



Evaluation Report: Roadway Projects

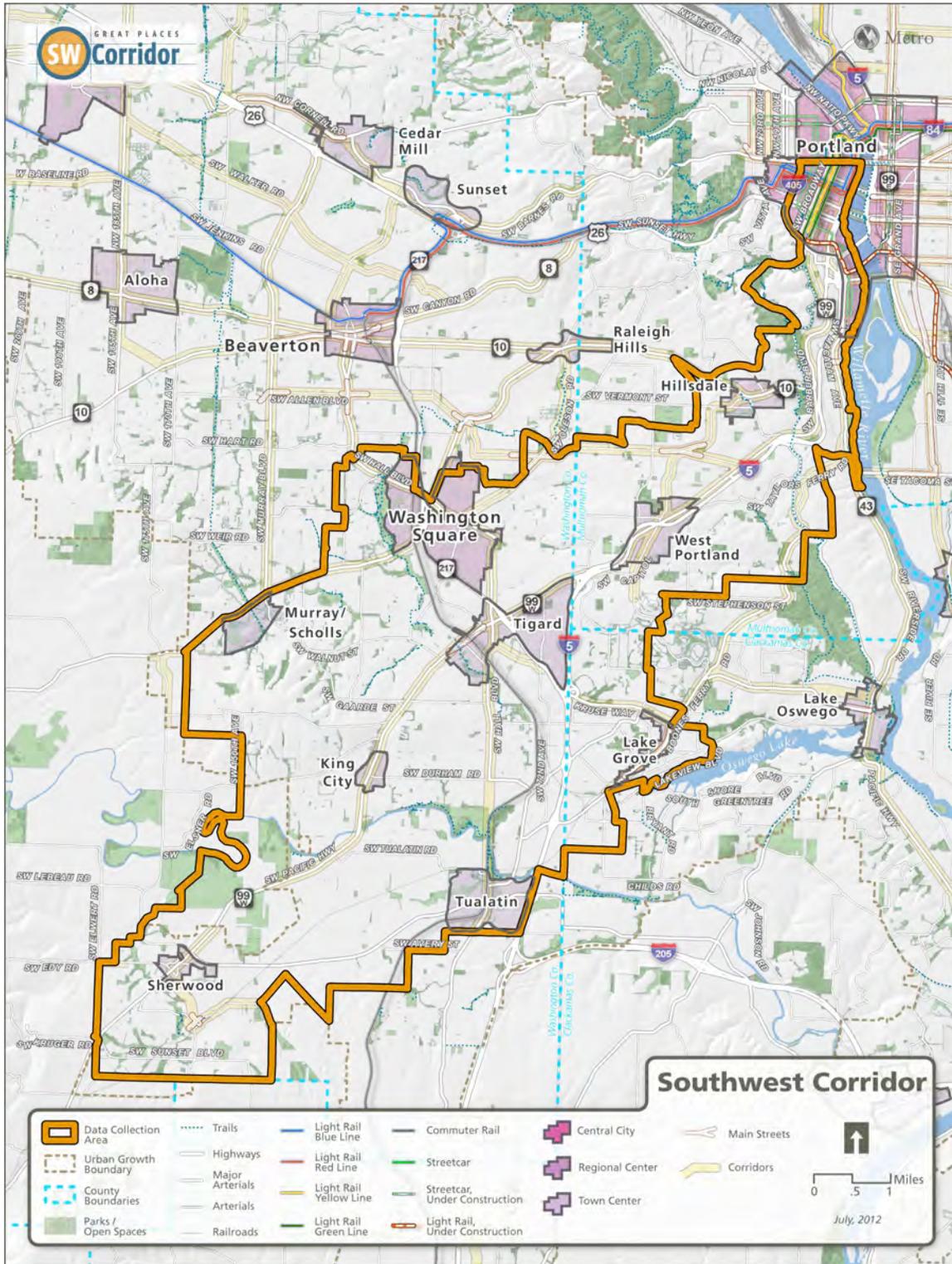


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Introduction

Purpose

The purpose of the Southwest Corridor Plan evaluation process is to assist in and support identifying a preferred strategy for the corridor. The purpose of this report is to document the analysis of a subset of the roadway projects that met the initial project screening for the Southwest Corridor Transportation Plan. The subset of projects described and evaluated in this report include those with:

- Traffic impacts that could be measured by the regional travel demand model
- Relatively high costs.

This report focuses on roadway projects and the evaluation focuses on the transportation-related impacts of roadway projects. A companion report focuses on active transportation projects and impacts to the active transportation system.

Methodology

Evaluation framework

The analysis in this report is derived from the vision adopted by the SW Corridor Plan Steering Committee and the following goals and objectives:

Goal: Accountability and partnership – Manage resources responsibly, foster collaborative investments, implement strategies effectively and fairly, and reflect community support.

Objectives:

- Build upon existing plans, private development and investments in public infrastructure
- Make investments that maximize limited resources
- Equitably distribute the benefits and burdens of growth geographically and demographically

Measures used to evaluate the accountability and partnership goal and objectives include:

- Cost
- Support for transit investment

Goal: Prosperity – People can live, work, play and learn in thriving and economically vibrant communities where everyday needs are easily met.

Objectives:

- Develop communities that provide education, jobs, services, shopping and recreation
- Stimulate potential for private investment
- Support a wide variety of employment
- Improve opportunities for affordable living, considering the combined housing, transportation and utility costs

Goal: Health – An environment that supports the health of the community and ecosystems.

- Develop transportation facilities and urban form that enhance the natural environment
- Support active and healthy lifestyles
- Strive to enhance the natural environment to improve ecosystem function and air and water quality

Goal: Access and mobility – People have a safe, efficient and reliable network that enhances economic vitality and quality of life.

Objectives:

- Improve access to places where people live, work, play and learn
- Improve access, mobility and safety for all transportation modes, ages and physical abilities
- Improve the freight transportation system to ensure that the region and its businesses stay economically competitive.

Introduction

Measures used to evaluate the access and mobility goal and objectives include:

- Travel time
- Vehicle hours of delay (VHD)
- Change in travel patterns
- Vehicles miles travelled (VMT)
- Connectivity
- Pedestrian/Bicycle impacts

Bundles

The approach adopted for this evaluation was to combine the roadway and active transportation projects into “bundles” with each of the five high capacity transit projects. Table 1 on the following page shows which projects were included in each bundle. The affects of projects combined in the bundles, if any, on the model results are discussed in this report.

Costs

Capital costs are planning-level costs escalated to 2022, to represent year-of-expenditure dollars and maintain a consistent base of comparison. This report uses the planning-level estimates of projects from source documents, for example, the 2035 Regional Transportation Plan, a transportation system plan, or a corridor plan. If the source document did not include cost estimates, project staff used professional judgment to produce planning-level estimates.

Modeling

Metro’s regional travel demand model was used to perform a planning-level assessment of major roadway projects. All modeling results reported are for the evening peak one hour, 5-6 PM. The model determines the changes in vehicle travel patterns and travel times expected to result from changes to the roadway network, providing a means of testing candidate roadway projects. The model is an estimate of future 2035 vehicle demand based on land use and roadway and transit

network assumptions, and it provides a means for determining the relative changes in transportation performance. Performance measures such as roadway traffic volumes, vehicle delay, and changing travel times can be estimated for each project bundle, allowing the roadway impacts of each project to be estimated.

Narrowing

The evaluation of projects in this document focuses on transportation performance, however planning for the SW Corridor focuses on the desire for transportation investments to support the desired land use. The goals and objectives adopted for the plan provide the criteria for this narrowing. In addition to the transportation performance, a narrowing process provides an opportunity to evaluate projects against all the goals and objectives for the plan. A section on narrowing in this report explains the methodology and criteria used for narrow.

Introduction

Table 1 Major Roadway Project Bundles

Project #	Project Title	A: LRT Tigard	B: BRT Tigard	C: BRT Tualatin	D: BRT Sherwood	E: Hub & Spoke
1044	South Portland Circulation and Connectivity	X			X	
5013	Naito/South Portland Improvements				X	
1019, 5006	Barbur Lane Diet			X	X	
4002, 5005	Barbur Blvd. Multi-modal Improvements	X	X	X		X
1037	SW Portland I-5 Partial Split Spring Garden Interchange					X
5059	SW Portland/ Crossroads Multimodal Project	X		X		
5009	Capitol Highway Improvements	X				
5004	Boones Ferry Road Improvements - Madrona to Kruse Way					X
1107	Highway 217 Over-crossing - Hunziger Hampton Connection	X	X	X	X	X
1121	Upper Boones Ferry at 72nd and Durham		X	X		
1149	Highway 217/72nd Ave. Interchange Improvements				X	
1134	Boones Ferry Road: Martinazzi to Lower Boones Ferry			X	X	X
1008B	I-5 Southbound Auxiliary lane: Lower Boones Ferry interchange		X	X		
1154	Tualatin-Sherwood Rd. Widening		X	X	X	X
1062	Arrow Street (Herman Road)		X	X		

South Portland Circulation and Connectivity (1044)

Project description

-  \$28.4M (2022)
-  Restores the neighborhood grid and connectivity along Naito Parkway by restoring seven at-grade intersections from SW Sheridan to SW Grover St.
-  Adds new signalized intersections at SW Naito Parkway/Hooker and SW Kelly/Water.
-  Builds a new signalized intersection at SW Naito Parkway and Ross Island Bridge access that allows for removal of several existing roadways and ramp connections.
-  Adds a new ramp connection from SW Kelly (southbound) that passes beneath the Ross Island Bridge west of SW Hood Avenue.
-  Provides a revised southbound connection between US 26 and I-405 along Kelly Avenue.

Figure 1 South Portland Circulation and Connectivity Project



Project purpose

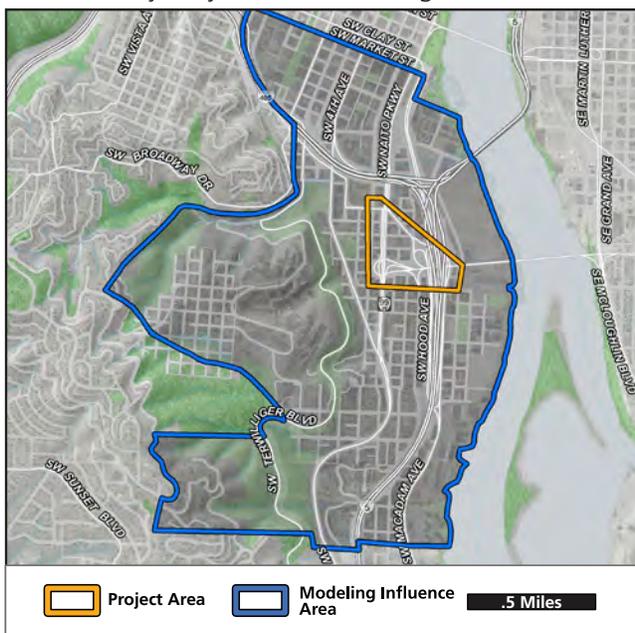
Enhance neighborhood connectivity across SW Naito Parkway.

Improve connectivity, safety, and street environment for cyclists and pedestrians; shift through traffic from neighborhood streets onto Kelly Avenue.

Modeling assumptions

- Removes several existing ramp connections to and from the Ross Island Bridge
- Adds a new ramp connection from SW Kelly (southbound) to the Ross Island Bridge eastbound
- Maintains two lanes in each direction on SW Naito Parkway north of Ross Island Bridge
- Adds new signalized intersections along SW Naito Parkway at Ross Island Bridge and at SW Hooker Street
- Adds two signalized connections along Kelly Avenue north of the Ross Island Bridge off-ramp.

Figure 2 South Portland Circulation and Connectivity Project and Modeling Influence Areas



South Portland Circulation and Connectivity (1044)

Evaluation results

Summary

The project performs consistently with its purpose of redirecting the Ross Island Bridge traffic along Kelly Avenue. Some redirection of auto traffic from Naito to Kelly occurs, although a substantial amount remains on Naito. Overall vehicle delay increases as the system capacity is reduced.

Change in travel patterns

- This project converts the ramps between the Ross Island Bridge and Naito into an at-grade intersection, and increases the use of Kelly to access the bridge.
- Traffic from the west on US 26 (Arthur) continues on Kelly rather than turning south onto Naito to access the bridge. As a result, traffic on Kelly increases 7% while traffic on Naito Parkway south of Arthur/Kelly drops by 15%-25%.
- Traffic on the bridge drops 3% due to the revised access.
- Freeway travel patterns do not measurably change.

Route travel time

- During the PM peak hour, the average auto travel time between I-405 and the Ross Island Bridge increases by about 5 seconds northbound and 20 seconds southbound.

Area-wide delay

- This project increases vehicle hours of delay (VHD) in the influence area by 4%. Most of the additional delay is for vehicles accessing the Ross Island Bridge from the west.
- This project reduces vehicle miles traveled (VMT) in the influence area by 2%.

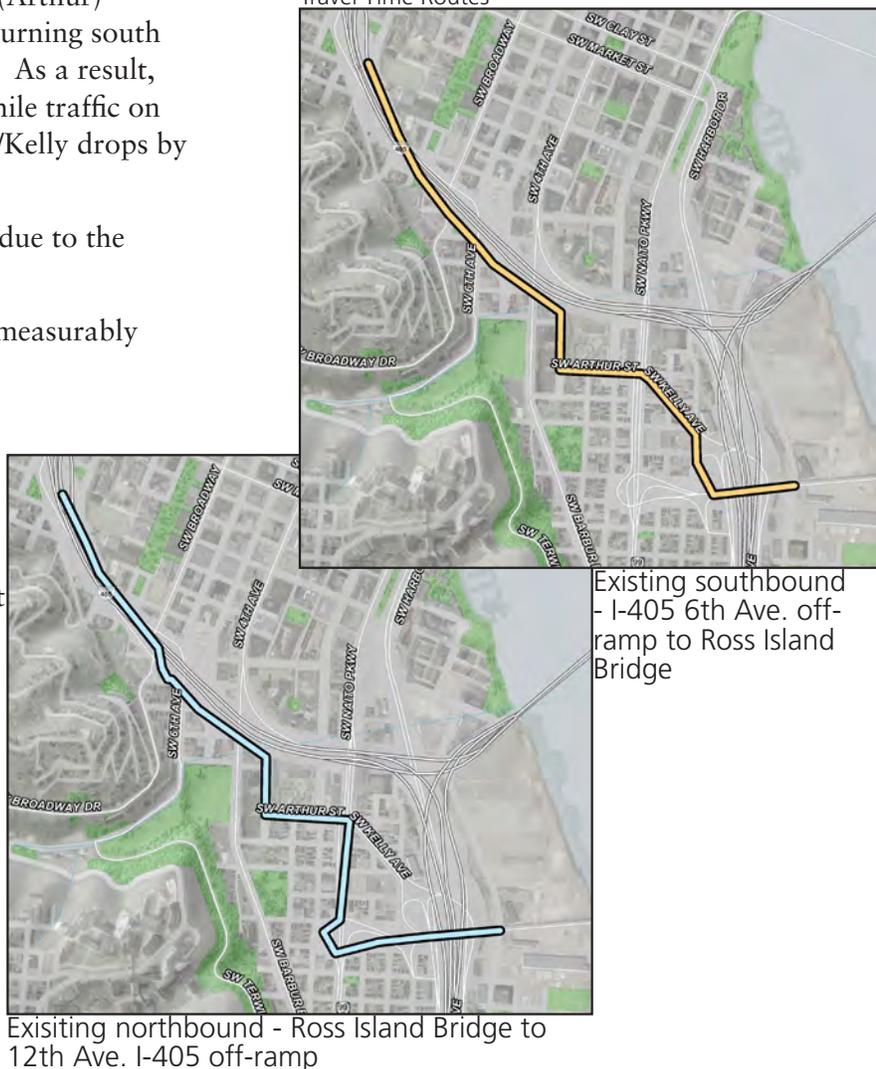
Connectivity

These projects (5013 and 1044) increase connectivity in a neighborhood with a fragmented street grid.

Bike/Pedestrian

This project improves walking and bicycling conditions in the neighborhood by restoring street connectivity across Naito Parkway.

Figure 3 South Portland Circulation and Connectivity Travel Time Routes



Existing southbound - I-405 6th Ave. off-ramp to Ross Island Bridge

Existing northbound - Ross Island Bridge to 12th Ave. I-405 off-ramp

Naito/South Portland Improvements (5013)

Project description

 \$51.2M (2022)

 Reconstructs Naito Parkway as a two-lane neighborhood collector street with bike lanes, sidewalks, left turn pockets and on-street parking.

 Removes grade separations along Naito at Barbur, the Ross Island Bridge, Arthur/Kelly, and the Gibbs pedestrian bridge.

Restores the neighborhood grid along Naito Parkway by restoring 17 at-grade intersections from SW Sheridan to SW Lowell St.

 Reconfigures Naito Parkway and Kelly Avenue as an at-grade signalized intersection.

Reconfigures and realigns Naito Parkway and Barbur Blvd. as an at-grade signalized intersection.

Figure 4 Naito/ South Portland Improvements Project

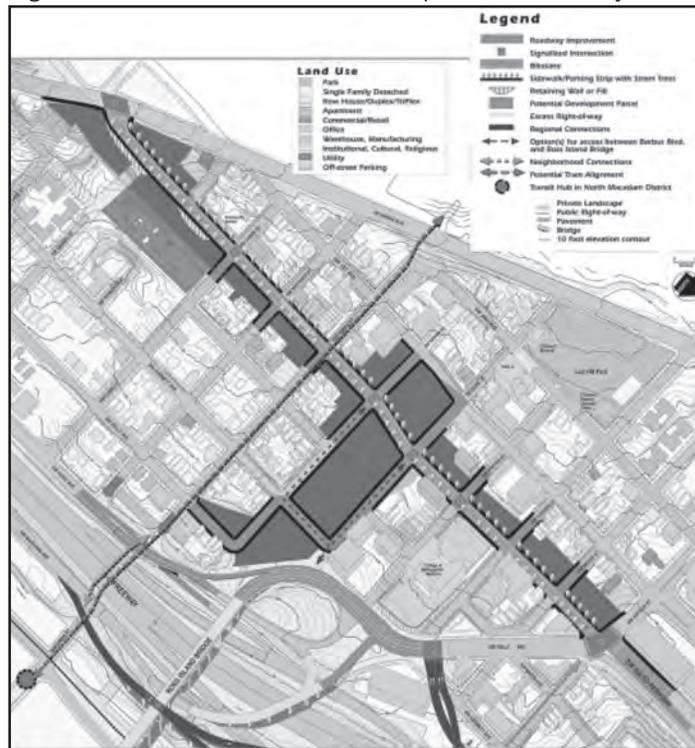
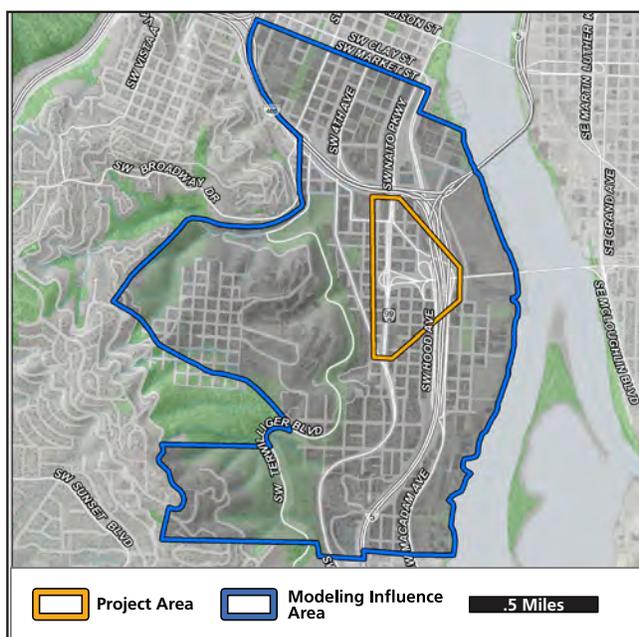


Figure 5 Naito/ South Portland Improvements Project and Modeling Influence Areas



Project purpose

Improve connectivity and create a multimodal neighborhood street character on Naito Parkway

Modeling assumptions

- Reduces vehicle capacity on SW Naito Parkway to one lane in each direction with turn lanes.
- Adds signalized intersections on Naito Parkway at Kelly Avenue and at Barbur Blvd.
- Removes existing ramp connections between Ross Island Bridge and Naito Parkway.
- For modeling this project does not stand alone in any bundle. This project is in the BRT to Sherwood run with the South Portland Circulation project (1044)

Naito/South Portland Improvements (5013)

Evaluation results

Summary

The project performs consistently with its purpose of converting Naito to a neighborhood-scale street, and redirecting the Ross Island Bridge traffic along Kelly Avenue. About half of Naito's auto traffic is diverted to other streets, especially Kelly and Barbur. Overall vehicle delay increases as the system capacity is reduced.

Change in travel patterns

- This project, in conjunction with South Portland Circulation and Connectivity (1044), reconstructs Naito Parkway as a neighborhood collector type street, and removes grade separations at Arthur/Kelly and Barbur. The result is reduced vehicle demand on Naito Parkway.
- Traffic accessing the bridge from the west and north is primarily directed along Kelly. As a result, traffic on Kelly increases 23% while traffic on Naito south of Arthur/Kelly drops by 45%-60%.
- Traffic on Barbur (parallel to Naito) increases by 22% as through traffic diverts from Naito to Barbur, which has available capacity.
- Traffic on the bridge drops 5% due to the revised travel patterns.
- Freeway travel patterns do not measurably change.

Area-wide delay

- In conjunction with South Portland Circulation and Connectivity (1044), this project increases VHD in the influence area by 7%. Most of the additional delay is for vehicles accessing the Ross Island Bridge from the west.

Connectivity

- These projects (5013 and 1044) increase connectivity in a fragmented neighborhood by converting a 1940s-era expressway into a neighborhood-scale street with crossings.

Bike/Pedestrian

- These projects add and improve sidewalks to fill gaps, add pedestrian crossings, add transit amenities, and add or improve bike lanes to fill gaps.

Barbur Boulevard Road Diet (5006, 1019)

Capitol to Hamilton (1019)

Project description

\$ \$0.3M (2022)

 Reduces the number of northbound lanes on Barbur from three to two from Capitol Highway (north) to 1/4 mile south of Hamilton.

Adds buffered bike lanes.

Project purpose

Reduce vehicle speeds, improve cyclist and pedestrian safety, and close a major bicycle route gap. Intended to reduce speeds and improve safety and improve pedestrian/bike crossing safety.

Modeling assumptions (5006, 1019)

- Reduces northbound lanes and capacity on Barbur Blvd. from Terwilliger to Hamilton Street.

Terwilliger to Capitol Highway (5006)

Project description

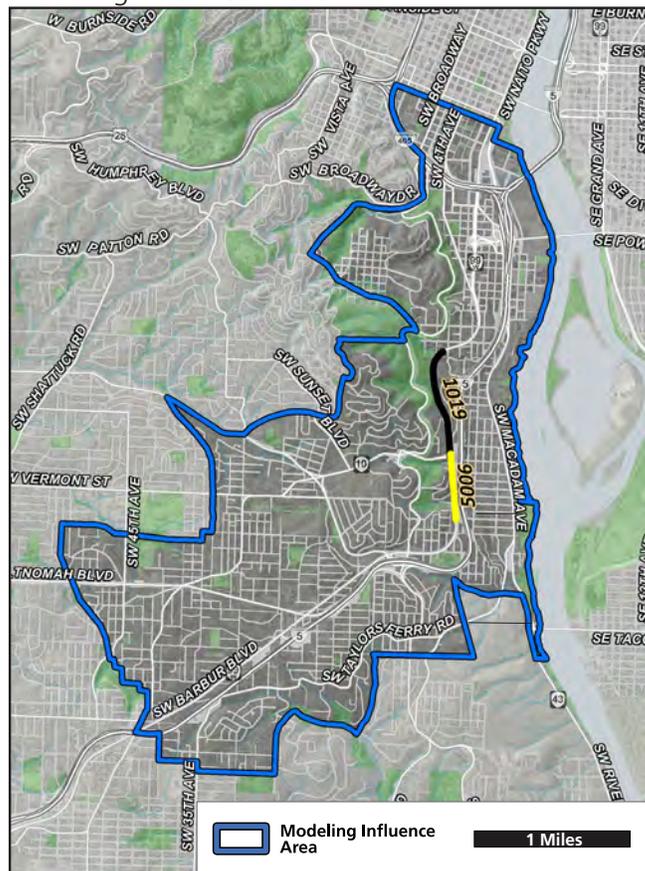
\$ \$0.3M (2022)

 Reduces number of northbound lanes on Barbur from two to one from SW Miles Street to Capitol Highway.

Adds bike lanes and widens sidewalks over Newberry and Vermont bridges.



Figure 6 Barbur Boulevard Road Diet Project and Modeling Influence Areas



Barbur Boulevard Road Diet (5006, 1019)

Evaluation results

Summary

The proposed road diet projects remove a northbound vehicle travel lane on Barbur Blvd. in order to provide better bicycle facilities. Northbound traffic is the predominant movement in the AM peak, but the study period for the project bundles was the PM peak. Additional analysis is therefore needed to draw conclusions about these two projects. Tools such as Synchro and dynamic traffic assignment models may be employed in a more detailed evaluation.

Bike/Pedestrian

- The removal of a travel lane provides space for improved bicycle and/or pedestrian facilities improving the comfort of people walking and bicycling.
- A reduction in the number of vehicle lanes would be expected to reduce average vehicle speeds, improving the comfort and safety of people walking and bicycling.

Figure 7 Barbur Boulevard Road Diet Travel Time Routes



Barbur -Naito Parkway to Terwilliger | I-5 Terwilliger on-ramp to Hood Avenue off-ramp

Barbur Boulevard Multimodal Improvements (4002, 5005)

Evaluation results

Bike/Pedestrian

These projects add and improve sidewalks to fill gaps, add pedestrian crossings, add transit amenities, and add or improve bike lanes to fill gaps.

Figure 9 Barbur Boulevard Multimodal Improvements

CIVIC CORRIDORS



A civic corridors approach to Barbur Boulevard would tie together Barbur's transportation modes, increase greenspace and incorporate new urban design prototypes.

SW Portland I-5 Partial Split Spring Garden Interchange (1037)

Project description

 \$103.1 M (2022)

 Reconfigures the I-5 Spring Garden interchange as a partial split.

Creates new I-5 southbound on- and off-ramps to and from Barbur Blvd. just south of SW 26th.

Creates new I-5 northbound on- and off-ramps at Spring Garden Street.

Closes existing southbound off-ramps at Spring Garden and northbound off-ramp at Taylor's Ferry.

Rebuilds structure over I-5 on Spring Garden Street and widens Spring Garden east of Barbur Blvd.

Project purpose

Create additional access to I-5 southbound; reduce use of Barbur for longer, higher-speed southbound trips; reduce vehicle demand at the Crossroads intersection.

Modeling assumptions

- Adds I-5 southbound on- and off-ramps to and from Barbur Blvd just south of SW 26th
- Adds I-5 northbound off-ramp at Spring Garden Street

Figure 11 SW Portland I-5 Partial Split Spring Garden Interchange Modeling Influence Area

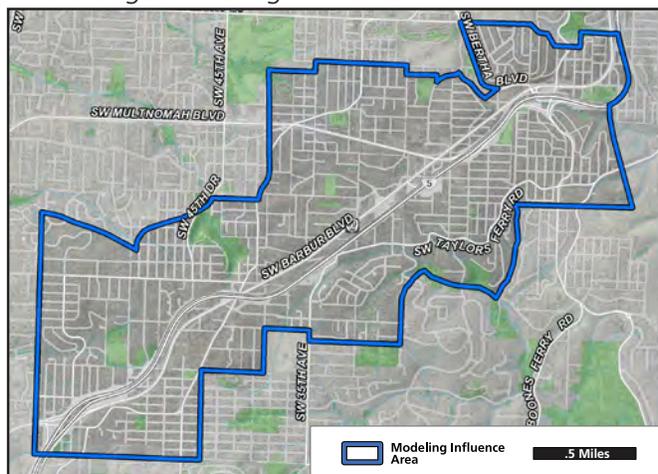
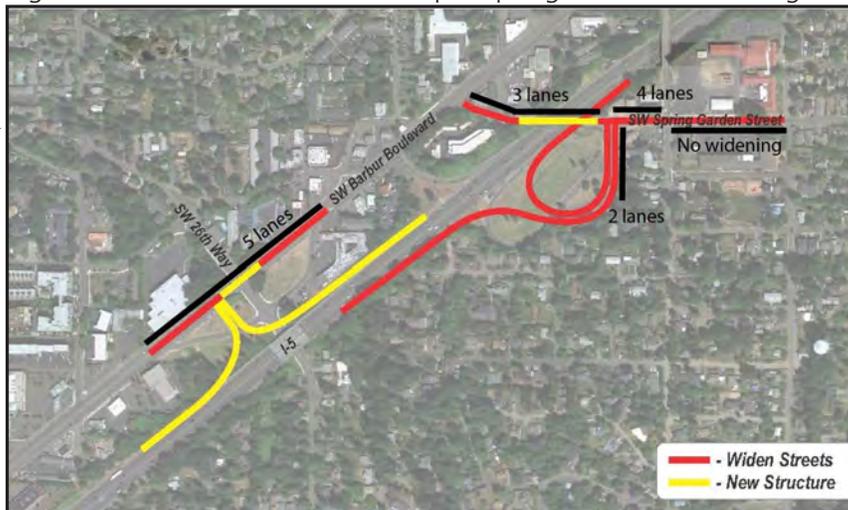


Figure 10 SW Portland I-5 Partial Split Spring Garden Interchange



- Removes existing I-5 northbound off-ramp to Taylor's Ferry Road
- Removes existing I-5 southbound off-ramps at Spring Garden
- Adds capacity to Spring Garden Street between Barbur Blvd. and SW 19th Ave.

Evaluation results

Summary

The project shifts a substantial amount of traffic from Barbur to I-5 between the new interchange and 65th/Hwy 99-W. Traffic volumes decrease on Taylor's Ferry, where the existing off-ramp is removed. System delay increases as additional traffic is attracted to a constrained segment of I-5.

Change in travel patterns

- This project shifts traffic away from Barbur Blvd. to I-5 on the nearby portions of these regional facilities. In the future Barbur Blvd. has very little congestion between Terwilliger and Taylor's Ferry Road.
- I-5 northbound, north of Taylor's Ferry Road increases by 8% or 440 vehicles/hour, and by 12% or about 600 vehicles/hour southbound (south of the Barbur on-ramp).

SW Portland I-5 Partial Split Spring Garden Interchange (1037)

- Barbur Blvd. southbound, between SW 30th and Taylors Ferry Road, drops by 20% or 340-350 vehicles/hour, and drops by 12% or 160 vehicles /hour northbound.
- Removing the I-5 off-ramp to Taylors Ferry Road reduces volumes on Taylors Ferry by about 78 % or 290 vehicles/hour eastbound and 42% or 110 vehicles/hour westbound.
- Westbound on Huber Street east of Capitol traffic volume increases by about 45% or 150 vehicles/hour.
- Westbound on Spring Garden east of Barbur Blvd. volumes increase by about 150 vehicles per hour (10%).

Route travel time

- The average northbound and southbound peak hour travel time is increased by 16-17 seconds or about 4.5% along I-5 from the Barbur Blvd. on-ramp (near SW 60th) to the Terwilliger Blvd. on-ramp.
- The average northbound and southbound peak hour travel time is increased by 8-11 seconds or about 2% along Highway 99W from SW 65th Avenue to just north of Terwilliger Blvd.

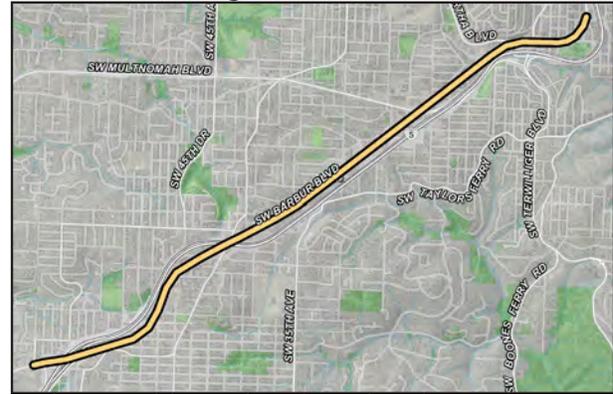
Area-wide delay

- This project, modeled with BRT Hub and Spoke (to Tigard) which adds Business Access Transit (BAT) lanes southbound on Barbur Blvd., increases VHD by about 19 hours or 15.5% in the influence area.
- VMT is virtually the same in the influence area.

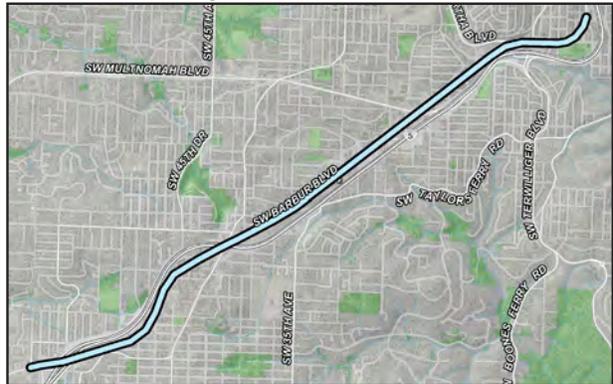
Bike/Pedestrian

- The freeway ramp locations would be expected to present challenges for pedestrians to cross.
- Minor street improvements on Spring Garden Street east of Barbur Boulevard would fill sidewalk gaps.

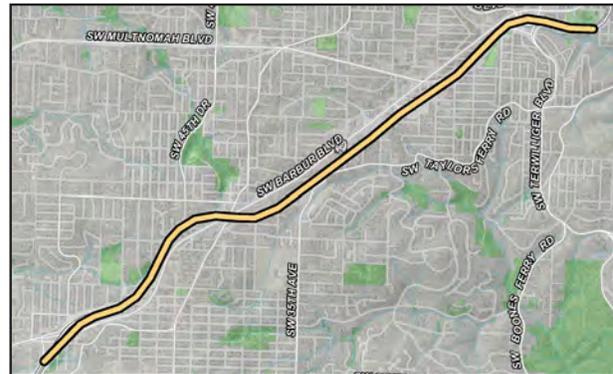
Figure 12 SW Portland I-5 Partial Split Spring Garden Interchange Travel Time Routes



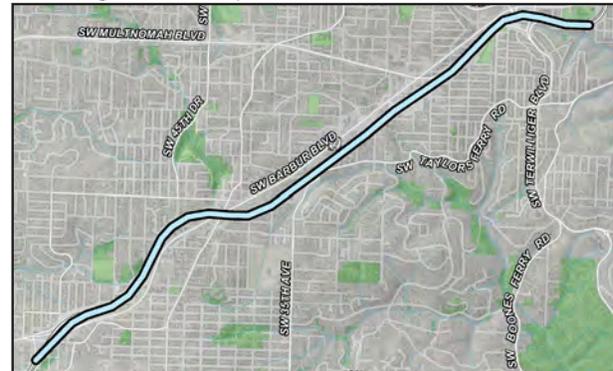
Barbur northbound 65th and Barbur to just north of Terwilliger



Barbur southbound



I-5 northbound from Barbur off-ramp to Terwilliger on-ramp



I-5 southbound

SW Portland/Crossroads Multimodal Project (5059)

Project description

\$ \$51.6 M (2022)



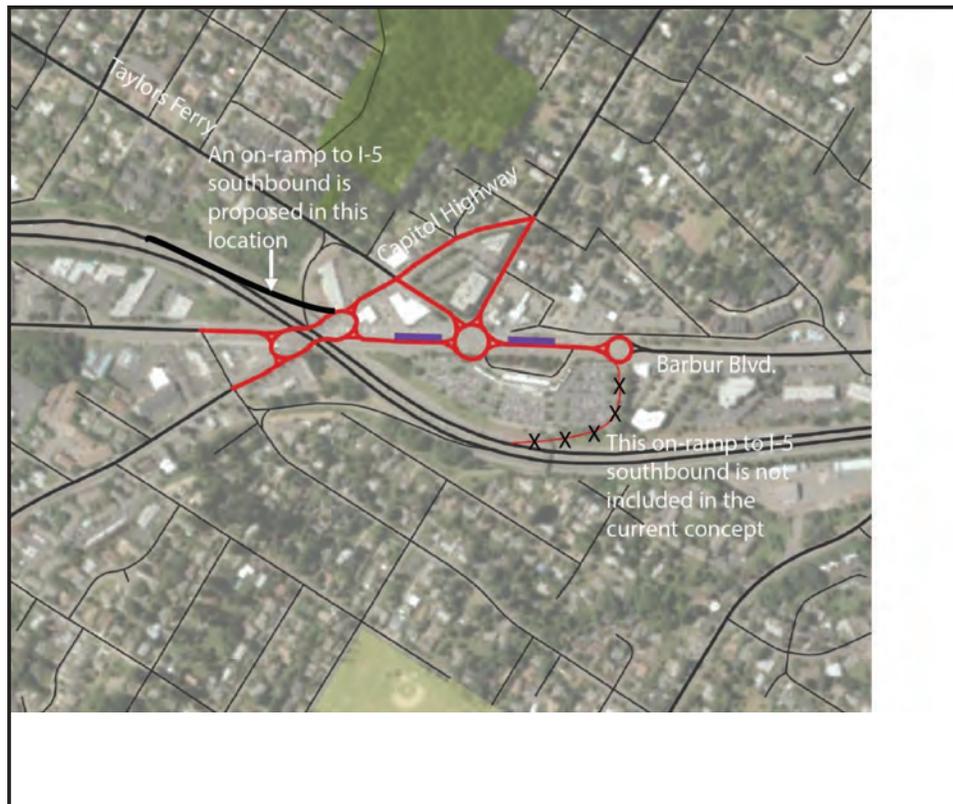
Modifies Barbur Blvd., Capitol Highway, and the I-5 southbound on-ramp.

Project includes various intersection improvement types (such as roundabouts) and roadway realignments to be refined.

Implements Barbur Concept Plan walk audit recommendations in the SW Portland Town Center.

Project includes maintaining two lanes in each direction on Barbur Blvd. between new intersection improvements from Huber Street north to Barbur Transit Station entrance. Project is illustrative of a group of concepts that would change circulation in this area.

Figure 13 SW Portland/Crossroads Multimodal Project



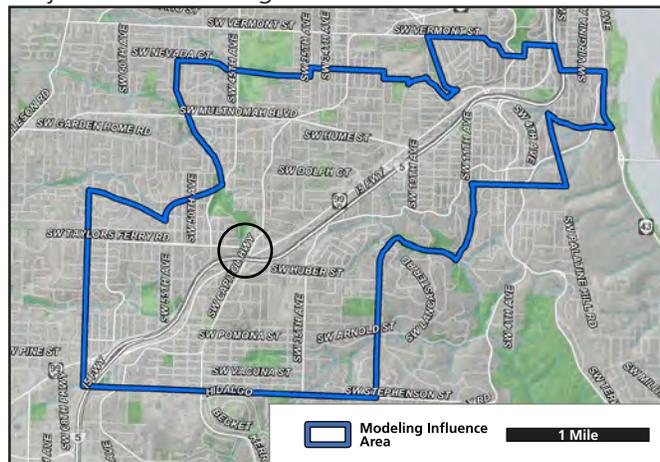
Project purpose

Support safer and more efficient movements for motorists, transit vehicles, cyclists, and pedestrians

Modeling assumptions

- Adds three roundabouts on Barbur Blvd., (one at north Transit Station entrance, one at Taylors Ferry Road and one at Capitol Highway)
- Adds a signal at Barbur and Huber and restricts southbound left turns from Barbur to Huber Street
- Adds a signal at Capitol Highway and Taylors Ferry Road with added capacity for turn lanes

Figure 14 SW Portland/Crossroads Multimodal Project and Modeling Influence Areas



SW Portland/Crossroads Multimodal Project (5059)

Evaluation results

Summary

The project shifts traffic away from Barbur Blvd. on onto I-5 on the nearby portions of these parallel regional facilities. The assumed project configuration increases influence area delay, which is primarily due to the roundabout at Barbur Blvd. and Capitol Highway (includes the southbound on-ramp to I-5) being overwhelmed by traffic headed for the I-5 southbound ramp. Further project refinement would be needed to address this demand.

Change in travel patterns

- This project shifts traffic away from Barbur Blvd. onto I-5 on the close by portions of these regional facilities.
- Barbur Blvd. southbound, north of Taylors Ferry Road, drops by 26% or 450 vehicles/hour, and drops by 26 % or 340 vehicles /hour northbound.
- I-5 southbound, north of Taylors Ferry Road increases by 5.5 % or 300 vehicles/hour) and increases by about 2% or 90 vehicles/hour northbound.
- Demand on the Barbur/Capitol roundabout (includes the I-5 on ramp) is about 2,200 vehicles/hour, which is close to the expected capacity.

Route travel time

- See figure 12 travel time route for Spring Garden interchange project on previous page.
- The average northbound and southbound peak hour travel time increases by about 12 seconds or 3.2% along I-5 from the Barbur Blvd. on-ramp (near SW 60th) to the Terwilliger Blvd. on-ramp.

- The average northbound and southbound peak hour travel time is increased by 38-40 seconds or 8-8.4% along Highway 99W from SW 65th Avenue to just north of Terwilliger Blvd.

Area-wide delay

- With this project VHD increases about 16 hours or 13% within the influence area.
- The increase in delay is primarily due to the shift in traffic away from Barbur Blvd. on to I-5, which accounts for additional delay on I-5 both northbound and southbound between Highway 99W and Capitol Highway.
- Increased delay also occurs on Capitol Highway approaching Huber St. and southbound approaching the roundabout at Barbur Blvd.
- VMT decreases by about 1% within the influence area.

Connectivity

- Project maintains existing street connectivity while improving pedestrian and bicycle connectivity with more pedestrian/bike crossings of Barbur Blvd. and Capitol Highway

Bike/Pedestrian

- The intension of the project is to enhance pedestrian and bicycle facilities and create more and safer pedestrian/bike crossings of Barbur Blvd. and Capitol Highway.

Capitol Highway Improvements (5009)

Project description

 \$24.6 M (2022)

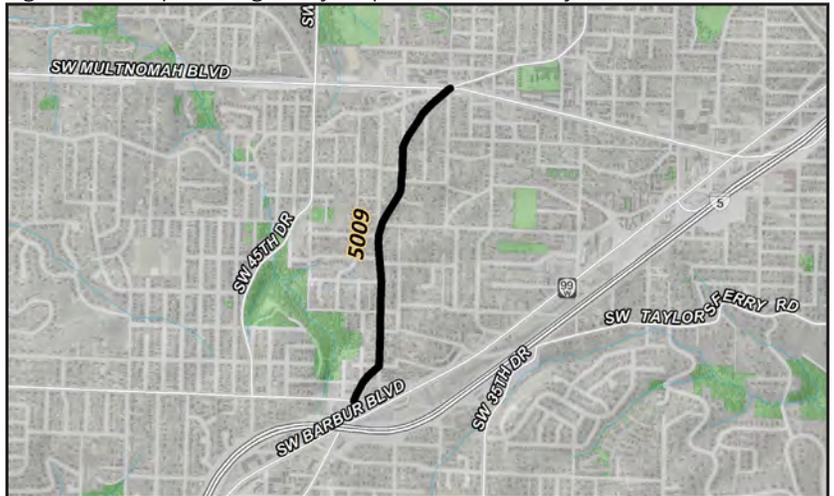
 Improves SW Capitol Highway from SW Multnomah Boulevard to SW Taylors Ferry Road per the Capitol Highway Plan

Replaces existing roadway and adds sidewalks, bike lanes and green stormwater features

Modeling assumptions

No modeling impact.

Figure 15 Capitol Highway Improvements Project Area



Capitol Highway Improvements (5009)

Project purpose

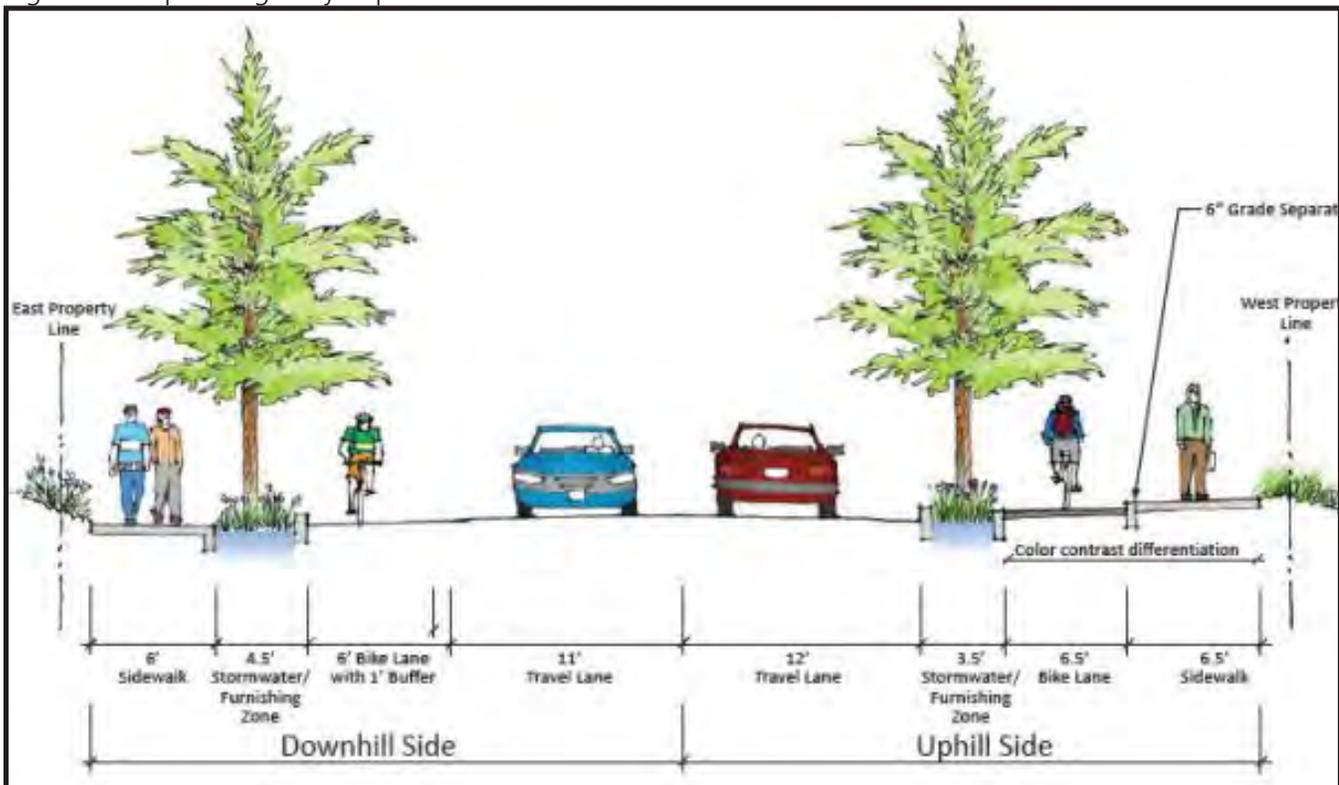
Improve connectivity, safety, and comfort for cyclists and pedestrians

Evaluation results

Bike/Pedestrian

- This project adds sidewalks and bike lanes to a street to improve safety and comfort for people walking and biking.

Figure 16 Capitol Highway Improvements Cross-section



Boones Ferry Road Improvements – Madrona to Kruse Way (5004)

Project description

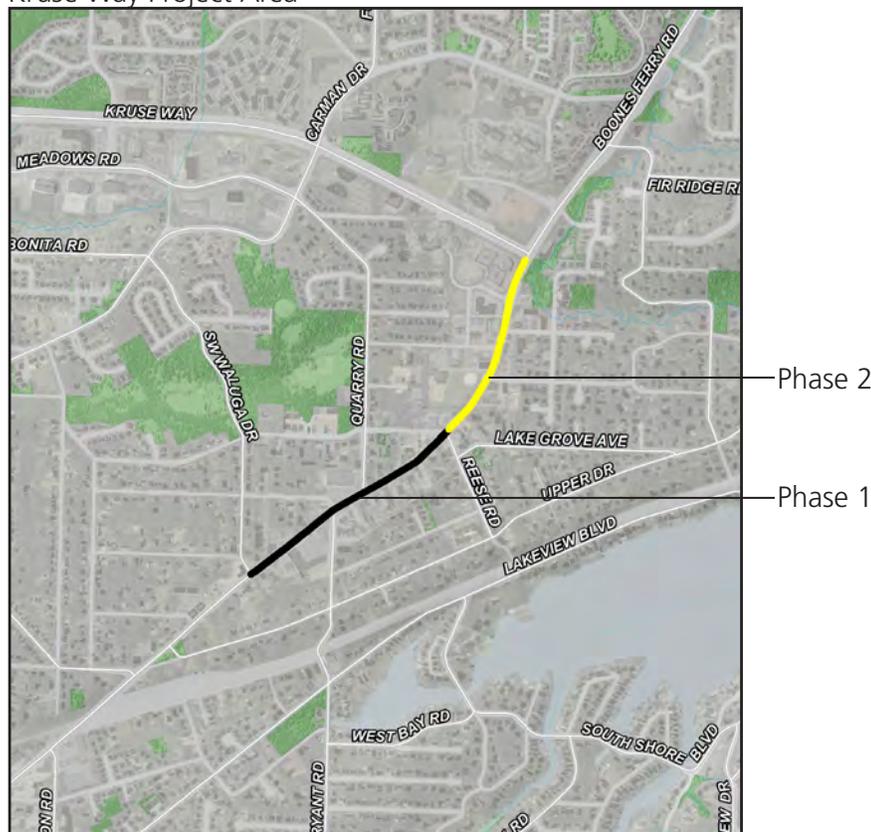
Phase 2: Oakridge/Reese to Kruse Way

\$ 11.6 M (2022)



Widen to include bike lanes and sidewalks with street trees, lighting and landscaping, median and turn lanes.

Figure 17 Boones Ferry Road Improvements - Madrona to Kruse Way Project Area



Phase 1, Madrona to Oakridge/Reese will be constructed by Lake Oswego within the next five years.

Phase 1 will widen Boones Ferry to include bike lanes, sidewalks with street trees, lighting, street furniture, landscaping, median, and turn lanes, add new signal at Madrona Street and improved pedestrian crosswalks including signalized pedestrian crossing at Lanewood. It will maintain four vehicular travel lanes.

Boones Ferry Road Improvements – Madrona to Kruse Way (5004)

Project purpose

Improve connectivity, safety, and street environment for cyclists and pedestrians

Modeling assumptions

No modeling impacts.

Evaluation results

Bike/Pedestrian

- This project improves sidewalks and adds pedestrian crossings, transit amenities, and bike lanes along an active retail corridor with the potential for increased walking and biking activity.

Figure 18 Boones Ferry Road Improvements - Madrona to Kruse Way Project



Highway 217 Overcrossing - Hunziker Hampton Connection (1107)

Project description

 \$66.3M (2022)

 Builds new connection of Hunziker Road to 72nd Avenue at or near Hampton St. with a new over-crossing of Highway 217.

Signalizes new roadway connection at 72nd Avenue.

Modifies existing 72nd Avenue/Hunziker intersection/connection.

Project purpose

Provide improved multimodal access between the Tigard Triangle and downtown Tigard. The intent is to improve operations at the ramp terminals, 72nd Avenue and streets intersecting 72nd Avenue, not the mainline of Highway 217.

Modeling assumptions

- Adds a new two-lane roadway connection Hunziker Road to 72nd Avenue at Hampton Street (over-crossing of Highway 217).
- Removes the existing link on Hunziker Road that connects to 72nd Avenue south of Highway 217.

Evaluation results

Summary

- The new bridge carries about 1,400 vehicles during the PM peak hour. The new route shifts some traffic away from the Dartmouth/99-W intersection, which is constrained, and adds connectivity for all modes between the Tigard Triangle and downtown Tigard. The additional traffic attracted to Hunziker creates additional demand for the Hall/Hunziker/Scoffins intersection realignment project (1100).

Figure 19 Highway 217 Overcrossing-Hunziker Hampton Connection Project Location in SW Corridor

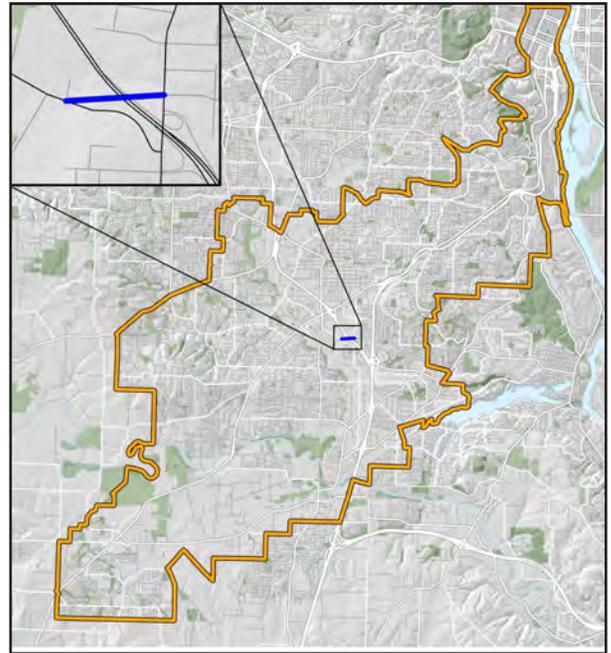
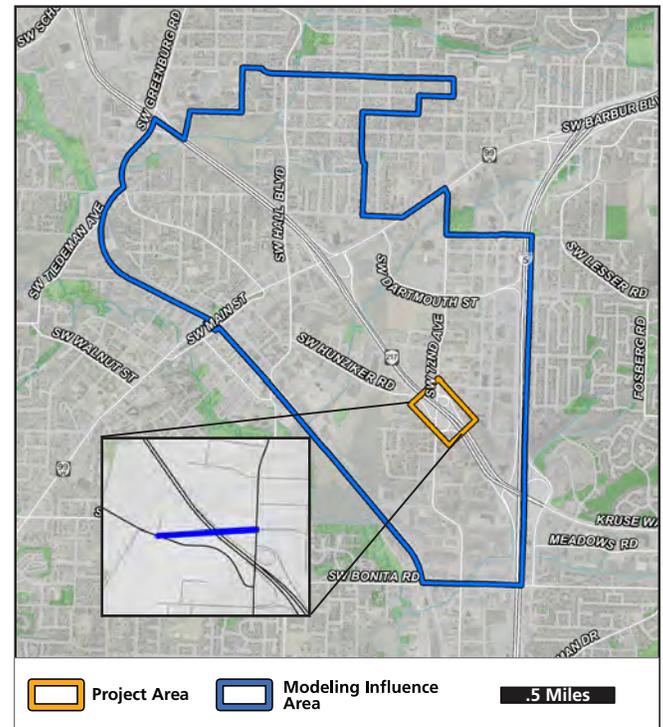


Figure 20 Hwy 217 Overcrossing-Hunziker Hampton Connection Project and Modeling Influence Areas



Highway 217 Overcrossing-Hunziker Hampton Connection (1107)

Change in travel patterns

- Westbound traffic increases by about 53 % or 300 vehicles/hour on Hunziker Street; eastbound remains about the same. The westbound traffic increase will put pressure on the Hunziker/ Hall/ Scoffins intersection.
- In combination with the Atlanta Street Extension (1078), this project takes about 300 vehicles/hour, a 28 to 38% decrease, off of Dartmouth Street (west of 72nd) in each direction.
- Dartmouth Street peak hour volumes at the westbound approach to Highway 99W will cause some congestion that would be relieved by the new Hunziker Hampton connection.

Route travel time

- The average westbound and eastbound auto travel times are reduced by 25 – 30 seconds between SW Main/ SW Tigar Street in downtown Tigar and SW 66th Ave. / SW Hampton Street. Westbound this is an 8 – 9% reduction in travel time.

Area-wide delay

- This project, High Capacity Transit (HCT), and the Atlanta Street Extension, all would affect the VHD within the influence area.
- With the addition of HCT and without the 72nd Ave. minor widening projects, VHD is reduced by 1.6 to 1.9%.
- With HCT and the 72nd Ave. projects included, VHD in the influence area remains about the same.
- Vehicle miles traveled (VMT) remains the same with this project

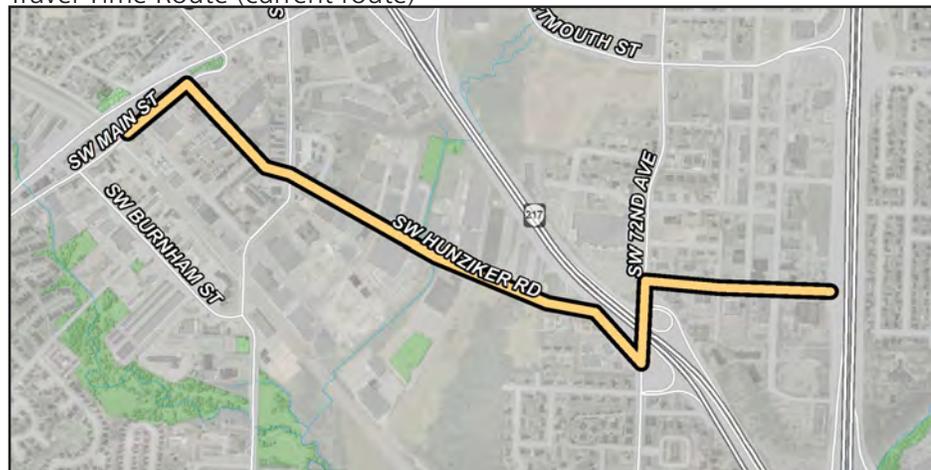
Connectivity

This project provides a faster, more direct connection for motorist, transit riders, bicyclist and pedestrians between downtown Tigar and the Tigar Triangle and supports the use of HCT (with transit on the new structure) and provides a new roadway with bike lanes and sidewalks.

Bike/Pedestrian

This project would provide the only ped/bike route free of freeway ramp crossings between the Tigar Triangle and downtown Tigar. It provides for the increase in daily bicyclists travelling on Hunziker and on 72nd from 99W to Bridgeport Village. This project increases the pedestrian connections west of the Tigar Triangle and thereby supports a HCT station in the Tigar Triangle, especially an HCT alignment on 72nd.

Figure 21 Highway 217 Overcrossing-Hunziker Hampton Connection Travel Time Route (current route)



Upper Boones Ferry at 72nd and Durham (1121)

Project description

 \$15.0 M (2022)

-  Realigns and reconfigures the intersection of 72nd/Upper Boones Ferry so that Upper Boones Ferry Road is the through route, creating a more direct route between Durham Road at Upper Boones Ferry Road & I-5/Carman Interchange;

Widens intersection of Durham & Upper Boones Ferry Road;

Widens Upper Boones Ferry to 5 lanes between Durham and I-5.

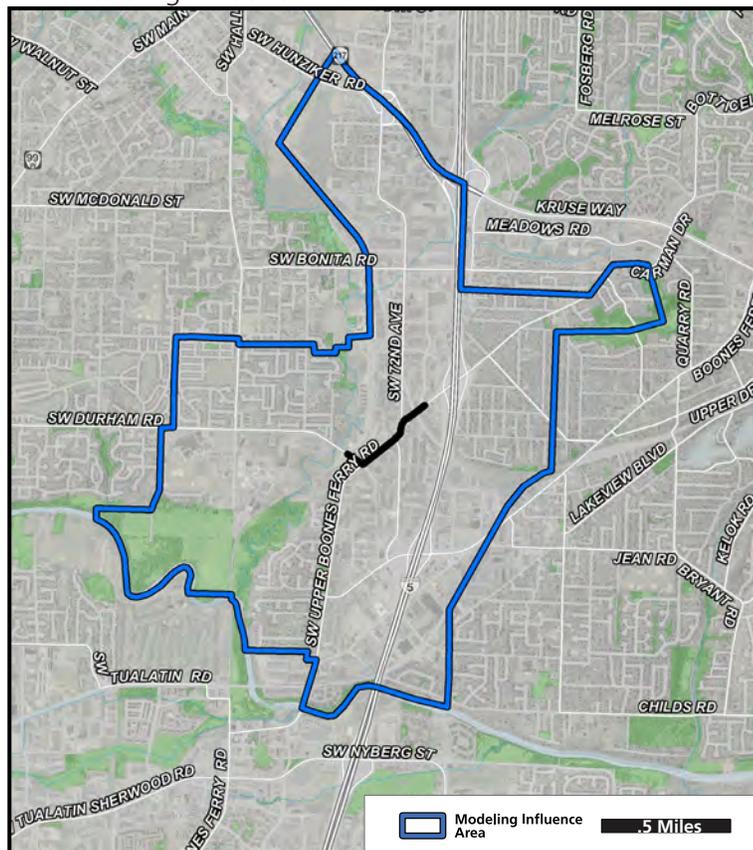
Project purpose

Create a more efficient and direct vehicle connection between Durham Road and I-5.

Modeling assumptions

- Widens (adds capacity) Upper Boones Ferry Road from 3 lanes to 5 lanes between Durham Road and 72nd/Carman Drive
- Adds capacity for turn lanes at Upper Boones Ferry Road and 72nd Avenue
- Adds capacity for left turn lanes at northbound approach of Upper Boones Ferry/72nd/Carman intersection

Figure 22 Upper Boones Ferry at 72nd and Durham Project and Modeling Influence Areas



Upper Boones Ferry at 72nd and Durham (1121)

Evaluation results

Summary

The creation of a more direct route with additional capacity attracts a substantial amount of traffic along Upper Boones Ferry Road to Durham. No substantial decreases are evident on surrounding streets. The additional capacity results in less overall vehicle delay.

Change in travel patterns

- During the PM peak hour, traffic on Upper Boones Ferry Road north of Durham Road is increased by about 880 vehicles (56%) due to the increased capacity and more direct route.
- During the PM peak hour, traffic on Durham Road at Upper Boones Ferry increased by about 400 vehicles (16%) due to the increased capacity and more direct route.

Route travel time

- The average peak hour auto travel time along 72nd/Upper Boones Ferry Road from Highway 217 to Lower Boones Ferry Road is reduced by 26 to 30 seconds, about 6.5%.
- The average peak hour auto travel time along I-5 is reduced by 7 to 13 seconds, about 2 to 3%.

Area-wide delay

- With the addition of this project, VHD is reduced by about 11% (58 VHD) in the influence area.
- With the addition of this project, VMT is increased by about 2% in the influence area.

Bike/Pedestrian

- This project would fill some sidewalk and bike lane gaps along Upper Boones Ferry Road.
- The widening of Upper Boones Ferry Road and Durham Road would typically be expected to make crossings of the roadway more difficult for pedestrians due to the increased volume, speed, and roadway width.

Figure 23 Upper Boones Ferry at 72nd and Durham Travel Time Route (southbound and northbound)



Highway 217 / 72nd Avenue Interchange Improvements (1149)

Project description

 \$47.7 M (2022)

 Completes interchange reconstruction of new diamond interchange with new ramp alignments or alternative design options

Removes Highway 217 northbound loop on-ramp and replaces with direct northbound on-ramp

New Hunziker-Hampton connection over Highway 217 removes Hwy 217 southbound off-ramp and replaces with direct southbound off-ramp to 72nd

Widens 72nd Avenue overcrossing of Hwy 217 to four lanes plus left-turn lanes between Hampton Street and Varns Street

Modeling Assumptions

Convert existing two-quadrant interchange to diamond interchange

Add lanes and capacity on 72nd Avenue between Hampton Street and Varns Street

Figure 24 Highway 217 / 72nd Avenue Interchange Improvements Project and Modeling Influence Areas

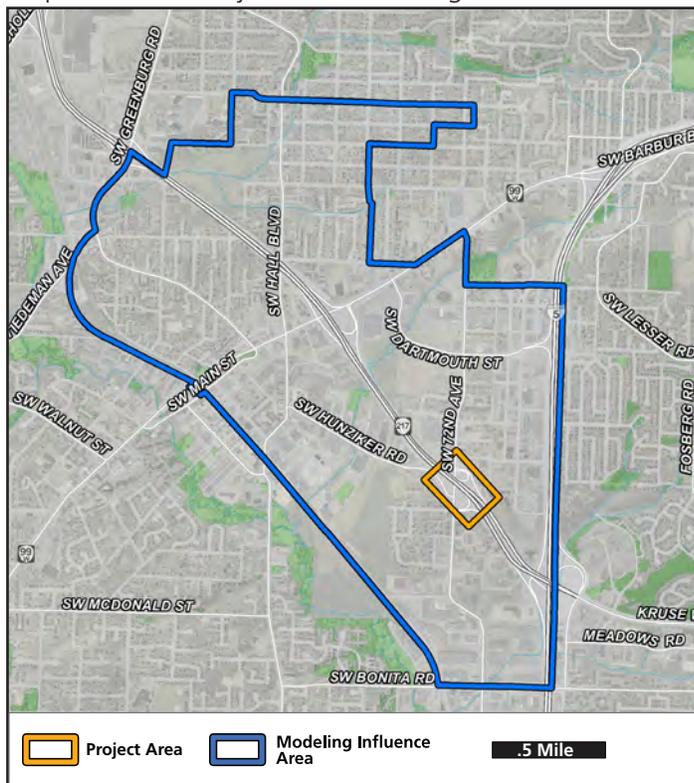
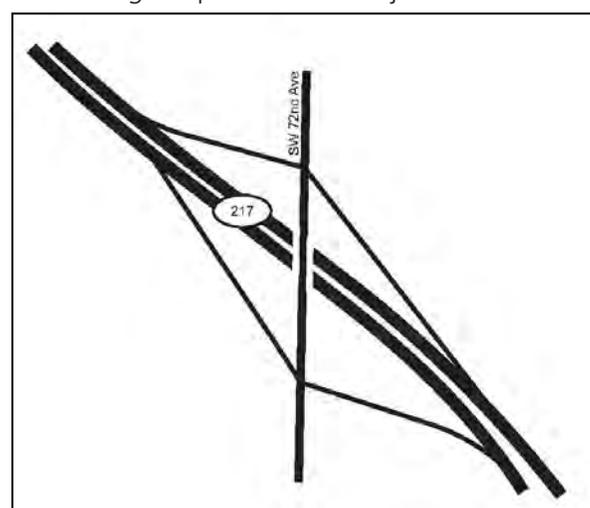


Figure 25 Highway 217 / 72nd Avenue Interchange Improvements Project



Highway 217 / 72nd Avenue interchange improvements (1149)

Evaluation results

Summary

- The reconstruction of the interchange as a diamond interchange creates a slightly more attractive route to OR 217 via 72nd Avenue. Overall, changes in traffic patterns and delay are relatively minor.

Change in travel patterns

- Traffic along 72nd Avenue increases 20% north of the interchange and 3% south of the interchange with the added capacity.
- Traffic using the on or off-ramps between OR 217 and 72nd Avenue increases about 10% with the more direct ramp configuration.

Route travel time

- The average travel time along 72nd Avenue is reduced by 5 – 10 seconds, about 3%, northbound and 30 – 35 seconds, about 12%, southbound in the PM peak hour.
- The average travel time along OR 217 and I-5 is not affected.

Area-wide delay

- With the addition of this project, VHD is changed by less than 1% in the influence area.
- With the addition of this project, VMT is changed by less than 1% in the influence area.

Bike/Pedestrian

- The reconstruction of the interchanges could be expected to restore the missing crosswalk at the northbound ramps.
- The widening of 72nd Avenue and addition of multiple ramp turn lanes could be expected to make crossings more difficult for pedestrians.

Boones Ferry Road: Martinazzi to Lower Boones Ferry (1134)

Project description

 \$15.9 M(2022)

 Reconstructs and widens Boones Ferry Road to five lanes from Martinazzi to Lower Boones Ferry Road, including bridge over the Tualatin River.

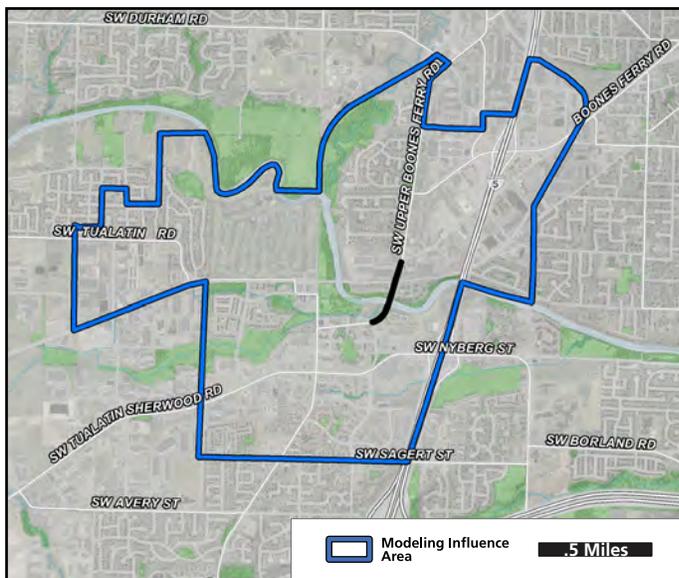
Project purpose

Reduce congestion on Boones Ferry Road.

Figure 26 Boones Ferry Road: Martinazzi to Lower Boones Ferry Project Area



Figure 27 Boones Ferry Road: Martinazzi to Lower Boones Ferry Modeling Influence Area



Boones Ferry Road: Martinazzi to Lower Boones Ferry (1134)

Evaluation results

Summary

Project reduces delay on Boones Ferry Road from Lower Boones Ferry to Martinazzi. Additional traffic attracted to Boones Ferry Road is able to be dispersed onto Lower Boones Ferry Road at the north end and onto Martinazzi at the south end of the project without causing another traffic bottleneck. Project is supportive of transit access if High Capacity Transit is built to Tualatin or continues to Sherwood. Project fills key sidewalk gap at the Tualatin River and adds to pedestrian connectivity.

Change in travel patterns

- This project removes a traffic bottleneck during the PM peak in both directions on Boones Ferry Road.
- This project adds about 340 vehicles /hour southbound, about a 25% increase and 320 vehicles/hour, about 24%, northbound south of Lower Boones Ferry Road.
- On Boones Ferry Road west of Martinazzi, this project attracts an additional 13% or 110 westbound vehicles/hour and about 10% more or 90 eastbound vehicles/hour, which along with about 340 vehicles/hour (+23%) more Boones Ferry Road's southbound approach to Martinazzi, will put pressure on the Boones Ferry/Martinazzi and the Boones Ferry/Tualatin Road intersections.
- Project modestly reduces I-5 volumes (north of Tualatin exit) by about 60 vehicles/hour southbound and 80 – 90 vehicles per hour northbound.

Route travel time

- The average northbound peak hour auto travel times are reduced by 37 – 40 seconds or 15% on Boones Ferry Road and Bridgeport Road from Nyberg/Martinazzi to Bridgeport at Lower Boones Ferry.
- The average southbound peak hour auto travel times are reduced by 16 – 17 seconds or 7% on Boones Ferry Road and Bridgeport Road from Bridgeport at Lower Boones Ferry to Nyberg/Martinazzi.
- The average southbound peak hour auto travel times are reduced by 5 seconds on I-5.

Area-wide delay

- With BRT to Sherwood and the Tualatin-Sherwood Road widening, VHD is reduced by 47 hours or 14.6% in the influence area.
- VMT increases by 2.5% in the influence area.

Bike/pedestrians

- Project adds sidewalks on widened bridge crossing of the Tualatin River, which is a key gap in the sidewalk network.
- Widening would typically be expected to make crossings of the roadway more difficult for pedestrians due to the increased volume, speed, and roadway width.

I-5 Southbound Auxiliary Lane: Lower Boones Ferry Interchange (1008B)

Project description

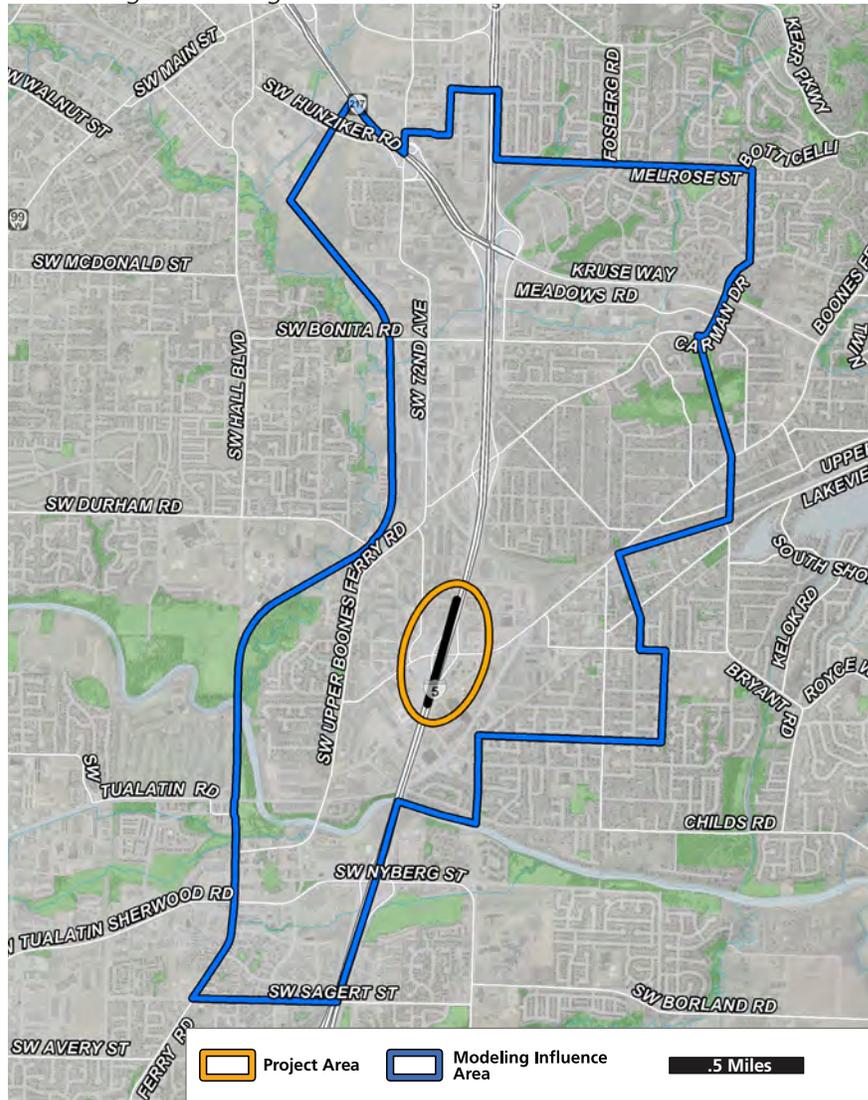
 \$9.7 M (2022)

 Extends the I-5 southbound auxiliary lanes from the Lower Boones Ferry Road exit ramp to the Lower Boones Ferry entrance ramp. (Project is early phase of #1008)

Project purpose

Reduce congestion, improve safety, and improve reliability on southbound I-5.

Figure 28 I-5 Southbound Auxiliary Lane: Lower Boones Ferry Interchange Modeling Influence Area



I-5 Southbound Auxiliary Lane: Lower Boones Ferry Interchange (1008B)

Figure 29 I-5 Southbound Auxiliary Lane: Lower Boones Ferry Interchange Travel Time Route



Southbound on I-5 Dartmouth to I-205

Evaluation results

Summary

Project reduces southbound congestion in the auxiliary lane section.

Change in travel patterns

- This project was not isolated in the model runs and the results include the impacts of the Upper Boones Ferry at 72nd and Durham project on I-5
- I-5 is heavily congested both north and south of the project location (Lower Boones Ferry overcrossing) with or without the project.
- Southbound auxiliary lane attracts an additional 240 vehicles per hour, a 4% increase.
- Southbound I-5 volume increases are minor, an additional 60 – 130 vehicles per hour between Highway 217 and I-205, which does not impact level of service.

Route travel time

- The average southbound peak hour auto travel time is reduced by 10 seconds, about 2%, on I-5 from Dartmouth St. to I-205, when combined with the Upper Boones Ferry at 72nd and Durham intersection project.

Area-wide delay

- With the impact of the Upper Boones Ferry at 72nd and Durham intersection project, delay for I-5 Southbound Auxiliary Lane project could not be determined.

Bike/pedestrians

- This project is entirely on the freeway mainline and does not have bicycle or pedestrian impacts.

Tualatin-Sherwood Road Widening (1154)

Project description

 \$46.4M (2022)

 Widens from three to five lanes with bike lanes and sidewalks from Langer Parkway to Teton Avenue.

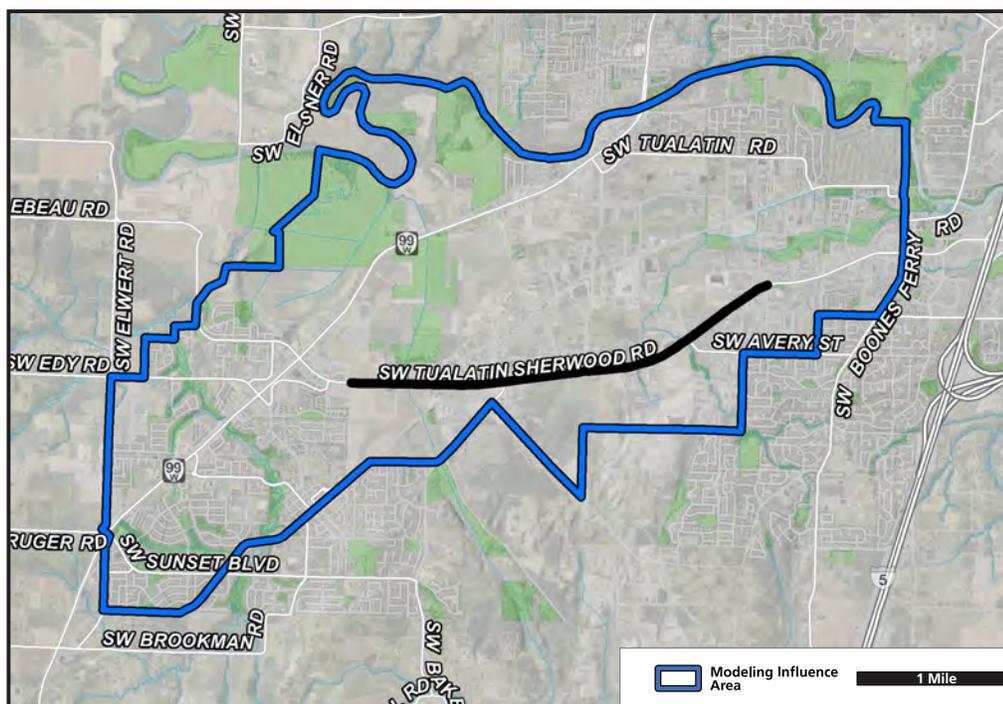
Project purpose

Improve mobility for freight and autos, while maintaining connections for cyclists and pedestrians

Modeling assumptions

- Adds two through lanes on Tualatin-Sherwood Road from Langer Parkway to Teton Avenue.

Figure 30 Tualatin-Sherwood Rd. Widening Project and Modeling Influence Areas



Tualatin-Sherwood Road Widening (1154)

Evaluation results

Summary

- Tualatin-Sherwood Road is used by trucks for freight movement in the industrial employment areas between Tualatin and Sherwood. The project reduces delay by adding capacity in a constrained section of roadway. It attracts traffic to the widened roadway, with a small reduction in demand along Highway 99W. Travel times along Tualatin-Sherwood Road are significantly reduced.

Change in travel patterns

- Project would improve mobility on Tualatin-Sherwood Road between Oregon Street in Sherwood and Avery Street in Tualatin.
- Westbound traffic increases 37 to 38%, or 420 – 470 vehicles/hour.
- Eastbound traffic increases 28 to 38%, or 350 – 470 vehicles/hour.
- Project does not measurably change traffic volumes on Tualatin-Sherwood Road in downtown Tualatin.
- Project does create added pressure on Tualatin-Sherwood Road just east of Highway 99W in Sherwood, with the potential need to examine changes to the Tualatin-Sherwood Road/ Highway 99W intersection.

Route travel time

- The average westbound and eastbound peak hour auto travel times are reduced by 52 – 55 seconds from Nyberg Road at I-5 (downtown Tualatin) to Highway 99W at Sunset Blvd. in Sherwood, when the Tualatin-Sherwood Rd. widening is combined with the new Arrow Street (Herman) project in Sherwood. This is a reduction of about 6%.

- The average westbound and eastbound peak hour auto travel times are reduced by 37 – 39 seconds from Nyberg Road at I-5 (downtown Tualatin) to Highway 99W at Sunset Blvd. in Sherwood, when the Tualatin-Sherwood Rd. widening is combined with the Boones Ferry Road widening project in Tualatin. This is a reduction of about 4.5%.
- The average southbound peak hour travel time is reduced by 44 seconds along Highway 99W from SW 65th to Sunset Blvd. in Sherwood, when the Tualatin-Sherwood Rd. widening is combined with the new Arrow Street (Herman) project in Sherwood. This is a reduction of about 3%.
- I-5 southbound travel time is reduced by less than 1% with the Tualatin-Sherwood Road widening and the Boones Ferry Road widening (1134) projects.

Area-wide delay

- With the addition of BRT to Sherwood and the Boones Ferry Road widening project, VHD is reduced by four hours or 3.8%. (VMT increases by about 3%)
- Without BRT south of Tigard and the new Arrow Street (Herman) project, VHD is reduced by five hours or 4.7%. (VMT increases by 4%)

Bike/Pedestrian

- This project replaces existing sidewalks and bike lanes along Tualatin-Sherwood Road, and does not add to the pedestrian and bicycle connections that already exist between Tualatin and Sherwood.

Arrow (Herman Road) (1062)

Project description

 \$10.6 M (2022)

-  Constructs new road to collector standards.
-  Builds new 3-lane roadway, including a new stream crossing, with bike lanes and sidewalks from Phase 2 of Langer Farms Parkway (north of Tualatin-Sherwood Road) to Gerda Lane/Galbreath Drive.
- New roadway utilizes the existing Arrow Street.

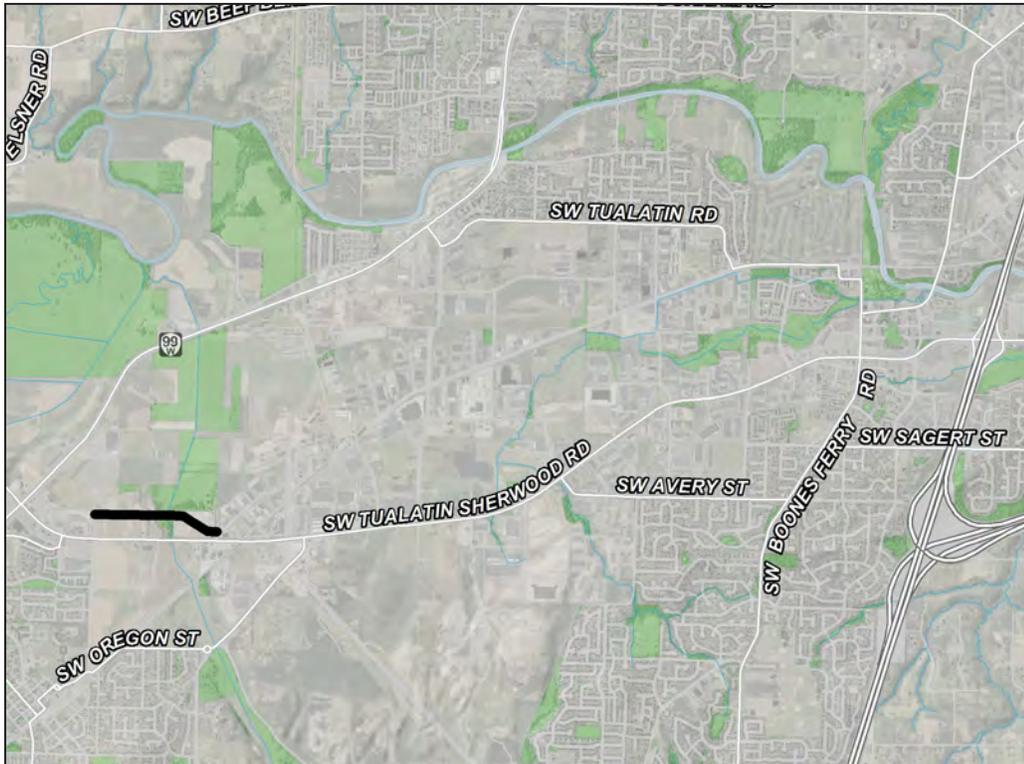
Project purpose

Create new multimodal connection between Langer Farms Parkway and Gerda/Galbreath Drive.

Modeling assumptions

- Adds new roadway links between Langer Farms Parkway and Gerda Lane/Galbreath Drive
- Adds roadway links for Gerda Lane (existing) and Galbreath Drive/Cipole Road (existing) connection to Herman Road in Tualatin
- Roadways have capacity for one lane in each direction with turn lanes.

Figure 31 Arrow (Herman Road) Project Area



Arrow (Herman Road) (1062)

Evaluation results

Summary:

Project provides a new multimodal connection that is well utilized between Langer Farms Parkway and Gerda/Galbreath Drive. Project provides access to new businesses and connectivity for bicycles and pedestrian on a lower volume, safer east-west connection than Tualatin-Sherwood Road. Project reduces traffic on a widened Tualatin-Sherwood Rd. westbound approaching Langer Parkway.

Change in travel patterns

- New Arrow Street connection is well utilized with about 600 vehicles/hour westbound and 370 eastbound in the PM peak.
- Compared to the BRT to Sherwood with the Tualatin-Sherwood Rd. widening (and no Arrow Street), the congestion on Tualatin-Sherwood Rd. remains minor.
- This project reduces minor congestion by reducing traffic on a widened Tualatin-Sherwood Rd. westbound (approaching Langer Parkway) by 170 vehicles/hour.
- This project reduces Highway 99W southbound traffic by about 6% or 120 vehicles/hour north of Sherwood, however, Highway 99W is not congested in this section.

Connectivity

- Provides street connectivity in an area that has no other east-west connection than Tualatin Sherwood Road. Provides access to new businesses and freight activity.

Bike/Pedestrian

- This project adds a new street with sidewalks and bike lanes between Langer Farms Parkway and Gerta Street in Sherwood (north of Tualatin Sherwood Road).

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Narrowing Methodology

Project staff evaluated and are recommending a list of roadway projects based on rating projects on the following criteria:

- Critical for safe access to HCT
- Highly supportive of the land use vision in essential or priority places

Safe access to HCT

For this criterion each project was rated critical, high, medium or low as described below.

Critical

- Does it create or improve pedestrian access on a connection HCT will use?
- Does it help people safely access a station by walking or bicycling within 1/4 - 1/2 mile or a trail within 2 miles?

Medium

- Does it help people safely access a station by walking or bicycling within 1/2 - 1 mile or a trail within 3 miles?
- Does it improve local transit service accessing the HCT?
- Does it improve road connections to an end-of-line park and ride?

Low

- None of the above, or covered by another project

Land use goals in essential/priority places

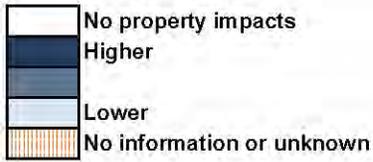
- Is the project in an essential/priority place?
- Is the project supportive of the local land use vision for the place?
- Does the project support land use by providing safe crossings or pedestrian/bicycle connections (active transportation)?

Summary Table of Capital Costs and Right of Way Impacts

Table 2

Scale				Capital costs of projects (\$M 2022)	ROW - Non-residential (acres)	ROW - Residential (acres)
Location/ Ownership	#	Project Title	Project Description			
Beaverton	1156	Scholls Ferry Rd. ATMS	Install integrated surveillance and management equipment.	\$1.4	None	None
Lake Oswego	5004	Boones Ferry Road Boulevard improvements (turn lanes with bike/ped. - Madrona to Kruse Way)	Widen to include bike lanes, sidewalks, and turn lanes. This project is Phase 2, Oakridge/Reese to Kruse Way. Phase 1 is in Low Build. (Phase 1 = \$23 Million; Phase 2 = \$9 Million)	\$41.3	17.1	None
Lake Oswego	5003	Carman Dr. Improvements (widen to 3 lanes w/bike lanes)	Reconstruct and widen to three lanes from I-5 to Quarry to include bike lanes.	\$11.6	1.0	2.2
Portland	5013	Naito/South Portland Improvements (left turn pockets with bike/ped and remove tunnel, ramps and viaduct)	Reconstruct Naito Pkwy as two-lane road w/bike lanes, sidewalks, left turn pockets, & on-street parking. Remove grade separation along Naito at Barbur Blvd. (tunnel), the Ross Island Bridge, Arthur/Kelly (viaduct), and the Grover pedestrian bridge. Naito Parkway - Kelly to Abernethy	\$51.2	0.0	
Portland	5057	SW 53rd and Pomona (improves safety of ped/bike users)	Reconfigure and improve intersection to manage traffic turning speeds, and improve safety of ped/bike users between Barbur and Pomona.	\$0.6	0.0	
Portland ODOT	5059	SW Portland/ Crossroads Multimodal Project (roadway realignments and modifications to Barbur Blvd., Capitol Hwy., and the I-5 southbound on-ramp)	Implement Barbur Concept Plan walk audit recommendations in the SW Portland TC, including modifications to Barbur Blvd., Capitol Hwy., and the I-5 southbound on-ramp to support safer and more efficient operation for all modes. Project specifics include intersection types and roadway realignments to be refined.	\$51.6	1.4	0.1
Portland ODOT	4002	Barbur Blvd, SW (3rd - Terwilliger): Multi-modal Improvements	Construct Improvements for transit, bikes and pedestrians. Transit improvements include preferential signals, pullouts, shelters, left turn lanes and sidewalks and crossing improvements.	\$8.5	0.8	0.5
Portland ODOT	5005	Barbur Blvd, SW (Terwilliger - City Limits): Multi-modal Improvements	Complete boulevard design improvements including sidewalks and street trees, safe pedestrian crossings, enhance transit access and stop locations, and bike lanes (Terwilliger - SW 64th or Portland City Limits).	\$32.0	5.4	0.2
Portland ODOT	5006	Barbur Lane Diet: Terwilliger to Capitol	Reduce number of northbound travel lanes on Barbur from Terwilliger to Capitol Highway (north) from two to one to reduce speed and improve safety. Adds bike lanes over Newberry and Vermont bridges.	\$0.3	None	None
Portland ODOT	1019	Barbur Road Diet - Capitol to Hamilton (reduce northbound lanes from three to two with multi-modal improvements)	Reduce number of northbound lanes from three to two from Capitol Hwy (north) to 1/4 mile south of Hamilton to reduce speeds and improve safety, improve ped/bike crossing safety and add protected bike lanes	\$0.3	None	None
Portland ODOT	5007	Barbur Signals (add signalized intersections)	Add signalized intersections to improve pedestrian/bike crossing and moderate traffic speeds at Baird, Alice, 13th, and Luradel	\$2.3	None	None
Portland ODOT	5008	Barbur/ Capitol Hwy./ Huber/ Taylors Ferry Intersection Safety Improvements	Construct safety improvements, including traffic signals, at the intersection of Capitol Hwy, Taylors Ferry, Huber, and Barbur. Provide better sidewalks and crossings.	\$1.8		

Summary Table of Capital Costs and Right of Way Impacts

Scale				Capital costs of projects (\$M 2022)	ROW - Non-residential (acres)	ROW - Residential (acres)
Location/ Ownership	#	Project Title	Project Description			
						
Portland ODOT	1028	Barbur/Terwilliger Intersection Ped./Bike Improvements	Ped/bike improvements at Barbur/Terwilliger	\$2.6		
Portland	5009	Capitol Hwy Improvements (replace roadway and add sidewalks)	Improve SW Capitol Highway from SW Multnomah Boulevard to SW Taylors Ferry Road per the Capitol Highway Plan. Replace Existing Roadway and add sidewalks, bike lanes and green stormwater features.	\$24.6	1.2	0.1
Portland ODOT	1044	South Portland Circulation and Connectivity	Adds a new ramp connection between I-405 and the Ross Island Bridge from Kelly Avenue. Restore at-grade intersections along Naito Parkway, with new signalized intersections at Ross Island Bridge access and at Hooker Street. Removes several existing roadways and ramp connections.	\$28.4	2.5	0.2
Portland ODOT	1037	SW Portland I-5 Partial Split Spring Garden Interchange (includes closing existing SB and NB off-ramps)	Reconfigure the I-5 Spring Garden interchange as a partial split, by creating I-5 SB ramps connecting to Barbur Blvd just south of SW 26th, and creating NB on- and off-ramps at Spring Garden. Would close Existing SB off-ramp at Spring Garden and NB off-ramp at Taylor's Ferry. Could be constructed in two phases.	\$103.1	0.2	0.7
Portland KingCity Tigard ODOT	1015	Hwy 99W TSMO: Downtown Portland to SW 124th	Transportation System Management and Operations. ACM with Adaptive Signal Timing and Transit Priority Treatment from SW Portland to SW 124th. (Signals from I-5/99W to Durham already improved.)	\$0.6	None	None
Portland Tigard Tualatin ODOT	1013	I-5: Active Traffic Management	Install sensors, variable message signs, and other techniques, such as variable speeds, to reduce congestion and improve safety.	\$3.9	None	None
Tigard	1111	Oak-Lincoln-Locust Street Collector System (Connectivity Improvements)	Build Lincoln Street Extension to Oak Street. New roadway connection will distribute east/west traffic between Locust and Oaks Streets and improve accessibility to Lincoln Center Commercial district.	\$1.3	0.5	None
Tigard	5024	68th Avenue (widen to 3 lanes)	Widen to 3 lanes between Dartmouth/I-5 Ramps and south end	\$17.4	2.2	None
Tigard WashCo.	5027	72nd Ave. Widening: Hunziker to Durham (widen to 3 or 5 lanes)	Widen 72nd Avenue between Hunziker and Upper Boones Ferry Road to 3 lanes (3 or 5 lanes in RTP)	\$18.1	2.7	None
Tigard	1077	Ash Avenue railroad crossing (new roadway)	Extend Ash Avenue across the railroad tracks from Burnham to Commercial Street.	\$3.9	1.7	None
Tigard	1078	Atlanta Street Extension (new roadway)	Extend Atlanta Street west to Dartmouth Street	\$4.9	16.7	None
Tigard WashCo.	1098	Hall Boulevard Widening, Bonita Road to Durham	Widen to 5 lanes; build sidewalks and bike lanes; safety improvements (construct 3 lanes with development, preserve ROW for 5 lanes)	\$3.9	0.3	0.8
Tigard WashCo.	5036	Hall Boulevard Widening, McDonald Street to Fanno Creek including creek bridge	Widen to 3 lanes; preserve ROW for 5 lanes; build sidewalks and bike lanes; safety improvements	\$16.1	0.1	0.7
Tigard WashCo.	1100	Hall/Hunziker/Scoffins Intersection Realignment	Realign offset intersection to cross intersection to alleviate congestion and safety issues	\$6.5	0.1	0.7

Summary Table of Capital Costs and Right of Way Impacts

Scale				Capital costs of projects (\$M 2022)	ROW - Non-residential (acres)	ROW - Residential (acres)
Location/ Ownership	#	Project Title	Project Description			
Sherwood	5020	Oregon-Tonquin Intersection & Street Improvements	Intersection improvements (consider roundabout) on Oregon at Tonquin Road; sidewalks and bike access through the intersection.	\$2.5		
Sherwood	1068	Town Center Signal & Intersection Improvements (Downtown Sherwood)	Improve 3-leg intersection at Edy & Borchers; remove traffic signal at Baler; on Sherwood Blvd. remove traffic signal at Langer and disallow left turns from Langer to Sherwood, and add traffic signal at Century Dr.	\$3.6		
Sherwood	1062	Arrow Street (Herman Road) - Build 3 lanes with sidewalks and bike lanes	Construct new road to collector standards. Build new 3 lane roadway with stream crossing and with bike lanes and sidewalks from Langer Farms Parkway Phase 2 to Gerda Lane/Galbreath Drive.	\$10.6	9.6	None