • Includes sidewalk/bike improvements along Barbur and to access stations	• Indirect access to Marquam Hill (via new pedestrian connection) • Potential stations at Hamilton and Gibbs in Lair Hill/South Portland • Walk access to South Waterfront via Gibbs St ped bridge • Transforms the remnant expressway on this stretch of Naito into an urban boulevard with multimodal access to the HCT station
	Redevelopment potential	Redevelopment potential near stations	Some redevelopment potential along Barbur	Most redevelopment potential, including on land that could become available with Ross Island Bridgehead reconfiguration
	Support of local land use plans			Supports Barbur Concept Plan

Discussion Draft: South Portland Key Issues – updated 5/4/15

Key considerations	Evaluation factors	Marquam Hill-Hillsdale Tunnel (LRT)	Surface Alignments	
			Barbur	Naito
Mobility • Can high capacity transit be designed to minimize negative impacts to auto, freight, bicycle and pedestrian mobility and access? • Do surface or tunnel alignments offer more opportunities to improve safety for all users? • Can surface alignments on Naito or Barbur be designed to avoid creating a barrier effect for cars, bikes and pedestrians?	*Accessibility*	Includes sidewalk/bike improvements to access station	Includes sidewalk/bike improvements along alignment and to access stations	• Includes sidewalk/bike improvements along alignment and to access stations • Could include projects that improve auto access to Ross Island Bridge and reconnect street grid
	Mode considerations	Only LRT would operate in a tunnel option	• 23 BRT vehicles per hour in the peak in South Portland • 10 LRT vehicles per hour in the peak	Same as Barbur alignment
Capital Costs • What are the cost differences between a tunnel and a surface option? • Does overall cost impact the length of the final high capacity transit project?	*Cost estimates in 2014 dollars*	• Adds $732M - $900M compared to Barbur or Naito alignment • Depending on regional funding capacity, could impact the length of the alignment	$1.9B - $2.4B (LRT) line cost $680M - $1.2B (BRT) line cost	Adds $167M to Barbur line cost (LRT) Adds $192M to Barbur line cost (BRT)
Engineering complexity/risk • Are the benefits and risks associated with construction of a deep-bored tunnel clear? • What aspects of each alignment option present noteworthy risk?	*Risk*	• Large area needed for tunnel mining/access for heavy equipment and trucks at each portal • Risk of complications with tunnel boring resulting in cost overruns • Traffic and physical roadway impacts from hauling excavated materials • Potential 4(f) impacts to Duniway Park with tunnel construction	• Right-of-way impacts • Potential 4(f) impacts to Duniway Park	• Complexity of Ross Island bridgehead modification construction • Potential right-of-way impacts if maintaining all travel lanes on Naito • Modification of existing structures along Naito
Community impacts • Can the benefits and burdens of an HCT alignment be equally distributed among all population groups in the corridor? • Do surface or tunnel alignments offer greater access to key places such as education, employment, health care and retail centers?	*Distribution of impacts*	• Most direct access to education, employment and health care services on Marquam Hill • Limited access to education, health care, employment and retail services on Naito Parkway, South Waterfront, and local retail centers • Portal may be a visual or potential 4(f) concern if impacting parks/open space	• Potential right of way impacts • Provides more direct access to education, employment, health care and retail services not located on Marquam Hill	• Potential right of way impacts • Most improved access to education and health care services along Naito Parkway via HCT station areas and road, bicycle and pedestrian improvements