



# Southwest Corridor Light Rail Project

## Steering Committee Preferred Alternative Report

### 1. RECOMMENDATION

This report presents the Southwest Corridor Steering Committee’s recommended Preferred Alternative for the proposed Southwest Corridor light rail project. The Preferred Alternative must include the transit mode (light rail), route, stations and termini.

#### Summary of alignment chosen

This recommendation represents a commitment to identifying a cost-effective transit project that extends from downtown Portland to Bridgeport Village and meets the adopted project Purpose & Need. It is based on the project staff recommendation, analysis documented in the *Southwest Corridor Light Rail Project Draft Environmental Impact Statement* (EIS), input from the public and agencies, and also takes into consideration the Federal Transit Administration’s (FTA) rating criteria for large transit projects.

The recommended Preferred Alternative is shown on Figure 1 and includes the following alternatives and refinements described in the Draft EIS:

- Alternative A1, Barbur
- Alternative B2, I-5 Barbur Transit Center to 60th
  - Refinement 2, Taylors Ferry I-5 Overcrossing, which modifies Alternative B2\*
  - Refinement 4, Barbur Undercrossing, which modifies Alternative B2
- Alternative C2, Ash to Railroad
  - Refinement 5, Elmhurst, which modifies Alternative C2
  - Refinement 6, Tigard Transit Center Station East of Hall, which modifies Alternative C2

\*The committee recommends a preference for Refinement 2, but with Alternative B2 as studied in the Draft EIS, or a modification of either, remaining in consideration.

In addition, the committee directs staff to continue to work together to evolve and finalize the work plan for further design and environmental review, keeping members of this or a subsequent steering committee informed on its progress and contents. If the design and environmental review finds a “fatal flaw” with any project component, staff will present the issue to TriMet’s future project steering committee for guidance.

This Preferred Alternative would provide a number of benefits to the SW Corridor and the Portland region. These include:

- Providing a reliable, fast travel option between Bridgeport, Tigard, SW Portland and downtown Portland that will maintain its travel time even as the population grows by 70,000 in the corridor by 2035.
- Serving a projected 43,000 average weekday riders in 2035.
- Carrying 1 in 5 southbound commuters leaving downtown Portland in the PM peak in 2035.
- Connecting existing and future jobs and homes, along with Portland State University (PSU), Oregon Health & Science University (OHSU), National University of Natural Medicine (NUNM) and Portland Community College-Sylvania (PCC).
- Providing a new transit “backbone” for the local bus system in southeastern Washington County, including new transit centers and park and rides to enable people to easily switch between travel modes.
- Creating a new pedestrian connection to the jobs, medical services and educational opportunities on Marquam Hill at OHSU, the Veterans Administration and Shriners hospitals.
- Creating an improved bike and pedestrian link to PCC Sylvania campus and a quick shuttle connection between the campus and MAX.
- Building a shared transitway in South Portland to allow buses from Hillsdale to bypass congestion to more quickly reach downtown Portland, and vice versa.
- Building continuous sidewalks and bike lanes where light rail would be located within an existing roadway, such as on SW Barbur Boulevard and SW 70th Avenue.
- Creating the required transportation infrastructure to support local and regional plans such as the Tigard Triangle Strategic Plan, Barbur Concept Plan and 2040 Growth Concept. These plans aim to accommodate continued population and job growth without a proportionate increase in traffic congestion by supporting transit-oriented development.

### **Implications**

The Preferred Alternative will be evaluated in the Final EIS, which will document the significant beneficial and adverse effects of the project, commit to mitigation strategies and document their effects, and respond to comments submitted on the Draft EIS. Appropriate review and analysis of the Preferred Alternative will also be undertaken under Sections 106, 4(f), 6(f) and 7, which address historic resources, parks and endangered species.

This recommendation would end further analysis of Alternatives A2-BH (Naito with Bridgehead Reconfiguration), A2-LA (Naito with Limited Access), Design Refinement 1, B1 (Barbur), B3 (I-5 26th to 60th), B4 (I-5 Custer to 60th), C1 (Ash to I-5), C3 (Clinton to I-5), C4 (Clinton to Railroad), C5 (Ash and I-5 Branched) and C6 (Wall and I-5 Branched), as well as Refinement 3 (I-5 Undercrossing). This recommendation would also end further work on aspects of Alternative B2: a new light rail bridge near the Portland/Tigard city boundary crossing over I-5 and Pacific Highway to enter the Tigard Triangle, and

traveling adjacent to SW Atlanta Street to connect to SW 70th Avenue; and of Alternative C2: the east-west alignments along SW Beveland Street and SW Ash Avenue.

**Further action recommended**

In preparation for the Final EIS, the Steering Committee directs staff to continue work to identify ways to avoid, minimize, or mitigate the adverse effects documented in the Draft EIS, including:

- The relocation of households and businesses along the alignment. TriMet will update designs to avoid or minimize property effects but when that is not possible then property owners, tenants and businesses will receive fair market financial compensation and relocation assistance.
- Increased traffic congestion and queuing at several locations throughout the corridor. Additional traffic analysis will be performed where necessary, including at highway ramp terminals, park and ride accesses, and at-grade light rail crossings of streets. Specific locations may include:
  - South Portland in the vicinity of the Bridgehead Reconfiguration
  - The Barbur/Bertha/I-5 off-ramp
  - The Crossroads area in the vicinity of Refinement 2
  - Downtown Tigard in the vicinity of Refinement 6
  - The SW Upper Boones Ferry at-grade crossing area, with consideration of a grade-separate crossing
  - The greater Bridgeport area
- Routing over wetlands and floodplains in Tigard, and the generation of additional storm water runoff. These effects must be mitigated to levels that meet federal and local requirements.
- Various effects on historic resources and public parks, largely in South Portland. These properties receive special federal protection and extra public engagement and analysis will be undertaken on these impacts.
- Tree removal along the route, particularly in Segment A.

Design work on the Preferred Alternative should also address detailed questions relating to station locations and designs, park and rides, station connections and other issues.

The Southwest Corridor Equitable Development Strategy should continue to explore policy options and investments to address the potential for existing and future displacement, including its current funding of pilot programs to promote housing and workforce development options in SW Corridor.

**Figure 1**  
**Preferred Alternative: Steering Committee Recommendation**

**Alignment Alternatives**

- Alternative A1: Barbur
- Alternative B2: I-5 Barbur TC to 60th
- Alternative C2: Ash to Railroad

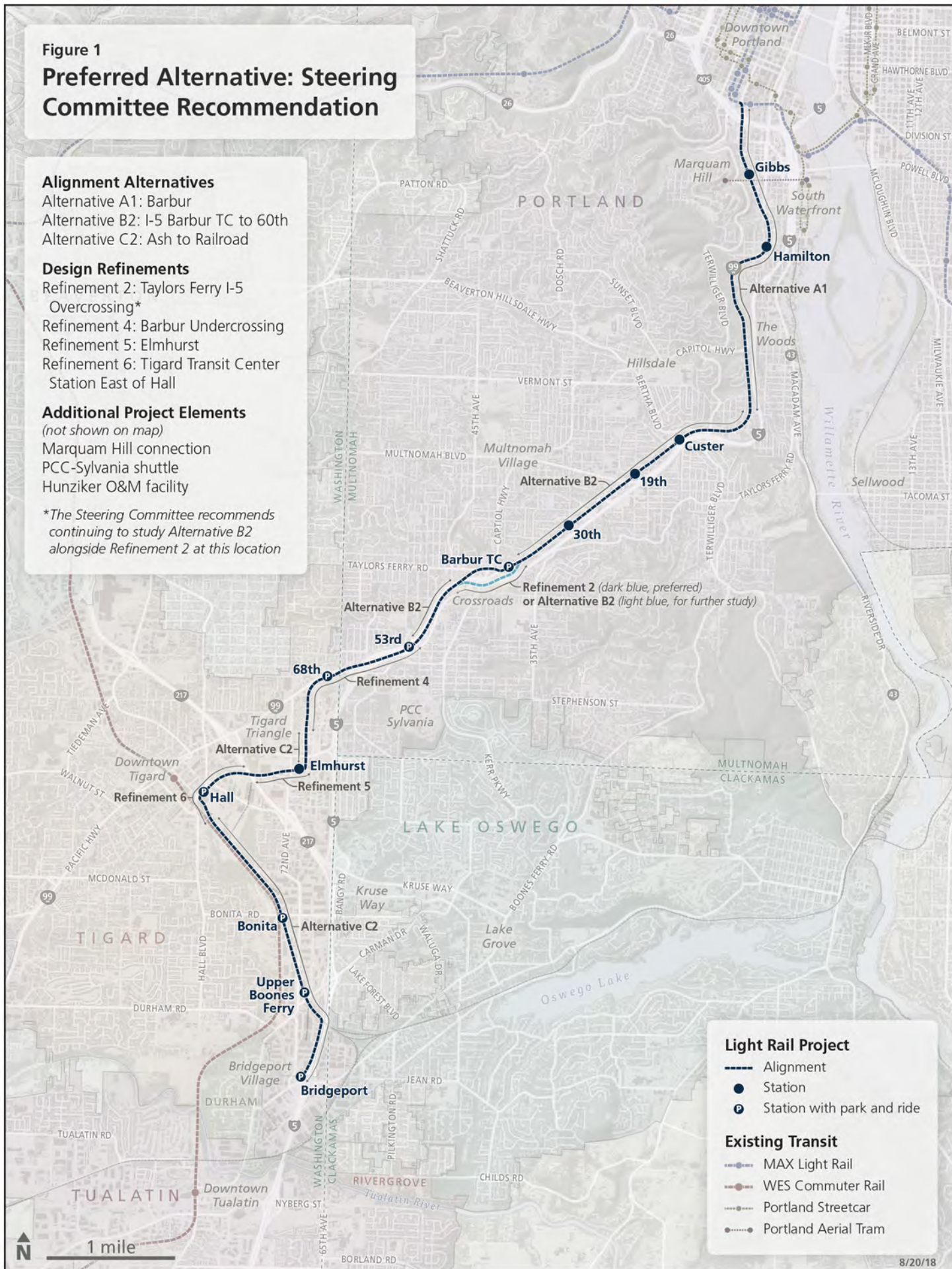
**Design Refinements**

- Refinement 2: Taylors Ferry I-5 Overcrossing\*
- Refinement 4: Barbur Undercrossing
- Refinement 5: Elmhurst
- Refinement 6: Tigard Transit Center Station East of Hall

**Additional Project Elements**

- (not shown on map)
- Marquam Hill connection
- PCC-Sylvania shuttle
- Hunziker O&M facility

\*The Steering Committee recommends continuing to study Alternative B2 alongside Refinement 2 at this location



**Light Rail Project**

- Alignment
- Station
- Ⓟ Station with park and ride

**Existing Transit**

- MAX Light Rail
- WES Commuter Rail
- Portland Streetcar
- Portland Aerial Tram

1 mile



## 2. PREFERRED ALTERNATIVE DESCRIPTION AND RATIONALE

For each of the three segments studied in the Draft EIS, this document describes the recommended Preferred Alternative route, stations and additional project elements; recaps the options removed from further consideration; and explains the rationale for its recommendation.

### Segment A: Inner Portland

#### Description

In Segment A (Inner Portland), which extends from the southern end of the Portland Transit Mall to just north of the intersection of SW Barbur Boulevard and SW Brier Place, the recommended Preferred Alternative includes:

- Alternative A1, Barbur

The Preferred Alternative in Segment A is shown in Figure 2.

Green Line light rail trains would continue from Clackamas County, through downtown Portland and into the Southwest Corridor, with tracks diverging from existing MAX tracks just west of the current Lincoln Station, at SW Fourth Avenue and SW Lincoln Street. It would cross Interstate 405 (I-405) on a new structure east of and parallel to SW Fourth Avenue. The alignment would run along the east side of SW Barbur Boulevard for several blocks, then transition into the center of SW Barbur Boulevard at SW Hooker Street. The alignment would continue running in the center of SW Barbur Boulevard into the Woods area. In this section, the existing Newbury and Vermont viaducts would be replaced by two new bridges that would carry four auto lanes, light rail, and improved bike and pedestrian facilities.

Between this point and through the southern end of Segment A and into Segment B, light rail would continue to travel in the center of SW Barbur Boulevard.

Continuous bicycle and pedestrian facilities would be constructed along the light rail alignment through Segment A and into Segment B, between downtown Portland and the Barbur Transit Center.

#### Stations

The Preferred Alternative includes the following stations in Segment A:

- Gibbs Station
- Hamilton Station

No park and rides are proposed in Segment A.

#### Additional Project Elements

The committee recommends the continued consideration of these components of the proposed project:

- Marquam Hill connection to provide access between the Gibbs light rail station to the medical complex on Marquam Hill. This connector will allow pedestrians to reach the South Waterfront district via the Darlene Hooley pedestrian bridge. Multiple options for this connection are

included in the Draft EIS; the committee recommends a public process later in 2018 for the selection of the preferred option to be studied in the Final EIS.

- A shared transitway extending over one mile from downtown Portland on SW Barbur Boulevard, with a stop at SW Gibbs, to improve the speed and reliability of buses traveling between downtown Portland and Hillsdale.

The Steering Committee also recommends the following additional action beyond the proposed light rail project:

- Development of a Ross Island Bridgehead Reconfiguration that includes changes to SW Naito Parkway in coordination with the light rail project, based on the roadway designs in Alternative A2-BH. This separate project would redirect regional traffic away from local neighborhood streets in the South Portland neighborhood, convert SW Naito Parkway to a surface boulevard with at-grade intersections, improve safety for pedestrians and bicyclists, and make nearly three acres of land available for development. It would provide benefits to the region and to a neighborhood that has been historically negatively impacted by transportation investments, and could potentially mitigate some traffic impacts caused by the light rail project.
- Study of the proposed Bridgehead Reconfiguration in the Final EIS for the light rail project.
- Identification of funding sources for non-project-related mitigation portions of the Bridgehead Reconfiguration independent of the light rail project. Cost estimates must be developed.

#### **Options considered and removed from consideration**

The following alternatives were considered for Segment A:

- Alternative A2-BH, Naito with Bridgehead Reconfiguration
- Alternative A2-LA, Naito with Limited Access

Both of these alternatives would have routed light rail on SW Naito Parkway instead of on SW Barbur Boulevard south of downtown Portland.

- Refinement 1, East side running in the Woods, which would have constructed a separate light rail structure to avoid the Vermont and Newbury viaducts

Additional alternatives were considered and narrowed by the Steering Committee in project phases completed prior to the initiation of the Draft EIS.

#### **Rationale for selection**

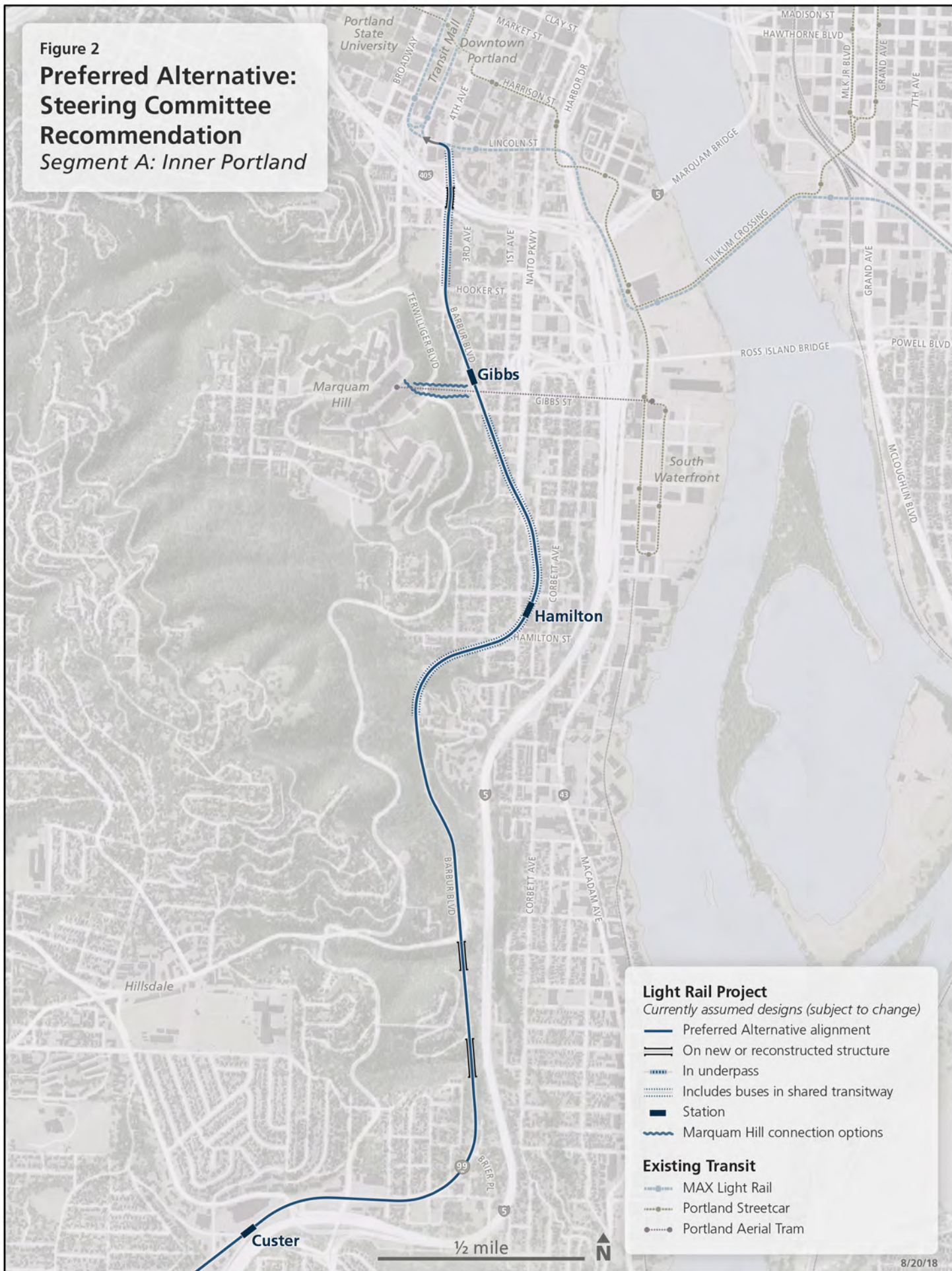
Compared to Alternatives A2-BH and A2-LA, Alternative A1 would:

- Provide faster light rail travel times
- Provide a shorter connection to Marquam Hill
- Result in fewer displacements of residents, businesses and employees and fewer impacts on potentially protected historic resources

Compared to Refinement 1, Alternative A1 would:

- Replace the Vermont and Newbury viaducts, wood structures built in 1934, that compromise the safety of bicyclists and pedestrians due to their narrow widths
- Provide a continuous route for light rail, bicyclists, and pedestrians that would not require an at-grade crossing of northbound SW Barbur Boulevard auto lanes
- Be the result of an agreement between ODOT and City of Portland in which ODOT would contribute funding toward the replacement of the viaducts. This funding could be considered separate from project costs

**Figure 2**  
**Preferred Alternative:**  
**Steering Committee**  
**Recommendation**  
**Segment A: Inner Portland**



**Light Rail Project**  
*Currently assumed designs (subject to change)*

- Preferred Alternative alignment
- = On new or reconstructed structure
- - - In underpass
- . . . Includes buses in shared transitway
- Station
- ~ ~ ~ Marquam Hill connection options

**Existing Transit**

- - - MAX Light Rail
- . . . Portland Streetcar
- . . . Portland Aerial Tram



## Segment B: Outer Portland

### Description

In Segment B, Outer Portland, which extends from SW Barbur Boulevard at SW Brier Place to the intersection of SW 68th Avenue and SW Atlanta Street, just west of the Portland/Tigard city boundary, the recommended Preferred Alternative includes:

- Alternative B2, I-5 Barbur Transit Center to 60th
- Refinement 2, Taylors Ferry I-5 Overcrossing
- Refinement 4, Barbur Undercrossing

The Preferred Alternative in Segment B is shown in Figure 3.

Light rail would operate in the center of SW Barbur Boulevard from the northern end of Segment B until just north of the Barbur Transit Center. At this location, with Refinement 2, light rail would cross the southbound lane of SW Barbur Boulevard at a gated crossing to run north of and parallel to SW Taylors Ferry Road. It would cross SW Capitol Highway at grade before turning south on structure to cross over SW Taylors Ferry Road and I-5 to land between I-5 and SW Barbur Boulevard. If pending analysis of the benefits and impacts of Refinement 2 indicates it would not represent an improvement over Alternative B2, this or the subsequent Steering Committee may recommend replacing Refinement 2 in the Preferred Alternative with Alternative B2 without the refinement, or some other design resulting from continued analysis. Without Refinement 2, light rail would cross the northbound lane of SW Barbur Boulevard at a gated crossing to run between Barbur Transit Center and I-5. It would cross over a new light rail structure crossing I-5, SW Capitol Highway, and SW Barbur Boulevard to land between SW Barbur Boulevard and I-5.

Where SW Barbur Boulevard crosses I-5 (the northern point of the Tigard Triangle), light rail would cross over I-5 on a new parallel structure that would then descend into the space between the I-5 off-ramp and southbound SW Barbur Boulevard/Pacific Highway. The alignment would then cross under Pacific Highway to transition to the southeast side of the roadway just west of SW 65th Avenue. The alignment would accommodate Highway 99W and I-5 planning envelopes and sight distance standards set by ODOT.

Continuous bicycle and pedestrian facilities would be constructed along Barbur Boulevard from Segment A to the Barbur Transit Center.

The Steering Committee recommends further environmental analysis of Refinement 2, with TriMet's future steering committee to determine whether the Final EIS studies Refinement 2, unrefined Alternative B2 or a design variation of either.

### Stations and park and rides

The Preferred Alternative includes the following stations and park and rides in Segment B:

- Custer Station
- 19th Station

- 30th Station
- Barbur TC Station and park and ride with up to 825 spaces
- 53rd Station and park and ride with up to 950 spaces
- 68th Station and park and ride with up to 900 spaces (located in overlap of Segments B and C)

### **Additional Project Elements**

The committee recommends the continued consideration of these components of the proposed project:

- 53rd Avenue pedestrian and bicycling improvements between the station and the PCC Sylvania campus
- PCC Sylvania bus shuttle, either between campus and the SW 53rd Avenue Station, or between Barbur Transit Center, PCC Sylvania, and the SW 68th Avenue Station

### **Options considered and removed from consideration**

The following alternatives were considered for Segment B:

- Alternative B1, Barbur, in which the light rail alignment would remain on SW Barbur Boulevard throughout Segment B
- Alternative B3, I-5 26th to 60th, in which light rail would transition from SW Barbur Boulevard to adjacent to I-5 near SW 26th Avenue
- Alternative B4, I-5 Custer to 60th, in which light rail would transition from SW Barbur Boulevard to adjacent to I-5 near SW Custer Street
- Refinement 3, I-5 Undercrossing, in which light rail would cross SW Barbur Boulevard south of the 53rd Station and continue adjacent and east of I-5, until tunneling under I-5 to reach the Tigard Triangle parallel to SW Atlanta Street and connecting to SW 70th Avenue.

Additional alternatives were considered and narrowed by the committee in project phases completed prior to the initiation of the Draft EIS.

### **Rationale for selection**

Compared to Alternatives B3 and B4, Alternative B2 would:

- Offer more accessible and visible station locations
- Include more streetscape and safety improvements to SW Barbur Boulevard
- Result in fewer residential displacements
- Better support the Barbur Concept Plan

Compared to Alternative B1, Alternative B2 would avoid the complex reconstruction of the existing bridge over I-5 at Crossroads. The committee believes Alternative B1 to be largely infeasible and undesirable for reasons not described in the Draft EIS, namely that the Barbur/Capitol bridge over I-5

would need to be reconstructed as the existing structure is not strong enough for light rail trains. The reconstructed bridge would likely:

- Be rebuilt to be higher to meet current clearance standards and thus create challenges with adjacent property accesses as the elevation of streets immediately adjacent to the structure would also need to be raised. Bike and pedestrian connectivity and safety issues would not be resolved and may be exacerbated.
- Result in a multiple year closure of SW Capitol Highway (Highway 10) and SW Barbur Boulevard
- Require supports (the current structure is a free span), necessitating the widening of I-5 for a length in each direction, which could result in reconstruction of existing on and off ramps, and may trigger a federal requirement for a full interchange at current standards. These resultant effects would significantly increase the financial cost and adverse effects of the project.

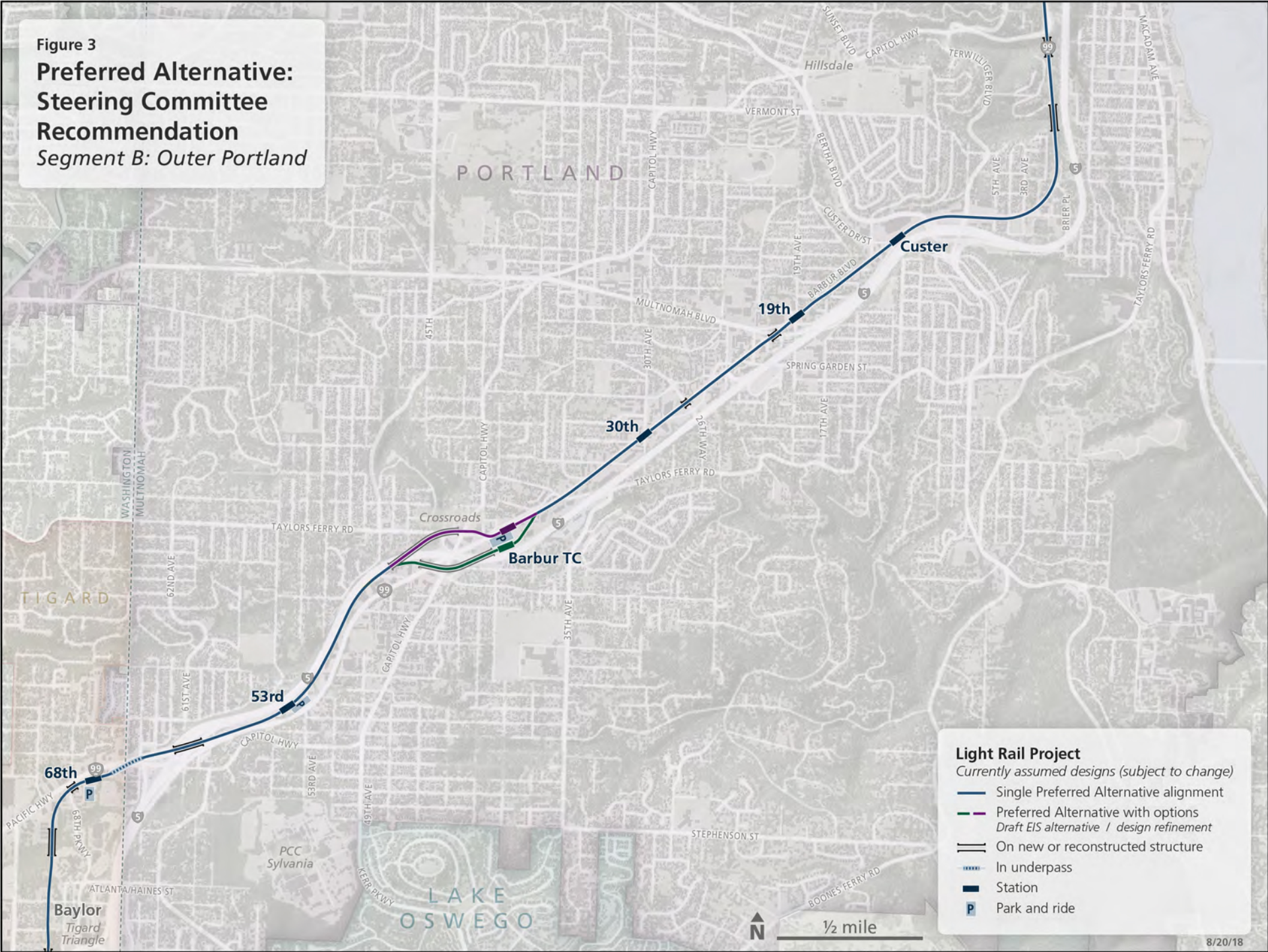
Refinement 2 would, in comparison to Alternative B2 as designed:

- Reduce construction impacts on I-5 by providing a shorter light rail bridge
- Reduce visual impacts because the bridge over I-5 would be lower as it would not cross over SW Barbur Boulevard or SW Capitol Highway
- Reduce costs

Refinement 4 would, in comparison to both Alternative B2 as designed and Refinement 3:

- Result in a faster travel time for transit passengers
- Lower capital costs
- Reduce visual impacts by providing a shorter light rail bridge
- Reduce construction-period traffic impacts on I-5
- Shift the Baylor Station and park and ride to SW 68th Avenue near OR-99W, improving station spacing and park and ride access, and increasing ridership

Figure 3  
Preferred Alternative:  
Steering Committee  
Recommendation  
Segment B: Outer Portland



**Light Rail Project**  
*Currently assumed designs (subject to change)*

- Single Preferred Alternative alignment
- - - Preferred Alternative with options  
*Draft EIS alternative / design refinement*
- On new or reconstructed structure
- In underpass
- Station
- P Park and ride



**Segment C: Tigard and Tualatin****Description**

In Segment C, which extends from the intersection of SW 68th Place and Pacific Highway to Bridgeport Village in Tualatin, the recommended Preferred Alternative includes:

- Alternative C2, Ash to Railroad
- Refinement 5, Elmhurst
- Refinement 6, Tigard Transit Center Station East of Hall

The Preferred Alignment in Segment C is shown in Figure 4.

This combination of Alternative C2 and refinements represents a Through-Routed alignment direct to Bridgeport Village, and ends consideration of a Branched alignment with separate branches to downtown Tigard and to Bridgeport Village. For more details, see Chapter 2 of the Draft EIS.

From the southeast side of SW Barbur Boulevard near SW 68th Avenue, a new curved light rail bridge would connect to the Tigard Triangle, via a light rail-only bridge over 68th Avenue, with a north-south alignment bridge over Red Rock Creek connecting to SW 70th Avenue at SW Atlanta Street. Between SW Atlanta Street and SW Elmhurst Street, light rail would operate along the SW 70th Avenue right-of-way, which would include bicycle and pedestrian facilities, and cross over SW Dartmouth Street on structure.

The alignment would turn west from SW 70th Avenue onto SW Elmhurst Street, with a station between SW 70th Avenue and SW 72nd Avenue. The alignment would continue west to cross SW 72nd Avenue at grade, before elevating to cross over Highway 217 on a light rail-only bridge toward downtown Tigard. Upon reaching the ground west of Highway 217, the alignment would turn southwest and cross SW Hunziker Street at grade in the vicinity of SW Knoll Drive and travel along the east side of SW Hall Boulevard to reach a station, which would include a bus transfer area and new park and ride.

From this new transit center east of Hall, light rail would turn to the southeast and travel adjacent to the freight rail and WES Commuter Rail tracks. Light rail would be on a structure between just south of SW Tech Center Drive and just south of SW Bonita Road to avoid a freight rail spur track and SW Bonita Road, resulting in an elevated station at SW Bonita Road. The alignment would continue adjacent to the railroad at grade and cross SW 72nd Avenue and SW Upper Boones Ferry Road with at-grade gated intersections. The route would approach I-5 about 0.25 mile south of SW Upper Boones Ferry Road before turning south to pass over the railroad on structure toward the terminus at SW Lower Boones Ferry Road near Bridgeport Village.

Continuous bicycle and pedestrian facilities would be constructed along the light rail alignment where it is on SW 70th Avenue south of Red Rock Creek, and potentially in other locations as well.

The alignment would accommodate Highway 99W and I-5 planning envelopes and sight distance standards set by ODOT.

### Stations and park and rides

The Preferred Alternative includes the following stations and park and rides in Segment C:

- 68th Station and park and ride with up to 900 spaces (located in overlap of Segments B and C)
- Elmhurst Station
- Hall Station and park and ride with up to 300 spaces
- Bonita Station and park and ride with up to 100 spaces
- Upper Boones Ferry Station and park and ride with up to 50 spaces
- Bridgeport Station and park and ride with up to 950 spaces

### Additional Project Elements

- An operations and maintenance facility to the southeast of the Hall station, between SW Hunziker Street and the WES/freight tracks

### Options considered and removed from consideration

The following alternatives were considered for Segment C:

- Alternative C1, Ash to I-5, in which light rail would diverge from the railroad right of way near SW Landmark Lane south of downtown Tigard to reach I-5 and operate adjacent to I-5 to Bridgeport Village
- Alternative C3, Clinton to I-5, in which light rail would utilize a bridge extending from SW Clinton Street in the Tigard Triangle to downtown Tigard
- Alternative C4, Clinton to Railroad, in which light rail would be routed as Alternative C1 south of downtown Tigard and as Alternative C3 between the Tigard Triangle and downtown Tigard
- Alternative C5, Ash and I-5 Branched, in which light rail service would branch in the southern Tigard Triangle, with some trains using SW Ash Avenue to terminate in downtown Tigard, and some trains continuing along an adjacent to I-5 alignment to terminate at Bridgeport
- Alternative C6, Wall and I-5 Branched, in which light rail service would branch in the southern Tigard Triangle, with some trains using SW Wall Street to terminate in downtown Tigard, and some trains continuing along an adjacent to I-5 alignment to terminate at Bridgeport

Additional alternatives were considered and narrowed in project phases completed prior to the initiation of the Draft EIS.

### Rationale for selection

Compared to Alternatives C5 and C6, which would branch service in the Tigard Triangle and have one terminus in downtown Tigard and one terminus in Bridgeport Village, C2 would:

- Provide better Tigard-Tualatin connectivity and better transit service in Downtown Tigard
- Have lower operating costs, resulting in more cost-effective light rail operations and allowing more local bus service in the corridor

## Exhibit A

Compared to C3 and C4, which would use an alignment on SW Clinton Street, C2 would:

- Provide an additional light rail station in the Tigard Triangle
- Result in higher ridership
- Better support the Tigard Strategic Plan
- Avoid a critical traffic impact at SW Hall Boulevard near Highway 99W

Compared to C1 and C3, which would operate a through route along I-5, C2 would:

- Provide faster service with faster travel times
- Result in fewer impacts to businesses and employees

Refinement 5 would:

- Avoid impacts to businesses on SW Beveland Street
- Result in faster travel times and increased ridership

Refinement 6 would:

- Avoid residential displacements along SW Hall Boulevard and SW Ash Avenue
- Reduce traffic impacts by avoiding two at-grade auto crossings of SW Hall Boulevard

Figure 4  
**Preferred Alternative:  
Steering Committee  
Recommendation  
Segment C: Tigard and  
Tualatin**



**Light Rail Project**  
*Currently assumed designs (subject to change)*

- Preferred Alternative alignment
- == On new or reconstructed structure
- - - - In underpass
- Station
- ▭ Operations and maintenance facility

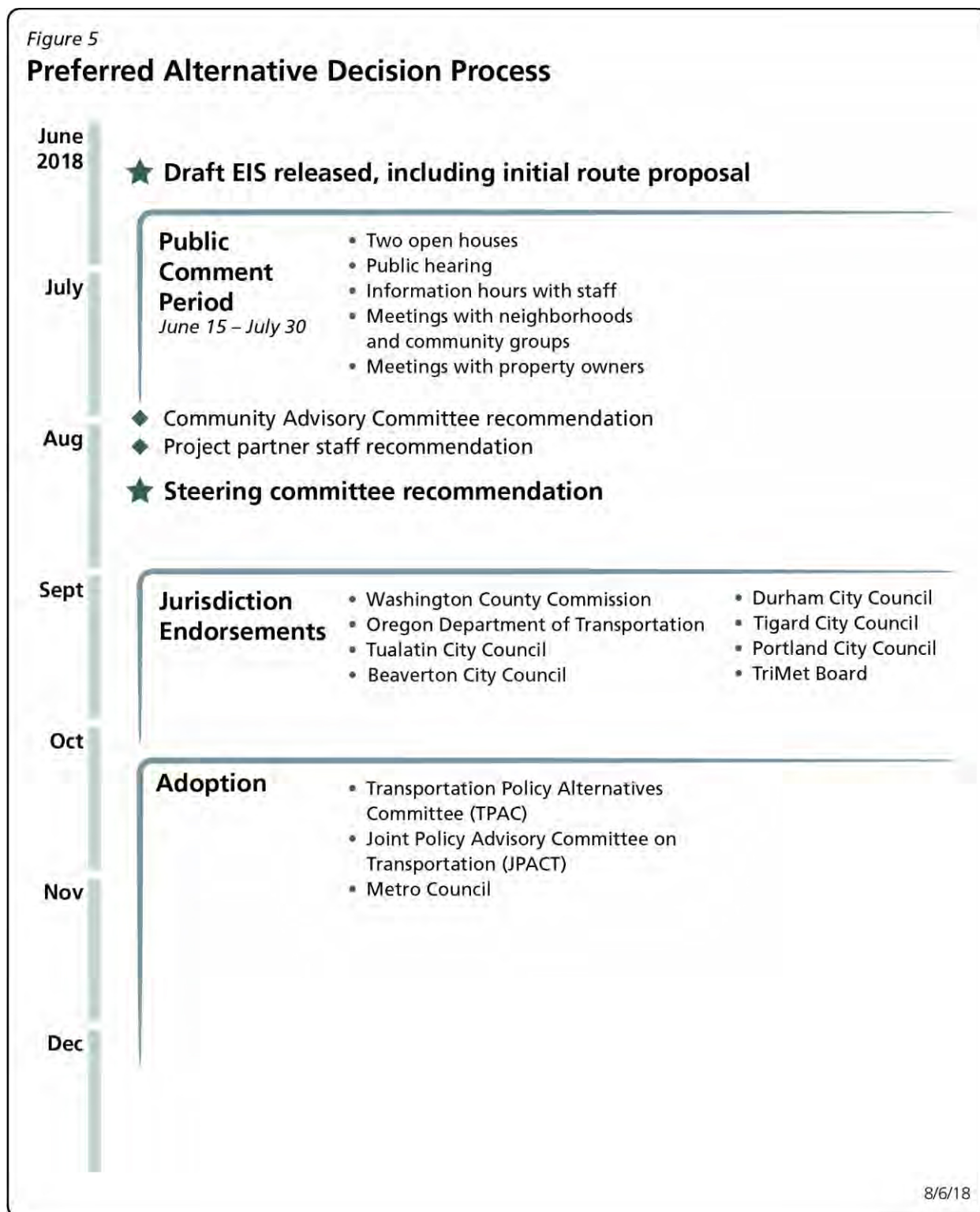
**Existing Transit**

- - - - WES Commuter Rail



### 3. PREFERRED ALTERNATIVE SELECTION PROCESS

The anticipated process for adoption of the Preferred Alternative into the Regional Transportation Plan is shown in Figure 5.



## **Appendix A – Preliminary Work Plan Development**

The following text is an initial set of interests that does not yet represent a finalized, consensus agreement. Factors from public comments and federal environmental permitting needs must also be taken into account before the workplan is finalized.

### **Segment A – Issues to be addressed**

The committee recommends the following design and planning efforts as the project proceeds:

- Work with FTA to determine which portions of the viaducts replacement are eligible for federal funding recognizing that some elements may become betterments to the transit project
- Develop construction sequencing that minimizes traffic impacts related to replacement of the viaducts and associated SW Capitol Highway (Highway 10) overpass
- Define bicycle and pedestrian improvements at the tie-in of light rail to existing infrastructure at SW 4th Avenue and SW Lincoln Street.
- Optimize designs for the light rail alignment tie-in to existing light rail tracks at SW 4th Avenue and SW Lincoln Street to ensure reliable light rail operations.
- Maximize speeds of buses and trains operating together on the shared transitway in South Portland.
- Initiate a planning process to select and refine a Marquam Hill connection design.
- Continue traffic analysis with focus on, but not limited to, the South Portland area.

### **Segment B – Issues to be addressed**

- Initiate a planning process to select and refine the bus shuttle route connecting light rail to the PCC Sylvania campus.
- Initiate discussion among project partners about the best locations and sizes of park and rides.
- Continue traffic analysis with focus on, but not limited to, the Crossroads area in the vicinity of Refinement 2.

### **Segment C – Issues to be addressed**

- Continue cooperative design work between TriMet and the City of Tigard on the layouts and configurations of the Hall station and its related elements (bus stops, pedestrian connections, park and ride).
- Work to define MOS options that support Tigard’s downtown vision, are cost effective, extendable to Tualatin and are operationally efficient.
- TriMet and City of Tigard will work on an agreement regarding the design, development opportunities, benefits and adverse effects of the downtown station.
- Initiate discussion among project partners about the best locations and sizes of park and rides.
- Explore ways to avoid or minimize impacts to businesses at the Bridgeport station and park and ride location.

- Continue traffic analysis with focus on, but not limited to areas near freeway ramps, at-grade rail crossings of roadways, and the Bridgeport terminus.
- Prioritize and identify funding for sidewalk and bike facilities or a multi-use path on the light rail bridge over Highway 217.

### **General planning and design**

- Maintain the goal of creating a fast, cost effective project that reaches Bridgeport Village and includes a robust public engagement process to incorporate community values
- Continue to strive to minimize property impacts
- Continue collaboration of TriMet, Metro, Cities of Portland, Tigard and Tualatin and Washington County to pursue opportunities for regulated affordable housing in conjunction with the light rail project.
- Optimize the supporting transit network to ensure connectivity and broad transfer access to light rail
- Continue collaboration of project partners with FTA and other local and federal agencies participating in the environmental review process to define the work program of the Final EIS, particularly on issues such as traffic, ecosystems, water resources and indirect effects.

### **Design – bicycle and pedestrian**

Prioritize and identify funding for sidewalks, bicycle facilities, or multi-use paths adjacent to the alignment or connecting to stations and consider including as betterments, including:

- The station access improvements included in the Draft EIS
- Over I-5 in the Crossroads area if not incorporated in light rail bridge design
- Over Red Rock Creek
- Over Highway 217

### **Design – stations and park and rides**

Initiate a station and park and ride planning process to optimize the number of stations, park and rides, and their locations, and to optimize park and ride capacities and accesses. Further refine station access improvement projects based on the station locations.

- All park and rides: Evaluate sizing to balance transit performance with safety, traffic impacts, costs, and property impacts.
- All stations and park and rides: Identify opportunities to integrate new technologies for shared vehicles, autonomous vehicles, traffic signal coordination and more into station access and design.
- Barbur Transit Center: Optimize layout for transit operations and redevelopment potential
- Tigard Transit Center (Hall Station): Ensure designs create safe pedestrian and bicycling access between the station and downtown Tigard and to the WES Commuter Rail station, and foster

the station area's redevelopment as a mixed use area supporting housing and jobs. Design the operating and maintenance facility east of the Hall station in a manner that facilitates redevelopment in the vicinity.

- Bridgeport station: Emphasize the station's importance as the terminus in connecting to areas beyond the light rail line. With this potential as a mobility hub, ensure that all connecting modes—autos, buses, bicycles and pedestrians—have convenient access. Explore ways to avoid or minimize impacts to the Village Inn.

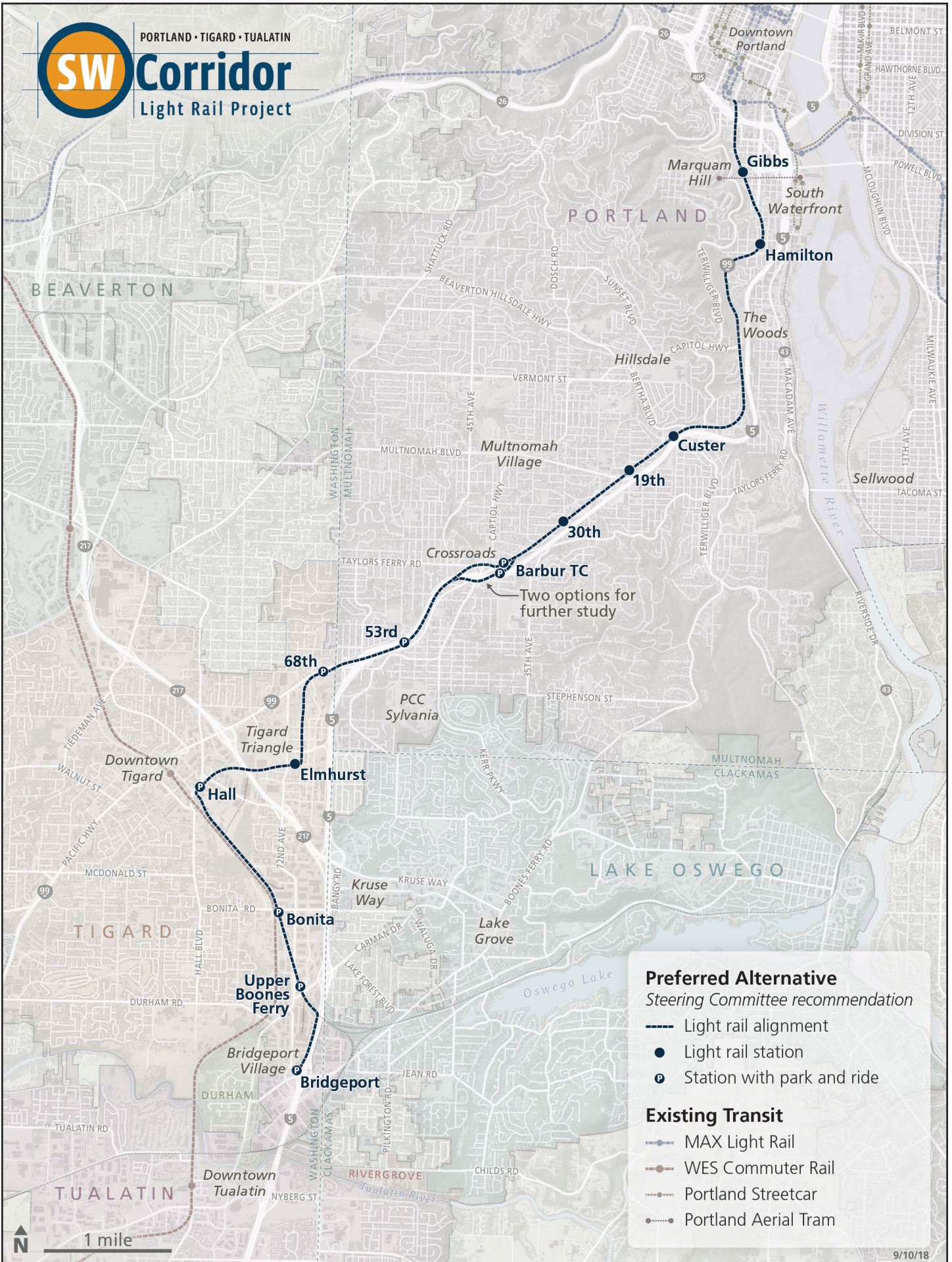
### Traffic analysis

Consider expanding the scope of traffic analysis, while maintaining current methodologies. Staff needs to assess the following suggested analyses to distinguish those that may impact major alignment decisions and should be initiated in the short term to inform the Final EIS, versus those that will inform elements of the final design and can be performed later. The suggested analyses are:

- Assess traffic diversion and traffic circulation changes in the South Portland area, including SW Naito Parkway, SW Barbur Boulevard, I-405, US-26, local streets, and Ross Island Bridge ramps to identify required mitigations if the Ross Island Bridgehead Reconfiguration is not constructed in coordination with the light rail project, and to identify impacts and mitigations if it is.
- Assess traffic queuing resulting from light rail crossing of SW Upper Boones Ferry road crossing, and whether queuing would spill back to the I-5 ramps at SW Carmen Drive, and to the SW Durham Road crossing of WES Commuter Rail tracks. Identify mitigations, including consideration of grade separation.
- Study traffic and safety impacts in the greater Bridgeport area, including Nyberg Road, Tualatin-Sherwood Road, and Lower Boones Ferry Road resulting from access to the proposed park and ride terminus.
- Perform additional analysis where necessary at other highway ramp terminals, park and ride accesses, and at-grade light rail crossings of streets.



PORTLAND • TIGARD • TUALATIN  
**SW Corridor**  
 Light Rail Project



**Preferred Alternative**  
 Steering Committee recommendation

- Light rail alignment
- Light rail station
- Station with park and ride

**Existing Transit**

- ⋯ MAX Light Rail
- - - WES Commuter Rail
- ⋯ Portland Streetcar
- ⋯ Portland Aerial Tram

N  
 1 mile



## Exhibit C:

### Priority Actions and Issues after Preferred Alternative selection

The City Council requests that TriMet prepare a Conceptual Design Report, in collaboration with the Portland Bureau of Transportation (PBOT), to be reviewed by the Portland Design Commission, the Planning and Sustainability Commission and the City Council prior to completion of the Project Development phase of the Southwest Corridor Light Rail Transit Project (Project). The Conceptual Design Report along with other Project activities following adoption of the Preferred Alternative should address and resolve the following issues and opportunities.

#### 1. Preliminary Work Plan

Refine and undertake the Preliminary Work Plan identified as Appendix A in the Southwest Corridor Light Rail Project Steering Committee's Preferred Alternative report and recommendations.

- (a) The City of Portland concurs with this preliminary work plan for project elements within the City.
- (b) As indicated this work plan is preliminary and general in nature and will be subject to refinement in collaboration with PBOT and project partners.
- (c) Several items in this Exhibit C are based on this preliminary work plan and are expanded on here to more clearly respond to City priorities.
- (d) Prior to the start of final engineering phase of work TriMet in coordination with the City will develop a matrix listing project elements both within and outside of the public right-of-way that require permits, design review and land use actions.

#### 2. Ross Island Bridgehead Reconfiguration

Neighborhoods around the Ross Island Bridge (RIB) ramps, SW Naito Parkway and other streets currently functioning as regional connections have long been divided and impacted by the current highway network in this area. A reconfiguration of the bridgehead ramps and SW Naito Parkway would alleviate some of these neighborhood impacts and create development opportunities while improving vital regional traffic connections.

- (a) The City of Portland, Oregon Department of Transportation, Metro and TriMet are committed to work cooperatively through a Memorandum of Understanding (MOU) to pursue a design, cost estimates and funding strategy for the RIBhead reconfiguration project.
- (b) The workplan contained in the MOU identifies near term actions the partners will take to cooperatively move the RIBhead project forward. Some key elements are:
  - i. A public involvement plan will be developed for the RIBhead project which coordinates with the LRT public involvement plan for post Preferred Alternative activities.
  - ii. The RIBhead project reconfiguration will be evaluated as part of the Final EIS for the LRT Project.

- iii. Project development will be completed to a 30% design or FEIS completion milestone by the LRT project.
- (c) The RIBhead project will be developed in coordination with land use and development planning in this area being conducted by the Bureau of Planning and Sustainability.
- (d) The RIBhead project workplan will be modified for subsequent phases of project design and construction.

### 3. Barbur Transit Center

The Barbur Transit Center has the potential to be a key catalytic site for redevelopment in the West Portland Town Center (Crossroads) area. The current LRT project plans include retention and possible expansion of the park-and-ride function at the Barbur Transit Center station.

- (a) The City of Portland understands the Steering Committee recommendation to optimize the layout of the Barbur Transit Center site for transit operations and redevelopment potential. The appropriateness and capacity of a park-and-ride facility at Barbur Transit Center should be evaluated.
- (b) Further project planning for the Barbur Transit Center station should assure that park-and-ride and bus operations do not inhibit quality urban design and mixed-use development opportunities of the site.
- (c) Whether the LRT platform at the Barbur Transit Center is ultimately located within SW Barbur or within the site it is important that walkable human-scale street frontage is provided.
- (d) A public involvement plan will be developed for the Barbur Transit Center and Crossroads area which coordinates with the LRT public involvement plan for post Preferred Alternative activities and with the West Portland Town Center land use planning process.

### 4. Crossroads Area

In the Crossroads area the Steering Committee recommends a preference for Refinement 2, also referred to as the Taylors Ferry I-5 Overcrossing. Alternative B2 as studied in the DEIS, or a modification of either, remains in consideration. Transportation infrastructure in this area will have a lasting effect on the future of the West Portland Town Center.

- (a) Any assessment of alignment and LRT platform locations in Crossroads must consider opportunities presented or compromised for development of the West Town Center and at the Barbur Transit Center.
- (b) The complex arrangement of streets and intersections contributes to traffic congestion and safety hazards. Traffic analysis must look at the complete network in this area, not just individual intersections, and include modeling of actual future signal operations. Mitigations to traffic impacts must consider resultant impacts on other modes and recognize the City priority of active transportation over vehicular modes.
- (c) Further planning of the LRT project should investigate the significant existing pedestrian and bicycle accessibility needs and safety issues in this area and

coordinate improvements with other planned projects to build complete active transportation networks.

- (d) There are impacts potentially affecting properties, residential and employment uses and environmental resources that need to be evaluated in the FEIS.
- (e) During the completion of the FEIS a public outreach and engagement process dedicated to the Crossroads area must be undertaken to explore potential impacts of Refinement 2 and other options.
- (f) Further evaluation of the Crossroads area should be undertaken in coordination with land use and development planning in this area being conducted by the Bureau of Planning and Sustainability and land use planning should inform transportation choices.
- (g) Prior to Steering Committee decision to select alignment in the Crossroads area, there will be a City Council work session to present information, hear invited testimony, and provide an opportunity for Council discussion of alternatives.

#### 5. LRT stations proposed for Park-and-Ride functions

Park-and-Ride facilities provide a viable means of access to LRT but in the City of Portland walk, bicycle and local bus connections are preferred.

- (a) The City of Portland supports the design component for park-and-ride evaluation described in Appendix A of the Steering Committee's Preferred Alternative report and recommendations.
- (b) It is also recommended that as a principle approach that park-and-ride functions be evaluated against impact on land development and affordable housing and commercial opportunities and locally generated ridership, particularly at Barbur Transit Center and SW 53rd Ave.
- (c) Further project work to optimize park-and-ride capacities should consider a balance of these facilities in Portland compared to elsewhere in the corridor.
- (d) As part of planning for park-and-ride site development and operations a fee-based system should be considered to manage demand and other objectives particularly to avoid use of park-and-ride facilities by people not using transit.
- (e) Evaluation of future re-use or otherwise reconfiguring the park-and-ride facilities to reflect emerging and future mobility choices made by transit patrons.
- (f) Prior to Steering Committee decision to site park and ride facilities, there will be a City Council work session to present information, hear invited testimony, and provide an opportunity for Council discussion of alternatives.

#### 6. Pedestrian and bicycle access to LRT stations

It is essential that key pedestrian and bicycle access facilities connecting neighborhoods to LRT stations be included in the overall funding strategy for the LRT project in order to maximize access for local transit riders.

- (a) The next phase of the LRT project should provide a process for reviewing and selecting sidewalks, bicycle facilities and multi-use paths to be included in the LRT project, based on the list of potential projects identified in the DEIS and others determined through station area planning and shall include input from community stakeholders.

- (b) The City of Portland believes that many of these projects are essential components of the LRT project and not betterments.
- (c) The next phase of station planning should evaluate and identify how bicycle parking facilities would be spread among the Portland segment transit stations in order to optimize their use and provide maximum connectivity from surrounding neighborhoods.

#### 7. Marquam Hill and Portland Community College connections

The connections from LRT stations to Marquam Hill and Portland Community College are vital components of the Southwest Corridor Light Rail Transit Project. Due to geographic limitations direct light rail transit access to these key destinations are not financially feasible. Each presents design challenges and opportunities that need to be explored.

- (a) The City of Portland agrees with the Steering Committee's recommendation that a public process be established to consider Marquam Hill connection options with a preferred option to be studied in the Final EIS.
- (b) Design considerations for the Marquam Hill connection include respect for the Terwilliger Parkway including compliance with the Terwilliger Parkway Design Guidelines, minimize impacts to the wooded hillside and park land, safety and security factors, aesthetics and visual impacts of the connection facility and structures and architectural significance, and consideration of options avoiding crossing Terwilliger Parkway.
- (c) An evaluation of anticipated passenger board/de-boarding at the Gibbs station should be conducted to inform the size and location of associated infrastructure such as platform and sidewalk widths, future signal timing, street lighting and the pedestrian route between SW Naito and the Gibbs station.
- (d) A high quality continuous east-west active transportation amenity along SW Gibbs from the LRT station on SW Barbur, across Naito Parkway to the Darlene Hooley Bridge is needed.
- (e) Prior to Steering Committee decision on a Marquam Hill connection, there will be a City Council work session to present information, hear invited testimony, and provide an opportunity for Council discussion of alternatives.
- (f) The City of Portland agrees with the Steering Committee's recommendation that a planning process be conducted to select and refine the bus shuttle route connecting LRT to the PCC campus from the Barbur Transit Center or from the SW 53<sup>rd</sup> Avenue LRT station.
- (g) The City supports publicly-funded street improvements to SW 53<sup>rd</sup> Avenue between the LRT station at SW 53<sup>rd</sup> and the PCC campus to facilitate inviting pedestrian and bicycling access to the campus. These street improvements should be appropriately scaled for the neighborhood environment and will not provide a private vehicular traffic connection to the campus.

## 8. Connecting to Downtown

Connecting the LRT alignment to existing light rail service Downtown from SW Barbur and SW 4<sup>th</sup> Avenue between approximately SW Sheridan Street and SW Lincoln and further north presents transit engineering challenges but other considerations such as land use and potential for future development are also important.

- (a) Bicycle circulation needs in this area include a safe through movement from SW Sheridan to SW Lincoln-SW 5<sup>th</sup>-SW Jackson, and from the Green Loop in to Downtown.
- (b) Pedestrian connectivity challenges include access in to Downtown from SW Sheridan and potential wide street crossings at the SW 4<sup>th</sup>/Lincoln intersection.
- (c) LRT routing plans need to consider current property access, particularly on SW Lincoln and SW Grant and future planned developments on these streets.
- (d) Being the south entry to Downtown aesthetic considerations matter particularly in regards to the architecture of elevated transit structures.
- (e) Shared transitway or other bus routing using the SW 4<sup>th</sup> Ave. access to the Transit Mall must use SW Hall and be coordinated with high capacity transit service being provided on the Division Corridor which will also access the Mall from SW Hall.

## 9. SW Hamilton Station

The LRT station at SW Hamilton would support the role of the Hamilton Focus Area from the Barbur Concept Plan.

- (a) This area currently has high transit service levels with nine bus lines in the SW Hamilton-SW Corbett area serving neighborhood residents and transfer activity. Retaining a similar level of transit accessibility with the LRT project would be a benefit for this neighborhood.
- (b) Traffic circulation changes that may result from construction of LRT on SW Barbur should consider the nature of SW Corbett as a community street serving this neighborhood and connecting to other neighborhoods.

## 10. The Woods segment

The segment of the LRT project corridor generally from SW Hamilton Street to SW Brier Place, referred to as “The Woods” is a largely wooded and steep terrain area with open space resources that transitions to more urbanized areas to the north and south and requires special considerations.

- (a) The City of Portland supports the Steering Committee’s recommendation to replace the Vermont and Newbury viaducts that compromise the safety of pedestrians and bicyclists.
- (b) SW Barbur through The Woods should feature a design that accommodates the expected greatly increase in multi-modal use of this segment of the corridor, especially for bicyclists.
- (c) Project design should minimize tree removal which is a landmark feature of this segment of the corridor.
- (d) Connections to designated pedestrian, bicycle and trail networks should be considered. An at-grade intersection replacing the flyover ramp connecting SW Capitol Highway to SW Barbur should be considered.



#### 11. Three stations on Central Barbur

The Preferred Alternative for the LRT project includes three neighborhood stations in the central SW Barbur Boulevard area at SW Custer, SW 19 and SW 30<sup>th</sup>, as well as stations further south in Portland at the Barbur Transit Center and at SW 53<sup>rd</sup> Avenue.

- (a) The three neighborhood stations in the central Barbur Boulevard area are important in providing transit access notably for Hillsdale, Multnomah, Markham and South Burlingame neighborhoods.
- (b) All three neighborhood stations are collectively required to significantly facilitate the transformation of SW Barbur Boulevard to a Civic Corridor envisioned by the Barbur Concept Plan.
- (c) Because the LRT facility will largely replace frequent bus service along SW Barbur Boulevard it will be important to plan for local bus service that connects communities to the LRT stations.
- (d) The City of Portland recommends that all three stations be retained in the LRT project through the project development phase.
- (e) The provision of bicycle parking facilities (Bike Hubs) should be apportioned among these stations in such a way as to provide use for transit riders from Hillsdale, Multnomah, Markham, South Burlingame and other neighborhoods.

#### 12. SW 53<sup>rd</sup> Avenue Station

The station at SW 53<sup>rd</sup> Avenue is an important project component serving access to PCC, and potentially park-and-ride and/or affordable housing opportunities.

- (a) This station also presents opportunities for mixed-use development.
- (b) Safe, attractive and prominently designed pedestrian and bicycle connections from the LRT platform to the City street and active transportation networks are needed given the traffic character of Barbur in this segment and the vehicle attraction of the park-and-ride.
- (c) Evaluation of the station for connection by a PCC shuttle should be included.

#### 13. SW 68<sup>th</sup> Avenue Station

Although this station is physically located in the city of Tigard, it also serves residents of the City of Portland and will be included in the evaluation for the PCC campus shuttle. Portland staff should offer to collaborate with the City of Tigard in planning for this station area. Pedestrian and bicycle facilities must be evaluated as part of the Shared Investment Strategy to allow Portland residents to access the station at SW 68<sup>th</sup> safely.

#### 14. Changes in circulation and access

Local neighborhood circulation and business access will be changed by the LRT project along SW Barbur Boulevard because of the addition of LRT in the street median which will concentrate left turns and add U-turns at signalized intersections.

- (a) A traffic analysis to evaluate changes in circulation should be conducted as part of the FEIS and identify locations where increases in traffic on neighborhood streets might occur. Traffic management mitigations for those changes that would be significant should be included in the FEIS.

- (b) An evaluation of current truck access to businesses along SW Barbur should be conducted to ensure that accommodation for future circulation patterns is made.

#### 15. Stormwater management

Although the LRT project will be designed to comply with all federal, state and local regulations, this corridor is located in an area of the City that is particularly complex due to topography, extensive vegetation cover and multiple stream corridors.

- (a) The City of Portland concurs that LRT project will be designed based on best management practices and comply with City's Stormwater Management Manual, as stated in the DEIS.
- (b) As the LRT project moves forward more detailed asset inventory and assessment of stormwater infrastructure is required in the corridor leading to identifying agencies responsible for ownership and maintenance of stormwater infrastructure.
- (c) The City of Portland will be undertaking various capital projects in the corridor in the coming years. Some of these projects, or portions of these projects, will likely benefit the SW Corridor LRT project and should be eligible for the City's local match.
- (d) Currently existing stormwater systems that convey runoff from Barbur Blvd join the system for I-5 and share outfall infrastructure. LRT project development should decouple the Barbur Blvd stormwater system from I-5.

#### Other Priority Actions

##### 1. Affordable Housing

It is the City Council's expectation that regional commitments toward opportunities for affordable housing will be made in conjunction with commitments toward funding for the Light Rail transit project. The project Purpose and Need as stated in the DEIS includes a purpose statement that says: Ensure benefits and impacts promote community equity.

- (a) Council support for the Preferred Alternative is based on implementation of the Memorandum of Understanding regarding the Southwest Corridor and Affordable Housing.
- (b) It is the Council's expectation that additional funding for affordable housing will be made available at the regional level, and it is Council's intent that a portion of City funds derived from that source will be directed in an amount sufficient to enable a meaningful contribution toward the stretch goals identified in the Southwest Corridor Equitable Housing Strategy.

##### 2. Design Review

Continue long term coordination with City of Portland's Design Review Commission as project elements are being defined in keeping with prior projects' processes to obtain input and advice on non-standard transit elements in public right-of-way. Upon completion of the LRT project the currently approved standard transit elements in public right-of-way would be updated to reflect new elements added with this LRT project. Replacement of Newberry and Vermont viaducts by the LRT project will be

improvements that meet the City Engineer's standards and as such are exempt from design review but will receive input and advice from the Design Review Commission in conjunction with the rest of the project.

3. Historic Landmarks Review

Continue coordination with the City of Portland's Historic Landmarks Commission where detailed alignment decisions may impact historic or contributing resources.

4. Affordable Locally-owned Businesses

The Light Rail project should promote preservation and commercial viability of commercial and office businesses, especially those serving nearby residents, providing family-wage jobs, and locally-owned businesses.

**Southwest Corridor Light Rail Project  
Work Phases  
Draft**

Environmental Review

Oct 2018 – Oct 2019

- LPA adopted by Metro
- RTP amended to include project
- Final EIS published
- Record of Decision from FTA

Project Development Design

Jan 2019 – Dec 2020

- Project design refinements
- FEIS project cost estimates
- 30% project design plans prepared
- Refined cost estimates
- Conceptual Design Report
- Local match committed
- Regional funding measure vote

Engineering Design

Jan 2021 – Oct 2022

- Federal approval for engineering phase
- 60%, 90% and 100% project design plans prepared
- Submit application for Full Funding Grant Agreement

Construction and Opening

Jul 2022 - fall 2026

- Early and Final construction plans
- Early construction with local funds
- FTA issues Full Funding Grant Agreement
- Final construction
- Project opening in 2027

## **MEMORANDUM OF UNDERSTANDING FOR THE SOUTHWEST CORRIDOR LIGHT RAIL PROJECT ROSS ISLAND BRIDGEHEAD WORK PLAN**

This Memorandum of Understanding (“MOU”) is between the City of Portland Bureau of Transportation (PBOT), Tri-County Metropolitan Transportation District of Oregon (TriMet), Oregon Department of Transportation (ODOT) Region 1, and Metro. The intent of this MOU is to demonstrate a regional commitment to pursue constructing improvements to the Ross Island Bridgehead and SW Naito Parkway parallel with the construction of the Southwest Corridor Light Rail Transit Project (SWC Project). In support of Metro’s Southwest Corridor Plan and the Shared Investment Strategy Recommendation (July 2013), this MOU describes the agreed upon Work Plan necessary to meet the regional commitment to Ross Island Bridgehead and SW Naito Parkway improvements project (Bridgehead Project).

The Ross Island Bridgehead Project Area (see Figure 1) is in the Corbett and Lair Hill area, in proximity to downtown and between Portland State University (PSU), Oregon Health & Science University (OHSU), the National University of Natural Medicine (NUNM), and the South Waterfront. The project area is bisected by I-5, a transportation corridor of national and statewide significance for passenger vehicles and freight, located between the Willamette River and Portland’s West Hills. I-405 is also located within the northern portion of the project area.

Over the years, development patterns in the area have physically divided neighborhoods and regional traffic has degraded neighborhood access, traffic and transit rider circulation, safety and livability. Incremental development of major transportation corridors (I-5, I-405, US 26, Macadam Avenue, Naito Parkway, and Barbur Boulevard) through South Portland has resulted in limited connections between major corridors. The regionally significant SWC Project will add light rail to Barbur Blvd. The SWC Project will evaluate project related traffic mitigation that may become components of improvements to the Bridgehead Project.

The Ross Island Bridge and SW Naito Parkway (south of I-405) are state facilities (US Highway 26 and 99-W) and are significant in facilitating regional travel between Washington County and East Portland, as well as to areas north and south of central Portland. The Ross Island Bridge is an essential component of highway connections, including to and from I-405, I-5, Macadam Avenue (OR 43), Naito Parkway (OR 99-W), and OR 99-E and connecting US 26 West and US 26 East. Today, the bridge carries over 64,000 vehicles per day. While the bridge provides these critical regional connections, it was not originally built to serve this demand. Absent upgrades to the I-5 and the I-405 Freeway Loop, contemplated in the early 2000’s, the bridge continues to serve as a primary regional connection facility. Highway trips between US 26 west of downtown Portland are required to use local streets to reach the bridge and US 26 East.

Regional and local trips from either I-5 or Barbur Blvd use local streets to reach the bridge going east and trips to OR-43 from the Ross Island Bridge and I-405 are similarly routed onto local streets. The Ross Island Bridge ramps also occupy nearly four city blocks of potential redevelopment area. Movement within and through the study area by local neighborhood traffic, people biking and people walking is limited by the ramp function and limited-access expressway nature of OR 99-W/SW Naito Parkway.

### **Recitals**

Whereas, all parties support the extension of light rail in the SW Corridor to address the existing and forecasted travel demand in this corridor and the improvements to mobility. The addition of light rail helps address City and Metro plans and visions for this area.

Whereas, all parties recognize the cumulative impacts that regional transportation system projects have had in the study area and that the SWC Project provides an opportunity to catalyze improvements to address existing issues in and through the project area.

Whereas, Metro supports the continued development of an efficient multimodal transportation system that supports the land use objectives of local communities and the region. Metro is in support of the objectives of the Plan, specifically improved transportation safety, improved pedestrian and bicycle connectivity, efficient movement of transit vehicles, efficient movement of motor vehicles particularly along regional routes such as US 26, and the reconnection of communities in support of the region's 2040 Growth Concept that includes the readying of land for development within the Central City and other centers.

Whereas, ODOT currently has ownership of the Ross Island Bridge (US 26) and is responsible for access management along the facility. ODOT retains an interest in maintaining and improving safety and operations of US 26 and connecting state facilities and preserving and enhancing highway connections for regional traffic movement. ODOT and the City of Portland have an agreement to transfer jurisdiction of the units of roadway where LRT would be sited on or adjacent to as part of the SWC Project, as well as the unit of SW Naito Boulevard should modifications to the Bridgehead Project be designed and funded. ODOT is supportive of the Work Plan with the understanding that traffic analysis would show improvements to vehicle throughput, state mobility targets, and safety and operations of state facilities in the area with bridge ramp reconfiguration.

Whereas, TriMet supports the Plan to coordinate and implement a stand-alone Bridgehead Project that maintains regional connectivity, while improving local neighborhood and transit connections. The riders using the SWC Project station at Gibbs will benefit from improved access to and across SW Naito Parkway as many riders will use the SW Gibbs light rail station to access jobs, school, and



other land uses in South Waterfront and South Portland neighborhoods to the east. TriMet understands that a portion of the Bridgehead Project may include traffic mitigation related to the addition of light rail to Barbur Blvd. TriMet is supportive of the Work Plan with the understanding that funding and implementation of the Bridgehead Project is separate from the SWC Project with the exception of the proportional cost share of SWC Project mitigations.

Whereas, City of Portland supports the Work Plan as several past planning efforts including the South Portland Circulation Study (1977, 2001 update) provide a long-term vision to guide transportation improvements that reconnect the Lair Hill neighborhood and address regional traffic impacts and have resulted in ramp reconfiguration concepts. These have failed to be implemented largely due to the scale of improvements needed. The understanding of the beneficial transportation improvements of a re-organization of the connections to and from the Ross Island Bridge on the west side of the river was further refined in an investigation performed by the City and ODOT in 2010 and provides an initial concept for the Bridgehead Project. The Barbur Concept Plan (2012) sets forth a strategy to leverage regional investment in high capacity transit to achieve community aspirations for a more walkable, vibrant Naito in keeping with its inclusion in the Lair Hill pedestrian district and guide its continued transformation. The City also seeks to repurpose the land areas currently in use by bridge access ramps for future development along with the remaining vacant or underdeveloped parcels on Naito Parkway north of I-405. These areas represent opportunity sites for new housing units.

Whereas, all parties recognize that some portion of Bridgehead Project may be needed as mitigation to minimize and avoid traffic impacts resulting from light rail on Barbur. The parties need to identify this SWC Project traffic mitigation scope.

Whereas, the Barbur Concept Plan (2012) was adopted to help establish the land use basis for high capacity transit planning and expressed a strong preference for Naito as the main street of the South Portland area. The Barbur Concept Plan notes that if the Ross Island Bridge ramps are reconfigured, a station area near this newly freed up developable land could catalyze transit oriented mixed-use development. The reconfiguration of Ross Island Bridge ramps would improve neighborhood connectivity, support prioritizing Naito as the spine of the area, provide safe and conveniently spaced crossings for people walking and biking, and could lessen local impacts of cut-through regional traffic.

### **Understandings**

This MOU is a statement of the good faith effort of the parties and is not a binding legal agreement.

The Bridgehead Project is a concept that will likely change as more design, analysis, and a better understanding of available funds and SWC Project traffic mitigations are developed.

It is understood that the Bridgehead Project will be a multi-year phased approach, beginning with this Work Plan that identifies the short-term steps needed. The Work Plan will need to be updated as the Bridgehead Project and SWC Project progress into project development, design and construction.

The MOU will serve to help the parties to proceed on the following action items:

## **Ross Island Bridgehead – Work Plan**

### **1. Scope**

Commitment to work collaboratively on the tasks identified in Tasks and Responsibilities, Section 5 below. The resulting Work Plan products will be used to define the Bridgehead Project scope, budget, funding strategy, delivery approach and timeline.

The early working design concept for the Bridgehead Project is defined per the Southwest Corridor Plan and is included below. This concept will be refined and detailed based on outcomes of Work Plan Tasks (Section 5):

- Reconstruct Naito Parkway as two-lane road with bike lanes, sidewalks, left turn pockets, and on-street parking. Includes realignment and regrading at intersecting streets; removal of Barbur tunnel, Ross Island Bridge ramps, Arthur/Kelly viaduct & Grover ped bridge. This project will be coordinated with ODOT and with the Southwest Corridor Project, and will consider impacts to ODOT facilities including Naito Parkway and the Ross Island Bridge (Metro, 2018 RTP Projects, Financially Constrained)

### **2. Process Management & Structure**

Completion of the Work Plan will be aligned to the SWC Project milestone schedule. The process will be managed by Metro and coordinated within the SWC project management structure. Ongoing coordination efforts include:

- a. Continue design development in collaboration with technical staff from participating agencies and to define the Bridgehead Project. This includes defining what the mitigation elements are (proportional share of LRT on Barbur) and what additional modifications are needed:
  - Project Development – utilize SWC Project Development contract resources to 30-50% design.
  - Final Design – parties will determine based on funding availability and project management resources.
- b. Coordinate Bridgehead Project public involvement plan with the SWC Project. City of Portland to lead and ODOT to partner on Project public involvement:

- Prior to LPA – coordinate with Metro-lead public involvement
- After LPA – coordinate with TriMet-lead public involvement

**3. Schedule**

Work Plan Task due dates are determined based on when actions are needed contingent on the Bridgehead Project proceeding to construction and are tied to major phases of the SWC Project:

- a. DEIS/LPA – 2018
- b. FEIS – 2019
- c. Funding – 2020-2021

Additional Tasks & Responsibilities will be identified for subsequent phases of the Bridgehead Project into project development, design and construction.

**4. Budget**

Work Plan Task (9) to include development of a funding plan that includes cost allocation and appropriate share contribution by FTA funded project, regional funds, and other local alternatives.

**5. Tasks and Responsibilities**

**STAGE 1: DEIS/LPA (2018)**

<b>Task</b>	<b>Description</b>	<b>Lead</b>	<b>Partner</b>	<b>Product</b>	<b>Target Date</b>
1	<p>Define intended benefits of the traffic solution (including but not limited to pedestrian and bike connectivity, vehicle throughput, state mobility targets, safety, redevelopment potential and neighborhood connectivity) in coordination with SWC project partners.</p> <ul style="list-style-type: none"> <li>- Define scope of mitigations to minimize or avoid traffic impacts that result from LRT on Barbur</li> <li>- Determine if there are alternative traffic mitigations, other than Bridgehead Project</li> </ul> <p>Define potential alternative mitigation strategies/design – consider this mitigation cost as a portion share to the full RIB.</p>	Metro	TM, COP, ODOT	SWC DEIS traffic analysis	Summer 2018

2	Define benefits of combined projects (SWC and Bridgehead Project) that describe increased mobility, safety, multi-modal access, community re-stitching, land use, affordable housing, etc.	COP	Metro, TM	South Portland Focus Area Brief	June 2018
3	Define what elements of the Bridgehead Project have a direct nexus in mitigating SWC impacts. Define SWC project mitigation needs and design (traffic/station access) and determine Bridgehead Project elements.	TM	COP, ODOT, Metro, TM	Refined project definitions	Summer 2018
4	Pursue inclusion of Bridgehead Project investment areas to Jurisdictional Transfer of roadways Agreement.	ODOT	COP	Jurisdictional Transfer Agreement	July 2018
5	Develop cost estimates for the Bridgehead Project and proportional share of SWC Project mitigations.	TM	ODOT, COP, Metro	Proportional cost estimate	Summer 2018
6	Develop understanding of regional v. local trips accessing the Ross Island Bridge for defining the Bridgehead Project (non-new starts elements) and level of regional significance.	Metro	COP, ODOT	Summary/ Memo	June 2018
7	Define Bridgehead Project Public Involvement as separate from SWC.	COP	ODOT	PI Plan	Summer 2018

**STAGE 2: FEIS (2019)**

<b>Task</b>	<b>Description</b>	<b>Lead</b>	<b>Partner</b>	<b>Product</b>	<b>Target Date</b>
8	Refine Bridgehead Project scope, utilizing Shared Investment Strategy concept and outcomes of Tasks completed in Stage 1 above.	COP	ODOT	Project Scope	Fall 2018
9	Develop a funding plan that includes cost allocation and appropriate share contribution by FTA funded project, regional funds, and other, including: <ul style="list-style-type: none"> <li>- Discuss funding activities by COP</li> <li>- Identify project development</li> </ul>	Metro	TM, COP, ODOT	Funding Plan	Summer 2019

	and design resources - Identify construction resources				
10	Develop construction sequence strategy that can be used to identify likely implementation contract methods and responsibilities.	TM	COP, ODOT	Construction sequence strategy	Fall 2019
11	Pursue FEIS clearance with priority to provide the most flexibility for funding opportunities and options for implementation.	Metro	TM	FEIS	Fall 2019

**STAGE: FUNDING (2020-2021)**

<b>Task</b>	<b>Description</b>	<b>Lead</b>	<b>Partner</b>	<b>Product</b>	<b>Target Date</b>
12	Coordinate Bridgehead Project concurrence and funding with the Oregon Transportation Commission (OTC) and Federal Highway Administration (FHWA) if needed.	ODOT	Metro, COP	State-level funding commitments	2020
13	Develop property allocation plan that defines property requirements for Bridgehead Project; determines acquisition and disposition plan for Bridgehead Project parcels; and follows Federal process for property acquisition as necessary to meet funding requirements.	COP	Metro, ODOT, TM	Property Allocation Plan	2021



**Authorization**

Each Party represents that it has the authority to enter into this MOU which is non- legally binding and is a statement only of good faith and intentions of the Parties. Each signatory represents that it has been authorized by that Party to execute and deliver this MOU.

**Metro**

**By:** \_\_\_\_\_

**Martha Bennett**

**Title: Chief Operating Officer**

**Date:**

DRAFT

**Authorization**

Each Party represents that it has the authority to enter into this MOU which is non- legally binding and is a statement only of good faith and intentions of the Parties. Each signatory represents that it has been authorized by that Party to execute and deliver this MOU.

**City Of Portland**

**By:** \_\_\_\_\_  
**Ted Wheeler**

**Title: City of Portland Mayor**

**Date:**

DRAFT

**Authorization**

Each Party represents that it has the authority to enter into this MOU which is non- legally binding and is a statement only of good faith and intentions of the Parties. Each signatory represents that it has been authorized by that Party to execute and deliver this MOU.

**Oregon Department of Transportation (ODOT)**

**By:** \_\_\_\_\_  
**Rian Windsheimer**

**Title: Region 1 Manager**

**Date:**

DRAFT

**Authorization**

Each Party represents that it has the authority to enter into this MOU which is non- legally binding and is a statement only of good faith and intentions of the Parties. Each signatory represents that it has been authorized by that Party to execute and deliver this MOU.

**Tri-County Metropolitan Transportation District of Oregon (TriMet)**

**By:** \_\_\_\_\_  
**Doug Kelsey**

**Title: General Manager**

**Date:**

DRAFT

**Figure 1**  
**Ross Island Bridgehead**  
**Project Area**

