SW Barbur Blvd and Feeder Routes
Active Transportation Suburban Demonstration Project

1. Demonstration Project Description

Introduction

The SW Barbur Blvd and Feeder Route project proposal for an Active Transportation Suburban Demonstration Project will provide safe, comfortable and continuous pedestrian and bicycle facilities along SW Barbur Blvd and remove significant existing barriers, particularly at bridges, to help increase biking and walking for both transportation trips and recreational trips originating in or destined for the Southwest quadrant of the Portland metropolitan area.

Through this project, SW Barbur Blvd will better serve as a regional trunk line for cyclists and pedestrians, including those accessing transit. The feeder routes will be improved with pedestrian and bicycle facilities to help bring people to SW Barbur Blvd. The improvements will also create a network of pedestrian and bicycle routes serving origins and destinations throughout SW Portland and neighboring cities, including Metro 2040 centers. The feeder routes also connect to regional parks and open space as well as the regional trail system, including the Fanno Creek Greenway Trail and Willamette River Greenway and the local Southwest Portland Urban Trail system.

This project was jointly developed by the City of Portland, City of Tigard, City of Lake Oswego, TriMet, and the Oregon Department of Transportation (ODOT). ODOT has ownership of and jurisdiction over SW Barbur Blvd and Beaverton-Hillsdale Hwy. Thus, they play an important role as co-sponsor and supporter of this project.

The City of Beaverton is developing an Active Transportation proposal that will complement many elements of the SW Barbur Blvd and Feeder Route project. Projects in the Barbur Blvd proposal (Multnomah Blvd, Vermont St, and the Red Electric Trail) will connect to the Fanno Creek Greenway Trail, and will provide improved access to the Washington Square Regional Center. Barbur also provides a direct connection to Beaverton Regional Center via Hall Boulevard. Hall Boulevard has bike lanes to the Regional Center in all but one segment. Beaverton-Hillsdale Highway provides a direct connection to the Regional Center from the east. These two proposals can clearly be joined as appropriate and create much greater value. The SW Barbur Blvd and Feeder Route project proposal for an Active Transportation Suburban Demonstration Project is one component of a larger vision for a more sustainable transportation system that is less reliant on automobile travel.

Project Area

The project area is the Southwest quadrant of the Portland metropolitan area. It includes most of SW Portland and connections to Portland Central City, Washington Square Regional Center, Hillsdale Town Center, Raleigh Hills Town Center, West Portland Town Center, Tigard Town Center, Lake Grove Town Center, Lake Oswego and Beaverton.

Project Need

This project proposal focuses on addressing longstanding needs in the Southwest quadrant of the Portland metropolitan area. This area lacks the connectivity that a more complete street grid brings to other parts of the region. The topography of SW and existing development pattern seriously limit alternative route options. This poses a particular problem for bicyclists and pedestrians, who are often funneled onto major arterial roads with high automobile traffic volumes. SW Barbur Blvd, in particular, provides a key connection from the SW region to the Central City. These arterials generally have inadequate or non-existent pedestrian and bicycle facilities, and are not fully accessible, resulting in a poor user experience. In SW Portland, 46% of arterial streets lack continuous sidewalks, including SW Barbur Blvd.

The *Barbur Boulevard Streetscape Plan* recognizes that SW Barbur Blvd is an important regional corridor serving many modes of transportation. The Plan states:

> "Despite its multi-modal function, the existing streetscape primarily encourages and supports fast-moving automobiles and trucks… Sidewalks end abruptly and signalized intersections are far apart, making it hard to walk along or cross Barbur. Very little landscaping or street trees exist. Driveways are not delineated. Bicycle travel is difficult. Sidewalks connecting to transit stops are missing and amenities at the stops are not inviting. There is a lack of safe connecting routes between Barbur Blvd and adjacent neighborhoods. Much of Barbur Blvd lacks any appealing visual character. (Page 1)

The purpose of the *Barbur Boulevard Streetscape Plan* is to identify locations for future sidewalks and trees, improve and provide safe pedestrian crossings, enhance transit access and stop locations, provide connection to key attractions and adjacent neighborhoods, and improve the corridor's visual character through landscape and streetscape improvements. Many elements of the plan remain unfunded and not yet built. The plan was adopted by City Council in 1999. Development of the plan was partially funded through ODOT with a Transportation and Growth Management (TGM) Grant.

SW Barbur Blvd is a very important route for all modes. As transit service cuts reduce the number of routes serving SW Portland and frequency of service, the buses on SW Barbur Blvd have become increasingly important to transit riders. Annual bicycle counts indicate that the number of cyclists riding on Barbur is increasing. Unfortunately many people do not feel comfortable walking or biking on SW Barbur or the feeder routes, and as a result, many people limit their trips or choose other modes.

The Portland Auditor's office began compiling data on residents' commuting patterns in 2004 (Table 1). Since that time, the percentage of Portlanders who identify the bicycle as their "primary mode of travel" for work trips has doubled, from 4% in 2004 to 8% in 2008. This trend corresponds to a significant investment by the Portland Bureau of Transportation in bicycle infrastructure. In inner NE and SE Portland, where the highest-quality facilities exist, the primary mode share for bicycles is as high as 13%. In SW Portland, while the numbers of primary bicycle commuters have also increased, it has been at a slower rate: from 2% in 2004 to 3% in 2008. Pedestrian commute trips in SW have increased at a rate higher than the city as a whole, from 3% to 5% in SW versus 3% to 4% Citywide. In both cases, there is clearly a latent demand for improved infrastructure in this part of the City.

Table 1. Citywide and Southwest Portland bicycle and pedestrian commute mode split, 2004 - 2008

		2004		**2005**		**2006**		**2007**		**2008**	
		SW	*City*	*SW*	*City*	*SW*	*City*	*SW*	*City*	*SW*	*City*
Primary Mode of travel	Walk	3%	3%	3%	3%	3%	3%	N/A	4%	5%	4%
	Bicycle	2%	4%	2%	4%	3%	5%	N/A	6%	3%	8%
Alternative mode of travel	Walk	2%	5%	5%	5%	4%	5%	N/A	5%	7%	7%
	Bicycle	6%	8%	7%	9%	9%	9%	N/A	10%	9%	10%

Source: *Service Efforts and Accomplishments Surveys*, 2004-2008, City of Portland, Office of the Auditor
Survey accuracy is +/- 1.7%

Our region recently identified the SW Barbur Corridor (Corridor 11) as a Near-Term Regional Priority Corridor in the *Regional High Capacity Transit (HCT) System Plan*, adopted by Metro Council on July 9, 2009. For this corridor to be a successful HCT corridor it is imperative that people be able to walk, bike and access transit in great numbers. Construction of sidewalks along Barbur and the feeder routes will support, rather than hinder development of HCT along the corridor. The final evaluation criteria in the *High Capacity Transit System Detailed Evaluation Draft* is "Supporting Criteria," identifying capital costs of sidewalks necessary for improved pedestrian connectivity. SW Barbur scored poorly in this ranking, due to the very reasons that support this proposal. The SW Barbur Blvd and Feeder Route project will better ensure success and return on investment in transit. A safe and comfortable user experience is key to attracting additional pedestrian and bicycle trips. The strategic infrastructure investments proposed in these corridors will serve major origin and destination points that will have a

high user benefit per dollar spent. Design of pedestrian and bicycle improvements will be coordinated with Metro and TriMet, to accommodate and complement future HCT service in the corridor. TriMet will be a partner in this project.

Project Elements and Details

This project is a compilation of several projects, many of which are in local Transportation System Plans and the Regional Transportation Plan. Each of the routes is displayed on the attached map, described below and in the attached matrix. The attached matrix includes policy designations, project description and cost estimates by route. The Bicycle Master Plan Update (BMP Update) designation indicates the recommended bicycle facility design type for each route.

The SW Barbur Blvd proposal places projects into three priority tiers. Tier 1 projects focus on critical infrastructure gaps along SW Barbur Blvd, such as dropped bicycle lanes and sidewalks, bridges where neither bicycle nor pedestrian facilities exist, and creating safer access to major destinations such as Portland's Central City. Tier 1 projects have been previously identified in planning studies, including the *Barbur Boulevard Streetscape Plan* and the *South Portland Circulation Study*, and have the greatest potential for leveraging additional funding. Tier 2 and Tier 3 projects complete the vision for a complete bicycle and pedestrian network throughout the SW portion of the metropolitan area.

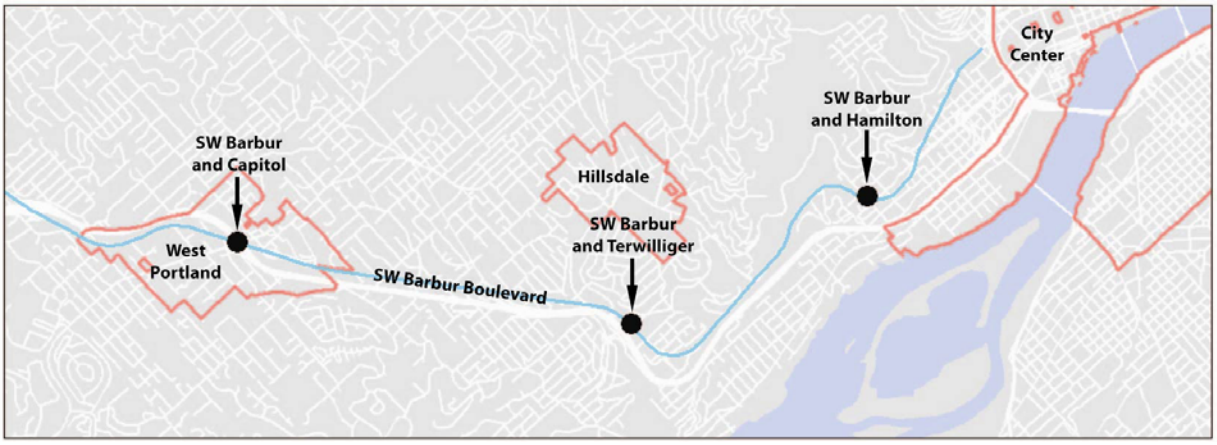
Tier 1 Projects ($25 million):

SW Barbur (Central City to West Portland Town Center - $25 million)
SW Barbur Blvd (Oregon Highway 99W) is a primary route through Southwest Portland, connecting the Tigard Town Center, the West Portland Town Center, and the Portland Central City. Bicycle traffic on portions of Barbur has been steadily increasing since the City first installed bicycle lanes and began collecting data (Table 2). Generally, count totals are higher closer to the Central City.

Table 2. Barbur Blvd. bicycle counts

Location	Year	Daily Total	Date
SW Barbur & Hamilton	1999	120	N/A
SW Barbur & Hamilton	2001	310	8/20/2001
SW Barbur & Hamilton	2006	460	8/9/2006
SW Barbur & Hamilton	2007	525	8/1/2007
SW Barbur & Hamilton	2008	990	9/29/2008
SW Barbur & Terwilliger	2000	355	8/10/2000
SW Barbur & Terwilliger	2001	175	8/30/2001
SW Barbur & Terwilliger	2003	350	8/13/2003
SW Barbur & Terwilliger	2006	570	8/24/2006
SW Barbur Blvd & Capitol Hwy	2008	230	9/4/2008

Map 1. Barbur Blvd. bicycle count locations.



Projects in Tier 1 are seen as the most critical infrastructure upgrades needed to improve the safety and comfort of bicyclists and pedestrians in the Barbur corridor. Tier 1 projects include alleviating "choke points" through construction of new bicycle and pedestrian facilities at the Multnomah, Vermont, and Newbury St. viaducts. Additional bicycle and pedestrian safety upgrades are planned for the West Portland Town Center, the Demonstration Project Area identified in the *Barbur Boulevard Streetscape Plan*, and on the eastern end of the corridor leading into the Central City.

Tier 2 Projects ($105 million)

Additional improvements are located in Tier 2. The remainder of Tier 2 and Tier 3 projects are the corridors that serve as primary feeder routes into Barbur. Below are general descriptions of each corridor and proposed improvements.

SW Barbur (SW 26th to City Limit - $21 million)
Tier 2 projects on this section of Barbur will complete bicycle and pedestrian improvements in the West Portland Town Center and in the Demonstration Project Area.

SW 19th (Barbur to Spring Garden - $0.3 million)
This project will install bike lanes on the existing street, in the Barbur Blvd Streetscape Plan Demonstration Project Area.

SW 26th (Spring Garden to Taylors Ferry - $0.5 million)
This project will construct pedestrian facilities and street lighting on 26th Ave, in the Barbur Blvd. Streetscape Plan Demonstration Project Area.

SW Spring Garden (Taylors Ferry to 26th - $1.1 million)
This project will construct pedestrian facilities on Spring Garden Street, in the Barbur Blvd. Streetscape Plan Demonstration Project Area.

SW Huber (Barbur to 35th - $0.7 million)
This project will construct pedestrian facilities on Huber St.

Red Electric (Fanno Creek Greenway Trail to Gibbs - $51 million)
The Red Electric trail is planned to generally follow the route of the old Oregon Electric Railway, with both off- and on-street portions, connecting the Fanno Creek and Willamette Greenway Trails. This corridor provides a key connection to the future Gibbs Street Pedestrian Bridge over I-5, OHSU, and the aerial tram, without routing through the Central City. Several sections of the proposed trail have alternative alignments, which will need further analysis during project design.

SW Multnomah Blvd (Garden Home to Barbur - $3 million)
SW Multnomah provides a key cross-town connection in SW Portland, and has also seen a significant increase in bicycle traffic (Table 3).

Table 3. Multnomah Blvd. Bicycle counts

Location	Year	Daily Total	Date
SW Multnomah & 45th	2000	160	8/2/2000
SW Multnomah & 45th	2006	295	8/3/2006
SW Multnomah & 45th	2007	240	8/8/2007
SW Multnomah & 45th	2009	325	7/7/2009

SW Vermont St (SW Oleson Rd to Barbur - $10 million)
SW Vermont provides a direct connection between City of Beaverton, Hillsdale Town Center and Red Electric Trail.

SW Boones Ferry Rd/Terwilliger (Country Club to Barbur - $16 million)
SW Boones Ferry crosses the City of Lake Oswego and the Lake Grove Town Center. Terwilliger meets SW Palatine Hill Road, providing a key connection to Lewis and Clark College. Bicycle counts in 2008 showed 127 cyclists near the Lake Oswego-Portland border, and 278 at the Intersection of Country Club and Boones Ferry, possibly indicating a greater preponderance of local trips. Increasing trips throughout the corridor will require greater emphasis on improved bicycle infrastructure.

SW Capitol Highway (Scholls Ferry to Barbur - $1.2 million)
This project will construct sidewalks, bicycle facilities, and safety improvements at the capitol Highway/Burlingame intersection. Bicycle counts in this corridor have also increased (Table 4).

Table 4. Capitol Highway bicycle counts

Location	Year	Daily Total	Date
SW Capitol & Sunset	1999	360	N/A
SW Capitol & Sunset	2000	330	8/3/2000
SW Capitol & Sunset	2003	370	9/9/2003
SW Capitol & Sunset	2006	400	8/23/2006
SW Capitol & Sunset	2007	585	8/21/2007
SW Capitol & Sunset	2008	655	8/28/2008

Tier 3 Projects ($130 million)

SW Barbur (West Portland Town Center to Hall Blvd - $11 million)
This project will add pedestrian and bicycle infrastructure at the remaining Barbur Blvd viaducts, and improve access to transit stops.

SW Beaverton-Hillsdale Highway/Capitol Highway (Beaverton to Capitol - $5 million)
The BHH route connects the Raleigh Hills Town Center with the Hillsdale Town Center. These projects include pedestrian and bicycle infrastructure upgrades, and intersection improvements.

SW Campus Dr/SW Terwilliger Blvd (OHSU to Barbur – cost estimate not available)
This corridor will provide improved connections between OHSU and Portland State University. Bicycle counts in this corridor have also increased (Table 5).

Table 5. Campus Drive Bicycle Counts

Location	Year	Daily Total	Date
SW Terwilliger & Campus Dr	2005	725	6/15/2005
SW Terwilliger & Campus Dr	2006	930	8/3/2006
SW Terwilliger & Campus Dr	2007	950	8/21/2007
SW Terwilliger & Campus Dr	2008	945	9/18/2008

SW Hall Blvd (Scholls Ferry Rd to Tualatin River - $25 million)
SW Hall Blvd. connects the Washington Square Regional Center and the Tigard Town Center, and connects to the Tualatin River Greenway. This project will construct sidewalks in the corridor.

SW Naito (Barbur to Harrison $40 million)
SW Naito is an alternate route into the Central City. It provides a more direct connection than Barbur to Waterfront Park and the South Waterfront area. This project will implement the *South Portland Circulation Study* recommendations.

SW Boones Ferry (I-5 to Country Club - $32 million)
This project will complete bicycle and pedestrian infrastructure on this key arterial crossing Lake Oswego, including improvements in the Lake Grove Town Center.

SW Palatine Hill Rd (Lewis and Clark College to Terwilliger -$14 million)
SW Palatine connects Boones Ferry and Terwilliger to Lewis and Clark College. This project will retrofit bike lanes to the existing street.

SW Taylors Ferry Rd (Washington Square to Barbur - $4 million)
SW Taylors Ferry connects Washington Square Regional Center with SW Barbur in the West Portland Town Center. This project will improve bicycle and pedestrian infrastructure though the corridor.

2. Cost Estimate and Timeline

The total estimated cost for the SW Barbur and Feeder Route Project is $261 million. The most critical priority improvements identified in Tier 1 are estimated at $25,159,864.

3. Partnership and Project Co-sponsors

Sponsors, Partners and Contacts:

City of Portland (Lead Sponsor)
April Bertelsen
Pedestrian Coordinator
Bureau of Transportation
(503) 823-6177
april.bertelsen@pdxtrans.org

Brett Horner
Planning Manager
Portland Bureau of Parks and Recreation
503-823-1674
Brett.Horner@ci.portland.or.us

Amin Wahab
Portland Bureau of Environmental Services
503-823-7895
AMINW@bes.ci.portland.or.us

TriMet (Partner)
Colin Maher
503-962-5854
MaherC@trimet.org

Oregon Department of Transportation (Co-Sponsor)
Lidwien Rahman
Principal Planner
ODOT Region 1
(503) 731-8229
Lidwien.RAHMAN@odot.state.or.us

City of Lake Oswego
Erica Rooney, P.E.
Asst. City Engineer
503-635-0264
erooney@ci.oswego.or.us

City of Tigard
Mike McCarthy, P.E.
Project Engineer/ROW Administrator
503-718-2462
mikem@tigard-or-gov

4. Funded Investments and Leverage

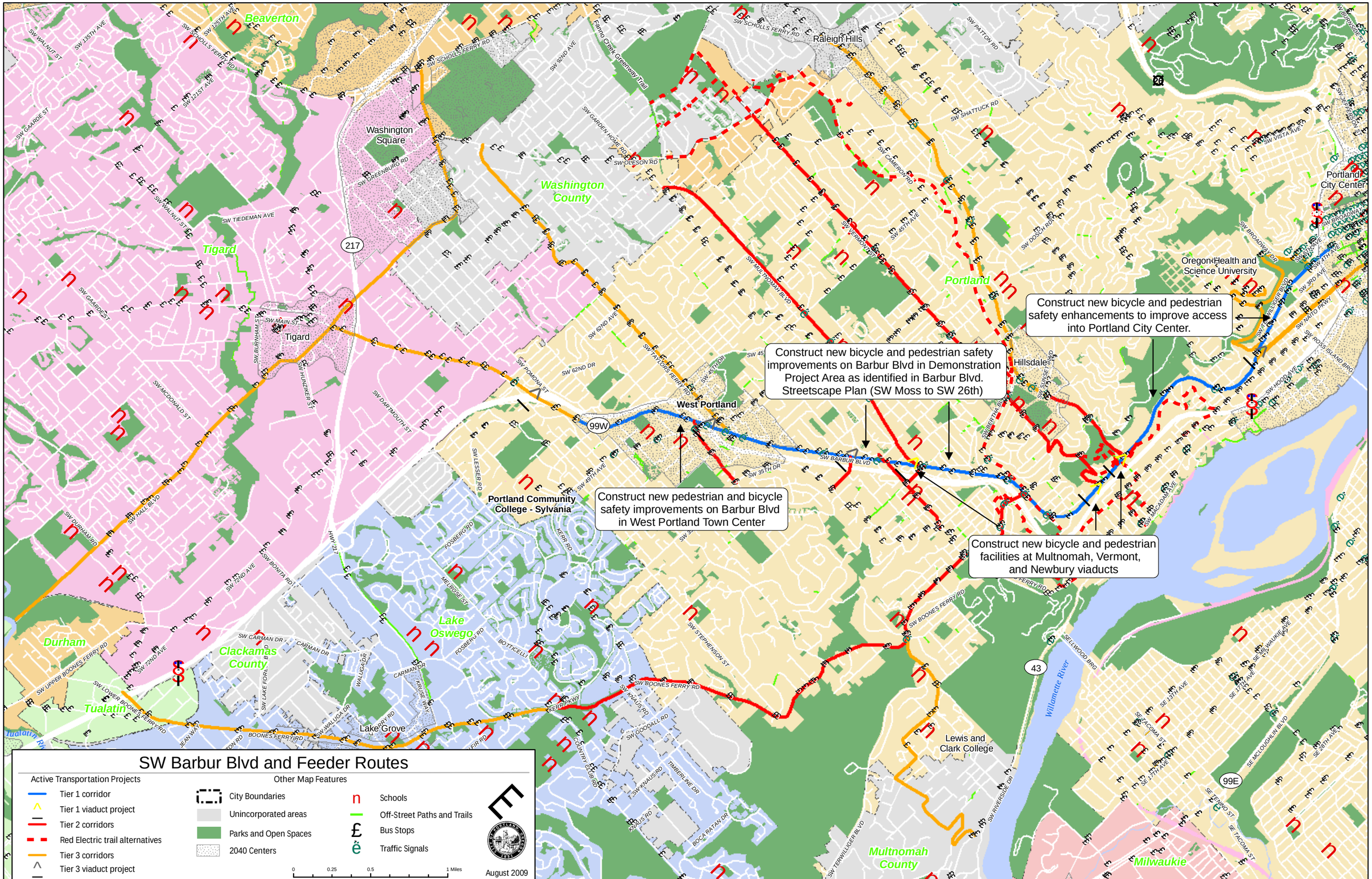
Projects that have received funding:

- SW Gibbs St Pedestrian Bridge Over I-5 and crossing improvements continuing to SW Barbur, in Construction Phase, $11.4 Million
- SW and E Portland Sidewalk Infill Federal Stimulus Project (Incl. Barbur segments), $1 Million est.
- Red Electric Trail: SW 30th - SW Vermont, $1.9 Million for Design & Construction
- SW Barbur Blvd Pedestrian/Bike Crossing Improvements at 30th Ave, Taylors Ferry, Huber and Luradel, $205,000 +
- SW Boones Ferry Rd and Stephenson Intersection Improvements, $250,000 Design & Construction
- SW Capitol Hwy from Multnomah Blvd to Taylors Ferry, $300,000 for Design Refinement Phase
- Rain Drop Walk, on SW Capitol Hwy from 35th- 26th Ave, $ for Design & Construction
- Several stormwater management projects by the Bureau of Environmental Services throughout the Fanno-Tryon Creek watersheds, including along Barbur Blvd. ($10 million +)

- *High Capacity Transit System Detailed Evaluation Draft* including the SW Barbur Corridor, Metro

Projects eligible for portion of local Transportation System Development Charge Funds:

- SW Stephenson (Boones Ferry – 35th): Multi-modal Improvements, $1.4 Million
- SW Garden Home/Multnomah Intersection, $1.9 Million
- SW Capitol Hwy, from Multnomah Blvd to Taylors Ferry, $9.6 Million


SW Barbur Blvd and Feeder Routes
Active Transportation Projects
Tier 1 corridor
Tier 1 viaduct project
Tier 2 corridors
Red Electric trail alternatives
Tier 3 corridors
Tier 3 viaduct project
Other Map Features
City Boundaries
Unincorporated areas
Parks and Open Spaces
2040 Centers
Schools
Off-Street Paths and Trails
Bus Stops
Traffic Signals
0
0.25
0.5
1 Miles
August 2009
Construct new bicycle and pedestrian safety enhancements to improve access into Portland City Center.
Construct new bicycle and pedestrian safety improvements on Barbur Blvd in Demonstration Project Area as identified in Barbur Blvd. Streetscape Plan (SW Moss to SW 26th)
Construct new pedestrian and bicycle safety improvements on Barbur Blvd in West Portland Town Center
Construct new bicycle and pedestrian facilities at Multnomah, Vermont, and Newbury viaducts
Beaverton
Washington Square
Washington County
Tigard
Raleigh Hills
Portland
Portland City Center
Oregon Health and Science University
Hillsdale
West Portland
Portland Community College - Sylvania
Lake Oswego
Lake Grove
Durham
Clackamas County
Tualatin
Lewis and Clark College
Multnomah County
Milwaukie
Willamette River
Fanno Creek Greenway Trail
217
99W
43
99E
26

Proposed SW Barbur Blvd & Feeder Routes Active Transportation Demonstration Project

Tier 1 projects

Corridor	TSP Modal Classification		TSP Project Number	RTP Project Number	Financially Constrained RTP?	Project Name	Project Description	Cost	Jurisdiction
SW Barbur (City Center to Hall Blvd.)	Traffic:	Major City Traffic; 48,000 -54,000 ADT	90016	10283	No	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. Crossing improvements as identified in the Portland Aerial Tram Final Recommendations and Report.	$5,612,000	Portland/ ODOT
	Transit:	Regional Transitway & Major Transit Priority; future HCT corridor	90017	10285	No	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, ~~traffic signal at Barbur/30th,~~ and bike lanes (Phase 1: Terwilliger - 26th, Demonstration Project Area project)	4,000,000	Portland/ ODOT
	Bicycle:	City Bikeway	90068	10287	No	West Portland Town Center, SW: Pedestrian Improvements (Phase 1)	Improve sidewalks, lighting, crossings, bus shelters and benches on Barbur Blvd.	$4,000,000	Portland
	BMP Update:	Major City Bikeway; Separated in Roadway	90069	10282	No	Barbur/Capitol/Huber/Taylors Ferry, SW: Intersection Improvements	Construct safety improvements, including traffic signals, at the intersection of Capitol Hwy, Taylors Ferry, Huber, and Barbur. Provide better sidewalks and crossings.	$988,484	Portland/ ODOT
	Pedestrian:	City Walkway	N/A	N/A	No	Multmonah viaduct on Barbur bicycle and pedestrian facilities	Construct new bicycle and pedestrian facilities at Multnomah St. viaduct	$1,664,243	ODOT
	Freight:	Major Truck; Oregon State Freight Route	N/A	N/A	No	Newbury viaduct on Barbur bicycle and pedestrian facilities	Construct new bicycle and pedestrian facilities at Newbury St. viaduct	$3,711,413	ODOT
	Emergency:	Major Emergency	N/A	N/A	No	Vermont viaduct on Barbur bicycle and pedestrian facilities	Construct new bicycle and pedestrian facilities at Vermont St. viaduct	$5,183,724	ODOT
	Design:	Regional Corridor							
							Tier 1 total:	**$25,159,864**	

Tier 2 projects

Corridor	TSP Modal Classification		TSP Project Number	RTP Project Number	Financially Constrained RTP?	Project Name	Project Description	Cost	Jurisdiction
SW Barbur (City Center to Hall Blvd.)	Traffic:	Major City Traffic; 48,000 -54,000 ADT	90068	10287	No	West Portland Town Center, SW: Pedestrian Improvements (Phase 2)	Improve sidewalks, lighting, crossings, bus shelters and benches on Barbur, Capitol Hwy & neighborhood streets.	$4,000,000	Portland
	Transit:	Regional Transitway & Major Transit Priority; future HCT corridor	90017	10285	No	Barbur Blvd, SW 26th - City Limits): Multi-Modal Improvements	Complete boulevard design improvements including sidewalks and street trees, safe pedestrian crossings, enhance transit access and stop locations, ~~traffic signal at Barbur/30th,~~ and bike lanes (Phase 2: 26th - City Limits)	17,000,000	Portland/ ODOT
	Bicycle:	City Bikeway							
	BMP Update:	Major City Bikeway; Separated in Roadway							
	Pedestrian:	City Walkway							
	Freight:	Major Truck; Oregon State Freight Route							
	Emergency:	Major Emergency							
	Design:	Regional Corridor							
Huber St, SW (Barbur - 35th)	Traffic:	Neighborhood Collector	90037	N/A	No	Huber St, SW (Barbur - 35th): Pedestrian Improvements	Construct a walkway for pedestrian travel and access to transit.	$673,440	Portland
	Transit:	Community Transit							
	Bicycle:	City Bikeway							
	BMP Update:	City Bikeway							
	Pedestrian:	City Walkway							
	Freight:	Truck Access							
	Emergency:	Major Emergency							
	Design:	Local Street							
19th, SW (Barbur - Spring Garden)	Traffic:	Neighborhood Collector	90002			19th, SW (Barbur - Spring Garden): Bikeway (Demonstration Project Area project)	Retrofit bike lanes to existing street.	$280,600	Portland
	Transit:	Transit Access							
	Bicycle:	City Bikeway							
	BMP Update:	City Bikeway							
	Pedestrian:	City Walkway							
	Freight:	Local Service							
	Emergency:	Minor Emergency							
	Design:	Local Street							
Spring Garden, SW (Taylors Ferry - 26th)	Traffic	Neighborhood Collector	90074			Spring Garden, SW (Taylors Ferry - 26th): Pedestrian Improvements (Demonstration Project Area project)	Construct a walkway to provide access to transit and schools	$1,164,490	Portland
	Transit:	Transit Access							
	Bicycle:	City Bikeway							
	BMP Update:	City Bikeway							
	Pedestrian:	City Walkway							
	Freight:	Local Service							
	Emergency:	Minor Emergency							
	Design:	Local Street							
26th Ave, SW (Spring Garden - Taylors Ferry)	Traffic:	Neighborhood Collector	90004	N/A	No	26th Ave, SW (Spring Garden - Taylors Ferry): Pedestrian Improvements (Demonstration Project Area project)	Construct a walkway for pedestrian travel and access to transit and install street lighting.	$491,050	Portland
	Transit:	Community Transit							
	Bicycle:	City Bikeway							
	BMP Update:	City Bikeway							
	Pedestrian:	City Walkway							
	Freight:	Truck Access							
	Emergency:	Major Emergency							
	Design:	Local Street							

Corridor	TSP Modal Classification	TSP Project Number	RTP Project Number	Financially Constrained RTP?	Project Name	Project Description	Cost	Jurisdiction
Red Electric (Hillsdale - Barbur)	Classifications vary				Red Electric Trail, Part 1	Construct on- and off-street bicycle and pedestrian facilities from SW Dover to SW Fairvale Ct.	$5,124,000	Portland
					Red Electric Trail, Part 2	Construct roadway enhancements to accommodate bikes and pedestrians on SW Cameron Rd. and SW Cullen Blvd from SW Fairvale Ct. to SW 39th Ave.	$3,425,000	Portland
					Red Electric Trail, Part 3	Construct roadway enhancements to accommodate bikes and pedestrians on SW Cullen Blvd and SW Bertha Blvd from SW 39th Ave to SW 30th Ave.	$2,398,000	Portland
					Red Electric Trail, Part 4	Construct roadway enhancements to accommodate bikes and pedestrians on SW Bertha Blvd, SW Nebraska St, SW Vermont St, SW Chestnut St, SW Burlingame Terrace, Saw Capitol Highway, and SW Burlingame Ave from SW 30th Ave to SW Terwillinger Blvd.	$8,709,000	Portland
					Red Electric Trail, Part 5	Construct sidewalks to accommodate pedestrians on Capitol Highway from SW Cheltenham to SW Terwilliger	$697,000	Portland
					Red Electric Trail, Part 6	Construct bicycle and pedestrian facilities on SW Parkhill DR and SW Slavin Rd. Includes Parkhill switchback.	$16,637,000	Portland
					Red Electric trail, Part 7	Construct sidewalks and off-street path on SW Taylors Ferry Rd, and hillside connecting SW Kelly Ave., SW Hood Ave, SW Fulton Park Place	$8,794,000	Portland
					Red Electric trail, Part 8	Construct on- and off-street bicycle and pedestrian facilities from SW Canby to SW Taylors Ferry Rd..	$5,502,000	Portland
SW Boones Ferry/Terwilliger (I-5 - Barbur)	Traffic: District Collector/Neighborhood Collector	N/A	11081	Yes	Boones Ferry Rd bike Lanes (Country Club to northern City Limits)	Enhanced pedestrian and bike opportunity and safety improvements for connectivity to Town Center; widen to include bike and ped facilities	$8,011,130	Lake Osewgo
	Transit: Transit Access	90023	10308	No	Boones Ferry Rd, SW (Terwilliger - City Limits): Bikeway	Retrofit bike lanes to existing street.	$8,102,325	Portland
	Bicycle: City Bikeway							
	BMP Update: City Bikeway; Separated in Roadway							
	Pedestrian: City Walkway							
	Freight: Truck Access							
	Emergency: Major Emergency							
	Design: Greenscape Street & Community Corridor							
SW Vermont (SW Oleson - SW Bertha/Red Electric)	Traffic: Neighborhood Collector Transit: Community Transit	90067	10275	No	Vermont St, SW, (30th - Oleson): Bicycle and Pedestrian Improvements	Retrofit bike lanes to existing street (45th - Oleson) and construct sidewalk (30th - Shattuck), and redesign intersection at 25th.	$9,259,800	Portland
	Bicycle: City Bikeway	90070	10272	No	Capitol Hwy, SW (Capitol/Vermont/30th Ave): Intersection Improvements	Provide traffic safety and pedestrian and bicycle facility improvements at Capitol/Vermont/30th intersection and approaching streets.	$631,350	Portland
	BMP Update: City Bikeway; Boulevard, Separated in							
	Pedestrian: City Walkway and Pedestrian District							
	Freight: Local Service and Truck Access							
	Emergency: Major and Minor							
	Design: Local Street							
SW Multnomah Blvd (Garden Home - Barbur)	Traffic: District Collector	90050	N/A	No	Multnomah Bl, SW (Barbur - 45th): Street Improvements	Reconstruct street to urban standards including curbs, sidewalks, storm sewers and upgraded street lights.	$2,974,360	Portland
	Transit: Transit Access							
	Bicycle: City Bikeway							
	BMP Update: Major City Bikeway; Separated in Roadway							
	Pedestrian: City Walkway							
	Freight: Truck Access							
	Emergency: Major Emergency							
	Design: Greenscape Street & Community Corridor & Community Main Street							
SW Capitol Highway (Scholls Ferry - Barbur)	Traffic: Major City Traffic Transit: Major Transit Priority	90029	10273	No	Capitol Hwy, SW (Terwilliger - Sunset): Multi-modal Improvements	Construct sidewalks, crossing improvements for access to transit and bike improvements and install left turn lane at the Capitol/Burlingame intersection	$1,276,730	Portland
	Bicycle: City Bikeway							
	BMP Update: City Bikeway & Major City Bikeway; Separated in Roadway							
	Pedestrian: City Walkway							
	Freight: Major Truck							
	Emergency: Major Emergency							
	Design: Regional Corridor & Regional Main Street & Greenscape Street							
						Tier 2 total:	**$105,151,275**	

Tier 3 projects

Corridor	TSP Modal Classification	TSP Project Number	RTP Project Number	Financially Constrained RTP?	Project Name	Project Description	Cost	Jurisdiction
Hall Blvd (Scholls Ferry Rd - Tualatin River)	Traffic: Transit: Arterial; 12,000 to 16,000 ADT	N/A	N/A	No	Hall Blvd. Improvements	Widen to 3 lanes; build sidewalks & bike lanes; safety improvements	$18,239,000	ODOT/Tigard
	Bicycle:	N/A	N/A	No	Pedestrian Improvements	Fill gaps in sidewalk & pedestrian network	$7,015,000	ODOT/Tigard
	Pedestrian:							
	Freight:							
	Emergency:							
	Design:							

Corridor	TSP Modal Classification		TSP Project Number	RTP Project Number	Financially Constrained RTP?	Project Name	Project Description	Cost	Jurisdiction
SW Naito (Barbur - Harrison)	Traffic:	Neighborhood Collector & Traffic Access	90042	N/A	No	South Portland Pedestrian District, SW: Future Pedestrian Improvements	Plan & develop improvements to the pedestrian environment to emphasize identity and make walking the mode of choice for trips within the neighborhood.	$561,200	Portland
	Transit:	Transit Access & Major Transit Priority							
	Bicycle:	Local Service	90060	N/A	No	South Portland Improvements, SW	Implement South Portland Circulation Study recommendations to redesign Naito Parkway as a neighborhood collector and reconnect east-west local streets. Rebuild the Ross Island Bridge ramps to separate regional traffic from neighborhood streets and improve access to I-405 and I-5 southbound.	$39,695,079	Portland
	BMP Update:	City Bikeway; Separated in Roadway							
	Pedestrian:	Local Service & Pedestrian District							
	Freight:	Local Service & Major Truck							
	Emergency:	Major Emergency							
	Design:	Community Corridor & Regional Corridor							
SW Palatine Hill Rd (Lewis & Clark College - Terwilliger)	Traffic:	Neighborhood Collector	90052	N/A	No	Palatine Hill Rd, SW (Boones Ferry - City Limits): Bikeway	Retrofit bike lanes to existing street.	$14,030,000	Portland/ Multnomah Co
	Transit:	Community Transit							
	Bicycle:	City Bikeway							
	BMP Update:	City Bikeway; Separated in Roadway							
	Pedestrian:	City Walkway							
	Freight:	Local Service Truck							
	Emergency:	Minor Emergency							
	Design:	Local & Greenscape Street							
SW Taylors Ferry Rd (Washington Square - Barbur)	Traffic:	Neighborhood Collector	90064	10284	No	Taylors Ferry, SW (Capitol Hwy - City Limits): Bicycle & Pedestrian Improvements	Provide bicycle lanes, including shoulder widening and drainage, and construct sidewalk for access to transit (40th - 60th).	$4,209,000	Portland
	Transit:	Community Transit							
	Bicycle:	City Bikeway							
	BMP Update:	City Bikeway; Separated in Roadway							
	Pedestrian:	City Walkway							
	Freight:	Local Service Truck & Truck Access							
	Emergency:	Minor Emergency							
	Design:	Community Corridor							
SW Boones Ferry/Terwilliger (I-5 - Barbur)	Traffic:	District Collector/Neighborhood Collector	90066	N/A	No	Terwilliger, SW, (SW Troy - County line): Pedestrian Improvements	Provide pedestrian improvements including missing sidewalks and improved pedestrian crossings at Lewis & Clark and Maplecrest, bicycle facilities	$1,795,840	Portland/ Multnomah Co
	Transit:	Transit Access	N/A	10088	Yes	Lower Boones Ferry Rd (Medrona - Kruse Way)	Enhanced pedestrian and bike opportunity and safety improvements for connectivity to Town Center; widen to include bike, ped, and turn lanes.	$29,070,160	Lake Osewgo
	Bicycle:	City Bikeway							
	BMP Update:	City Bikeway; Separated in Roadway							
	Pedestrian:	City Walkway							
	Freight:	Truck Access							
	Emergency:	Major Emergency							
	Design:	Greenscape Street & Community Corridor							
SW Barbur (City Center to Hall Blvd.)	Traffic:	Major City Traffic; 48,000 -54,000 ADT							
	Transit:	Regional Transitway & Major Transit Priority; future HCT corridor	N/A	N/A	N/A	Barbur blvd viaduct bicycle and pedestrian facilities	Construct new bicycle and pedestrian facilities on 4 viaducts spanning I-5, SW 26th Ave, SW Harbor Dr	$11,150,978	ODOT
	Bicycle:	City Bikeway							
	BMP Update:	Major City Bikeway; Separated in Roadway	N/A	N/A	No	Provide links to key transit stops	Provide connections to existing frequent bus stops and future light rail stations		Tigard/ODOT
	Pedestrian:	City Walkway							
	Freight:	Major Truck; Oregon State Freight Route							
	Emergency:	Major Emergency							
	Design:	Regional Corridor							
SW Beaverton Hillsdale Highway (Beaverton to Capitol)	Traffic:	Major City Traffic	90020	10279	No	Beaverton-Hillsdale Hwy, SW (Capitol Hwy - 65th): Multi-modal Improvements	Retrofit existing street to include better sidewalks and crossings, bike lanes and other improvements to enhance access to transit.	$3,565,023	Portland
	Transit:	Major Transit Priority							
	Bicycle:	City Bikeway	90028	10274	No	Beaverton-Hillsdale/Bertha/Capitol Hwy, SW: Intersection Improvements	Redesign intersection to improve safety.	$1,369,293	Portland
	BMP Update:	City Bikeway & Major City Bikeway; Separated in Roadway							
	Pedestrian:	City Walkway							
	Freight:	Major Truck							
	Emergency:	Major Emergency							
	Design:	Regional Corridor & Regional Main Street & Greenscape Street							
SW Campus Dr/SW Terwilliger Blvd (OHSU - Barbur)	Traffic:	Neighborhood Collector & Local Service							
	Transit:	Transit Access & Community Transit							
	Bicycle:	City Bikeway							
	BMP Update:	City Bikeway & Major City Bikeway; Separated in Roadway & Enhanced Shared Roadway	N/A	N/A	No	Campus Drive Bikeway Project	Construct a bicycle boulevard, bike lane, or other separated-in-roadway facility consistent with the recommendation in the draft Bicycle Master Plan update.	N/A	Portland
	Pedestrian:	City Walkway & Local Service Walkway							
	Freight:	Local Service Truck							
	Emergency:	Minor Emergency & Major Emergency							
	Design:	Local Street & Greenscape Street							
							Tier 3 total:	**$130,700,573**	
							Grand Total	**$261,011,712**	

Barbur Blvd Bike Bridges
(2009 Dollars)

M.P.	Bridge #	Bridge Name	Notes	Length (ft)	Width (ft)	ESTIMATE
~~1.28~~	~~09153~~	~~**OR99W over I-5**~~	~~Over I-5~~	~~189.0~~	~~17.0~~	~~**$1,720,012**~~
~~1.41~~	~~05194~~	~~**OR99W over SW Arthur Street**~~	~~Over city streets~~	~~576.0~~	~~17.0~~	~~**$7,688,217**~~
~~1.61~~	~~06896~~	~~**OR99W over Hwy 26 WB**~~	~~Over US26~~	~~35.0~~	~~17.0~~	~~**$385,967**~~
~~1.67~~	~~06895~~	~~**OR99W over Hwy 26 EB**~~	~~Over US26~~	~~68.0~~	~~17.0~~	~~**$648,879**~~
1.93N	0519A	**Harbor drive Viaduct, Hwy OR99W NB**		514.0	17.0	**$3,490,291**
3.25	01983	**OR99W SW Newbury St. Viaduct**	Very high above ground	377.0	17.0	**$3,711,413**
3.50	01984	**OR99W SW Vermont St. Viaduct**	Very high above ground	531.0	17.0	**$5,183,724**
4.86	02010	**OR99Wover SW Multnomah Blvd**	ROW cost likely high	182.0	17.0	**$1,664,243**
5.25	083222	**OR99W over SW 26th Ave**	Over Busy Street	125.0	17.0	**$1,062,831**
6.21	08205	**OR99W over I-5**	Over I-5	250.0	17.0	**$2,018,543**
7.42	07785C	**OR99W over I-5**	Over I-5	521.0	17.0	**$4,579,313**
					TOTAL:	**$32,153,434**

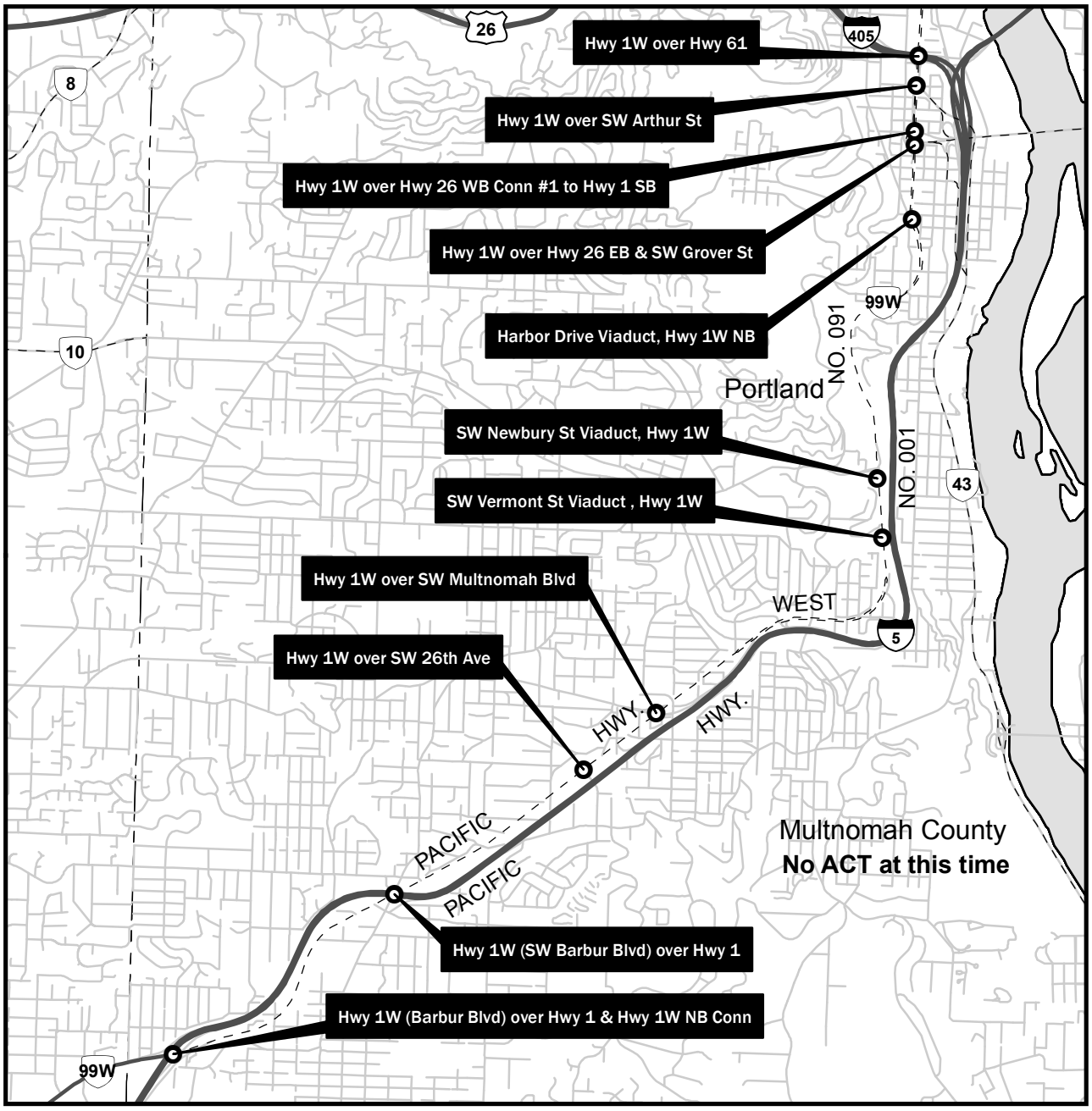
Bridge Assumptions:
- Cost does not include Environmental which could vary considerably depending on location
- Above costs are rough estimates for new independent bike bridges or for modifying the existing bridges if feasible
- Cost based on size of bridge, local terrain, and type of facility under the bridge
- Bridge bents assumed to be required every 150' on average

Roadway Assumptions:
- Roadway elements are only those related to the bridge and connections

ROW Assumptions:
- Assume $70/sqft for new ROW acquisition
- Depending on actual design needs, there may be room to accommodate within existing ROW
- Actual ROW costs dependent on project footprint, which is unknown without Preliminary Engineering

PROJECT LOCATION

ODOT REGION 1



LEGEND

SITE LOCATION

STATE HIGHWAY CLASSIFICATION

INTERSTATE

STATEWIDE

REGIONAL / DISTRICT

REGIONAL BOUNDARY

COUNTY BOUNDARY

ACT BOUNDARY

OR99W (BARBUR BLVD) BIKE BRIDGES

"This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information."

0 0.5 Miles

PRODUCED BY ODOT - GIS UNIT
(503) 986-3154 - JULY 2009
GIS No. 23-52

\\s6000e\cad6221\OTC_MAPS\OTC_09_MAPS\REGION_1\REGION_1_MXDPDF_2009\99W_Bike_Bridges_Loc.mxd