



**Multnomah County**

**Department of Community Service**

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**2012 Update  
Multnomah County  
Transportation Capital  
Improvement Plan  
And Program  
Fiscal Years 2010-2014**

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**April, 2012**

**Prepared by  
Multnomah County  
Land Use and Transportation Program**



**2012 Update**  
**Multnomah County**  
**Capital Improvement Plan and Program**  
**FY 2010-2014 Transportation**

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**2012 Update**  
**Multnomah County Transportation**  
**Capital Improvement Plan and Program**  
**Fiscal Years 2010-2014**

**2012 Update Summary:**

*The Transportation Capital Improvement Plan and Program (CIPP) is a two-part document:*

- 1) the Plan inventories and prioritizes County transportation needs; and*
- 2) the Program matches estimated transportation capital revenue with priority projects for a five-year period.*

*The Program component is typically updated biennially to reflect new and completed projects as well as the most current revenue projections. The 2012 Program Update is presented starting on page 30 of this document.*

*The Plan component contains all identified projects to improve motor vehicle, transit, pedestrian and bicycle, and fish passage culvert needs. Using relevant criteria for each type of project, County staff scores all projects. Based on the scoring, available funding, and input from stakeholders, a 5-year Program is developed to schedule anticipated revenue and other sources.*

*With the 2010 adoption of the CIPP, Land Use and Transportation Planning staff committed to review the bicycle and pedestrian priorities in the Plan, and present updated rankings and programming with the biennial Program update. Working with the Bicycle and Pedestrian Citizen Advisory Committee, new criteria and associated numerical values were developed and applied to projects. The revised criteria and subsequent rankings are presented in this 2012 Update on pages 12-17, and are reflected in the projects on the 2012 Program Update.*

**Introduction**

In 2010, Multnomah County adopted its Transportation Capital Improvement Plan and Program (CIPP) for Fiscal Years 2010-2014, consistent with guidelines established in the County Comprehensive Framework Plan: Trafficways Policy #32. A goal of the Comprehensive Framework Plan is to:

Promote and enhance a balanced transportation system that encourages a thriving economy, increases public safety, allows for efficient transportation movement, and protects livable communities through the best possible use of available funds.

**Background**

The County's network of roads and bridges lies outside the cities of Gresham and Portland, with the exception of the six (6) Willamette River Bridges within Portland. Projects that accommodate all modes of transportation, motor vehicle, transit, pedestrian and bicycle, and fish passage culvert improvements are considered in the CIPP.

The relative jurisdictional authority of the County and the cities within its boundaries has evolved significantly since the 1980s. In 1985, all roads and streets within the incorporated boundaries of the City of Portland were transferred to the City. Multnomah County, by Oregon law, retained responsibility for the Willamette River bridges. In 1995, Multnomah County transferred many local roads to the cities of Fairview, Gresham, and Troutdale. Multnomah County retained the regional road network outside of Portland. In December 2005, following Oregon legislative action, Multnomah County transferred jurisdiction of all County roads within the City of Gresham to the City of Gresham.

The County currently has jurisdiction over 283 miles of roads located in east and west unincorporated Multnomah County and approximately 27 miles of urban roads in the Cities of Fairview, Troutdale, and Wood Village. It also owns, maintains, and operates six (6) Willamette River bridges – Sauvie Island, Broadway, Burnside, Morrison, Hawthorne, and Sellwood.

### **Purpose of a Capital Improvement Plan and Program**

A current CIPP helps ensure that public funds are strategically invested in transportation projects that provide the greatest public benefit and keep the County's priority projects eligible for state and federal grant programs.

Capital projects improve County transportation facilities where either substantial reconstruction or new construction is required.

Examples of capital projects include:

- Bridge or bridge component replacement
- Road reconstruction
- Extensive guardrail replacement
- Sidewalk construction
- Extensive drainage improvements
- New traffic signals and upgrades to existing traffic signals
- Intersection improvements
- Road widening and the construction of new roadways
- Bikeway construction
- Culvert replacement
- Bridge Corrosion Control

Maintenance projects, such as crack sealing, striping and signing are not funded by the Capital Improvement Program. These activities are funded through operations and maintenance budgets. There are instances where roads developed to current standards require major reconstruction. These are capital projects. The road overlay program and bridge corrosion control are also funded through the capital program.

The CIPP is a two-part document. The Capital Improvement Plan identifies and scores transportation projects needed in the next 20 years. The Capital Improvement Program assigns available revenues to high priority projects for a five-year period.

### **Capital Improvement Plan**

The Plan (Transportation Capital Improvement Plan) is an inventory of transportation capital needs and costs. It precedes the Program (Capital Improvement Program) by rating and ranking projects by priority of need. The Plan uses criteria to evaluate and distinguish



Roadway, Bicycle and Pedestrian, Fish Passage Culvert, and Willamette River Bridges priorities from the array of candidate projects.

### **Capital Improvement Program**

The Program implements the Plan by assigning anticipated and available County transportation revenues to candidate projects. The Program is reviewed annually and updated biennially to ensure that limited resources for projects are efficiently allocated to the most critical capital needs, and to leverage County funds. The Program is used by the Transportation Program in preparing its annual Transportation Program budget. Public review of the Program is provided annually through the County's budget process.

### **CIPP Process**

The County road system is dynamic, changing in response to land use decisions and infrastructure life cycles. Consequently, the CIPP must be reconsidered and revised on a regular basis.

Several internal and external means are used to identify transportation improvement projects. The primary internal source of information is the FY 2005-2009 Capital Improvement Plan and Program. Projects included in the 2005-2009 CIPP that have been completed or are under construction are deleted from the FY 2010-2014 CIPP list. Projects on roads now under the City of Gresham's jurisdiction have also been deleted, as well as those which will be annexed consistent with adopted intergovernmental agreements (e.g., Pleasant Valley Plan District). Other sources of projects and needs include public recommendations, the Multnomah County Bicycle and Pedestrian Citizen Advisory Committee, the adopted Transportation System Plans and Regional Transportation Plan, and input from the Cities of Fairview, Troutdale, and Wood Village, County Maintenance and Engineering staff, safety audit reports, County planning and data management tools, including the County Pavement Management Program, Functional Classification of Trafficways, the Master Road List, the County's Bicycle Master Plan, Pedestrian Master Plan, and Fish Passage Culvert Program. These sources identify segments, intersections, and structures on the County transportation system that are hazardous or congested, substandard, incomplete, or in need of reconstruction. The Willamette River Bridges 20-Year Capital Improvement Needs report provides the basis for identifying the needs and projects on the six (6) Willamette River bridges.

The capital project needs identified in this Plan total over \$1.04 billion for approximately 165 candidate projects.

Table 1 summarized the capital needs by facility type.

<b>Table 1</b>	
<b>Multnomah County Transportation Capital Improvement Plan Summary</b>	
Arterials	\$ 187,552,020
Collectors	\$ 119,476,406
Bridges (non-WRB)	\$ 20,849,000
Signals	\$ 20,576,722
Street Design	\$ 1,950,548
<b>Roadways subtotal</b>	<b>\$ 350,040,696</b>



Bicycle Facilities	\$ 131,195,120
Pedestrian Facilities	\$ 12,971,315
Fish Passage Culverts	\$ 20,339,147
Willamette River Bridges	\$ 526,128,801
<b>Total</b>	<b>\$1,041,039,079</b>

Transportation staff conducted a series of public meetings throughout the County to discuss the state of road funding and its impact on providing road services and investments in a capital program. Transportation capital program information and project solicitation forms have been available on the County's website. The cities of Fairview, Troutdale, and Wood Village have reviewed the CIPP, and it was presented to the East Multnomah County Transportation Committee (EMCTC) and the Columbia Cascade River District Steering Committee at their January 2010 meetings. It was endorsed by EMCTC at its March, 2010 meeting. The Multnomah County Bicycle and Pedestrian Citizen Advisory Committee also reviewed the CIPP at its January 2010 meeting.

### **Capital Project Funding**

Capital programming is intended to budget funds over a five-year period to bring portions of each element of the transportation system up to standard. Future year revenues are estimated and allocated to the highest priority capital projects until estimated revenue is fully allocated.

Multnomah County receives its transportation revenue from three (3) primary sources – Federal revenues, the State Transportation Fund (state gas tax, vehicle registration fees, and truck weight/mile tax), and a 3-cent County gas tax. Federal sources include the Surface Transportation Program (STP) and Highway and Bridge Program (HBP). The County has chosen to dedicate the STP funds to the rural roads within the County. HBP funds are used solely for the Willamette River Bridge Program for both capital and large maintenance projects.

The County receives State revenues based on the number of vehicles registered in the County. Through revenue sharing agreements, a portion of these funds are given to Portland, Gresham, Troutdale, and Fairview for capital and maintenance projects. The Portland agreement also dedicates annual funding for the operation, maintenance, and capital program for the Willamette River bridges. The County uses the remainder of these funds primarily for maintenance and leveraging outside sources of revenues. As obligated by State law, a minimum of one percent of State Highway revenues are spent on planning, building, and maintaining bicycle facilities and sidewalks on County transportation facilities. In practice, the County spends more than one percent of State Highway revenues on bicycle and pedestrian facilities. Revenues dedicated for the bicycle and pedestrian system are generally used to fund bicycle and pedestrian projects that are unlikely to be associated with a road or bridge capital project. County road and bridge capital projects generally incorporate bicycle and pedestrian elements into the project design, and Roadway and Willamette River Bridges maintenance programs assume the cost of maintaining the bicycle and pedestrian facilities.

Like all public transportation agencies relying on gas tax revenue, Multnomah County is experiencing a dramatic reduction in its ability to maintain its current system of roads and bridges or to invest in replacement or expansion projects. Prior to the 2009 State legislative adoption of the Jobs and Transportation Act, the last state gas tax increase was in 1993. Since that time, the number of vehicle miles traveled in the region has risen by 19 percent, but gas tax revenues only increased by 3 percent. Vehicles have become more fuel efficient, but travelers are no less dependent on a good transportation system.

Since 1993, inflation has increased by more than 50 percent. While fuel prices fluctuate dramatically, the gas tax is flat and has no index to inflation. As a consequence, the County's purchasing power has diminished with inflation. The County's core responsibility to provide a safe environment for the traveling public has been seriously compromised by diminished buying power.

The County has a history of investing heavily in capital preservation. However, over the past few years, funds for road overlays and upkeep have dwindled, and the backlog of deferred maintenance, particularly for roads, is growing at an alarming rate.

In 2009, two legislative actions provided some relief to the County's transportation asset management program: 1) the Federal American Recovery and Reinvestment Act (ARRA), and 2) Oregon's Job and Transportation Act (JTA or HB 2001). Multnomah County received \$1.75 million in one-time ARRA funding for a combination of capital and maintenance projects. The increased State Highway revenues under the JTA provide longer-term aid to address deferred maintenance and make capital investments. The JTA increased the statewide vehicle registration fee and gas tax, increasing revenues to the state, cities, and counties. In addition, it allows counties in the Portland metro area the option to levy a vehicle registration fee to fund the Sellwood Bridge replacement. In October 2009, the Multnomah County Board of Commissioners adopted a \$19 annual vehicle registration fee as part of the Sellwood Bridge financial strategy.

Current projections of County revenues from both the state and county transportation funds indicate an improved but limited ability to sustain investments in road and bridge preservation and maintenance and in a limited capital program. County priorities for its transportation revenues are capital debt payments, the road preservation/overlay program, bridge preservation/maintenance, annual allotments for emergency response and safety, and new bridge and road capital projects.

Priorities for capital projects are established through evaluation processes for each of the following facility categories: Road and non-Willamette River Bridges, Bicycle, Pedestrian, Fish Passage Culverts, and Willamette River Bridges. Unique sets of criteria for each facility category are used to evaluate and score projects. County staff uses objective criteria to evaluate and give priority to the array of potential projects. Specific evaluation criteria are discussed under each of the following facility category's capital plan summaries.



## **Multnomah County Roadways FY 2010-2014 Capital Improvement Plan**

The Roadways Capital Improvement Plan establishes a ranked list of road and road-related capital projects necessary to enhance and maintain the County road system at acceptable levels. The County's road projects are evaluated using criteria that address the following:

- Safety
- Multi-modal benefits
- Support of regional 2040 land uses and transportation goals
- Completing gaps in travel corridors
- Demonstrating local community support
- Potential to leverage non-County funding

These criteria are based in part on project selection criteria used by Metro for funding regional projects. This aligns Multnomah County urban projects with Metro 2040 Growth Management objectives while still meeting Multnomah County criteria and objectives.

Each potential project is evaluated and scored using the Road Capital Projects Ranking Criteria shown on the following Table 2. Roadway projects are sub-categorized as Arterials, Collectors, (non-Willamette River) Bridges, Signals/Intersections, and Street Design Concept on Table 3. Using the scoring tool, priorities are established for each Road sub-category.

**Table 2**  
**Criteria for Road Project Evaluation**

Criteria	Criteria Explanation	Points
Safety Priority Indexing System (SPIS)	Project includes a site identified in the SPIS as a high crash location/intersection:	
	• 10% of the highest crash locations	20
	• 11% - 25% of the highest crash locations	10
	• 26% - 50% of the highest crash locations	5
Multi-modal benefit	Project adds bike and pedestrian facilities where none exist.	20
	Project improves on existing bike and pedestrian facilities built to minimum standards.	8
	Project in an identified transit corridor.	8
2040 Focus Areas (land use)	Project is located in or directly serving a regional center or town center.	5
	Project is located in or directly serves an industrial center or employment core.	5
	Project serves an activity center (MHCC, Blue Lake Park, Legacy Hospital, K-12 school).	5
Non-county funding secured	Project secured 50 – 100% of funding from non-county source.	10
	Project secured less than 50% from a non-county source.	5
Project Support	Project is included in a local plan (transportation system plan, corridor plan, refinement plan, etc.).	5
	Project has received citizen support (letters, phone calls, hearings, etc.).	5
	Project a local jurisdiction priority.	5
Completion of corridor	The project complete a gap in a corridor (i.e. is the roadway on either end of segment constructed to county standards.	5
Perceived safety factor	The project includes a location without a high SPIS rating that has publicly-perceived safety problems or problems not identified through crashes.	5
<b>Total points possible</b>		<b>80</b>

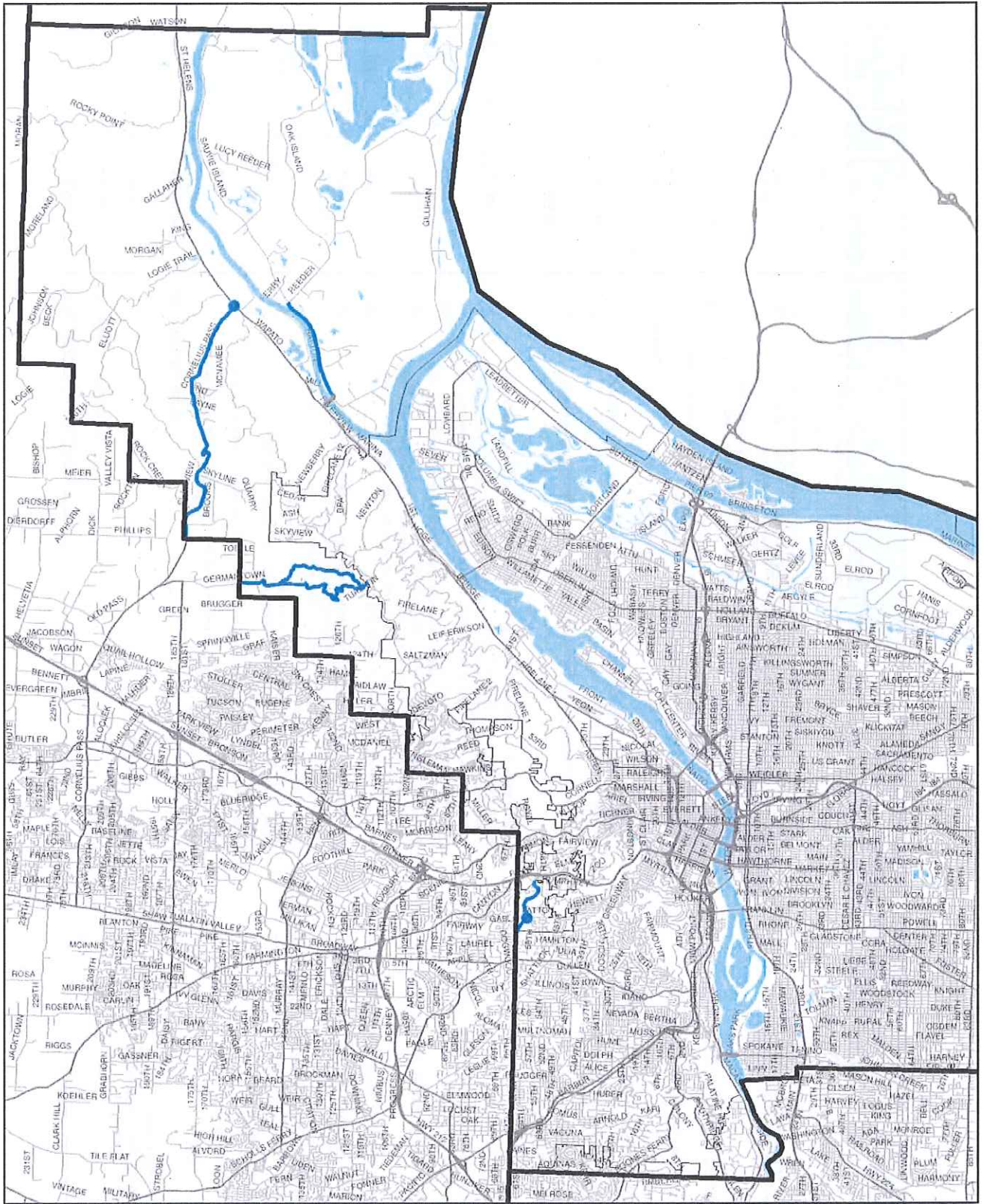
TABLE 3: Roadways Project Ranking Report

Project #	Project Name	Project Description	Score	Project Cost	On Bike CIP	RTP - FC No.
<b>ARTERIAL CATEGORY</b>						
<b>Urban</b>						
57	Stark St: 257th Ave.-Troutdale Rd	Reconstruct Stark St. to minor arterial standards by widening the existing 2 lanes to provide for 4 traffic lanes, a continuous left-turn lane, bike lanes, sidewalks, and intersection improvements.	40	\$ 11,100,000	Y	10382
716	Sandy Blvd: Gresham/Fairview City Limits -- 238th Ave	Reconstruct Sandy Blvd to minor arterial standards with bike lanes, sidewalks and drainage improvements, utilizing recommendations from TGM grant.	40	\$ 21,404,633	N	10399
107	Halsey St: 238th Dr--Historic Columbia River Hwy	Widen Halsey St to 3 lane minor arterial with center turn lane/median, sidewalk and bicycle lanes, consistent with Halsey Street Conceptual Design Plan	35	\$ 10,807,290	Y	10385
110	Glisan St: 202nd Ave--Fairview Parkway	Reconstruct northside of Glisan Street to provide multimodal connection between Gresham-Fairview Trail and Salish Ponds Natural Area. Include bike lanes, sidewalks, two travel lanes in each direction, and on-street parking. Design green-street treatment for drainage improvements, including Fairview Creek culvert replacement. South side of Glisan St is in Gresham, north is City of Fairview.	35	\$ 11,774,421	Y	10386
88	Implement I-84-US26 Corridor Refinement Plan	Implement recommendations of I-84/US 26 Corridor Refinement Plan conducted in accordance with the 2007 MOU signed by East County cities.	35	\$ 10,000,000	N	10383
202	Stark St: Troutdale Rd--Hampton Ave	Reconstruct road to arterial standards with 1 travel lanes in each direction, center turn lane/median, sidewalks and bicycle lanes.	20	\$ 3,276,450	Y	10406
<b>Rural</b>						
103	Cornelius Pass Rd: MP 2--MP 3	Widen Cornelius Pass Rd, including new box culvert and passing lane.	10	\$ 21,893,536	N	11296
103a	Cornelius Pass Rd: MP 3.0--MP 3.5	Realign and widen Cornelius Pass Road to provide southbound passing lane.	TBD	\$ 35,135,976	N	10396
389	Cornelius Pass Rd: US 30--MP 2	Reconstruct Cornelius Pass Road including passing lane, safety, shoulder and drainage improvements.	10	\$ 54,159,714	Y	11295
TBD	Cornelius Pass Road Safety Improvements - TSM	Implement system management improvements recommended in FHWA Safety Audit; i.e., targeted shoulder widening, new/additional guard rails.	TBD	\$ 6,000,000	N	11298
TBD	Cornelius Pass Road Safety Improvements - ITS	Implement ITS improvements recommended in FHWA Safety Audit; i.e., electronic messaging signs, photo radar/ticketing.	TBD	\$ 2,000,000	N	11289
				<b>Arterial Total \$</b>	<b>187,562,020</b>	
<b>COLLECTOR CATEGORY</b>						
<b>Urban</b>						
135	223rd Ave: Halsey St--Sandy Blvd	Reconstruct 223rd Ave to major collector standards with 2 travel lanes, center turn lane/median, sidewalks and bicycle lanes. Requires reconstruction of RR bridge under another project.	55	\$ 4,596,717	Y	10388
129	Arata Rd: 223rd Ave--238th Dr	Construct to 3 lane collector standards with center turn lane/median, sidewalks, bicycle lanes.	45	\$ 5,928,252	Y	10387
143	223rd Ave: Sandy Blvd--Marine Dr	Improve 223rd Ave to major collector standards including 2 travel lanes, center turn lane/median sidewalks, bicycle lanes. Possible culvert replacement for fish passage could add \$120,000 to cost. Requires replacement of RR bridge not included in this proposal.	40	\$ 7,106,182	Y	10389
710	Wood Village Blvd: Arata Rd--Halsey St	Construct extension of Wood Village Blvd as a major collector with 2 travel lanes, center lane/median, sidewalks, bicycle lanes.	30	\$ 3,294,764	Y	10398
150	Troutdale Rd: Stark St--northerly 1700'	Reconstruct to major collector standards with 2 travel lanes, center turn lane/median, sidewalks, bicycle lanes. Requires new fish culvert at Beaver Creek.	25	\$ 8,556,929	Y	-
151	Historic Columbia River Hwy: 244th Ave--Halsey St	Reconstruct to minor arterial standards with 2 travel lanes, center turn lane/median, bicycle 25 lanes and sidewalk. Reconstruction of railroad bridge is not included in this project.	25	\$ 16,371,224	Y	10391
134	Troutdale Rd: Strebin St--Stark St	Improve to collector standards with 2 traffic lanes, center lane, bike lanes and sidewalks, intersection and drainage improvements.	25	\$ 8,446,060	Y	10390
745	Marine Drive Reconstruction	Reconstruct Marine Drive between Interlachen Ln. and the frontage roads in Troutdale.	20	\$ 36,764,139		10401
<b>Rural</b>						
145	Cochran Dr: Troutdale Rd--westerly 2175'	Reconstruct to major collector standards: 2 travel lanes, center lane/median, sidewalks, bike lanes, and culvert replacement.	15	\$ 7,442,765	Y	-



Project #	Project Name	Project Description	Score	Project Cost	On Bike CIP	RTP - FC No.
165	Troutdale Rd: 19th St-Cherry Park Rd	Widen to major collector standards with 2 travel lanes, center turn lane/median, sidewalks and bicycle lanes	15	\$ 875,155	Y	-
149	Sweetbriar Rd: Troutdale Rd-E City Limit	Widen to neighborhood collector standards with 2 travel lanes, sidewalk and bicycle lanes.	10	\$ 2,740,748	Y	-
159	Sauvie Island Rd: Bridge-Reeder Rd	Widen road to rural collector standards with 2 travel lanes. Requires working on dike.	20	\$ 8,275,636	Y	-
726	Germentown Rd/Old Germentown Rd	Widen Germentown Rd to create left turn pocket and improve sight distance.	5	\$ 780,835	N	-
TBD	Troutdale Rd.: Stark St-Division Dr.	Reconstruct with 2 travel lanes; construct center turn lane/median, sidewalks, bicycle lanes between Stark and Strebin. Reconstruct Troutdale Rd/Division Dr. intersection including new fish culverts.	TBD	\$8,297,000	Y	10390
TBD	Construct new road north of I-84, Exit 16	Conduct design options alternatives (DOA) study for new connection between Sandy Blvd and Marine Dr. Construct new connector linking industrial sites with I-84.	TBD	\$13,000,000	N	10402
Collector Total \$				119,476,406		
<b>BRIDGE CATEGORY (NON-WILLAMETTE RIVER BRIDGES)</b>						
197	223rd Ave North RR Undercrossing	Reconstruct railroad bridge on 223rd Ave, 2000' north of I-84 to provide wider travel lanes, sidewalks and bicycle lanes.	30	\$ 11,534,500		10394
199	Historic Columbia River Hwy RR Overcrossing: Half mile east of 244th Avenue	Reconstruct railroad bridge to accommodate wider travel lanes, sidewalks and bike lanes.	20	\$ 9,314,500		10395
<b>SIGNAL/INTERSECTION CATEGORY</b>						
<b>Urban</b>						
744	Scholls Ferry Rd/Patton Rd	Improve safety and reduce delay at intersection. Improvements will include ADA curb ramps, signals with permissive/protective phasing	10	\$ 450,000		10384 / 10188
TBD	257th/Kane Dr.: Arterial Corridor Management (ACM) w/ Adaptive Signal Timing	Install upgraded traffic signal controllers, establish communications to the central traffic signal system, provide arterial detection and routinely update signal timings. Provide real-time and forecasted traveler information.	TBD	\$ 2,800,000	N	11299
TBD	238th/242nd Ave/Hogan Dr.: ACM with Adaptive Signal Timing	Includes the ACM project with signal systems that automatically adapt to current arterial that automatically adapt to current arterial roadway conditions.	TBD	\$ 3,600,000	N	11300
TBD	Fairview Parkway: Arterial Corridor Management (ACM)	Install upgraded traffic signal controllers, establish communications to the central traffic signal system, provide arterial detection and routinely update signal timings. Provide real-time and forecasted traveler information on arterial roadways.	TBD	\$ 850,000	N	11297
<b>Rural</b>						
193	Cornelius Pass Rd/IUS 30	Widen pavement to allow for north bound left turn lane, right turn lane and bicycle lanes.	20	\$ 1,642,529	Y	
147	Corbett Hill Rd: Historic Col. River Hwy	Improve intersection alignment by making stops at right angle.	5	\$ 3,770,920	N	-
186	Division Dr/Troutdale Rd (Included in Collector project above)	Realign intersection, eliminating NE leg, producing a 4-way intersection. Replace 3 existing culverts identified as fish barriers.	5		N	10390
703	Orient Dr/Dodge Park Blvd	Widen Orient Dr to create eastbound left turn lane.	5	\$ 373,616	N	11097
704	302nd Ave/Lusted Rd	Realign Lusted Rd and Pipeline Rd to create perpendicular intersection @ 302nd, add left turn lane to each leg of intersection.	5	\$ 5,613,717	N	-
707	Oxbow Dr/Altman Rd	Widen Oxbow Dr to create westbound left turn lane to Altman Rd, realign intersection to a 5 perpendicular intersection.	5	\$ 790,693	N	-
706	Orient Dr/Bluff Rd	Widen Orient Dr to create eastbound left turn lane to Bluff Rd, realign Bluff and Teton to create perpendicular intersection.	5	\$ 685,247	N	-
Signal/Intersection Total \$				20,576,722		
<b>STREET DESIGN CONCEPT TOTAL</b>						
207	257th Ave Utility Undergrounding	Underground Utilities	25	\$ 1,030,996	N	-
208	257th Ave Street Trees	Street Trees	20	\$ 919,552	N	-
Street Design Concept Total \$				1,950,548		
ALL ROADWAY CATEGORIES TOTAL \$				360,404,696		



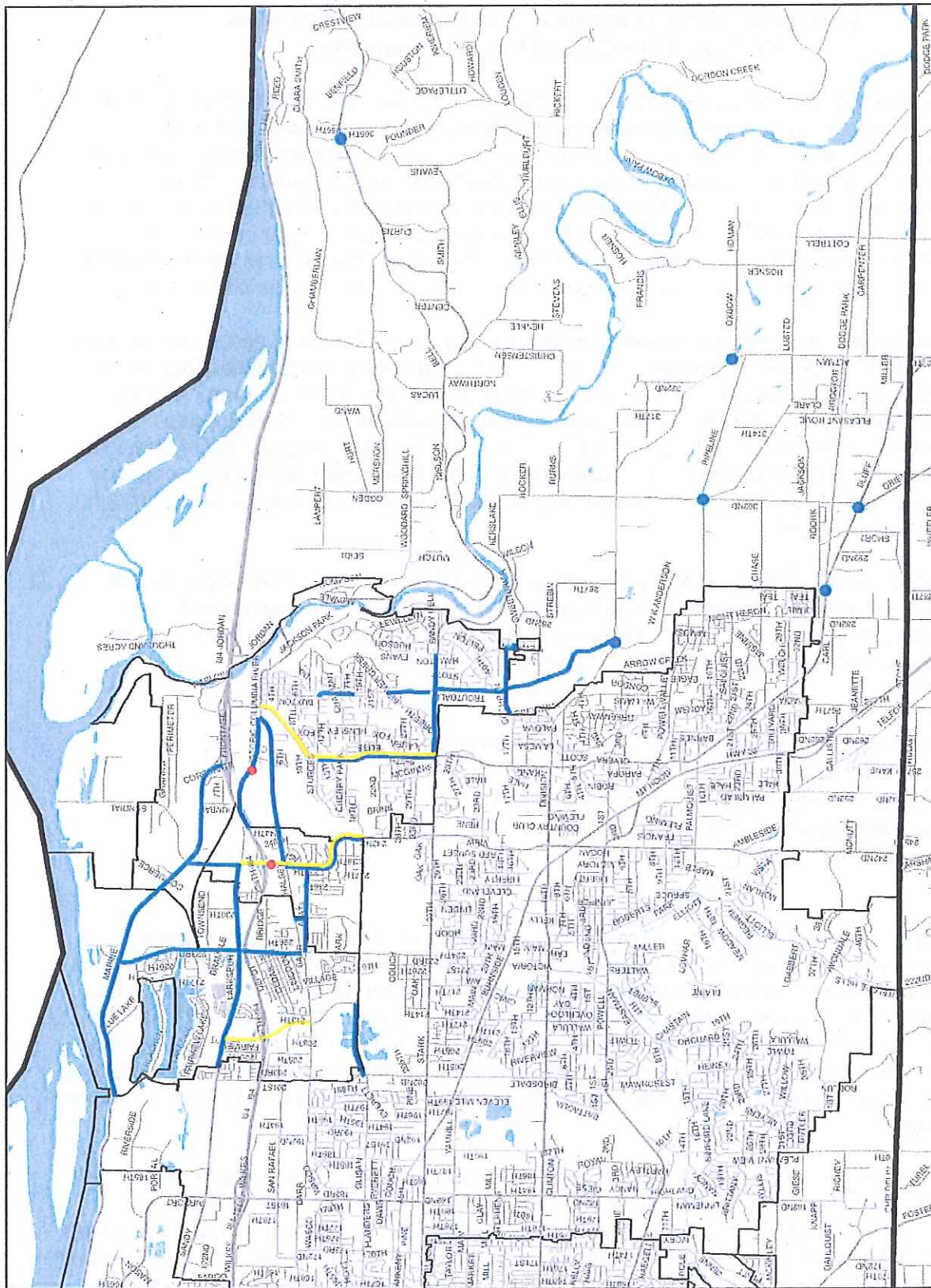


Multnomah County Capital Improvement Plan & Program 2010-14  
 Roadway Projects  
 West Multnomah County

- Road Projects
- Signal/Intersection Projects
- County Boundary
- City Boundary







- Road Projects
- Signal/Intersection Projects
- Bridge Projects
- Adaptive Signal Timing
- County Boundary
- City Boundary

Multnomah County Capital Improvement Plan & Program 2010-14  
 Roadway Projects  
 East Multnomah County



**2012 Update**  
**Multnomah County Bikeway and Pedestrian Program**  
**FY 2010-2014 Capital Improvement Plan**

The Multnomah County Land Use and Transportation Program has a long-term program to develop and maintain a balanced transportation system that includes sidewalks and bike lanes on urban arterials and collectors, and shoulder bike and pedestrianways on rural roads. Policies for bicycle and pedestrian facilities are established in the Multnomah County Comprehensive Framework Plan. The Land Use and Transportation Program spends more than the one percent minimum of its State Highway revenue on bikeway or pedestrian projects. These expenditures comply with ORS 366.514, which mandates expenditures of a minimum of one percent of State Highway revenues on bicycle and pedestrian facilities.

If a roadway project includes a planned bikeway or sidewalk, the bike and pedestrian facilities are constructed as part of the roadway project. Bicycle and pedestrian priorities that will not be constructed by a roadway project or other program in the near future are programmed through the Bikeway and Pedestrianway capital plans. Examples are sidewalks gaps, separated bike paths in the road right-of-way, cyclist activated traffic signals, major shoulder construction, and bridge modifications. Bikeways or pedestrianways that can be created by striping roads and signage (such as designating bicycle lanes or routes) are funded through the maintenance budget.

In selecting Bicycle and Pedestrian system projects, the County uses a careful process of addressing critical needs and maximizing funding opportunities. Candidate projects are evaluated by category, bicycle or pedestrian, using objective criteria. Information used in evaluating a project addresses the following factors:

- Safety
- Completing gaps or compliments other system projects
- Cost effectiveness
- Proximity to school and other public destinations
- Lack of road project to address the need
- *Equity*
- *Health*

*These factors were expanded as part of the 2012 Update of the FY 2010-2014 Capital Improvement Plan. Two new factors were developed and added as part of project evaluation to address equity and health. In addition, two new projects were added as part of the 2012 Update. The first project is a bike project on Halsey Street between 238<sup>th</sup> and 244<sup>th</sup>, and the second is a pedestrian project on the southeast ramp of the Hawthorne Bridge. The Halsey St. project reflects the completion of sidewalks but the remaining need for bike lanes. The Hawthorne Bridge ramp sidewalk project was identified with the addition of Portland Streetcar on the ramp.*

*Working with the Bicycle and Pedestrian Citizen Advisory Committee, new criteria and associated numerical values were developed and applied to projects. The subsequent rankings are presented in the 2012 Update and reflected in the Capital Improvement Program. Each potential project is evaluated and scored using the ranking criteria shown in the following Table 4. Using this scoring tool, priorities are established for bicycle system and pedestrian system investments, in Tables 5 and 6.*

**Table 4**  
**2012 Update**  
**Criteria for Bicycle and Pedestrian Project Evaluation**

Criteria	Criteria Explanation	Point Range
Safety Improvement	Project solves a safety problem once complete. Is there a crash history along the project site? Projects that will mitigate a hazard in locations. Does the project remove conflicts and/or provides safety mitigation for any potential vehicular conflicts?	<i>Crash history:</i> High – 9, Med – 5, Low – 0 <i>Solves problem:</i> High – 9, Med – 5, Low – 0
Cost Effectiveness	What is the cost/benefit of proposed project? Projects that provide the most new infrastructure for the least cost will receive the highest scores.	High – 12 Med – 6 Low – 0
Project Utility	Project serves a need/be well used once it is complete. Project improves access to priority destinations mixed use centers, large employment areas, schools, and essential services. Projects located in high or potentially high pedestrian/bicycle traffic areas will receive top scores. Projects that are located in high transit use areas or that improve access to transit will receive higher scores.	High – 15 Med – 8 Low – 0
Closes Gap in System	Project completes a gap in the systems; compliments adjacent facilities (stormwater management); significantly improves an existing facility that is well-used. Projects that significantly help to complete a pedestrian or bicycle corridor will receive top scores.	<i>Completes gap:</i> High – 8, Med – 4, Low – 0 <i>Compliments other facilities:</i> 0 – 4 <i>Improves existing facilities:</i> 0 – 4
Compliment Recent or Future Project	Project compliments or enhances a recently completed or near-term future project (including leveraging). Project that have benefit to phases of completed or future projects. Projects located in close proximity to other recent or planned bicycle or pedestrian enhancements will receive top scores.	High – 8 Med – 4 Low – 0
Proximity to Schools	School is adjacent to the project area. Project must be directly adjacent to a school to receive the points.	Yes – 5 No – 0
No Other Project	Will another project address all or some of the problem? Projects will receive all 5 points if no other projects planned for the area will address bicycle or pedestrian concerns.	0 to 5 points
Feasibility	Factors exist within or outside the scope of the project that make it impractical. Projects receive negative points if concerns about right-of-way, topography, or construction timing make them impractical.	<i>ROW/Topography issues:</i> -3 – 0 <i>Construction timing issues:</i> -3 – 0
Equity	Does the project improve access to priority destinations mixed use centers, large employment areas, schools, and essential services for Environmental Justice/underserved communities? Does the project serve traditionally underserved (minority, low income, limited English speaking, youth, elderly, disabled) communities?	0-6 points
Health	Does the project help reduce impacts, such as noise, land use conflicts, emissions, etc. Does the project help reduce air toxics or particulate matter? Does the project include multimodal elements (access to transit stops or encourages use of different modes of transportation)? Does the project reduce Vehicle Miles Travelled (VMT)? Does the project provide access to "essential services" (parks, trails, centers, recreation, etc) within a 1 mile walk or bike ride?	0-6 points
Bonus	Points will be awarded for alternate sources of money (-2, +2), project readiness (-2, +2) and community support (-5, +5).	-9 - +9
Total points possible		100



**TABLE 5: Bicycle CIP Ranking Report- 2012 Update**

Project Name	Description	2010-2014 CIPP Project Cost	2012 Score	Included in Roadway Project?	Urban or Rural
Stark St: SE 257th to Troutdale Rd - Bike Lanes		\$710,127	75	Y	Urban
N.E. 223 <sup>rd</sup> Avenue: Bridge St to Halsey St	Bike Lanes	\$632,211	75	Y	Urban
N.E. Glisan St: 203 <sup>rd</sup> Ave - 207 <sup>th</sup> Ave	Bike Lanes	\$483,958	71	Y	Urban
Halsey St.: 238th to 244th	Bike Lanes	\$571,000	71	TBD	Urban
Buxton Rd: HCRH –Cherry Park Rd	Bike Lanes	\$53,530	68	N	Urban
N.E. 223rd Ave.: Blue Lake – Sandy Blvd	Shoulder Bikeway	\$912,497	65	Y	Urban
Skyline Blvd: McNamee – Cornelius Pass	Shoulder Bikeway	\$2,629,164	57	N	Rural
Skyline Blvd: Cornelius Pass – Rocky Point	Shoulder Bikeway	\$15,153,851	56	N	Rural
Troutdale Rd: Stark St – Strebin Rd	Bike Lanes	\$2,001,749	55	Y	Urban
Troutdale Rd: Chapman – Stark St	Bike Lanes	\$1,220,139	53	Partially	Urban
Blue Lake Rd: 223 <sup>rd</sup> Ave— Interlachen Lane	Bike Lanes	\$455,781	53	N	Urban
S.W. Shattuck Rd: Patton Rd— Windsor Ct	Shared Bikeway	\$245,423	52	N	Urban
Hewitt Blvd: Humphrey - 5200' W of Patton	Shared Bikeway	\$324,863	51	N	Urban
N.E. 223 <sup>rd</sup> Ave: Marine Dr – 1086' N of Marine Dr	Bike Lanes	\$386,182	50	Y	Urban
N.E. 223 <sup>rd</sup> Ave: Marine Dr - Blue Lake Rd	Bike Lanes	\$434,995	49	Y	Urban
Scholls Ferry Rd: Humphrey - Co. Line	Bike Lanes	\$3,057,655	49	Y	Urban
Dodge Park Blvd: 302 <sup>nd</sup> - County Line	Shoulder Bikeway	\$7,592,686	48	N	Rural
302 <sup>nd</sup> Ave: Division - Bluff	Shoulder Bikeway	\$3,878,852	46	N	Rural
Orient Dr: Welch Rd – Dodge Park Blvd	Shoulder Bikeway	\$1,523,441	45	N	Rural
Patton Rd: Scholls Ferry - 708' east of SW 48 <sup>th</sup> Ave	Shared Bikeway	\$818,730	45	N	Urban
Sauvie Island Rd: Gillihan Rd – Reeder Rd	Bike Path	\$2,114,214	43	N	Rural
Larch Mt Rd: HCRH—End of Road	Shoulder Bikeway	\$26,341,706	43	N	Rural
Knieriem Rd: Littlepage Rd – HCRH	Shoulder Bikeway	\$3,122,720	41	N	Rural

Project Name	Description	2010-2014 CIPP Project Cost	2012 Score	Included in Roadway Project?	Urban or Rural
Humphrey Blvd: Patton – Hewitt	Shared Bikeway	\$218,206	41	N	Urban
Sauvie Island: Reeder - Ferry Rd	Shoulder Bikeway	\$535,851	40	Y	Rural
Springville Rd: Skyline Blvd— County Line	Shoulder Bikeway	\$4,258,950	39	N	Rural
Oxbow Park Rd: Oxbow Dr - Road End	Shoulder Bikeway	\$1,834,695	39	N	Rural
Oxbow Dr: Division Dr - Hosner Rd	Shoulder Bikeway	\$5,393,681	39	N	Rural
Hurlburt Rd: HCRH – Littlepage Rd	Shoulder Bikeway	\$4,344,240	38	N	Rural
Oxbow Dr: Hosner Terrace – Oxbow Park Rd SE	Shoulder Bikeway	\$1,259,838	38	N	Rural
Cornelius Pass Rd.: (old) St. Helens Rd—MP 2	Shoulder Bikeway	\$3,684,602	35	Y	Rural
Evan Rd: Hurlburt Rd - HCRH	Shoulder Bikeway	\$4,463,908	35	N	Rural
Woodard Rd: HCRH – Ogden Rd	Shoulder Bikeway	\$2,338,065	35	N	Urban/Rural
Skyline Blvd: Cornell Rd— Greenleaf - Shared Bikeway	Bike Lanes	\$792,224	34	N	Urban
S.E. Division Dr: UGB – Troutdale Rd	Bike Lanes	\$945,518	34	N	Rural
Terwilliger Blvd: Northgate Rd – County line		\$1,412,358	34	N	Urban
Troutdale Rd: Strebin Rd - 282 Ave	Bike Lanes	\$3,292,979	33	N	Rural
Terwilliger Blvd: Powers Ct— Coronado St	Shoulder Bikeway	\$356,904	33	N	Urban
Cornell Rd: County line—COP jurisdiction line	Shoulder Bikeway	\$75,758	33	N	Urban
Cornell Rd: City limits – NW 53 <sup>rd</sup> Dr	Shoulder Bikeway	\$1,605,682	33	N	Urban
Mershon Rd: Ogden - HCRH	Shoulder Bikeway	\$4,009,646	32	N	Rural
S.E. Division Dr: Troutdale – Oxbow Parkway	Bike Lanes	\$3,371,407	31	N	Rural
Ogden Rd: Mershon – Woodard	Shoulder Bikeway	\$463,789	30	N	Rural

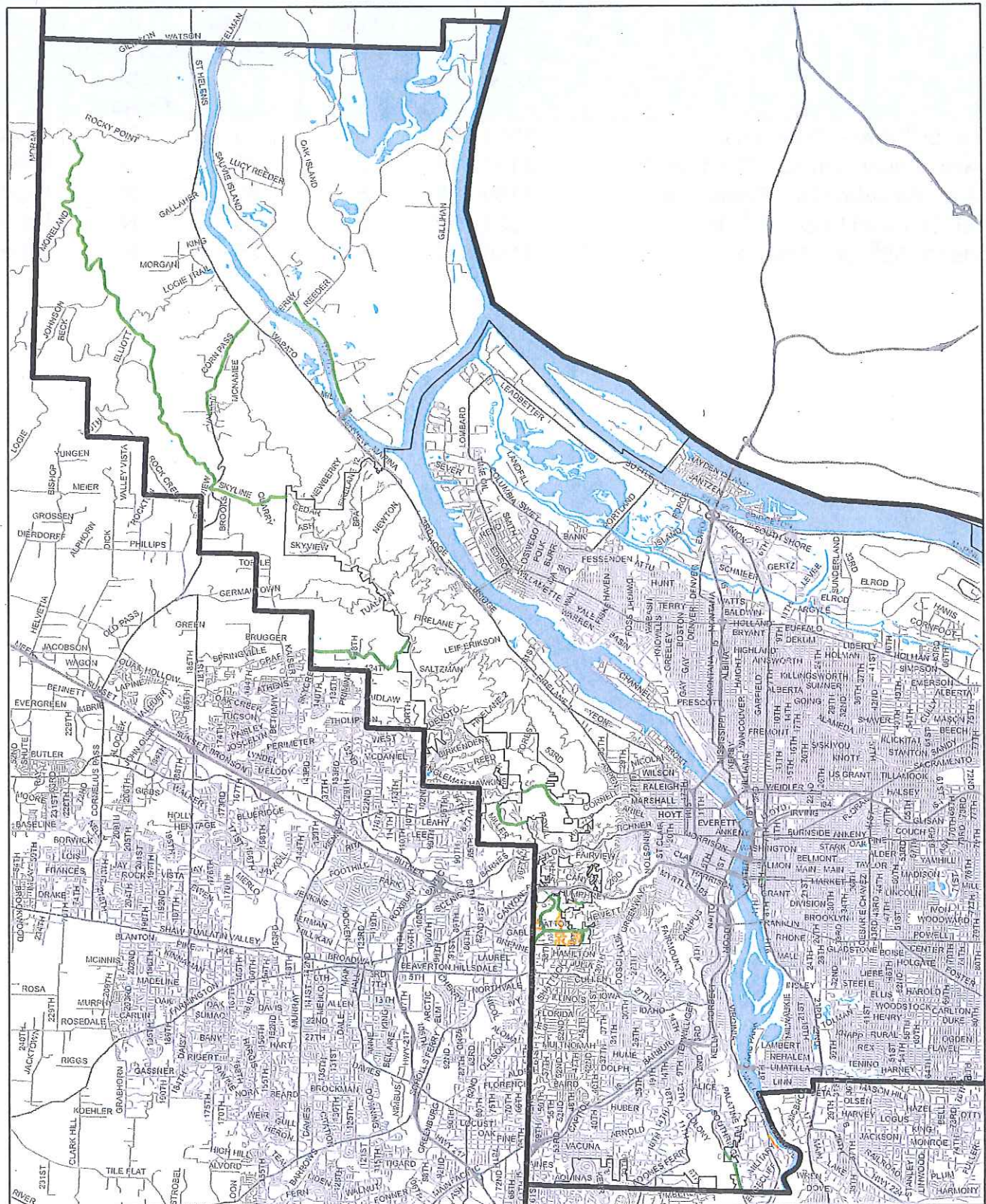


TABLE 6: Pedestrian CIP Ranking Report- 2012 Update

Project Name	2010-2014 CIPP Project Cost	Sidewalk Width (feet)	2012 Update Score	Included in Roadway Capital Project	Urban or Rural
Arata Road: 223 <sup>rd</sup> Ave—238 <sup>th</sup> Ave	\$1,188,512	6	80	Y	Urban
Stark St: 257 <sup>th</sup> Ave—Troutdale; northside	\$660,006	7	75	Y	Urban
223 <sup>rd</sup> Ave: Sandy Blvd – Marine Dr	\$1,132,179	6	73	Y	Urban
Glisan St: 204 <sup>th</sup> Ave – 223 <sup>rd</sup> ; north side	\$522,691	7	72	Partially	Urban
257 <sup>th</sup> Ave: Sidewalk Improvements (widen per Streetscape Plan)	\$1,307,685	9	66	N	Urban
Hawthorne Br. Southeast ramp sidewalk	\$80,284		64	N	Urban
Troutdale Rd: Beaver Creek Ln – Chapman Ave	\$44,484	7	63	N	Urban
Historic Columbia Highway: 244 <sup>th</sup> Ave – Halsey St	\$902,598	6	63	Y	Urban
Troutdale Rd: SE 40 <sup>th</sup> St-Sweetbriar Road	\$320,608	7	63	Y	Urban
257 <sup>th</sup> Ave: Pedestrian Crossings (Columbia Vista, 26 <sup>th</sup> St.)	\$100,000		59	N	Urban
257 <sup>th</sup> Ave: Pedestrian Lighting	\$208,280		54	N	Urban
Sundial Rd: Marine Drive – Graham Cl	\$517,877	7	46	Y	Urban
48 <sup>th</sup> Pl: Windsor Ct—Downsview Ct	\$288,408	5	43	N	Urban
64 <sup>th</sup> Pl: Bucharest Ct – Dead End	\$129,729	5	44	N	Urban
Bucharest Ct: Dead End – County Line	\$122,573	5	43	N	Urban
52 <sup>nd</sup> Pl: Thomas St – Downsview Ct	\$483,083	5	43	N	Urban
50 <sup>th</sup> Ave: Windsor Ct—Downsview Ct	\$483,083	5	43	N	Urban
Windsor Ct: SW 52 <sup>nd</sup> Pl –Shattuck Rd	\$392,955	5	40	N	Urban
Thomas St: SW 52 <sup>nd</sup> Pl – SW 54 <sup>th</sup> Pl	\$254,159	5	40	N	Urban
Downview Ct.: 52 <sup>nd</sup> Pl—48 <sup>th</sup> Pl	\$223,516	5	40	N	Urban
54 <sup>th</sup> Pl: Thomas St – Dead End	\$106,350	5	39	N	Urban
Riverwood Rd: Riverside Dr—Military Rd	\$261,369	5	38	N	Urban
Downsview Ct: 57 <sup>th</sup> Ave –55 <sup>th</sup> Dr	\$216,306	5	38	N	Urban
Westdale Dr: 57 <sup>th</sup> Ave –Dead End	\$255,873	5	38	N	Urban
Windsor Ct: 54 <sup>th</sup> Pl—Dead End	\$248,752	5	38	N	Urban
Scholls Ferry Ct: Scholls Ferry Road – Dead End	\$261,165	5	35	N	Urban
Sweetbriar Ct: 64 <sup>th</sup> Pl –Scholls Ferry Rd	\$138,776	5	35	N	Urban
Fairview Blvd: Knights Blvd – Kingston Ave	\$52,916	5	33	N	Urban
55 <sup>th</sup> Dr: County Limit – Patton Rd	\$493,898	5	26	N	Urban
55 <sup>th</sup> Ave: Patton Rd – 55 <sup>th</sup> Dr	\$194,675	5	25	N	Urban



Project Name	2010-2014 CIPP Project Cost	Sidewalk Width (feet)	2012 Update Score	Included in Roadway Capital Project	Urban or Rural
55 <sup>th</sup> Dr: 55 <sup>th</sup> Ave – Dead end	\$511,924	5	25	N	Urban
57 <sup>th</sup> Ave: County Limits—Windsor Ct	\$151,414	5	25	N	Urban
57 <sup>th</sup> Ave: Westdale Dr—Patton Rd	\$189,268	5	25	N	Urban
Grover Ct: Dead End –55 <sup>th</sup> Dr	\$93,732	5	25	N	Urban
Woods Ct: 55 <sup>th</sup> Dr – Dead End	\$156,822	5	25	N	Urban

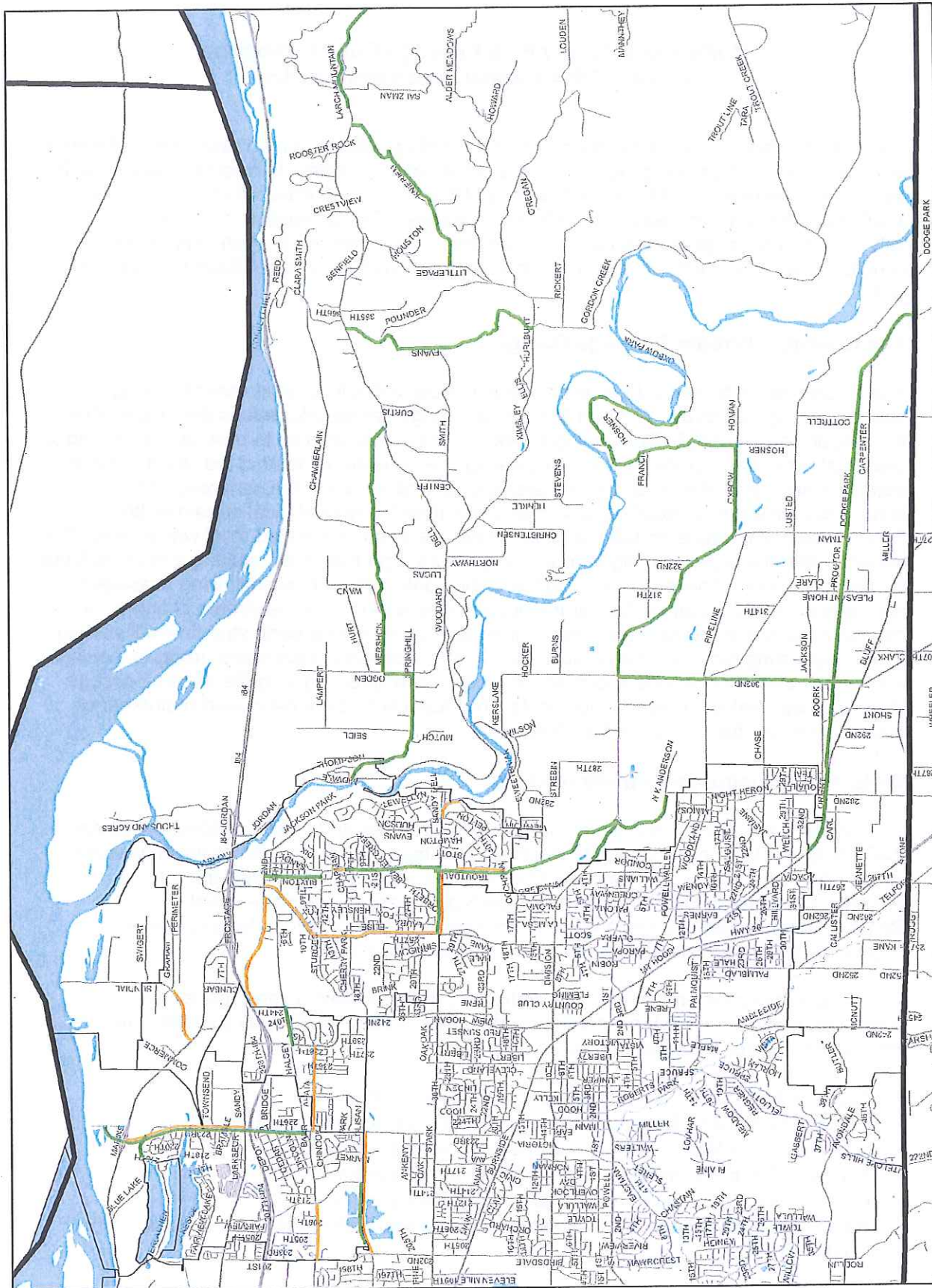


2012 Update  
 Multnomah County Capital Improvement Plan & Program 2010-14  
 Bikeway and Pedestrianway Projects  
 West Multnomah County

- Bikeway Projects
- Pedestrianway Projects
- County Boundary
- City Boundary







2012 Update  
Multnomah County Capital Improvement Plan & Program 2010-14  
Bikeway and Pedestrianway Projects  
East Multnomah County



## **Multnomah County Fish Passage Culvert Program FY 2010-2014 Capital Improvement Plan**

The Endangered Species Act requires all responsible parties to correct problems that hinder listed fish species from traveling freely within their natural habitat. Multnomah County, with the Oregon Department of Fish and Wildlife (ODF&W), has identified 48 of the county's 1400 culverts that need improvement for fish passage. Characteristics of typical culvert failure for fish passage include outfall heights that are too high for the fish to jump, flat concrete box culvert bottoms that make the flows too shallow, or water flows that are too fast.

### **The County's Stream Passage Design**

The County wants to forward solutions that minimize restrictions on streams by designing stream passage concepts. Current fish passage engineering calculations determine what the proper size, shape, baffles, and gradient of a culvert need to be to pass fish according to seasonal hydrology. Innovative stream passage designs do not restrict the stream and its natural hydrology; rather, it accommodates the natural course of the waterway. The bottomless structure is usually 2 to 4 times wider than the normal local stream width. Design materials include prefabricated concrete or arched corrugated steel which bridge the stream. With the larger and higher openings, natural light can enter, making it more suitable for fish navigation. The larger openings accommodate stream banks allowing passage for wildlife and an enhancement for natural riparian development. If the stream changes its course in the future and takes a meandering path, the new wide berth structure will sustain it. By duplicating these solutions within the County's culvert improvement program, savings will be generated in design and construction cost. Implementing long-life stream passage structures will diminish maintenance costs. The reduction of normal culvert maintenance activities and in-stream work will aid fish habitat.

### **Watershed Basins and Funding Needs**

The County will need to partner with other public agencies and private entities to address the liability identified by the culvert inventory. Potential community and financial partners include the Governor's Fish Recovery Plan working with the Oregon Watershed Enhancement Board, ODF&W, other Oregon State agencies, Congressional Representatives, National Oceanic and Atmospheric Administration, Army Corps of Engineers, Metro, private groups, and local watershed councils.

Fish culvert improvements need to be addressed in the context of their respective watershed basins. The fish passage culverts under Multnomah County's jurisdiction are located in the following seven (7) sub-basins:

- Tualatin Watershed - a sub-basin of the Willamette River
- Tributaries of the Willamette River - a sub-basin of the Columbia River
- Johnson Creek Watershed - a sub-basin of the Willamette River
- Fairview Creek Watershed - a sub-basin of the Columbia Slough
- Beaver Creek Watershed - a sub-basin of the Sandy River
- Sandy River Watershed (excluding the Beaver Creek Watershed) - a sub-basin of the Columbia River

- Tributaries of the Columbia River

*Criteria:* The County developed a system to score projects for the 48 County culverts identified as needing improvement for fish passage. The scoring system considers five factors:

- Environmental Evaluation (see next paragraph)
- Fish Species Recovery
- Construction Cost
- Maintenance Schedule
- Overall Project Impact

Each potential culvert project is evaluated and scored using ranking criteria for each of the five factors, as shown in Table 7. The Final Score is determined by multiplying the Environmental Evaluation score by the Fish Species Recovery, Construction Cost, Maintenance Schedule, and Overall Project Impact factors, as shown in Table 8. Using this scoring tool, priorities are established for fish passage improvements.

**Table 7**  
**Criteria for Culvert Replacement**

Criteria	Criteria Explanation	Point Range
Environmental Evaluation	Assesses:	
	Stream's riparian vegetation	3 – 15
	Stream shade cover	2 – 10
	Quality of buffer zone	3 – 15
	Known fish species present	0 – 15
	Streambed characteristics	3 – 15
	Quality of stream flow rates	0 – 5
	Stream temperature	0 – 10
	Bank erosion and slope stability	3 – 15
Fish Species Recovery (factor in %)	Length of upstream recovered (distance to next barrier)	0 – 25%
	Acreage of upstream watershed recovered	0 – 25%
	Downstream barriers	0 – 50%
Construction Cost (factor in %)	\$0	100%
	\$1 – 5,000	95%
	\$5,001 – 75,000	85%
	\$75,001 – 1,000,000	
	Over \$1,000,000 +	66%
Maintenance Schedule (factor in %)	Culvert needs to be replaced within 3 years	100%
	Culvert does not need to be replaced within 10 years	75%
Overall Project Impact (factor in %)	High positive impact	100%
	Medium positive impact	75%
	Low overall impact	50%

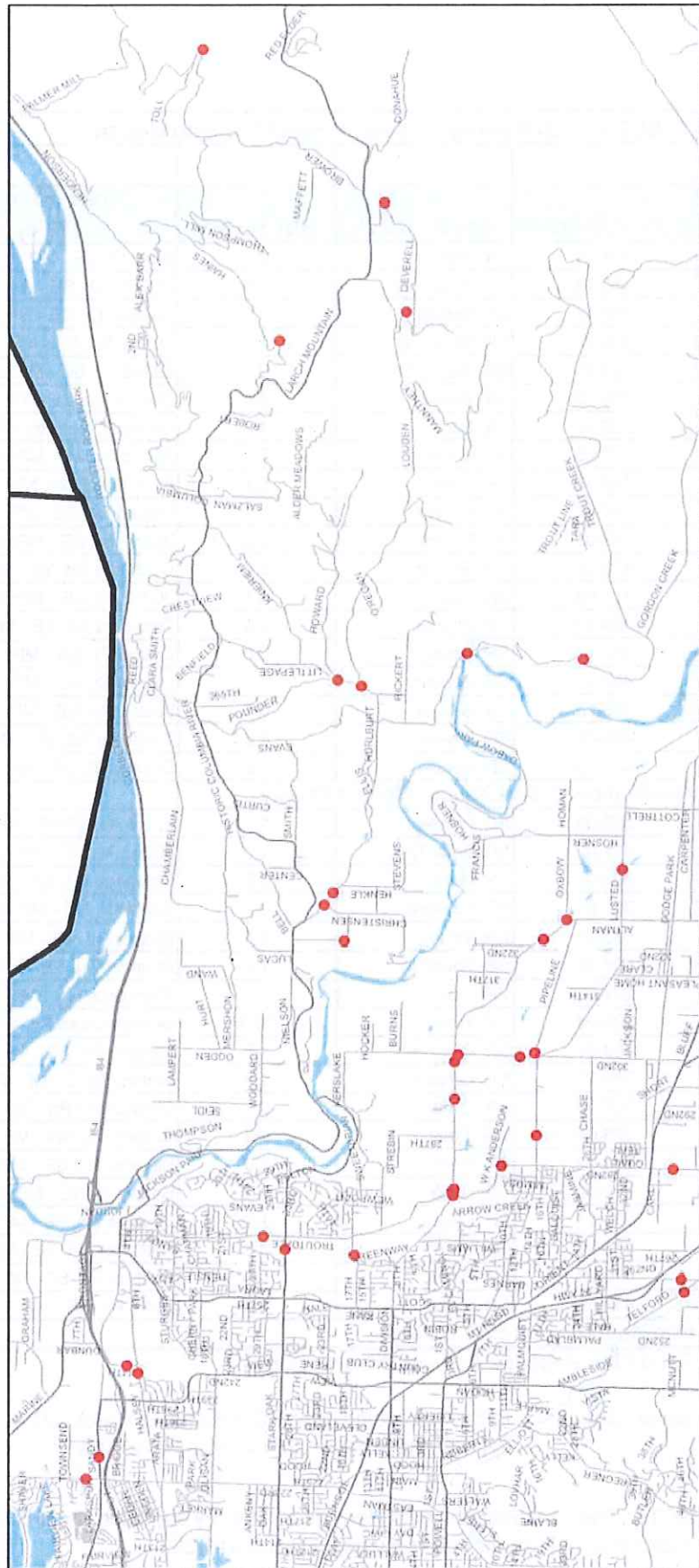
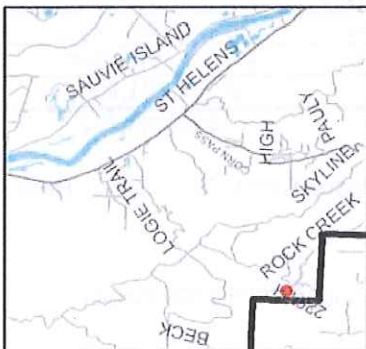


TABLE 8: Fish Passage Culvert Project Ranking Report					
Culvert Number	Basin / Creek	Stream MP	Road Name / Road Milepost	Project Cost	Total Score
404-01	SR Beaver	2.4	Stark St, SE - MP: 1.129	\$1,668,744	36
450-12	SR Beav.Trib	0.6	Division Dr, SE - MP: 0.881	\$502,016	32
450-17	SR Beaver	3.2	Division Dr, SE - MP: 2.109	\$154,038	31
466-02	SR Beav.Trib	1.4	Lusted Rd, SE - MP: 0.285	\$431,032	30
493-01	SR Beav.Trib	0.5	282nd Av, SE - MP: 0.031	\$987,013	28
450-15	SR Beaver	3.2	Division Dr, SE - MP: 1.763	\$233,624	27
506-10	SR Buck	4.0	Gordon Creek Rd, SE - MP: 1.271	\$2,952,394	25
493-05	JC N. Fork	0.8	282nd Av, SE - MP: 1.593	\$462,114	24
143-18	TR Rock	5.7	Rock Creek Rd, NW - MP: 2.473	\$38,509	21
447-07	JC N. Fork	0.1	Telford Rd, SE - MP: 0.682	\$354,287	21
445-01	JC N. Fork	2.0	262nd Av, SE - MP: 0.156	\$354,287	14
458-01	SR Beaver	3.3	Cochrane Rd, SE - MP: 0.044	\$1,283,649	13
411-09	SR Beaver	6.1	302nd Av, SE - MP: 2.066	\$96,274	13
489-12	SR Beaver	2.0	Troutdale Rd, SE - MP: 2.476	\$1,668,744	12
452-18	SR Beaver	0.0	Oxbow Dr, SE - MP: 1.228	\$96,274	11
452-22	SR Beaver	7.6	Oxbow Dr, SE - MP: 1.513	\$96,274	10
466-13	SR Beaver	8.3	Lusted Rd, SE - MP: 3.015	\$96,274	9
489-06	SR Beaver	4.6	Troutdale Rd, SE - MP: 0.615	\$2,224,565	8
450-13	SR Beaver	4.6	Division Dr, SE - MP: 0.94	\$1,155,285	6
<b>Anadromous ESA Listings: Highest Priority</b>				<b>\$ 14,855,397</b>	
323-02	FC Fairview	1.1	223rd Av, SE/NE - MP: 2.303	\$154,038	57
411-07	SR Beav.Trib	1.0	302nd Av, SE - MP: 1.492	\$154,038	54
503-08	SR Unknown	0.9	Littlepage Rd, SE - MP: 0.421	\$354,287	53
318-01	FC Fairview	2.1	Sandy Bl, NE - MP: 0.97	\$770,190	49
533-16	CR Young	1.6	Brower Rd, NE - MP: 2.838	\$354,287	49
505-11	SR Pounder	1.3	Pounder Rd, SE - MP: 0.018	\$354,287	48
291-02	WR Balch	1.0	Thompson Rd, NW - MP: 0.22	\$231,057	41
506-24	SR Trout	10.4	Gordon Creek Rd, SE - MP: 2.73	\$231,057	40
468-01	SR Beav.Trib	1.5	Pipeline Rd, SE - MP: 0.1	\$462,114	38
580-15	CR Latourell	2.6	Haines Rd, E - MP: 0.801	\$231,057	36
537-06	SR Smith	0.2	Christensen Rd, SE - MP: 0.745	\$354,287	32
275-04	WR Balch	0.2	Cornell Rd, NW - MP: 1.434	\$231,057	32
534-02	SR Buck	3.0	Deverell Rd, SE - MP: 1.879	\$354,287	27
410-02	CR Arata	0.5	Halsey St, NE - MP: 0.236	\$154,038	20
534-11	SR Buck	1.0	Deverell Rd, SE - MP: 0.248	\$354,287	17
535-01	SR Smith	0.3	Northway Rd, SE - MP: 0.262	\$354,287	16
520-03	SR Smith	1.9	Hurlburt Rd, SE - MP: 0.38	\$231,057	15
439-01	CR Arata	0.2	244th Av, NE - MP: 0.098	\$154,038	5
<b>Non-Anadromous ESA Listings</b>				<b>\$ 1,601,995</b>	
<b>Total Fish Passage Culvert Program Cost</b>				<b>\$20,339,147</b>	

Basin Legend: CR = Columbia River, FC = Fairview Creek, JC = Johnson Creek, SR = Sandy River, TR = Tualatin River, WR = Willamette River

NOTE: The construction costs were generated by adjusting the costs included 2005-2009 Capital Improvement Plan for inflation using a factor of 1.28.

Multnomah County Capital Improvement Plan & Program 2010-14  
Fish Passage Culvert Projects  
Multnomah County



- Culvert Projects
- County Boundary



## **Willamette River Bridges Capital Improvement Plan**

This section of the plan addresses the capital needs of the six (6) Willamette River Bridges: Sellwood, Hawthorne, Morrison, Burnside, Broadway, and Sauvie Island. With the exception of the Sauvie Island Bridge, these bridges are located in the City of Portland and provide regional connections between the east and west sides of the metropolitan area.

**Willamette River Bridges:** Capital projects, which can include replacement, rehabilitation, and preservation for Willamette River bridges, are evaluated using a rating system that relies heavily on component evaluation criteria. The components consider:

- National-standard bridge sufficiency rating
- Corrosion rating
- Bridge historical significance
- Ability to leverage non-County funds
- Project type
- Time-lines

Each potential bridge construction project is evaluated and scored using the ranking system shown in Table 9, and bridge corrosion control projects are scored with the criteria shown in Tables 10 and 11. Using these scoring tools, priorities are established for bridge capital and preservation projects.

**Table 9**  
**Criteria for Bridge Construction**

Criteria	Criteria Explanation	Point Range
Bridge Sufficiency Rating	ODOT Sufficiency Rating <sup>1</sup>	
	0 – 25	20 points
	26 – 50	10 points
	51 – 80	5 points
	81 – 100	0 points
Bridge Historical Significance	Ranked on National and/or State Historic Register	5 points
	Not Ranked on National and/or State Historic Register	0 points
Non-County funding available	Secured	10 points
	Anticipated	5 points
	Not available	0 points
Bridge Component	Critical Item	60 points
	Structural Item	40-50 points
	Mechanical Item	40-50 points
	Electrical Item	40-50 points
	Deck	40 points
	Illumination	40 points
	Component Life Extension	35 points
	Traffic Control	20 points
Recommended Replacement/Repair Time-line	0 – 4 years	40 points
	5 – 9 years	30 points
	10 – 14 years	20 points
	15 – 20 years	10 points
<b>Total Possible Points</b>		<b>105</b>

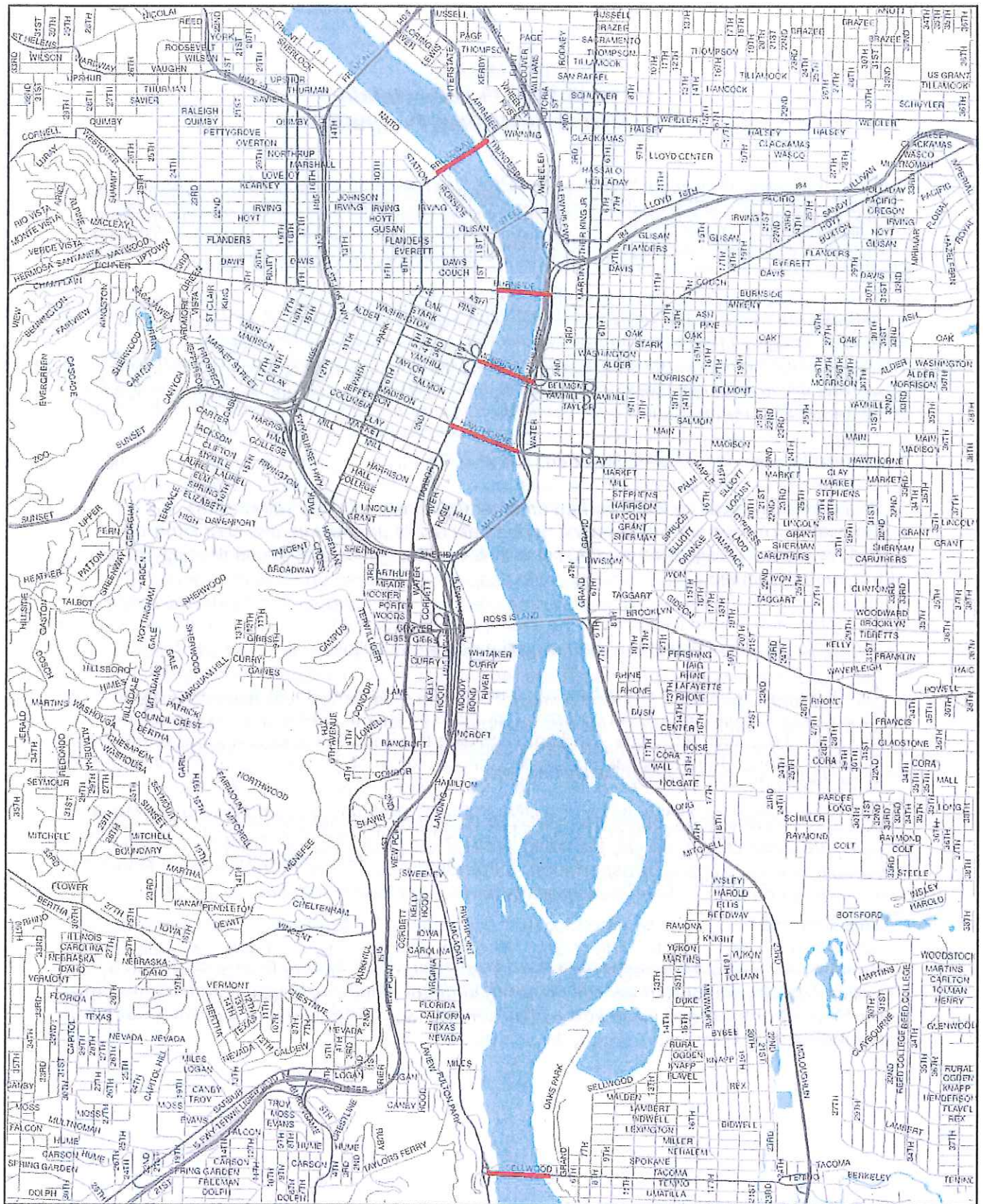
<sup>1</sup> Factors assessed include Structural Adequacy; Serviceability and Functional Obsolescence; Essential for Public Use; Special Reductions.

**Table 10**  
**Criteria for Bridge Corrosion Control**

Criteria	Criteria Explanation	Point Range
Corrosion Damage	Severe Moderate Light None	4 points 3 points 2 points 0 points
Area Rust Breakthrough	Heavy Moderate Scattered None	4 points 3 points 2 points 0 points
Quality of Paint	Loose Dead Moderate Live	3 points 2 points 1 points 0 points
Weather Exposure	Wet Moderate Dry	3 points 2 points 1 point
Visual (Public, Exposure)	High Low None	2 points 1 point 0 points
<b>Total Possible Points</b>		16 points

TABLE 11: Willamette River Bridges Project Ranking Report			
Bridge	Project Description	Score	Cost
Broadway	Replace Centerlocks	100	\$1,133,000
Broadway	Paint Above Deck Fixed Spans	100	\$9,000,000
Broadway	Replace Equalizers	90	\$1,618,000
Broadway	Rail Wheel Rehabilitation	65	\$5,825,000
Broadway	Emergency Drive System	60	\$1,942,000
Broadway	Seismic Ph.1 Upgrade	60	\$5,223,000
Broadway Approach Ramp	Deck and Joint Rehabilitation	90	\$2,236,000
Broadway Approach Ramp	Paint Steel Framing and Columns	90	\$7,931,000
	Paint Steel Deck Truss/Bascule - Entire Bridge	95	\$10,470,000
Burnside	Main Trunion Rehabilitation	70	\$6,473,000
Burnside	Emergency Drive System	65	\$1,942,000
Burnside	Seismic Ph.2 Upgrade	15	\$53,249,000
Hawthorne	Tower Trunion Rehabilitation	100	\$1,942,000
Hawthorne	Roadway Approach/Deck Overlay	85	\$5,777,000
Hawthorne	Paint Steel I-Beams	63	\$6,942,000
Hawthorne	Seismic Ph. 1 Upgrade	10	\$6,725,000
Morrison	Bike/Ped Facility	85	\$2,215,801
	Eastside Deck and Lift Span Grating Rehabilitation	85	\$12,816,000
Morrison	Ph. II Replace Centerlocks	85	\$1,812,000
Morrison	Gear Reducer Replacement	85	\$2,346,000
Morrison	Paint Steel Ideck Truss/Bascule	74	\$7,333,000
Morrison	Emergency Drive System	55	\$1,295,000
Morrison	Fender Replacement	55	\$1,489,000
Morrison	Seismic Ph. 1 Upgrade	5	\$10,735,000
Morrison St. Viaduct (WB)	Bearing Repair	80	\$2,913,000
Morrison St. Viaduct (WB)	Paint Steel I-Beams	54.5	\$10,154,000
Morrison Transition	Paint Steel I-Beams	78	\$14,159,000
Sellwood	Replace Structure	120	\$321,000,000
WR Bridges	Accessibility Improvements		\$2,427,000
WR Bridges	OR-OSHA Facility Compliance		\$3,770,000
WR Bridges	Inspections		\$3,236,000
<b>TOTAL</b>			<b>\$526,128,801</b>





Multnomah County Capital Improvement Plan & Program 2010-14  
Willamette River Bridge Projects

— Bridge Projects





**2012 Update**  
**FY 2010-2014 Transportation**  
**Capital Improvement Program**

*The Transportation Capital Improvement Program has been developed to implement the capital plan. Where the Capital Improvement Plan identifies and scores 20-year project needs for Multnomah County's transportation system, the Capital Improvement Program identifies anticipated revenue and projects for construction for a 5-year period.*

*Constantly changing community needs will alter County transportation program priorities over time before all projects can be constructed. The Transportation Capital Improvement Program is reviewed by the Land Use and Transportation Program staff on an annual basis and fully revised with public input biennially. The 2012 Update of the FY 2010-14 CIPP is based on the best available revenue and cost information and, by clear and objective means, establishes a strategy for addressing the highest priority transportation needs for fiscal years 2013 and 2014.*

*Projects with the most critical need and fewest development constraints were programmed for priority development. The total cost of projects in the 2012 Program Update (for fiscal years 2013 and 2014) is \$76.4 million, excluding the Sellwood Bridge. The County's transportation capital funding capacity for these projects is projected at approximately \$61.3 million, based on projected revenues and secured external funds.*

*The County attempts to leverage external funds whenever possible. Partially-funded projects are those where some funds are available but are insufficient to complete the project. County staff has identified potential sources to leverage and has committed County transportation revenues for that purpose. In addition, funds are set aside to cover other expenses -- remedying safety concerns, repairs, ADA improvements, leveraging private development activities, etc.*

*Since 2010, Multnomah County has received state and regional grants awards for road, bicycle and pedestrian projects, including Arata Road pedestrian and bicycle facilities, and additional state Jobs-Transportation Act funds for additional Cornelius Pass Road safety enhancements. These new projects and revenues are reflected in the 2012 Program Update.*

*The Sellwood Bridge Replacement revised cost estimate of \$268.8 million is reflected in the 2012 Update, along with current secured funding. Another change to the Willamette River Bridges program for fiscal years 2013-14 include the relocation of the west ramp of the Hawthorne Bridge.*

2012 UPDATE  
MULTNOMAH COUNTY FY 2010-2014 TRANSPORTATION CAPITAL IMPROVEMENT PROGRAM

Capital Debt Service  
257th Avenue/Orient Drive  
Sauvie Island Bridge Replacement  
223rd Ave Railroad Undercrossing  
Sellwood Bridge Replacement

FY 2010

\$288,000  
\$1,300,000  
\$175,000

FY 2011

\$288,000  
\$1,000,000  
\$200,000

FY 2012

\$288,000  
\$475,000  
\$11,700,000

FY 2013

\$288,000  
\$413,000  
\$11,700,000

FY 2014

\$145,762  
\$413,000  
\$11,700,000

Capital Projects and Programs		Total Project Cost	Programmed County Funds	External Funds*	Budgeted	Programmed County Funds	External Funds*	Budgeted	Programmed County Funds	External Funds*	Budgeted	Programmed County Funds	External Funds*
ROADS	Anticipated Capital Revenue		\$ 315,000			\$ 600,000			\$ 600,000			\$ 1,275,000	
	Developer Payment In Lieu Of Funds (PILO)					\$ 354,700			\$ 140,000				\$ 1,275,000
	Road Projects												
	Category: Road												
	223rd Ave Railroad Undercrossing at I-84	\$ 11,534,500		\$ 3,300,000	\$ 6,672,650								
	Wood Village Blvd. Extension (PILO)	\$ 3,294,764				\$ 375,000			\$ 1,000,000			\$ 400,000	
	Stark Street Reconstruction - Corbett Ln. - Troutdale Rd. (PILO)	\$ 4,004,700				\$ 204,700			\$ 1,200,000			\$ 10,000	
	Sandy Blvd. COG limits to 1800' east of Fairview Parkway (PILO)	\$ 4,100,000							\$ 190,000			\$ 5,000	
	Sandy Blvd. 230th to 238th Avenue	\$ 885,675										\$ 120,000	
	Arade Road, WWS row Multi-modal Improvements	\$ 4,484,502										\$ 70,000	\$ 659,000
Category: ADA/Sidewalks Infill												\$ 165,000	\$ 1,600,000
Category: ADA/Sidewalks Infill	Annual Allotment	\$ 25,000										\$ 65,000	\$ 500,000
	NE Halsey St. East of 201st-west of Fairview Parkway	\$ 50,000											
	SE Troutdale Rd. SE 17th - SE 19th	\$ 75,000				\$ 25,000		\$ 25,000	\$ 25,000			\$ 25,000	
Category: Preservation and Safety	Comelius Pass Road (ARRA) (JTA)	\$ 1,744,655	\$ 40,000	\$ 304,655	\$ 320,000				\$ 100,000		\$ 213,000		\$ 1,000,000
	238th Dr Safety Project (HEP)	\$ 346,000		\$ 20,000	\$ 270,000						\$ 326,000		
	282nd Avenue Overlay Project (ARRA)	\$ 100,000		\$ 100,000	\$ 84,000								
	Urban Overlay Project (ARRA)	\$ 580,000	\$ 50,000	\$ 580,000	\$ 50,000			\$ 580,000	\$ 50,000		\$ 50,000	\$ 100,000	\$ 50,000
	Safety and Repair Annual Allotment		\$ 50,000		\$ 150,000						\$ 600,000	\$ 500,000	\$ 100,000
	Overlay Program Annual Allotment												
Category: Contingency Reserve	Annual Allotment		\$ 200,000		\$ 200,000				\$ 150,000		\$ 200,000	\$ 200,000	\$ 200,000
	Thompson Road Slide Repair										\$ 235,000	\$ 55,000	\$ 250,000
Category: Fish Passage Culverts	Oxbow Park Road Repair										\$ 230,000		
	Newberry Road Slide Repair												
Category: Fish Passage Culverts (MTIP, USCOE)		\$ 7,000,000				\$ 100,000	\$ 1,000,000		\$ 125,000	\$ 2,000,000		\$ 100,000	\$ 2,025,000
Category: Bicycle and Pedestrian	Carry-over Funds		\$ 657,563		\$ 300,000				\$ 400,000			\$ 335,500	\$ 358,500
	Anticipated Annual Revenue		\$ 60,000						\$ 60,000			\$ 73,000	\$ 73,000
	Bicycle and Pedestrian Projects												
	Morrison Bridge Bike/Ped Facility (MTIP) (TE)	\$ 2,215,801	\$ 227,563	\$ 1,988,238	\$ 2,215,750								
	Halsey/Shark Street Sidewalks Project (ARRA)	\$ 529,960	\$ 120,000	\$ 409,960	\$ 990,000								
	NE Halsey south Sidewalk, Birch Ave to City Park (ARRA, CDBG)	\$ 154,000		\$ 154,000					\$ 60,000		\$ 100,000	\$ 25,000	\$ 60,000
	Local Match, Annual Contingency											\$ 25,000	\$ 25,000
	223rd Avenue, Halsey to Bridge St.	\$ 1,137,000											
	223rd Ave, Sandy to 40-Mile Loop Trail	\$ 3,775,500										\$ 107,000	\$ 428,000
WILLAMETTE RIVER BRIDGES (WRRB)	Anticipated Capital Revenue		\$ 1,400,000			\$ 13,100,000			\$ 13,100,000			\$ 13,100,000	
	Carry-over Funds		\$ 1,200,000			\$ 1,600,000			\$ 1,327,414			\$ 75,684	
	WRRB Projects												
	Sauvie Island Bridge (contract completion)												
	Sellwood Bridge (State JTA, TIGER)**		\$ 1,000,000	\$ 5,000,000	\$ 1,514,346	\$ 25,600,000	\$ 38,400,000	\$ 53,523,500	\$ 25,015,409	\$ 25,015,409	\$ 20,315,133	\$ 20,315,133	\$ 20,315,133
	Sellwood Bridge continued - Portland contribution												
	Morrison Bridge Main Span (RFP)	\$ 10,000,000											
	Broadway Bridge - Replace Centercross (FTA)	\$ 1,133,000				\$ 1,000,000	\$ 9,000,000	\$ 5,000,000					
	Hawthorne Bridge westside ramp relocation (PDC)	\$ 10,200,000											
	Broadway Bridge Painting (RFP)	\$ 9,000,000											
External Funding Programs:												\$ 900,000	\$ 9,700,000

Notes:  
\* Indicates external funding is not fully secured and is contingent on grants, authorizations, development agreements, intergovernmental agreements and/or other external actions.  
\*\* \$35M secured from JTA Earmark for Sellwood Bridge Replacement, \$17.7M TIGER Grant.  
Project completion is expected in 2016.  
BOLD indicates external funding is secured.  
Yellow Highlight indicates new programmed projects

ARRA=American Recovery and Reinvestment Act  
CDBG=Community Development Block Grant  
FTA=Federal Transit Administration Portland Streetcar Project  
HBP=Highway Bridge Program  
HEP=Hazard Elimination Program  
MTIP=Metropolitan Transportation Improvement Program  
PILO=Developer Payment In Lieu Of Improvement  
TE=Transportation Enhancement  
STIP=State Transportation Improvement Program

