Cascades West Area Commission on Transportation
Thursday, January 26, 2017
5:00-7:00 p.m.

Meeting held at
Cascades West Center
1400 Queen Ave SE
Albany

Videoconference at
OCWCOG Offices
203 N. Main
Toledo

AGENDA

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1. 5:00 Statewide Transportation Improvement Program (STIP) Open House
   (Albany meeting location only) (Attachments 1 – 2)
   John Maher, ODOT
   Public comment period for 2018-2021 STIP "Fix-It, "Enhance," and "Safety" infrastructure project in ODOT Region 2, Area 4.

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2. 5:20 Welcome and Agenda Review — Chair Hunt

3. 5:25 Approve Minutes from 10/27/16 meeting (Attachment 3) — Chair Hunt
   ACTION: Approval of minutes

4. 5:30 Public Comments — Chair Hunt
   This time is reserved for members of the public to comment on issues related to the CWACT's activities (limited to three minutes per comment).

5. 5:40 Corvallis Transit Development Plan — Lisa Scherf, City of Corvallis
   A Transit Development Plan (TDP) is underway in Corvallis to outline a vision for public transportation and guide future investments in transit services.
   ACTION: Information only

6. 5:55 Caucus to Select CWACT Executive Committee Members — Chair Hunt
   At the beginning of each year, members break out into county caucuses and select a member to serve on the Executive Committee.
   ACTION: Caucus to select Executive Committee representatives.

The Cascades West COG facilities are accessible to persons with disabilities. If you will need any special accommodations to attend the meeting contact Emma Chavez at least 24 hours prior to the meeting. She can be reached at 541-967-8551 (TTY/TTD 711)

7. 6:15 ODOT Public Engagement: Highlights from Pioneer Mountain-Eddyville (PME) Project / "Play on the Grade" Video — Angela Beers-Seydel, ODOT

A discussion of ODOT's outreach and public engagement strategies, and tactics for local jurisdictions. The discussion also will highlight successes from the PME project.
ACTION: Information only

8. 6:30 Area Manager's Report (Attachment 4-5) and Powerpoint — Frannie Brindle, ODOT

ACTION: Information only

9. 6:40 Adjournment

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Area 4 Draft STIP 2018-2021 - Region 2

ATTACHMENT 1

KN	Program Work Type 1	Area	PROJECT NAME	Description	Route	Hwy Name	County	Final Total Estimate (Inflated)
20068	OPS	3 4	I-5: VMS REPLACEMENT	Existing VMS boards were manufactured by US Traffic which is no longer in business. We can no longer maintain them. Replace with new Daktronics signs. Three locations: Lake Creek Dr, Perkins Rd, and Arndt Rd	I-5	Pacific	Linn Marion Marion	$ 750,000
20124	PRESRV	3 4	OR99W: MONMOUTH-NE ELLIOT CIRCLE RD	Grind existing surfacing and inlay the travel lanes. (Single Lift Inlay + Localized ACPR (Asphalt/Concrete Pavement Repair))	OR 99W	Pacific Highway West	Polk Benton	$ 9,114,487
19654	BRIDGE	4	US101: YAQUINA BAY BRIDGE (NEWPORT) PAINTING	Paint structure; place cathodic protection (spray coating); install electrical control cabinet; repair cracked steel members	US 101	Oregon Coast Hwy	Lincoln	$ 13,598,600
20425	BRIDGE	4	OR99E: WILLAMETTE R (HARRISBURG) BRIDGE	Replace steel bracing; paint bridge.	OR 99E	Albany-Junction City	Linn	$ 3,608,600
20428	BRIDGE	4	US20: WILLAMETTE R (ELLSWORTH ST) BRIDGE	Vertical clearance.	US 20	Albany-Corvallis	Benton	$ 5,833,300
20317	BRIDGE (Local)	4	NE WEST DEVILS LAKE ROAD BRIDGE	Replace existing structure with single span pre-cast pre-stressed concrete structure on approximate same alignment.			Lincoln	$ 1,330,500
20318	BRIDGE (Local)	4	BERLIN RD: HAMILTON CREEK BRIDGE	Replace existing structure with a single span pre-stressed concrete beam bridge.			Linn	$ 3,105,100
20309	BRIDGE (Local)	4	N. WOLKAU ROAD: NORTH BEAVER CREEK BRIDGE	Replace existing structure with single span pre-stressed concrete beam bridge.			Lincoln	$ 1,036,400
20311	BRIDGE (Local)	4	POWERLINE ROAD: MUDDY CREEK BRIDGE	Replace existing bridge with a single span pre-stressed concrete bridge on driven steel piling.			Linn	$ 2,514,200
20306	BRIDGE (Local)	4	FOLSOM ROAD: MILL CREEK BRIDGE	Replace existing bridge with a single span pre-stressed concrete bridge.			Linn	$ 1,256,800
20314	BRIDGE (Local)	4	RICHARDSON GAP ROAD: THOMAS CRK/SHIMANEK BRIDGE	Design shelf ready plans to replace roof, patch siding, truss epoxy repaired, new exterior paint and fumigate.			Linn	$ 557,227
20307	BRIDGE (Local)	4	HUBBARD ROAD: LONG TOM RIVER BRIDGE	Replace existing structure with a pre-stressed concrete girder bridge on same alignment.			Benton	$ 6,119,900
20109	BRIDGE (Shelf)	4	US101: YAQUINA BAY BRIDGE	Design shelf ready plans for Cathodic protection (corrosion control) - South end.	US 101	Oregon Coast Hwy	Lincoln	$ 475,000
20110	BRIDGE (Shelf)	4	US101: DEPOE BAY BRIDGE	Design shelf ready plans for Cathodic protection (corrosion control).	US 101	Oregon Coast Hwy	Lincoln	$ 300,000
20112	BRIDGE (Shelf)	4	OR34: ALSEA RIVER BRIDGE	Design shelf ready plans to: pressure wash steel girders, floor beams and connections; remove pack rusts & calk; repair fracture critical cut in floor beams; add two rail transitions, and paint structure.	OR 34	Alsea	Lincoln	$ 250,000
20114	BRIDGE (Shelf)	4	OR229: SILETZ RIVER (FULLER) BRIDGE	Design shelf ready plans to: Paint structure; remove pack rust; rehab bearings.	OR 229	Siletz	Lincoln	$ 250,000
20115	BRIDGE (Shelf)	4	OR229: SILETZ RIVER (OJALLA) BRIDGE	Design shelf ready plans to: Paint structure; remove pack rust. Replace rivets and bolts.	OR 229	Siletz	Lincoln	$ 250,000
20234	ENHANCE	4	CHAPEL DRIVE BIKEWAY IMPROVEMENT (PHILOMATH)	Add 6 foot bike lanes on both sides of road; add raised tabletop intersection at 19th Street and Chapel Drive with planted medians with turn pockets; a designated pedestrian and school crossing with road striping and signs will be added at intersection		Local	Benton	$ 1,314,000
20235	ENHANCE	4	US101: NW 25TH ST. - NE 36TH ST. (NEWPORT)	Design for installation of curb and sidewalk along the east side of US 101. Pedestrian ramps will be put in place at street intersections, guardrail will be replaced, and drainage structures installed.	US 101	Oregon Coast Highway	Lincoln	$ 581,500
20067	OPS	4	US101: LANDSLIDE REPAIR MP 135.6	Constant slide movement occurs and needs to be patched frequently at this location (Moolack slide). This project will provide realignment and a geo/drainage improvement to reduce the movement in the section of highway.	US 101	Oregon Coast Hwy	Lincoln	$ 2,082,100
20071	OPS	4	OR99W: CORVALLIS STORMWATER SYSTEM	The stormwater system in collapses/plugs often during the winter. Replace with new drainage conforming to current standards which will require prescribed access points.	OR 99W	Pacific Highway West	Benton	$ 2,300,000
20072	OPS	4	OR22: ROCKFALL REMIDIATION MP 72 & 81	Install rock screening. Needed due to frequent instances of rocks in roadway	OR 22	North Santiam	Linn	$ 604,500
20081	OPS	4	US20: SNOW ZONE SIGN REPLACEMENT	Replace existing drum sign with new sign	US 20	Santiam	Linn	$ 40,000
20068	OPS	3 4	I-5: VMS REPLACEMENT	Existing VMS boards were manufactured by US Traffic which is no longer in business. We can no longer maintain them. Replace with new Daktronics signs. Three locations: Lake Creek Dr, Perkins Rd, and Arndt Rd	I-5	Pacific	Linn Marion Marion	$ 750,000
20124	PRESRV	3 4	OR99W: MONMOUTH-NE ELLIOT CIRCLE RD	Grind existing surfacing and inlay the travel lanes. (Single Lift Inlay + Localized ACPR (Asphalt/Concrete Pavement Repair))	OR 99W	Pacific Highway West	Polk Benton	$ 9,114,487
20126	PRESRV	4	US20: SANTIAM JUNCTION-JACK LAKE RD.	Grind existing surfacing and inlay the travel lanes. (Single Lift Inlay)	US 20	Santiam	Linn Jefferson	$ 7,404,772
20199	SAFETY	4	REGION 2 (CENTRAL) SIGNAL IMPROVEMENTS (PART 2)	Newport, Lincoln City, Depoe Bay: Reflectorized signal backplates & Countdown pedestrian timers at all signals. Adaptive signal timing at all signals in Newport on US101.	US 101 US 20 (Newport only)	Oregon Coast Highway Corvallis-Newport	Lincoln	$ 615,400
20202	SAFETY	4	US20: MP 4.60 ROADSIDE IMPROVEMENTS	Install new guardrail. Widen shoulder by 3 feet. Provide safety edge at shoulder.	US 20	Corvallis-Newport	Lincoln	$ 466,900
20140	SAFETY	4	US20 @ KNOX BUTTE/OR226	Increase Triangle Sight Distance. Increase Distance to Rural Roadside Obstacle from 3 ft. (1m) to 16 ft. (5m). Improve Intersection Warning: Stop Ahead Pavement Markings, Stop Ahead Signs, Larger Signs, Additional Stop Signs…	US 20	Samtiam	Linn	$ 521,200
20142	SAFETY	4	OR211 @ CANBY MARQUAM HWY	Upgrade intersection warning signs. Evaluate for concrete splitter island. Install flashing beacons on stop signs. Install actuated flashing beacons triggered by approaching vehicles. Install lighting at intersection.	OR 211	Woodburn/Estacada	Marion	$ 667,800
20173	SAFETY	4	9TH ST @ SPRUCE ST INTERSECTION IMPRV (CORVALLIS)	Channelized Left Turn Lane with Raised Median on 9th at Spruce	9th St @ Spruce St (Corvallis)	Local	Benton	$ 163,200
20207	SAFETY	4	US20 @ MERLOY AVE. MP 3.95	Install left turn on major road approach	US 20	Albany-Corvallis	Benton	$ 2,237,700
20183	SAFETY	4	OR99E @ AIRPORT RD. (ALBANY)ents	Left Turn Lane on Single Major Road Approach, Urban, Signalized Intersection (NB Airport Rd). Install Actuated Advance Warning Dilemma Zone Protection System at High Speed Signals (Microwave Detection).	OR 99E	Albany-Junction City	Linn	$ 1,407,300
20184	SAFETY	4	US20: GEARY ST. TO WAVERLY ST. (ALBANY)	Install lighting at intersection at Waverly, install raised medians (traffic separators) on US-20 between Waverly and Clay. Install advance guide signs (possibly sign bridge) on OR99E.	US 20 OR 99E	Santiam Albany-Junction City	Linn	$ 1,253,400
20215	SAFETY	4	REGION 2 (CENTRAL) URBAN SIGNAL ENHANCEMENTS	Provide signal enhancements in various locations on OR-99E and US20 in Area 4	OR 99E (058) - 0.42 - 7.90 US 20 (016) - 0.49 - 1.87 US 20 (016) - 12.8 - 27.7 Geary St. @ Queen Avenue (Albany)	Albany-Junction City Santiam Santiam Local	Linn Linn Linn Linn	$ 2,091,100
20188	SAFETY	4	US20: GARLAND NURSERY-GRANGER AVE.	Widen shoulder by 3 feet. Install edgeline striping / Install rural median acceleration lane. Install left turn lane on major road approach. Install buffered right turn lane.	US 20 US 20	Albany-Corvallis Albany-Corvallis	Linn	$ 4,010,600

Area 4 Draft STIP 2018-2021 - Region 2

ATTACHMENT 1

KN	Program Work Type 1	Area	PROJECT NAME	Description	Route	Hwy Name	County	Final Total Estimate (Inflated)
20193	SAFETY	4	REGION 2 (CENTRAL & S) CURVE WARNING UPGRADES	Install chevrons and updated curve warning signs at various locations throughout Area 4	OR 34 (27) MP 0.00 - 58.56 (58.56 miles) US 20 (31) MP 0.10 - 11.28 (11.18 miles) US 20 (33) MP 0.00 - 56.80 (56.80 miles) OR 229 (181) MP -0.21 - 21.24 (21.45 miles) OR 223 (189) MP 0.00 - 4.32 (4.32 miles) OR 223 (191) MP 0.00 - 31.40 (31.40 miles) OR 194 (194) MP 0.00 - 7.56 (7.56 miles)	Various	Polk, Benton	**$ 1,579,400**
20197	SAFETY	4	CITY OF CORVALLIS SIGNAL ENHANCEMENTS	Signal enhancements on various signals on US20 and OR99W	US 20 OR 99W OR 99W	Albany-Corvallis Pacific Hwy West Pacific Hwy West	Benton Benton Benton	**$ 1,182,900**
20241	SAFETY *(Leverage)*	4	US101: URBAN UPGRADE (DEPOE BAY)	Upgrade sidewalks, parking, bike facilities, and ADA compliance to enable future or concurrent pavement preservation project	US 101	Oregon Coast Highway	Lincoln	**$ 1,763,922**
20243	SAFETY *(Leverage)*	4	US20: MP 3.95 CORVALLIS	Install Left Turn Lane at Merloy Avenue	US 20	Albany-Corvallis	Benton	**$ 1,949,300**
20088	OPS	Regionwide	REGION 2 TDM/RIDESHARE (2019)	Ops funds to be transferred to Local Transit Districts for TDM/Rideshare	Various	Various Highways	Various	**$ 524,879**
20089	OPS	Regionwide	REGION 2 TDM/RIDESHARE (2020)	Ops funds to be transferred to Local Transit Districts for TDM/Rideshare	Various	Various Highways	Various	**$ 524,879**
20090	OPS	Regionwide	REGION 2 TDM/RIDESHARE (2021)	Ops funds to be transferred to Local Transit Districts for TDM/Rideshare	Various	Various Highways	Various	**$ 524,879**
20255	OPS	Regionwide	REGION 2 ELECTRICAL IMPROVEMENTS -2019	Regionwide electrical improvements, signal heads, loops, illumination, signal upgrades etc	Various	Various Highways	Various	**$ 1,000,000**
20257	OPS	Regionwide	REGION 2 SIGNAL TECHNOLOGY UPGRADES - 2019	Region 2 Signal Technology Upgrades	Various	Various Highways	Various	**$ 300,000**
20258	OPS	Regionwide	REGION 2 SIGN REPLACEMENT - 2019	Sign replacements throughout Region 2	Various	Various Highways	Various	**$ 400,000**
20259	OPS	Regionwide	REGION 2 ROCK FALL SCREENING - 2019	Rock Fall Screening Improvements In Various Locations Throughout Region 2	Various	Various Highways	Various	**$ 900,000**
20260	OPS	Regionwide	REGION 2 DELINIATION - 2019	DELINIATION IMPROVEMENTS IN VARIOUS LOCATIONS THROUGHOUT REGION 2	Various	Various Highways	Various	**$ 274,708**
20409	OPS	Regionwide	REGION 2 AGENCY PRIORITY (OPS) RESERVE	Pool for Operations projects	Various	Various Highways	Various	**$ 1,443,918**
20496	PRESRV	Regionwide	REGION 2 PRESERVATION PROJECTS RESERVE	Region 2 funding reserve to be used on preservation projects. Projects to be selected based on region needs	Various	Various Highways		**$ 281,400**
20419	PRESRV	Regionwide	REGION 2 PRESERVATION PROJECT DEVELOPMENT (18-21)	Funding reserve for the development of shelf Preservation projects in region 2. Projects to be selected based on region needs.	Various	Various Highways		**$ 1,831,397**
20222	SAFETY	V	US101: CURVE WARNING UPGRADES	Install chevrons and updated curve warning signs at various locations	US 101	Oregon Coast Highway	Lincoln, Clat	**$ 1,383,200**
20195	SAFETY	V	REGION 2 (CENTRAL & SOUTH) CURVE WARNING UPGRADES	Preliminary engineering for chevrons and updated curve warning signs at various locations throughout Areas 4 and 5..	OR 126 US 20 OR 58 OR 228	McKenzie Santiam Willamette Halsey-Sweet Home	Linn, Lane, H	**$ 79,675**
20201	SAFETY	V	REGION 2 CENTERLINE RUMBLE STRIPS PART 6	Install centerline rumble strips at various intervals on various highways throughout Region 2	Various; OR-47, OR-22, OR-18, OR-551, 99E, 99W, OR-214, OR-219, OR-213, OR-211 and OR-51 (from prior description)		Various	**$ 3,787,400**
20137	SAFETY	V	REGION 2 (CENTRAL AND SOUTH) RURAL SIGNAL IMPROV	Install reflectorized signal backplates, countdown pedestrian timers, and advanced dilemma zone protection at various signal locations throughout Areas 4 and 5.	Various	Various Highways		**$ 744,900**

Region 2 18-21 Draft STIP Projects

ATTACHMENT 1

KN	Program Work Type 1	Area	Project Name	Description	Total Cost
18271	CULVRT	1	US101 @ ASBURY CREEK	REPLACE FAILING CULVERT WITH NEW BRIDGE STRUCTURE	$ 4,445,000
18597	BRIDGE	1	US101:COLUMBIA R(ASTORIA-MEGLER) DECK TRUSS PAINT	PAINT DECK TRUSSES; BR #07949C; ODOT IS LEAD FOR JOINT PROJ W/ WSDOT; ODOT SHARE IS 50%	$ 24,318,000
19654	BRIDGE	4	US101: YAQUINA BAY BRIDGE (NEWPORT) PAINTING	Paint structure; place cathodic protection (spray coating); install electrical control cabinet; repair cracked steel members	$ 13,598,600
19831	PRESRV	3	I-5: WOODBURN - SALEM	Grind existing surface and inlay the travel lanes. (1R paving project. Single lift inlay to replace open graded ACP wearing course in travel lanes.)	$ 12,168,250
19936	CULVRT	3	OR22: BAD BANKS CREEK CULVERT	Replace Culvert (#06761)	$ 2,600,000
19962	BIKPED	3	DISTRICT 3 WEST ADA IMPROVEMENTS	Upgrade substandard ADA curb ramps	$ 1,057,300
20066	OPS	1	US101: ROCKFALL REMEDIATION TILLAMOOK COUNTY	Rock and debris fall onto the highway at these locations. Look at tree removal, scaling, and/or rock screening as possible solutions	$ 1,600,000
20067	OPS	4	US101: LANDSLIDE REPAIR MP 135.6	Constant slide movement occurs and needs to be patched frequently at this location (Moolack slide). This project will provide realignment and a geo/drainage improvement to reduce the movement in the section of highway.	$ 2,082,100
20068	OPS	3 4	I-5: VMS REPLACEMENT	Existing VMS boards were manufactured by US Traffic which is no longer in business. We can no longer maintain them. Replace with new Daktronics signs. Three locations: Lake Creek Dr, Perkins Rd, and Arndt Rd	$ 750,000
20068	OPS	3 4	I-5: VMS REPLACEMENT	Existing VMS boards were manufactured by US Traffic which is no longer in business. We can no longer maintain them. Replace with new Daktronics signs. Three locations: Lake Creek Dr, Perkins Rd, and Arndt Rd	$ 750,000
20069	OPS	1	OR202 @ MP 6.6 (BAKANEN SLIDE)	Highway constantly slides at this location. Frequent maintenance needed. This project will install a buttress at the toe of the slide and improve the drainage in order to mitigate slide movement and stabilize the highway.	$ 1,000,000
20070	OPS	3	OR22: INDEPENDENCE JUNCTION ILLUMINATION	Currently has old poles and direct-buried wire. Replace entire system with new poles and electrical.	$ 325,000
20071	OPS	4	OR99W: CORVALLIS STORMWATER SYSTEM	The stormwater system in collapses/plugs often during the winter. Replace with new drainage conforming to current standards which will require prescribed access points.	$ 2,300,000
20072	OPS	4	OR22: ROCKFALL REMIDIATION MP 72 & 81	Install rock screening. Needed due to frequent instances of rocks in roadway	$ 604,500
20078	OPS	5	EUGENE-SPRINGFIELD SENSORS/CAMERAS PHASE 2	Install cameras and traffic sensors connected to the NWTOC for operations and traffic data for planning: OR569 at OR99W, Barger, W. 11th and I-105 at 6th (OR99W).	$ 1,100,000
20081	OPS	4	US20: SNOW ZONE SIGN REPLACEMENT	Replace existing drum sign with new sign	$ 40,000
20088	OPS	Regionwide	REGION 2 TDM/RIDESHARE (2019)	Ops funds to be transferred to Local Transit Districts for TDM/Rideshare	$ 524,879
20089	OPS	Regionwide	REGION 2 TDM/RIDESHARE (2020)	Ops funds to be transferred to Local Transit Districts for TDM/Rideshare	$ 524,879
20090	OPS	Regionwide	REGION 2 TDM/RIDESHARE (2021)	Ops funds to be transferred to Local Transit Districts for TDM/Rideshare	$ 524,879
20092	CULVRT	1	US26 @ MENDENHALL CREEK MP 45.63	Replace culvert with single span bridge with concrete deck and remove culvert	$ 3,605,000
20093	SAFETY	3	OR99E: ENHANCED PEDESTRIAN CROSSWALKS (WOODBURN)	Install Raised Median with Marked Crosswalk (5 crosswalks, 1 study)	$ 82,500
20094	CULVRT	1	US30 @ GRAHAM CREEK MP 65.16	Replace existing culvert with new box culvert	$ 1,675,000
20102	CULVRT	5	OR58: FIX IT CORRIDOR CULVERTS	Repair or replace culverts based on condition and funding level	$ 8,400,000
20107	BRIDGE	1	US101B: LEWIS & CLARK RIVER BRIDGE	Design shelf ready plans for: deck replacement (including deck removal).	$ 141,000
20109	BRIDGE	4	US101: YAQUINA BAY BRIDGE	Design shelf ready plans for Cathodic protection (corrosion control) - South end.	$ 475,000
20110	BRIDGE	4	US101: DEPOE BAY BRIDGE	Design shelf ready plans for Cathodic protection (corrosion control).	$ 300,000
20111	BRIDGE	3	OR219: HESS CREEK BRIDGE	Design shelf ready plans to replace bridge.	$ 230,000
20112	BRIDGE	4	OR34: ALSEA RIVER BRIDGE	Design shelf ready plans to: pressure wash steel girders, floor beams and connections; remove pack rusts & calk; repair fracture critical cut in floor beams; add two rail transitions, and paint structure.	$ 250,000
20113	BRIDGE	1	US101: ECOLA CREEK BRIDGE	Design shelf ready plans to replace bridge due to deteriorated timber substructure.	$ 400,000
20114	BRIDGE	4	OR229: SILETZ RIVER (FULLER) BRIDGE	Design shelf ready plans to: Paint structure; remove pack rust; rehab bearings.	$ 250,000
20115	BRIDGE	4	OR229: SILETZ RIVER (OJALLA) BRIDGE	Design shelf ready plans to: Paint structure; remove pack rust. Replace rivets and bolts.	$ 250,000
20116	BRIDGE	5	OR569 OVER UPRR & NORTHWEST EXPRESSWAY	Design shelf ready plans for: Rail replacement, joint replacement and a concrete deck overlay.	$ 250,000
20117	BRIDGE	1	OR104: SKIPANON RIVER BRIDGE	Design shelf ready plans for repairs and painting to preserve the steel elements.	$ 150,000
20118	BRIDGE	5	OR36: INDIAN CREEK BRIDGE	Design shelf ready plans for: Deck overlay, concrete patching, rail retrofit.	$ 150,000
20121	PRESRV	5	OR569: TERRY ST-PACIFIC HWY	Grind existing surfacing and inlay the travel lanes.	$ 9,533,315
20122	PRESRV	3	OR221: MICHIGAN CITY LN.-EDGEWATER ST (W. SALEM)	Grind existing surfacing and inlay the travel lanes and shoulders and update ADA ramps as applicable. (Inlay + Localized ACPR (Asphalt/Concrete Pavement Repair))	$ 5,306,766
20123	PRESRV	3	OR99E: OR551-DIMMICK LANE	Grind existing surfacing and inlay the travel lanes. (Single Lift Inlay + Localized ACPR (Asphalt/Concrete Pavement Repair))	$ 2,302,588
20124	PRESRV	3 4	OR99W: MONMOUTH-NE ELLIOT CIRCLE RD	Grind existing surfacing and inlay the travel lanes. (Single Lift Inlay + Localized ACPR (Asphalt/Concrete Pavement Repair))	$ 9,114,487
20124	PRESRV	3 4	OR99W: MONMOUTH-NE ELLIOT CIRCLE RD	Grind existing surfacing and inlay the travel lanes. (Single Lift Inlay + Localized ACPR (Asphalt/Concrete Pavement Repair))	$ 9,114,487
20125	PRESRV	1	US101: YOUNGS BAY BRIDGE-NEPTUNE DR	Grind existing surfacing and inlay the travel lanes. (Inlay / Overlay)	$ 2,506,880
20126	PRESRV	4	US20: SANTIAM JUNCTION-JACK LAKE RD.	Grind existing surfacing and inlay the travel lanes. (Single Lift Inlay)	$ 7,404,772
20128	PRESRV	1	US101: ECOLA CREEK-ARCH CAPE TUNNE	Grind existing surfacing and inlay the travel lanes. (Multi-Lift paving)	$ 6,773,921
20129	PRESRV	3	OR22: RICKREALL INTCH.-INDEPENDENCE HWY.	Grind existing surfacing and inlay the travel lanes. (Single Lift Inlay)	$ 5,490,957
20130	SAFETY	3	REGION 2 (CENTRAL) SIGNAL IMPROVEMENTS PART 2	Install reflectorized signal backplates, countdown pedestrian timers, and advanced dilemma zone protection at various signals in McMinnville, Newberg and Dundee	$ 824,900
20136	SAFETY	1	REGION 2 (NORTH) SIGNAL IMPROVEMENTS PART 2	Scappoose, St Helens, Clatskanie, Rainier, Columbia, Astoria: Reflectorized signal backplates & Countdown ped timers at all signals. Install intersection lighting at US30&33rd St in Astoria. Install coordination and communication in Scappoose and St Helen	$ 712,900
20137	SAFETY	Various	REGION 2 (CENTRAL AND SOUTH) RURAL SIGNAL IMPROV	Install reflectorized signal backplates, countdown pedestrian timers, and advanced dilemma zone protection at various signal locations throughout Areas 4 and 5.	$ 744,900
20138	SAFETY	3	OR99W: SALMON RIVER HIGHWAY	Intersection improvements: Upgrade intersection warning signs; Evaluate for concrete splitter island with left side stop sign on minor leg approaches; Install transverse rumbles on stop controlled minor approaches; Install actuated flashing beacons.	$ 424,600
20139	SAFETY	3	CLOW CORNER @ RIDDELL RD	Upgrade intersection warning signs. Evaluate for concrete splitter island with left side stop sign on minor leg approaches. Install transverse rumbles on stop controlled minor approaches. Install red flashing beacons.	$ 247,300
20140	SAFETY	4	US20 @ KNOX BUTTE/OR226	Increase Triangle Sight Distance. Increase Distance to Rural Roadside Obstacle from 3 ft. (1m) to 16 ft. (5m). Improve Intersection Warning: Stop Ahead Pavement Markings, Stop Ahead Signs, Larger Signs, Additional Stop Signs…	$ 521,200
20141	SAFETY	3	OR22 @ SMITHFIELD RD/KINGS VALLEY	Convert 4-Leg Intersection to Two 3-Leg Intersections	$ 1,301,500
20142	SAFETY	4	OR211 @ CANBY MARQUAM HWY	Upgrade intersection warning signs. Evaluate for concrete splitter island. Install flashing beacons on stop signs. Install actuated flashing beacons triggered by approaching vehicles. Install lighting at intersection.	$ 667,800
20143	SAFETY	5	RIVER RD @ RIVER AVE (EUGENE)	Install a raised median (traffic separators to protect designated left turn lanes)	$ 160,600
20144	SAFETY	5	OR126B @ MP 2.98 TO 7.88	Provide a raised median	$ 4,089,400
20163	SAFETY	3	MARION COUNTY CURVE WARNING SIGNS	Install chevrons and updated curve warning signs on local roads in Marion County.	$ 287,100
20164	SAFETY	1	COLUMBIA COUNTY ROADWAY DEPARTURE TREATMENTS	Remove fixed objects, install chevrons and updated curve warning signs and install delineation on Apiary Rd and Scapposse-Vernonia Hwy.	$ 1,160,500
20165	SAFETY	5	13TH AVE: LINCOLN ST. TO ALDER ST. (EUGENE)	Safety projects at various locations. Work includes illumination, intersection work, bike/pedestrian improvements, ADA upgrades, signal work, signs, warnings, striping, medians, utility relocation, and other safety improvements.	$ 3,761,200
20169	SAFETY	3	COMMERCIAL ST: OXFORD ST SE-WINDING WAY SE (SALEM)	Buffered bike lanes in each direction on Commercial (regular bike lanes exist); segment illumination; RRFB's near Triangle Dr SE & Waldo Ave SE	$ 1,908,200
20173	SAFETY	4	9TH ST @ SPRUCE ST INTERSECTION IMPRV (CORVALLIS)	Channelized Left Turn Lane with Raised Median on 9th at Spruce	$ 163,200
20174	SAFETY	5	GATEWAY ST. @ KRUSE WAY INT IMPRV (SPRINGFIELD)	Install rectangular rapid flashing beacon with median. Install any type of median barrier (traffic separators to protect designated left turn lanes)	$ 231,300
20175	SAFETY	3	KALE ST. @ CORDON RD (SALEM)	Install left turn lane on major road approach	$ 564,300
20176	SAFETY	3	KUEBLER BLVD SE @ TURNER RD. SE	Install; Right Turn Lane on Single Major Road Approaches: Signalized Intersection (SB only); Actuated Advance Warning Dilemma Zone Protection System at High Speed Signals; Flashing Beacons as Advance Warning at Intersections	$ 635,100
20177	SAFETY	1	US30 @ 8TH ST. (ASTORIA)	Install Rectangular Rapid Flashing Beacon	$ 395,600
20181	SAFETY	3	CITY OF SALEM 12TH ST. NE SIGNAL IMPROVEMENTS	Replace Permissive Left Turns to Protected/Permissive 12th @ Marion. Install Coordination or Adaptive Signal Timing of Urban Traffic Signals on 12th; improve Signal Hardware between Mission and Capitol.	$ 509,500
20182	SAFETY	3	CORDON RD. @ HAYESVILLE DR. (SALEM)	Install left turn on major road approach	$ 609,700
20183	SAFETY	4	OR99E @ AIRPORT RD. (ALBANY)ents	Left Turn Lane on Single Major Road Approach, Urban, Signalized Intersection (NB Airport Rd). Install Actuated Advance Warning Dilemma Zone Protection System at High Speed Signals (Microwave Detection).	$ 1,407,300
20184	SAFETY	4	US20: GEARY ST. TO WAVERLY ST. (ALBANY)	Install lighting at intersection at Waverly, install raised medians (traffic separators) on US-20 between Waverly and Clay. Install advance guide signs (possibly sign bridge) on OR99E.	$ 1,253,400
20187	SAFETY	3	CITY OF SALEM SIGNAL ENHANCEMENTS (UNIT 3)	Multiple signal enhancements at various locations on OR99E and OR22	$ 914,800
20188	SAFETY	4	US20: GARLAND NURSERY-GRANGER AVE.	Widen shoulder by 3 feet. Install edgeline striping / Install rural median acceleration lane. Install left turn lane on major road approach. Install buffered right turn lane.	$ 4,010,600
20189	SAFETY	1	REGION 2 (CENTRAL & S) CURVE WARNING UPGRADES	Install chevrons and updated curve warning signs throughout Area 1	$ 1,731,600
20190	SAFETY	3	REGION 2 (CENTRAL & S) CURVE WARNING UPGRADES	Install chevrons and updated curve warning signs at various locations throughout Area 3	$ 1,870,100
20193	SAFETY	4	REGION 2 (CENTRAL & S) CURVE WARNING UPGRADES	Install chevrons and updated curve warning signs at various locations throughout Area 4	$ 1,579,400
20195	SAFETY	Various	REGION 2 (CENTRAL & SOUTH) CURVE WARNING UPGRADES	Preliminary engineering for chevrons and updated curve warning signs at various locations throughout Areas 4 and 5..	$ 79,675
20197	SAFETY	4	CITY OF CORVALLIS SIGNAL ENHANCEMENTS	Signal enhancements on various signals on US20 and OR99W	$ 1,182,900
20198	SAFETY	3	MARION COUNTY INTERSECTION IMPROVEMENTS	Intersection warning improvements on Ehlen Rd. NE and Silverton Rd.	$ 655,300

KN	Program Work Type 1	Area	Project Name	Description	Total Cost
20199	SAFETY	4	REGION 2 (CENTRAL) SIGNAL IMPROVEMENTS (PART 2)	Newport, Lincoln City, Depoe Bay: Reflectorized signal backplates & Countdown pedestrian timers at all signals. Adaptive signal timing at all signals in Newport on US101.	$ 615,400
20200	SAFETY	3	MARION COUNTY CENTERLINE RUMBLE STRIPS	Install centerline rumble strips. Cordon Rd between Caplinger Rd and Hazelgreen Rd.	$ 212,500
20201	SAFETY	Various	REGION 2 CENTERLINE RUMBLE STRIPS PART 6	Install centerline rumble strips at various intervals on various highways throughout Region 2	$ 3,787,400
20202	SAFETY	4	US20: MP 4.60 ROADSIDE IMPROVEMENTS	Install new guardrail. Widen shoulder by 3 feet. Provide safety edge at shoulder.	$ 466,900
20203	SAFETY	1	US101 @ PERKINS LANE INTERSECTION IMPROVEMENTS	Install median U-turn treatment. Install left turn lane west leg (Fort Stevens Rd).	$ 2,142,400
20204	SAFETY	3	BROADWAY ST. @ PINE ST. (SALEM)	Signal improvements & convert 4 lane roadway to 3 lane roadway with center turn lane, requires overlay.	$ 1,424,200
20206	SAFETY	5	RIVER RD. @ IRVING RD. (CITY OF EUGENE)	Improve Signal Hardware. Left Turn Lane on Both Major Road Approaches: Urban, Signalized Intersection (Irving Legs). Install Urban Green Bike Lanes at Conflict Points	$ 2,073,700
20207	SAFETY	4	US20 @ MERLOY AVE. MP 3.95	Install left turn on major road approach	$ 2,237,700
20209	SAFETY	5	OR126B @ 54TH ST. (SPRINGFIELD)	Upgrade permissive left turn to protected/permissive. Install no pedestrian phase with flashing yellow left turn arrow. Install lighting at intersection. Install left turn lane on 54th St approaches.	$ 1,641,300
20214	SAFETY	3	MISSION ST. ADAPTIVE SIGNAL TIMING (SALEM)	Install Coordination or Adaptive Signal Timing of Urban Traffic Signals	$ 1,252,000
20215	SAFETY	4	REGION 2 (CENTRAL) URBAN SIGNAL ENHANCEMENTS	Provide signal enhancements in various locations on OR-99E and US20 in Area 4	$ 2,091,100
20216	SAFETY	5	CITY OF EUGENE SIGNAL ENHANCEMENTS	Signal enhancements at various locations throughout City of Eugene	$ 1,388,900
20217	SAFETY	3	CITY OF SALEM SIGNAL ENHANCEMENTS UNIT 1	Install signal enhancements at various locations throughout City of Salem	$ 1,500,000
20220	SAFETY	3	CITY OF SALEM LOCAL RD SIGNAL ENHANCEMENTS UNIT 2	Signal enhancements on a variety of local roads in Salem and Keizer	$ 1,506,800
20221	SAFETY	5	CITY OF SPRINGFIELD SIGNAL ENHANCEMENTS	Various signal enhancements at a variety of locations	$ 1,107,400
20222	SAFETY	Various	US101: CURVE WARNING UPGRADES	Install chevrons and updated curve warning signs at various locations	$ 1,383,200
20223	SAFETY	5	WEST LANE COUNTY CURVE WARNING UPGRADES	Install chevrons and updated curve warning signs at various locations on OR126W, OR200 and OR36	$ 994,400
20225	SAFETY	3	ALL ROADS TRANSPORTATION SAFETY PROJECTS FFY21	Region 2 All Roads Transportation Safety (ARTS) projects for Federal fiscal year 2021. Projects to be determined based on program committee selection process.	$ 4,922,277
20230	ENHANCE	1	OR202: DRESDIN ST. TO 4TH. ST. (ASTORIA)	Sidewalk and designated bike lane construction along the north side of Hwy 202 from (1) Dresden St. to the DMV driveway and from (2) Hanover St. to 4th St.	$ 1,672,000
20231	ENHANCE	3	SALEM MULTI-MODAL SAFETY CROSSINGS	Design and construction of multi-modal (bike/pedestrian) crossings at five locations throughout the City of Salem.	$ 566,200
20232	ENHANCE	3	HAYESVILLE DR. BICYCLE AND PEDESTRIAN IMPROVEMENTS	Widening the paved shoulder to accommodate designated bike lanes, and completing sidewalks on both sides of Hayesville Dr from Portland Rd to west of Happy Dr.	$ 2,950,000
20233	ENHANCE	3	YCTA BUS REPLACEMENT	Purchase six buses, three heavy duty buses (category A) and three medium duty buses (category B).	$ 450,000
20234	ENHANCE	4	CHAPEL DRIVE BIKEWAY IMPROVEMENT (PHILOMATH)	Add 6 foot bike lanes on both sides of road; add raised tabletop intersection at 19th Street and Chapel Drive with planted medians with turn pockets; a designated pedestrian and school crossing with road striping and signs will be added at intersection	$ 1,314,000
20235	ENHANCE	4	US101: NW 25TH ST. - NE 36TH ST. (NEWPORT)	Design for installation of curb and sidewalk along the east side of US 101. Pedestrian ramps will be put in place at street intersections, guardrail will be replaced, and drainage structures installed.	$ 581,500
20236	ENHANCE	5	FILLING THE GAPS - SRTS (SPRINGFIELD)	Cover the community notification, engineering, and construction costs necessary to produce completed sidewalk projects across Springfield for the Safe Routes to School (SRTS) program.	$ 638,000
20237	ENHANCE	5	ROOSEVELT PATH/OR99 PATH CONNECTION (EUGENE)	Connect the existing Roosevelt Path to the HWY 99 Path which is currently under construction.	$ 781,447
20238	ENHANCE	5	OR200: ELMIRA - VENETA MULTI USE PATH	Design a separated path between Veneta and Elmira for pedestrians and cyclists	$ 555,300
20239	ENHANCE	5	OR126/US101: SPRUCE ST - SIUSLAW RIV BR (FLORENCE)	Connect Bay Street Old Town area to US 101 portion of Old Town providing bicycle improvements; ped scaled lighting and sidewalk improvements	$ 1,000,000
20240	SAFETY	3	OR47: URBAN UPGRADE (CARLTON)	Upgrade sidewalks, parking, bike facilities, and ADA compliance to enable future or concurrent pavement preservation project	$ 3,394,600
20241	SAFETY	4	US101: URBAN UPGRADE (DEPOE BAY)	Upgrade sidewalks, parking, bike facilities, and ADA compliance to enable future or concurrent pavement preservation project	$ 1,763,922
20242	SAFETY	5	OR99: URBAN UPGRADE (COTTAGE GROVE)	Upgrade sidewalks, parking, bike facilities, and ADA compliance to enable future or concurrent pavement preservation project	$ 2,492,300
20243	SAFETY	4	US20: MP 3.95 CORVALLIS	Install Left Turn Lane at Merloy Avenue	$ 1,949,300
20244	SAFETY	5	OR99: EUGENE - JUNCTION CITY SAFETY BARRIER	Install median safety cable barrier	$ 1,509,478
20245	SAFETY	5	OR200: TERRITORIAL HWY FINAL DESIGN	Complete design work already underway to improve the section of Territorial Highway between Gillespie Corners and Lorane. The project will widen the pavement to allow for bicycles and pedestrians, etc. and realign curves	$ 1,000,000
20252	ENHANCE	1	US101: URBAN UPGRADE (GARIBALDI)	Upgrade sidewalks, parking, bike facilities, and ADA compliance to enable future or concurrent pavement preservation project	$ 6,649,767
20252	SAFETY	1	US101: URBAN UPGRADE (GARIBALDI)	Upgrade sidewalks, parking, bike facilities, and ADA compliance to enable future or concurrent pavement preservation project	$ 6,649,767
20255	OPS	Regionwide	REGION 2 ELECTRICAL IMPROVEMENTS -2019	Regionwide electrical improvements, signal heads, loops, illumination, signal upgrades etc	$ 1,000,000
20257	OPS	Regionwide	REGION 2 SIGNAL TECHNOLOGY UPGRADES - 2019	Region 2 Signal Technology Upgrades	$ 300,000
20258	OPS	Regionwide	REGION 2 SIGN REPLACEMENT - 2019	Sign replacements throughout Region 2	$ 400,000
20259	OPS	Regionwide	REGION 2 ROCK FALL SCREENING - 2019	Rock Fall Screening Improvements In Various Locations Throughout Region 2	$ 900,000
20260	OPS	Regionwide	REGION 2 DELINIATION - 2019	DELINIATION IMPROVEMENTS IN VARIOUS LOCATIONS THROUGHOUT REGION 2	$ 274,708
20294	BRIDGE	5	COBURG RD: WILLAMETTE RIVER (FERRY STREET) BRIDGE	Cleaning, prep and spot paint; concrete overlay and other repairs per inspection report.	$ 2,007,400
20296	BRIDGE	3	RIVER RD S: WILLAMETTE RIVER (INDEPENDENCE) BRIDGE	Scour repairs; install approach rail; concrete spalling.	$ 2,850,800
20297	BRIDGE	5	COBURG RD: UPRR VIADUCT/4-6-7 AVE (FERRY STREET)	Deck sealing, crack repairs to girder top/deck interface, epoxy injection cracks, repair spalling.	$ 3,778,600
20305	BRIDGE	1	YOUNGS RIVER LOOP ROAD: KLASKANINE RIVER BRIDGE	Replace substructure with new steel piling trestle bents, deck wearing surface, approaches and approach rail.	$ 1,794,900
20306	BRIDGE	4	FOLSOM ROAD: MILL CREEK BRIDGE	Replace existing bridge with a single span pre-stressed concrete bridge.	$ 1,256,800
20307	BRIDGE	4	HUBBARD ROAD: LONG TOM RIVER BRIDGE	Replace existing structure with a pre-stressed concrete girder bridge on same alignment.	$ 6,119,900
20309	BRIDGE	4	N. WOLKAU ROAD: NORTH BEAVER CREEK BRIDGE	Replace existing structure with single span pre-stressed concrete beam bridge.	$ 1,036,400
20311	BRIDGE	4	POWERLINE ROAD: MUDDY CREEK BRIDGE	Replace existing bridge with a single span pre-stressed concrete bridge on driven steel piling.	$ 2,514,200
20312	BRIDGE	1	MT. RICHMOND ROAD: TUALATIN RIVER BRIDGE	Replace the existing bridge with a single span concrete structure.	$ 2,180,200
20313	BRIDGE	3	MERIDIAN ROAD NE: ABIQUA CREEK BRIDGE	Rehab bridge by constructing scour repair at abutments and piers. Widen to install new approach rails.	$ 1,902,200
20314	BRIDGE	4	RICHARDSON GAP ROAD: THOMAS CRK/SHIMANEK BRIDGE	Design shelf ready plans to replace roof, patch siding, truss epoxy repaired, new exterior paint and fumigate.	$ 557,227
20315	BRIDGE	1	SCAPPOOSE-VERNONIA RD: E. FORK NEHALEM RIV BRIDGE	Replace the current bridge with a modern single span pre-stressed concrete structure on the existing alignment with improved setback from the active stream channel.	$ 3,222,600
20316	BRIDGE	3	CANBY MARQUAM HWY: BEAR CREEK BRIDGE	Replace existing bridge with a new single-span pre-cast, pre-stressed concrete beam structure.	$ 2,313,800
20317	BRIDGE	4	NE WEST DEVILS LAKE ROAD BRIDGE	Replace existing structure with single span pre-cast pre-stressed concrete structure on approximate same alignment.	$ 1,330,500
20318	BRIDGE	4	BERLIN RD: HAMILTON CREEK BRIDGE	Replace existing structure with a single span pre-stressed concrete beam bridge.	$ 3,105,100
20354	BRIDGE	3	F STREET: SOUTH FORK ASH CREEK BRIDGE	Replace the existing structure with a new bridge	$ 2,329,500
20356	BRIDGE	1	CURL ROAD: KILCHIS RIVER BRIDGE	Design shelf ready plans to replace current structure with a concrete bridge on same alignment.	$ 557,227
20408	OPS	5	OR99 @ WOODSON (COTTAGE GROVE)	Replace all signal equip. Add 4th signalized leg or remove private access. ADA upgrades.	$ 1,500,000
20409	OPS	Regionwide	REGION 2 AGENCY PRIORITY (OPS) RESERVE	Pool for Operations projects	$ 1,443,918
20416	CULVRT	1	OR26: ROCK CREEK (MP 27.85)	Replace culvert	$ 3,600,000
20418	PRESRV	3	OR22: JOSEPH ST. - GOLF CLUB RD.	Design the grinding and inlay of existing surfaces in travel lanes.	$ 665,630
20419	PRESRV	Regionwide	REGION 2 PRESERVATION PROJECT DEVELOPMENT (18-21)	Funding reserve for the development of shelf Preservation projects in region 2. Projects to be selected based on region needs.	$ 1,831,397
20421	BRIDGE	5	US101: BIG CREEK BRIDGE	Replace bridge rail. Repair concrete cracking.	$ 673,500
20422	BRIDGE	1	OR6: WILSON RIVER (MILLS) BRIDGE	Paint structure; remove pack rust; heat straighten portal. Replace rivets and bolts.	$ 2,278,100
20423	BRIDGE	1	OR47: NEHALEM RIVER BRIDGE	Paint structure; remove pack rust; heat straighten portal; replace rivets and bolts.	$ 1,686,200
20424	BRIDGE	1	US30: CLATSKANIE RIVER BRIDGE	Provide scour protection.	$ 500,000
20425	BRIDGE	4	OR99E: WILLAMETTE R (HARRISBURG) BRIDGE	Replace steel bracing; paint bridge.	$ 3,608,600
20426	BRIDGE	3	OR99W: LUCKIAMUTE RIVER BRIDGE	Deck overlay; external post-tensioning, epoxy crack injection and concrete girder repair. Rail retrofit.	$ 1,484,800
20427	BRIDGE	3	OR99W: SB NORTH YAMHILL RIVER BRIDGE	Repairs and paint for the steel elements, repair of concrete spalls. The concrete should be removed and a membrane or thin epoxy overlay installed prior to replacing concrete on the bridge. Rail retrofit.	$ 5,635,200
20428	BRIDGE	4	US20: WILLAMETTE R (ELLSWORTH ST) BRIDGE	Vertical clearance.	$ 5,833,300
20429	BRIDGE	5	I-5 CONN OVER CORP	Rehab deck and rail.	$ 1,635,600
20433	BRIDGE	5	OR126: WILLAMETTE RIVER WB BRIDGE	Paint structure.	$ 7,392,826
20444	BRIDGE	3	OR219: WILLAMETTE RIVER OFLOW BRIDGES	Design shelf ready plans to replace bridges 08157 & 08158.	$ 609,651
20445	BRIDGE	3	OR153: SALT CREEK (ASH SWALE) BRIDGE	Replace bridge.	$ 7,057,400
20446	BRIDGE	5	I-105 OVER FUTURE OR126 BRIDGE	Deck overlay; retrofit bridge rail; replace expansion joints.	$ 2,568,800
20447	BRIDGE	1	OR47: W FORK DAIRY CREEK BRIDGE	Replace the deteriorated timber bridge with new bridge.	$ 2,685,500
20448	BRIDGE	1	US101: TRASK RIVER BRIDGE	Permanent scour repair.	$ 475,360
20469	BRIDGE	3	PALMER CREEK (SE PALMER CREEK ROAD) BRIDGE	Rehabilitate substructure to repair deficiencies to restore the load rating so bridge can be re-opened. (Bridge #11795A) *This project was advanced to the 15-18 STIP per the Oct, 2016 OTC.*	$ 1,186,000
20496	PRESRV	Regionwide	REGION 2 PRESERVATION PROJECTS RESERVE	Region 2 funding reserve to be used on preservation projects. Projects to be selected based on region needs	$ 281,400
20504	PRESRV	5	OR58: GOSHEN-PHEASANT LANE	Grind existing surfacing and inlay the travel lanes. (Single Lift Inlay + Localized ACPR (Asphalt/Concrete Pavement Repair))	$ 3,130,606
20543	BRIDGE	5	OR58: US-97 TO I-5	Bridge replacement, retrofit and rehab for seismic resiliency.	$ 21,065,622

ATTACHMENT 2

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OREGON DEPARTMENT OF TRANSPORTATION

Area 4 Fix-It and Enhance Project Locations for 2018-2021 Draft STIP

Updated December 20, 2016

Fix-it Listings

- Bridge
- Culvert
- Enhancement
- Operations
- Preservation

Please note:
Projects that are Region wide, Area wide, or projects spanning more than one Area are not shown but are listed separately.

- ODOT Area 4
- State Highways
- County Boundary

NE WEST DEVILS LAKE ROAD BRIDGE
KEY NO. 20317

US101: DEPOE BAY BRIDGE
KEY NO. 20110

OR229: SILETZ RIVER (OJALLA) BRIDGE
KEY NO. 20115

OR229: SILETZ RIVER (FULLER) BRIDGE
KEY NO. 20114

US101: LANDSLIDE REPAIR MP 135.6
KEY NO. 20067

US101: NW 25TH ST. - NE 36TH ST. (NEWPORT)
KEY NO. 20235

US20: WILLAMETTE R (ELLSWORTH ST) BRIDGE
KEY NO. 20428

US101: YAQUINA BAY BRIDGE (NEWPORT) PAINTING
KEY NO. 19654

US101: YAQUINA BAY BRIDGE
KEY NO. 20109

CHAPEL DRIVE BIKEWAY IMPROVEMENT (PHILOMATH)
KEY NO. 20234

N. WOLKAU ROAD: NORTH BEAVER CREEK BRIDGE
KEY NO. 20309

OR34: ALSEA RIVER BRIDGE
KEY NO. 20112

RICHARDSON GAP ROAD: THOMAS CRK/SHIMANEK BRIDGE
KEY NO. 20314

OR99W: CORVALLIS STORMWATER SYSTEM
KEY NO. 20071

HUBBARD ROAD: LONG TOM RIVER BRIDGE
KEY NO. 20307

POWERLINE ROAD: MUDDY CREEK BRIDGE
KEY NO. 20311

OR99E: WILLAMETTE R (HARRISBURG) BRIDGE
KEY NO. 20425

FOLSOM ROAD: MILL CREEK BRIDGE
KEY NO. 20306

BERLIN RD: HAMILTON CREEK BRIDGE
KEY NO. 20318

US20: SNOW ZONE SIGN REPLACEMENT
KEY NO. 20081

OR22: ROCKFALL REMIDIATION MP 72 & 81
KEY NO. 20072

OR22: ROCKFALL REMIDIATION MP 72 & 81
KEY NO. 20072

US20: SANTIAM JUNCTION-JACK LAKE RD.
KEY NO. 20126

Lincoln
Benton
Linn

Lincoln City, Depoe Bay, Siletz, Newport, Toledo, Waldport, Yachats, Adair Village, Albany, Millersburg, Scio, Lyons, Mill City, Corvallis, Philomath, Tangent, Lebanon, Sodaville, Waterloo, Brownsville, Halsey, Sweet Home, Monroe, Harrisburg

18, 229, 101, 20, 180, 34, 501, 99W, 5, 226, 22, 126, 228

STIP Mapping 23-58
Produced by ODOT GIS Unit
(503) 986-3154

0 5 10 20 30 Miles

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ATTACHMENT 2

OREGON DEPARTMENT OF TRANSPORTATION

Area 4 Safety Project Locations for 2018-2021 Draft STIP

Updated December 20, 2016

N

US101: URBAN UPGRADE (DEPOE BAY)
KEY NO. 20241

US20: MP 4.60
ROADSIDE IMPROVEMENTS
KEY NO. 20202

US20: GARLAND NURSERY-GRANGER AVE.
KEY NO. 20188

US20: GEARY ST. TO WAVERLY ST. (ALBANY)
KEY NO. 20184

US20: GEARY ST. TO WAVERLY ST. (ALBANY)
KEY NO. 20184

OR99E @ AIRPORT RD. (ALBANY)
KEY NO. 20183

US20 @ KNOX BUTTE/OR226
KEY NO. 20140

US20 @ MERLOY AVE. MP 3.95
KEY NO. 20207

US20: MP 3.95 CORVALLIS
KEY NO. 20243

9TH ST @ SPRUCE ST INTERSECTION
IMPRV (CORVALLIS)
KEY NO. 20173

Lincoln

Linn

Benton

Depoe Bay
Siletz
Newport
Toledo
Lincoln City
Waldport
Yachats
Corvallis
Albany
Adair Village
Millersburg
Scio
Lyons
Mill City
Tangent
Lebanon
Sodaville
Waterloo
Brownsville
Halsey
Sweet Home
Monroe
Harrisburg

18
229
20
180
101
34
501
99W
226
22
126
5

Fix-it Listings

Safety

Please note:
Projects that are Region wide, Area wide, or projects spanning more than one Area are not shown but are listed separately.

ODOT Area 4

State Highways

County Boundary

STIP Mapping 23-58
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0 5 10 20 30 Miles

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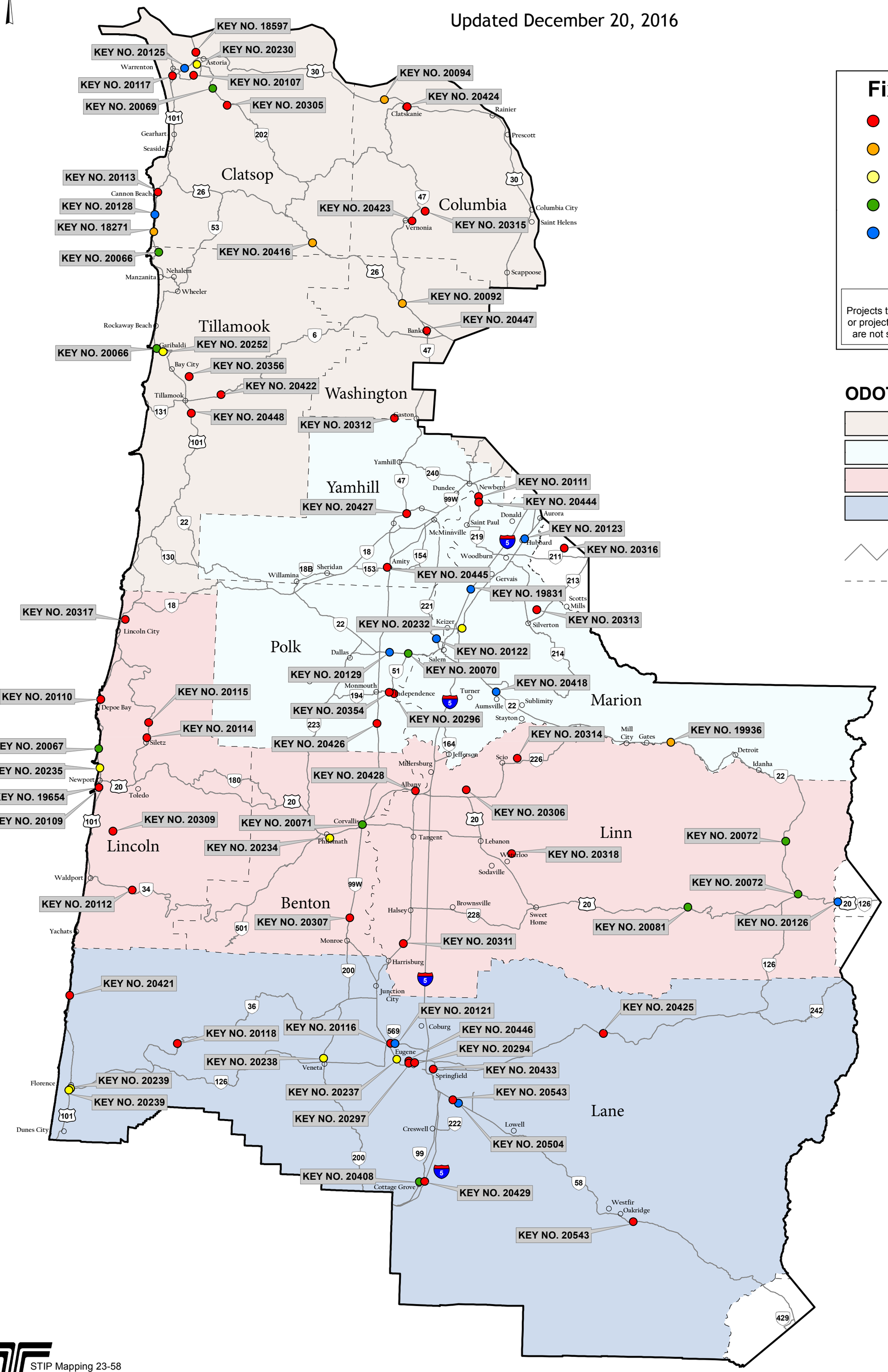
ATTACHMENT 2

OREGON DEPARTMENT OF TRANSPORTATION

Region 2 Fix-It and Enhance Project Locations for 2018-2021 Draft STIP

Updated December 20, 2016



STIP Mapping 23-58
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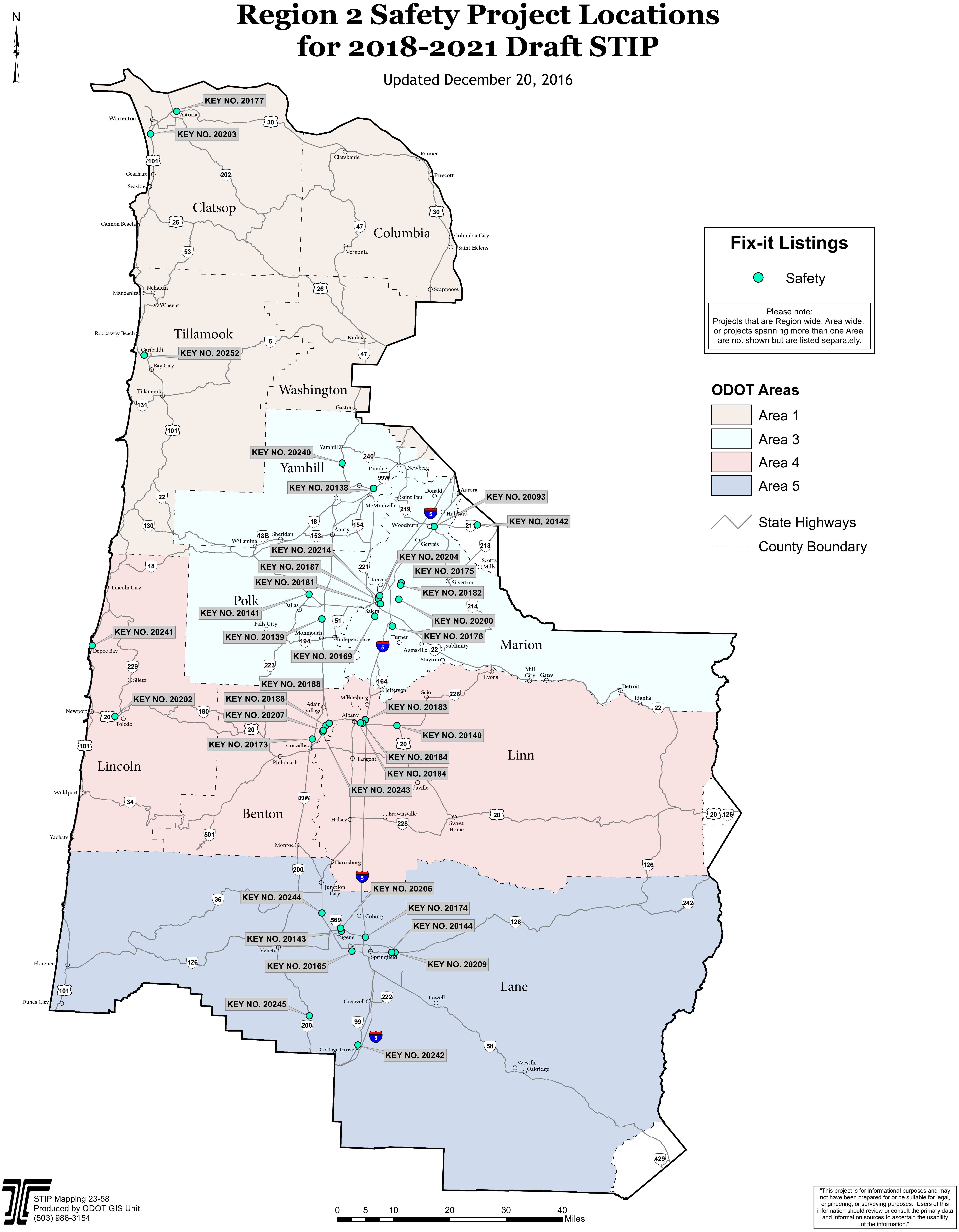
ATTACHMENT 2

OREGON DEPARTMENT OF TRANSPORTATION

Region 2 Safety Project Locations for 2018-2021 Draft STIP

Updated December 20, 2016



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ATTACHMENT 3

DRAFT MINUTES
Cascades West Area Commission on Transportation (CWACT)
Oregon Cascades West Council of Governments, Albany
October 27, 2016 – 5:00 pm

CWACT Members Present:
Annabelle Jaramillo, Benton County
Roger Nyquist, Linn County
Zack Baker, City of Corvallis
Paul Canter, City of Monroe
Ken Lorensen, City of Halsey
Dick Anderson, City of Lincoln City
Janet Steele, Linn County Private Sector
Doug Hunt, Lincoln County
Bill Bain, Lincoln County Private Sector
Frannie Brindle, ODOT Region 2
Robert Gambino, Depoe Bay (via video)
Cody Gray, Lincoln County Private Sector

Alternates Present:
Josh Wheeler, Benton County
Pam Barlow Lind, Confederated Tribes of Siletz
Mary Steckel, City of Corvallis

Ex-Officio:
Ali Bonakdar, CAMPO

Guests:
Erik Havig, ODOT
Cassandra Soucy, ODOT

OCWCOG Staff Present:
Phil Warnock
Tarah Campi
Emma Chavez

1. **Meeting called to order at 5:02 p.m. by the Chair Annabelle Jaramillo.**

   Members and guests introduced themselves.

2. **Minutes from the August 30, 2016 meeting**

   ACTION: By consensus, the August 30, 2016 meeting minutes were accepted as written.

3. **Public Comment**

There were no public comments.

4. Connect OR VI Project Recommendations/Update

ODOT Region 2 Manager reported gave an update on Connect OR VI project recommendations.

Connect OR VI made $45 million available in lottery funds. Of that, 50% was allocated in equal shares to each Region totaling $4.5 million each. After a Statewide Modal Advisory Committee Review in early 2016, the CWACT ranked and recommended their regions list of applications in April. The Connect Oregon Committee held its final review in June and OTC selections were made in July. Region 2 which includes the CWACT area, received 28% of Connect Oregon funds.

CWACT applications that moved on to the OTC ranking were from the City of Newport, City of Corvallis, Port of Toledo, Port of Newport, and City of Harrisburg. Of those five applicants, the following three made it to the OTC funded projects:

- City of Newport – Airport Communications Ground Link
- City of Corvallis – Rehabilitate airport runway and perimeter security fencing
- Port of Toledo – Boatyard Environmental Work Building

5. Distracted Driving/Safety

Cassandra Soucy, ODOT's Distracted Driver Task Force Coordinator presented information on the work of the Task Force.

Soucy advised that the Oregon Transportation Commission has organized a Distracted Driver Task Force to find ways to curb distracted driving. The Task Force is made up of members from AAA, healthcare, law enforcement, courts, the media, and transportation partners. She noted that the Task Force has the following four different sub committees:

- Legislative & Policy
- Education & Communication
- Data & Reporting
- Enforcement.

Soucy went on to provide distracted driving statistics of Oregon noting that distracted driving is anything that takes your eyes off the road, your mind off the road, or your hands off the wheel. Distracted driving cause crasher every 2.5 hours, injuries every 3 hours, almost 5 people each week, and almost 1,500 people a month. In a 2016 survey, 1600 Oregonians provided the following information; 84% feel uncomfortable with a driver who is distracted, 44% admitted to driving distracted with passengers, and 75% admitted to driving distracted alone.

Soucy reported that the Task Force is hoping to determine what data is needed to combat distracted driving and how to increase reporting of distracted driving. They're hoping to develop effective practices, from citations through courts, and increase their use, shirt cultural norms by developing broad community and education efforts, and enable better practices by exploring possible legislation to help reduce distracted driving.

Feedback from CWACT members:

- When law changed to where people could no utilize a cell phone to make and answer calls while driving things became worse because now people are texting while driving and their eyes are completely off the road.
- The culture needs to change and people need to be educated.
- It was questioned whether legislature would enforce more than just holding a cell phone. Member felt that there are worse things a person could be doing than taking a call on a cell phone, such as eating. Answer; yes, legislation will be looking cell phone restrictions as well as other more broad restrictions.
- Members felt that it was important to have values that offset media.
- It would be helpful to see a comparison of distracted drivers between individuals and family drivers.
- Important to emphasize the responsibility of being a driver.

6. Freight Plan & Policy Update

Erik Havig, ODOT's Planning Section Manager gave and update on the Freight Plan and Policy.

Having reported that the FAST Bill does not have dedicated funds towards freight therefore a freight dedicated program was developed. This program requires an adopted Freight Plan and Freight Advisory Committee within the State. Oregon has had both a Freight Plan and Advisory Committee, however its Plan needs to be updated to ensure it meets the new requirements.

Havig noted that the three areas that need to be amended to the current Freight Plan are; the inventory of need, define the freight system, and an investment plan. The Oregon Freight system refers to the multimodal freight system; airports, marine ports, freight railroad, highways, and pipelines.

In 2013, Oregon had over $320.5 billion in value (369.5 million tons) moved. This included motorized vehicles, wood products, cereal grains, electronics, and machinery. The identified inventory of needs have been divided into three efforts; freight delay areas, intermodal connectors, and non-highway modes. Havig reviewed each need in detail.

Next steps include defining the system. The FAST ACT started to define two things; the National Freight Highway Network, and the National Multi-Modal Freight Network. ODOT's process to designate the system includes map segments to criteria in rule, overlay inventory of needs, and work with MPOs and ACTs to align recommendations. The process will need to be tiered/categorized, ODOT will provide a list of potential ready projects, there will be a stakeholder process, and will need to be added to the 2018-2021 STIP.

Timeline:

- Needs completed by February, 2017
- System defined by Spring 2017
- Investment Plan late Summer 2017
- Final Adoption November 2017

7. October Meetings Debrief

The Joint Committee on Transportation Preservation and Modernization luncheon and Public Hearing were held on Monday, October 24th at LBCC. The legislation met with AAMPO, CAMPO and CWCT members during a luncheon and toured the area of Hwy 20, Hwy 34, Millersburg and I5. Local issues were discussed as well as increasing gas tax, car registrations, etc.

8. Super ACT Update

The Super ACT created its 100% project list which includes the following CWACT area projects include:

- Benton county; Chapel Drive Bikeway Improvements
- City of Newport; US 101: NW 25th-NE 36th St. Sidewalk Improvements
- City of Depoe bay; US101 – South of Bridge Streetscape (project to be addressed by leverage funds)

9. Area Manager's Report

Projects underway include:

- US 20 Safety Improvements
- Study underway for US 101 slide. Green infrastructure approach for green repair at Ona Beach and Beverly Beach. DLCD will be involved.

10. Adjournment

Next meeting is scheduled for Thursday, December 8th.

Meeting adjourned at 7:05 pm.

Overview of State and Federal Transportation Funding Opportunities for Local Government

(January 2017)

Enhance & Fix-It Funds - State Transportation Improvement Program (STIP)

The Statewide Transportation Improvement Program is Oregon's four-year transportation capital improvement program. It identifies the funding and scheduling of transportation projects and programs. It includes projects on the federal, state, city, and county transportation systems, multimodal projects (highway, passenger rail, freight, public transit, bicycle and pedestrian), and projects in Indian tribal lands. ODOT works in cooperation with local agency partners in developing the STIP and identifying projects that assist in moving people and goods through the transportation system. The STIP is divided into two broad categories:

- ***Enhance:*** Activities that enhance, expand, or improve the transportation system
- ***Fix-It:*** Activities that fix or preserve the transportation system

The Fix-It project selection is based on management systems that identify needs based on technical information, such as pavement and bridge conditions.

Availability: The STIP cycle is determined by the OTC, based on federal funding availability. Typically, it occurs every 2 years.

State Program Website: http://www.oregon.gov/ODOT/TD/STIP/Pages/about.aspx

Contacts :	**Terry Cole,** Region 2 Enhance Coordinator:	**503-986-2674**	Terry.D.COLE@odot.state.or.us
	Frannie Brindle, Region 2 South Area Manager:	**541.736.9611**	Frances.BRINDLE@odot.state.or.us

Connect Oregon

In 2005, the Oregon Legislature created the Multimodal Transportation Fund to invest in air, marine, rail, and public transit infrastructure. The Fund is part of the *Connect*Oregon program; providing grants and loans to non-highway transportation projects that promote economic development in Oregon. The legislature authorized issuance of $100 million in lottery-backed revenue bonds to fund the program in each of the 2005-07, 2007-09, and 2009-11 biennia and $40 million was authorized in 2011 for 2011-13. *Connect*Oregon projects have resulted in many successes: creating job opportunities, retaining major employers, reduced transportation costs, lowering barriers to economic development and improved safety.

State Program Website: http://www.oregon.gov/ODOT/TD/TP/Pages/connector.aspx

For Future Projects Contact:
Scott Turnoy, Interim Freight Program Manager
Scott.Turnoy@odot.state.or.us
503-986-3703

For Selected Projects of Connect Oregon I thru V
Marie Wright, *Connect*Oregon Program Manager
Marie.A.WRIGHT@odot.state.or.us
503-986-3327

To get updates on the latest *Connect*Oregon information, sign up for: GovDelivery notifications.

The All Roads Transportation Safety (ARTS):

The All Roads Transportation Safety (ARTS) Program addresses safety needs on all public roads in Oregon. Only by working collaboratively with local road jurisdictions (cities, counties, MPO's and tribes) can ODOT expect to increase awareness of safety on all roads, promote best practices, compliment behavioral safety efforts and focus limited resources to reduce fatal and serious injury crashes. The program is data driven to achieve the greatest benefits in crash reduction without regard to jurisdictional boundaries.

State ARTS Program Website: http://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/Pages/ARTS.aspx
Region 2 ARTS Website: http://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/Pages/ARTS_R2.aspx

Region 2 Contact: Angela Kargel, Region 2 Traffic Engineer 503- 986-2656
Angela.J.KARGEL@odot.state.or.us

Overview of State and Federal Transportation Funding Opportunities for Local Government

(January 2017)

Federal Lands Access Program (FLAP):

The Federal Lands Access Program was established in 23 U.S.C. 204 to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands. The Access Program supplements State and local resources for public roads, transit systems, and other transportation facilities, with an emphasis on high-use recreation sites and economic generators. Local match requirement is 10.27%. According to the federal website, the next call for projects will tentatively be December 1, 2018.

Federal Program Website: http://flh.fhwa.dot.gov/programs/flap/

Contact: George Fekaris, Transportation System Planner
Federal Highway Administration - Western Federal Lands Highway Division
610 East Fifth Street, Vancouver, WA 98661-3893 360-619-7766
George.Fekaris@dot.gov

Federal TIGER Grants:

The highly competitive TIGER grant program supports innovative projects, including multi-modal and multi-jurisdictional projects, which are difficult to fund through traditional federal programs. These federal funds leverage money from private sector partners, states, local governments, metropolitan planning organizations, ports, and transit agencies. Applicants must detail benefits the project would deliver for long-term outcomes - including economic significance and the ability to facilitate innovation and new partnerships. Typically only one project per year is awarded in Oregon. The most recent round of Tiger grants began in April 2016.

Federal Program Website: http://ops.fhwa.dot.gov/freight/infrastructure/tiger/index.htm

Summary of 2016 Awarded Projects: https://www.transportation.gov/sites/dot.gov/files/docs/TIGER%20Fact%20Sheets%20-%207-28.pdf

For a useful overview of more local strategies for transportation funding – see the following link:
http://transnet.odot.state.or.us/cs/ODOTHR/Shared%20Documents/compliancefd.pdf

Funding for Transportation Planning

Transportation Growth Management (TGM):

TGM Grants help local communities plan for streets and land uses that support livable, economically vital, and sustainable communities and increase opportunities for transit, walking and bicycling. Some examples of recent TGM projects:

Availability: Annual Application process. Grants range from $75,000-$300,000 - typically suitable for small or midsized community planning efforts. Pre-Application process will begin in early 2017 and deadline will be Mid-June.

State Program Website: http://www.oregon.gov/lcd/tgm/pages/grants.aspx

Region Contact: Naomi Zwerdling at 503-986-2836 or Naomi.ZWERDLING@odot.state.or.us
Agency Contact: Cindy Lesmeister at 503-986-4349 or Cindy.L.LESMEISTER@odot.state.or.us

State Planning Research (SPR) Funds:

Updating City & County Transportation System Plans (TSPs) is a Region 2 Planning priority. Each TSP identifies and supports transportation investments based on realistic fiscal assumptions for the next 20 years. Recent examples include:

City of Corvallis TSP and Transit Development Plan: http://corvallistsp.org/
City of Lebanon TSP: http://lebanontsp.org/
City of Philomath TSP: http://philomathtsp.org/

Availability: Ongoing, subject to federal funding availability. The funding amounts vary, according to local needs, and may be suitable to larger city and county jurisdictions than those planning projects typically funded by TGM.

Contacts: Valerie Grigg Devis, Senior Transportation Planner: 541-757-4197 Valerie.GRIGGDEVIS@odot.state.or.us
Terry Cole, Region 2 SPR Coordinator at 503-986-2674 or Terry.D.COLE@odot.state.or.us

A Strategic Investment in Transportation

Oregon Transportation Commission

December 2016

EXECUTIVE SUMMARY

Today's funding levels are inadequate to preserve transportation infrastructure and services at current levels.

A strong multimodal transportation system is fundamental to many of the things Oregonians value: a vibrant economy with good jobs, a clean environment, safe and livable communities, and healthy people. A highly functional multimodal transportation system helps workers get to their jobs, moves goods to market, shoppers to stores, people to their family and friends, and allows Oregonians and visitors alike to enjoy the state's scenic and recreational opportunities.

However, limited funding is causing significant challenges across the entire multimodal transportation system. Potholes and weight-restricted bridges are becoming increasingly commonplace as our infrastructure ages. A Cascadia Subduction Zone earthquake threatens to devastate our transportation system and impede response and recovery. Freeways and buses strain to meet demand with available capacity. Gaps in our walkways and bikeways make connections to public transportation difficult and leave kids disconnected from schools. Today's funding levels are inadequate to preserve transportation infrastructure and services at current levels. Over time the decline of the system will have significant consequences for Oregonians, limiting our ability to get around safely and efficiently, and impacting our economy and quality of life.

Investment Scenarios

This *Strategic Investment in Transportation* document was prepared by the Oregon Transportation Commission to highlight needs across the transportation system and present a menu of options for strategic investment in Oregon to protect our existing highway assets and investments, make our system more seismically resilient and safer overall, mitigate congestion, and provide public transportation as well as transportation options for the movement of freight and people. The consequences of different levels of investment are described for today's spending (status quo), a moderate increase in investment (Investment Scenario I), and the full need (Investment Scenario II). The narrative describes all scenarios, with more focus on priorities and strategies for spending with a moderate increase in investment. Information presented here is intended to represent a menu of options for addressing today's transportation issues. Strategies are designed to maximize transportation efficiencies, including multimodal mobility and access improvements that would benefit all users of the system, improving equity and benefiting the economy. Strategies would also result in co-benefits such as better health and a cleaner environment.

Preserve and Maintain Existing Highways

Because three quarters of all trips are made by car, maintaining our roadway infrastructure is essential. Current resources are inadequate to preserve Oregon's multi-billion dollar investment in its highway system, leading to system decay that will impact mobility and the economy. Targeted investments focused on high priority corridors would keep our bridges, pavements, and culverts in a state of good repair and keep pace with maintenance needs such as clearing crashes and removing snow. While the total need for these assets is double existing resources, this document lays

out an investment option ($275 million) that could help keep our highways from deteriorating further and replace deteriorating infrastructure to avoid more costly repairs later.

Seismic Resiliency and Safety
Making infrastructure resilient to a major earthquake would require $5 billion total to shore up bridges and help protect against landslides. A moderate investment scenario of $20 million per year, combined with investments in replacing aging bridges, could address landslide concerns on priority routes, pre-position maintenance supplies, and ensure accessibility in key areas.

For safety, Oregon has a goal of zero transportation-related fatalities or serious injuries by 2035. Aggressive actions covering engineering, education, enforcement, emergency response, and evaluation are needed. Doubling investment in the data-driven All Roads Traffic Safety program would focus additional resources on the most cost-effective projects to reduce fatalities and serious injuries across modes on the state and local system. For many, safety issues are a barrier to using certain modes, where the lack of a sidewalk means a child is driven to school instead of allowed to walk. Investments across modes are needed to ensure all users can get where they need to go without fear of serious injury or worse.

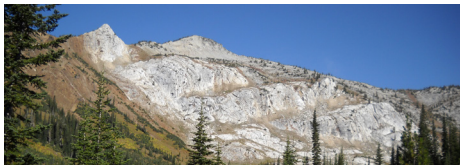
Congestion Relief
Congestion is a serious and growing problem, particularly in urban areas of the state like Portland. Congestion in Portland also impacts the flow of goods throughout the state, threatening Oregon's trade-dependent economy. Addressing congestion and enhancing mobility to keep freight and people moving is a key system investment, but it will cost several billion dollars. An additional $100 million per year could help improve mobility by targeting resources to bottlenecks on high priority corridors and in urban areas and in technology that helps keep traffic flowing. Other investment is needed in transportation options (public transportation, biking and walking) and multimodal freight projects to spread demand across modes.

Public Transportation and Transportation Options
Oregonians need travel choices beyond driving. Driving is too costly for many families and is not an option for those who are too young or are mobility challenged or cannot drive. For these people, biking, walking, or using public transportation are necessary modes of travel, not discretionary options. Many parts of our state are disconnected or under-served by transportation and lack options other than driving. Low-cost travel options like public transportation, biking, and walking should be made equally available to all Oregonians to remove the significant barrier of access to a safe, reliable multimodal transportation system.

While needs for public transportation services, bikeways and walkways total several billion dollars, $26 million per year for biking and walking could be focused on ensuring access to transit and creating safe routes to school. Modest enhancements to public transportation funding by just over $100 million can help connect communities, enhance services in urban areas, serve our growing senior population, and provide much needed support to our smallest transit providers. Public transportation, biking and walking not only improve Oregonians' access to the transportation system but have positive impacts on public health and the environment. Oregon's *Statewide Transportation Strategy: A 2050 Vision for Greenhouse Gas Emission Reduction* found that reducing transportation-related emissions in the state requires a multifaceted approach, including investments across modes. Investing in public transportation is one of the most impactful ways to reduce emissions.

Investing in public transportation is one of the most impactful ways to reduce emissions.

INVESTMENT STRATEGY TIMELINE



	SHORT TERM (0-10 YEARS)	MEDIUM TERM (10-20 YEARS)	LONG TERM (20 + YEARS)
Bridges	Undertake a major bridge repair and replacement program on priority corridors		Use debt repayment dividend from OTIA and JTA to increase bridge investment
Seismic	Complete Seismic Plus Phase I bridge component		Complete all phases of Seismic Plus bridge work
	Address Southern Oregon Lifeline Routes, local lifelines on state highways, and ready coastal maintenance stations	Complete Seismic Plus work on landslides	
Safety	Make data-driven investments in reducing crashes on state and local roads, working to achieve zero fatalities or serious injuries by 2035		
Congestion	Integrate investments across all modes to relieve congestion		
	Focus on bottlenecks on priority corridors and urban areas	Build additional projects by leveraging federal funding opportunities and other funding sources	
	Develop additional projects to build with future funding		
Pavements	Look for opportunities for jurisdictional transfer		
	Hold current pavement condition on priority corridors		
	Address ADA accessibility issues on walkways		
Culverts	Address culverts in poor condition on priority routes		
Maintenance	Increase winter maintenance in priority corridors		
	Clear incidents/crashes faster		

INVESTMENT STRATEGY TIMELINE

	SHORT TERM (0-10 YEARS)	MEDIUM TERM (10-20 YEARS)	LONG TERM (20 + YEARS)
Biking and Walking	Complete gaps 1/4 mile around schools and transit	Complete gaps in larger radius around schools and transit	Start to complete other critical connections to downtowns, shopping, major employers, etc.
	Reach all elementary schools with Safe Routes to School (SR2S) education and outreach		Expand SR2S to middle and high schools
Multimodal Freight	Continue *Connect*Oregon investments in rail, air, and marine modes with focus on multimodal investments like transload facilities		
Public Transportation	Develop new intercity routes	Sustain intercity routes	
	Provide more frequent service and better connections in urban areas		Try to keep pace with rising operation costs
	Meet growing demand for service for seniors and individuals with disabilities		
	Keep vehicle fleet in a state of good repair		
	Provide pooled resources for small providers		
	Pursue technological innovations to support efficiencies		

Highway

For highways, Investment Scenario I focuses roadway funding on priority corridors to limit impacts to these routes. Some enhancements to the system will be evident through improved safety and reduced congestion. With the exception of safety, the information presented on highway needs is for the state highway system; local governments have significant needs as well.

	STATUS QUO	INVESTMENT SCENARIO I	INVESTMENT SCENARIO II
	Today's annual investment level	*Moderate additional annual increase in investment*	*Additional annual increase in investment to meet total need*
PAVEMENTS	**$85 MILLION**	**$100 MILLION ($185 M TOTAL)**	**$115 MILLION ($200 M TOTAL)**
	Thirteen percent of highways are in poor or worse condition today, which will rise to 35 percent by 2035. Deteriorating pavement will increase road maintenance costs, degrade safety, and cause rougher roads that increase vehicle repair costs by 20 percent.	Keep pavement condition on priority corridors from degrading through repaving and resurfacing: Save millions of dollars in pavement maintenance and rehabilitation costs. Reduce transportation costs for households due to wear and tear on vehicles associated with rough roads. Improve the ability of trucks to maintain speed because of smoother roads on Oregon's major freight routes. Fill sidewalk gaps and build ADA accessible curb ramps for walkways touching repaving projects to improve access of all users, including people with disabilities.	Improve pavement condition to meet state performance targets for pavement in fair or better condition across all highways. Rehabilitate lower volume and urban highways that are in poor or very poor condition. Save millions of dollars in maintenance and rehabilitation costs.

BRIDGES

STATUS QUO

Today's annual investment level

$85 MILLION

By 2035, 65 percent of Oregon's state highway bridges will be in distressed condition.

At today's current investment levels, it will take 900 years for ODOT to replace all of its bridges.

INVESTMENT SCENARIO I

Moderate additional annual increase in investment

$100 MILLION ($185 M TOTAL)

Replace and address structurally deficient bridges to prevent weight restricting bridges on key freight routes, which will save billions in economic production.

Complete Phase I of the bridge component of ODOT's Seismic Plus Plan, replacing and retrofitting bridges to be resilient to a Cascadia Subduction Zone Earthquake:

> Ensure critical transportation lifeline routes (I-5 from Portland to Eugene, I-84 to U.S. 97, down the length of U.S. 97, and connecting U.S. 97 and I-5 at Eugene) can remain operational after an earthquake. Provide access to Oregon's FEMA Incident Supply Base in Redmond, critical to getting needed supplies to other parts of the state. Help emergency vehicles to respond; and facilitate quicker economic recovery by ensuring goods and services can be brought into and across the state.

INVESTMENT SCENARIO II

Additional annual increase in investment to meet total need

$350 MILLION ($435 M TOTAL)

Address the backlog of deferred work and the Interstate Era bridges due for replacement over the next 25 years.

	STATUS QUO	INVESTMENT SCENARIO I	INVESTMENT SCENARIO II
	Today's annual investment level	*Moderate additional annual increase in investment*	*Additional annual increase in investment to meet total need*
CULVERTS	**$15 MILLION** Thirty percent of culverts today are in poor or critical condition. Storms cause culverts to fail, closing highways, blocking truck traffic, and isolating communities.	**$35 MILLION ($50 M TOTAL)** Address culverts on priority routes to prevent collapse of roadways from culvert failure and facilitate fish passage.	**$80 MILLION ($95 M TOTAL)** Keep culverts on highways to 85 percent fair or better condition. Avoid highway closures from culvert failure.
SEISMIC	**$35 MILLION ONE-TIME INFUSION** Bridges across western Oregon that have not been replaced or retrofitted would fail and landslides would block highways.	**$20 MILLION** Address the most critical landslides on priority routes. Implement the southern Oregon Triage to provide minimal passable routes into and out of the region. Position maintenance supplies at strategic, safe coastal locations to ensure supplies needed to reopen roads are available quickly. Address key state highway bridges on local lifeline routes, helping to aid emergency response services in getting through.	**$250 MILLION** Execute all phases of work identified in the Seismic Plus Report, completing the backbone system of Lifeline Routes within 20 years (at cost of $5 billion total) in order to recover Lifeline Routes quickly, facilitating emergency response and economic recovery.

MAINTENANCE

STATUS QUO

Today's annual investment level

$200 MILLION

There is a backlog of signals, guardrails, sign repair and other overall maintenance needs, particularly outside of priority corridors.

Lack of staff coverage for major storm events to help keep routes passable.

INVESTMENT SCENARIO I

Moderate additional annual increase in investment

$50 MILLION ($250 M TOTAL)

Offset increasing maintenance costs, preventing loss in the buying power of existing funds.

Increase winter maintenance staff, materials, and equipment in typical heavy winter storm areas:

> Keeps mountain passes at Mt Hood, U.S. 97, and I-84 in eastern Oregon open more, allowing trucks and people to get where they need to go. Reduces crashes due to inclement weather. Provides 24/7 winter storm coverage on I-84 in eastern Oregon.

Expand dedicated Incident Responders in high traffic areas to reduce traffic congestion and intermittent delay in Portland, Bend, and Medford, and improve safety by helping to prevent secondary crashes.

INVESTMENT SCENARIO II

Continual investment as the system ages, addressing issues early to prevent more costly fixes to the system, and keep pace with rising maintenance costs.

CONGESTION / MOBILITY

STATUS QUO

Today's annual investment level

$42 MILLION

Oregon's transportation system causes an estimated 36.9 million annual hours in delay, resulting in a loss of $928 million in annual economic output/sales.

INVESTMENT SCENARIO I

Moderate additional annual increase in investment

$100 MILLION ($142 M TOTAL)

Focusing on priority corridors, bottlenecks, and the Portland Metro region, implement ITS strategies, add auxiliary lanes and truck climbing lanes, and address safety and roadway geometry issues:

Boost economic output by millions of dollars.

Enhance travel time reliability and reduce delay for trucks, helping shippers have more predictable times to get goods to market and spend less money paying truck drivers to sit in traffic.

Help workers get to jobs on time.

Reduce starting and stopping, which means fewer rear-end crashes and reduced greenhouse gas emissions.

	STATUS QUO	INVESTMENT SCENARIO I	INVESTMENT SCENARIO II
	Today's annual investment level	*Moderate additional annual increase in investment*	
SAFETY	**$35 MILLION**	**$35 MILLION ($70 M TOTAL)**	
	Only a limited number of the most severe safety issues can be addressed each year.	Enhance the All Roads Transportation Safety (ARTS) program, addressing the most severe safety issues across modes on all roadways (state and local) focusing on projects with the highest return on investment and on roadway departure crashes: Reduces total fatalities and serious injuries, bringing total number of these crashes closer to zero. By avoiding crashes, saves Oregon households the cost of medical bills, property damage, lost work productivity, and other impacts.	Continue investments until we meet the goal of zero fatalities and serious injuries.

Biking and Walking

For biking and walking, Investment Scenario I focuses on safe routes to school for Oregon's children through a combination of infrastructure investments around schools and programmatic investments in education. Gaps will still remain in the biking and walking system, but critical connections to school and public transportation will be made.

	STATUS QUO	INVESTMENT SCENARIO I	INVESTMENT SCENARIO II
	Today's annual investment level	*Moderate additional annual increase in investment*	*Additional annual increase in investment to meet total need*
BIKEWAYS AND WALKWAYS ON ROADWAYS 	**$20 MILLION STATE** **$20 MILLION LOCAL**	**$20 MILLION STATE/LOCAL** **($60 M TOTAL)**	**$105 MILLION STATE/LOCAL** **($145 M TOTAL)**
	Thirty percent of urban roadways lack sidewalks and bike lanes. Many kids do not have safe biking or walking routes to get to school, such as sidewalks, bike lanes, marked crossings, signs and signals. It will take over 50 years to fill gaps and complete the biking and walking system.	Fill bikeway and walkway gaps around schools and transit stops on the state and local system, completing the biking and walking system within ¼ mile of schools and transit stops in the first 10 years: Provides children with safe routes to school, focusing on Title I schools to ensuring kids who cannot afford other means of travel can get to school. Reduces peak hour school traffic by making it feasible and safe for kids to walk to school. Increases access to public transportation, enhancing Oregonians modal options, and providing alternatives to driving.	Complete critical connections beyond schools and transit, including to downtowns, shopping, businesses, and medical services. Complete the entire biking and walking system within 20 years. Bring about a safe and comfortable system.

	STATUS QUO	INVESTMENT SCENARIO I	INVESTMENT SCENARIO II
	Today's annual investment level	*Moderate additional annual increase in investment*	
OUTREACH AND EDUCATION	**$500,000 STATE** Less than 5 percent of students get traffic safety education.	**$6 MILLION ($6.5 M TOTAL)** Enhance the Safe Routes to School program, providing traffic safety education to all graduating elementary school students: Protects children through proper training on safely using the transportation system. Increases the comfort level of kids biking or walking, impacting travel choices today and into the future.	Expand the Safe Routes to School program to middle schools and high schools to influence travel choices during formative years and foster safe behavior.

Multimodal Freight

Within this document, multimodal freight refers to non-highway modes including rail, marine and air, consistent with the ConnectOregon funding program. The shipment of goods by truck is covered in the Highway section, under Congestion/Mobility. ConnectOregon is a lottery-backed bond program that has been used to fund improvements in Oregon's freight network over the last decade. Investment Scenario I would restore ConnectOregon funding to original levels of $100 million per biennium.

	STATUS QUO	INVESTMENT SCENARIO I	INVESTMENT SCENARIO II
	Today's annual investment level	*Moderate additional annual increase in investment*	*Additional annual increase in investment to meet total need*
***CONNECT* OREGON**	**$21 MILLION (ANNUAL AVERAGE OF *CONNECT*OREGON 4-6)**	**$29 MILLION ($50 M TOTAL)**	**$129 MILLION ($150 M TOTAL)**
	*Connect*Oregon has funded freight projects that help get Oregon goods to market. Requests for projects outpace available funding 2:1, showing significant unmet need.	Restore *Connect*Oregon to historic funding levels, helping to fund projects such as: Improvements to shortline rail track, bridges, and tunnels, which would allow heavier and taller trains to be used and increase the speed of the rail system. Transload facilities that allow bulk goods and containers to be transferred between modes, like truck to rail. Other projects that improve freight transportation system reliability, efficiency, mobility, access to markets and connections between modes that provide lasting economic benefit to Oregon.	Match funding levels with demand for program dollars: Improves non-highway freight modes, making shipping by rail, air, or marine more viable, taking trucks off the roadway and helping to reduce congestion.

Public Transportation

The public transportation system is primarily operated by local providers, with limited statewide intercity service and state funding for elderly and disabled. Federal and local sources fund the vast majority of today's investments, but fall far short of total need. Merely maintaining today's service levels through 2035 would take an additional $380 million per year given population increases. Total need (Scenario II), far exceeds that at over a billion dollars. Investment Scenario I is based on the need reported by the Governor's Transportation Vision Panel. At $108 million total, it is only one third of the base level need for public transportation, but should nonetheless help to sustain and improve key services in the near term, focused on intercity service, urban transit, elderly and disabled, vehicle repair, and support for small providers.

STATUS QUO

Today's annual investment level

$756 MILLION
TOTAL FOR PUBLIC TRANSIT

Over 150 public transportation providers offer service using local, federal, and state funds, making it difficult to split out funds by category.

Regional & Intercity Service
Public transportation providers lack the resources or authority to make connections to neighboring communities.

Urban Transit
Weekend and night service has been cut in many areas.

Elderly and Disabled
Paratransit and dial-a-ride services often cannot keep up with demand; a Portland area provider reported turning down 35,000 rides in 2015.

Vehicle Replacement
Many buses are past their replacement age, increasing maintenance costs and impacting rider comfort.

Pooled Resources
Many small transit agencies lack staff capacity.

INVESTMENT SCENARIO I

Moderate additional annual increase in investment

$108 MILLION

Regional & Intercity Service ($40 M)
Provide new intercity service linking people to jobs, health care and services.

Sustain passenger rail in the I-5 corridor, providing alternatives to congested highways in the Willamette Valley.

Enhance existing intercity service, adding morning and evening service for connections like La Grande to Pendleton.

Urban Transit ($40 M)
Enhance service for existing routes, increasing frequency and service hours, and making access to jobs, shopping, and essential services easier.

Elderly and Disabled ($15 M)
Expand demand-response services across the state, improving access to critical medical and human services.

Vehicle Replacement ($5 M)
Replace buses, bringing up the transit fleet to a state of good repair.

Pooled Resources ($8 M)
Create statewide pooled resources to support small local providers who lack capacity or expertise to make their services more effective and efficient.

Pursue technology to save providers money, or provide benefits to riders.

INVESTMENT SCENARIO II

Additional annual increase in investment to meet total need

$1.2 BILLION ($2 B TOTAL)

Implement the Statewide Transportation Strategy and Portland Metro's Climate Smart Scenarios transit service level increases needed to help achieve Oregon GHG reduction goals.

Bring service up to higher levels in both urban and rural areas.

A Strategic Investment in Transportation

Oregon Transportation Commission

December 2016

TABLE OF CONTENTS

Several key issues for Oregon's transportation system have been identified in statewide transportation plans and confirmed through recent efforts by the Governor's Transportation Vision Panel and the Legislature's Joint Interim Committee on Transportation Preservation and Modernization, including the inability to preserve and maintain existing highways, seismic resiliency and safety, severe congestion and underfunded public transportation and the need for transportation options.

Existing funding levels have proved insufficient to address these issues, impacting Oregon's economy and quality of life. Structurally deficient bridges can restrict freight movement. Oregon's rough roads are estimated to cost drivers statewide hundreds of millions more in vehicle operating costs than smooth roads.[1] Infrastructure remains vulnerable to a Cascadia Subduction Zone earthquake, threatening bridge stability and posing landslide hazards. In addition, bottlenecks in Portland not only inhibit traffic in the metro area but affect the rest of the state, which relies on the shipment of goods to or through Portland. Beyond the highway system, underfunded public transportation affects people's ability to get to jobs or reach medical and other critical services, especially for those who cannot drive. Also, gaps in the biking and walking system impact the ability of people to make connections between modes, access jobs and businesses, and get children safely to school.

This document lays out the funding needed (in 2016 dollars) to start to address these issues and a strategic approach for investing to maximize beneficial outcomes. Three investment scenarios are presented including the status quo, a moderate increase in investment, and the total need. The narrative focuses on priorities and strategies for a moderate increase in investment. Priorities and strategies presented in this document are longstanding principles identified in the Oregon Transportation Plan and subsequent mode and topic plans. They were developed recognizing the need to balance multiple goals and maximize beneficial outcomes Oregonians care about such as a thriving economy, improved mobility and accessibility, enhanced safety, better health, and a cleaner environment. All of the plans have been developed and adopted using a public process with extensive public and stakeholder engagement, assuring statewide support and buy-in for policies and priorities.

ODOT's statewide transportation plans strategically focus on preserving the existing system first, ensuring that infrastructure continues to function into the future. The next priority is incremental improvements to the existing system, including adding auxiliary lanes, connecting streets, and addressing gaps in sidewalks and bike lanes, with larger capacity improvements favored last. These principles and ODOT's overall approach are further articulated in this document.

Existing funding levels have proved insufficient to address key transportation issues, impacting Oregon's economy and quality of life.

PRESERVATION AND MAINTENANCE

Maintaining Oregon's roads, bridges, and assets to a state of good repair.

SEISMIC RESILIENCY & SAFETY

Preparing roadway infrastructure for a Cascadia Subduction Zone earthquake and making the multimodal transportation system safe.

SEVERE CONGESTION

Addressing bottlenecks for people and freight movement.

TRANSPORTATION OPTIONS

Meeting transit mobility needs and closing gaps in the biking and walking system.

INVESTMENT AREAS

Oregon's transportation system is a network of interconnected and interdependent modes. Although the system is multimodal, the following discussion will show needs, priorities, strategies, and outcomes by individual mode, which generally align with allowable uses of certain funding streams.

Highways

Oregon's highways carry people and goods across and through the state. Today, crashes, severe congestion, deteriorating roads, weight restricted bridges, failing culverts, and reduced winter maintenance cost the state millions in delay and other impacts. Looking ahead, these conditions are likely to worsen as Oregon's population increases and the system ages. Meanwhile construction costs continue to rise, reducing the buying power of the resources we have today. We also must prepare for natural disasters that threaten the system including landslides and impacts from an earthquake. It is critical to ensure our transportation system is safe. ODOT has recently adopted the goal of zero deaths, requiring continuing and increased commitment to making safety improvements.

To fully address all these issues would require nearly three times current funding levels, plus an additional $5 billion for seismic resilience. Since such an increase is highly unlikely, the Oregon Transportation Commission and ODOT have estimated a more feasible need with associated strategic approaches to investment in the following areas:

- Maintenance and preservation.
- Safety.
- Mobility and congestion management.

With limited resources, investment will be focused on statewide priority corridors that form the backbone of the state highway system. The location of the routes is shown on the map on the following page. The routes include lifeline and freight routes, such as U.S. 97, U.S. 26, Interstate 5, and Interstate 84, as well as select

high-volume locations and corridors that connect communities across the state. Investing in priority corridors will result in increased mobility, improved safety, and better reliability across the entire system for both people and goods. In contrast, spreading investment across all highways would result in spot improvements with little impact to the overall system and an inability to ensure that bridges on freight and economic routes do not become weight restricted, for example. The investments discussed here cover the need on state highways, with the exception of safety, which could include both state and local roads. Local governments have significant additional road needs and under the traditional allocation of the State Highway Fund would receive half of new revenues to work to address those needs.

Maintenance and Preservation

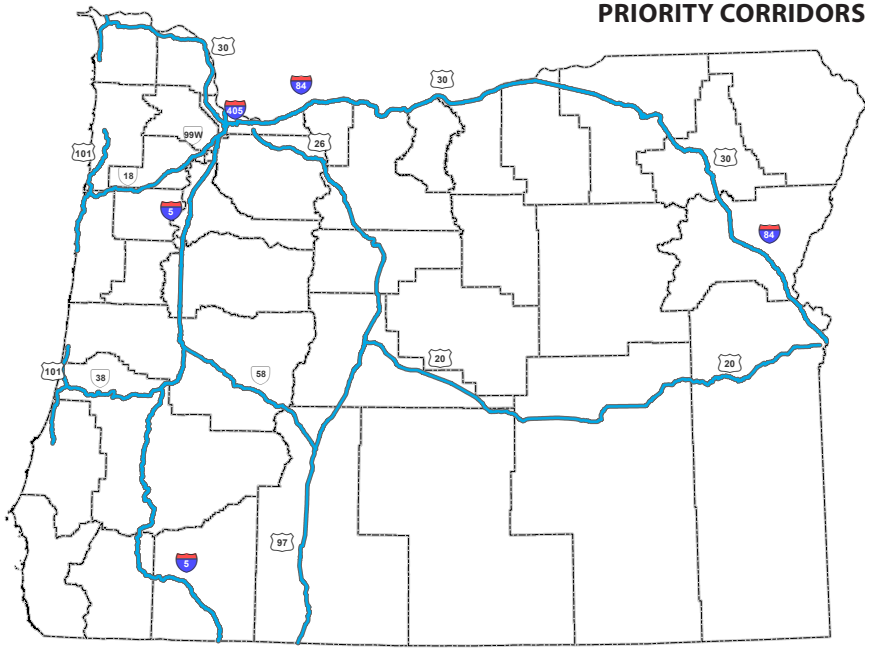
Oregon's roads and bridges are not one time investments, but rather a lifetime commitment to invest in those assets to preserve and maintain them so they remain functional. ODOT's Major Improvement Policy - Policy 1G.1 - of the Oregon Highway Plan established the priority of maintenance and preservation nearly 20 years ago and has been the foundation for investments made in the Statewide Transportation Improvement Program. The "Fix-It" program aligns with the top investment criterion of protecting the existing system. This includes maintaining pavements, bridges, and culverts, as well as ensuring the functionality of Lifeline Routes (Oregon Highway Plan, Policy 1E) to facilitate emergency service response and support rapid economic recovery after a disaster, such as a seismic event.

Pavements

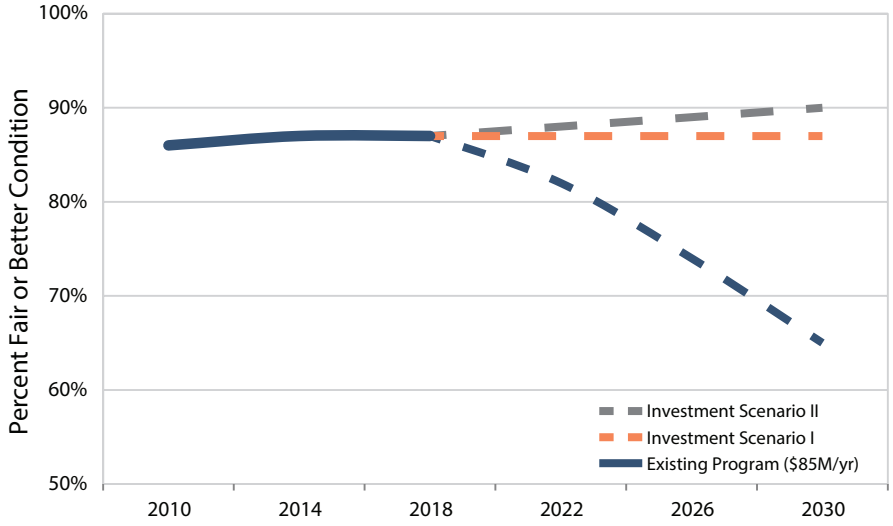
Failure to keep roads in a state of good repair has exponentially greater costs than maintaining the system properly over time. The typical cost to reconstruct a single lane mile in very poor condition can be as much as $1.5 million, while earlier intervention with preservation techniques is around $200,000 for the same lane mile. Timely maintenance and preservation are by far the most efficient way to preserve our investment. Under current funding levels of $85 million per year, ODOT estimates that by 2035 the proportion of roads in poor or worse condition will triple to 35 percent of all highways, resulting in diminished safety and higher vehicle repair costs. In order to begin to improve poor pavements, ODOT would need to spend a total of $200 million per year—a $115 million increase.

An additional investment of **$100 million per year** over the next 20 years would maintain pavement condition at 85 percent fair or better on priority corridors. This money would be focused on continued investment on priority corridors, with the ability to address some needs on lower volume and urban highways, which are often critical roads for our local communities. Consideration could be given to jurisdictional transfer for those roadways that serve a local purpose. In addition to improving pavement condition, this money would help address mobility and accessibility needs for people who use walkways, as sidewalks abutting repaving projects would be addressed to ensure compliance with the Americans with Disabilities Act (ADA).

PRIORITY CORRIDORS

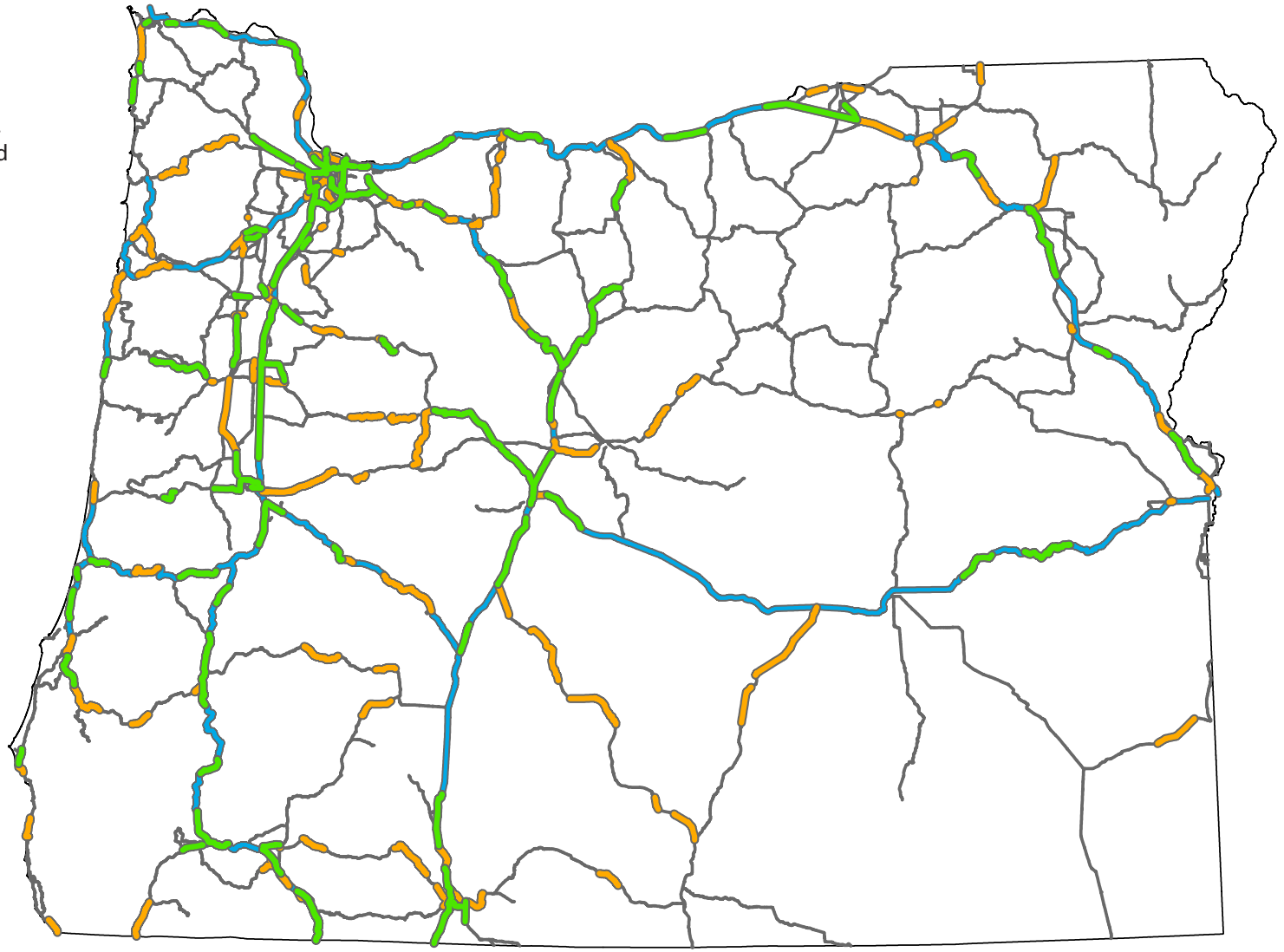


PROJECTED PAVEMENT CONDITIONS



10 YEAR PAVEMENT INVESTMENTS

For illustrative purposes, based on $100 million in additional pavement funding. Actual projects selected would be based on updated pavement condition data.



Bridges

Despite significant investments made possible by the Oregon Transportation Investment Act (OTIA) program, about half of the 2,700 bridges on Oregon's state highways are at the end of their design life and will need to be replaced to ensure the continued use of the highway system. With current funding levels of $85 million per year, it would take 900 years to replace all of the bridges. By 2035, it is estimated that two in three bridges will be in poor condition and at risk of being weight restricted, forcing heavy trucks to detour and increasing the cost of moving the products of Oregon's farms, forests, and factories to market. ODOT's statewide transportation model estimates this will cost Oregon 100,000 jobs and $94 billion in economic production by 2035.[2] Fully addressing the backlog of unmet bridge maintenance, preservation, and replacement needs would cost $435 million a year for the next 20 years on bridge repair and replacement—an increase of $350 million over current funding levels for bridges.

An additional investment of **$100 million per year** for the next two decades targeted in priority corridors would allow ODOT to address bridge needs in these critical corridors, ensuring important freight routes remain open to economic activity. This level of investment would preserve current conditions on priority corridors, though bridges on other corridors would continue to deteriorate. This additional funding would allow ODOT to complete Phase 1 of the bridge component of ODOT's Seismic Plus Plan over the next 20 years by replacing and retrofitting bridges along key parts of I-5 and U.S. 97 and select connections between to make them resilient to a Cascadia Subduction Zone earthquake. In the long term, the revenue made available after ODOT pays off OTIA and Jobs and Transportation Act (JTA) bonds, beginning in 2035, can be reinvested in bridges to return them to a state of good repair and complete the remaining phases of the seismic program.

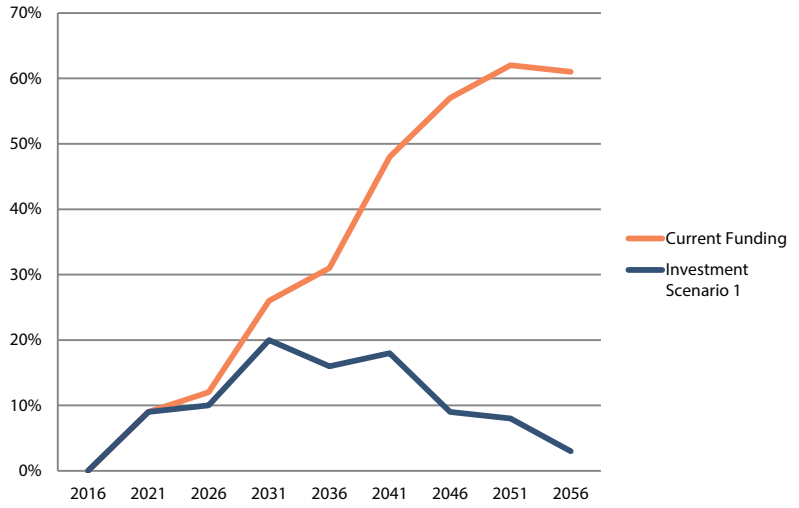
Culverts

Some 35,000 culverts carry water under Oregon's highways, supporting drainage and stream flow. Nearly one in three of these culverts are in poor condition and are vulnerable to failure, which can close highways, impede truck traffic, isolate communities, and block fish passage. An additional investment of **$35 million per year** would address 5,000-10,000 culverts over the next 20 years, focusing on priority corridors first. In areas of fish habitat, ODOT and the Oregon Department of Fish and Wildlife would work to extend a pilot program that saves the department 50-90 percent of typical culvert replacement costs while improving fish passage and habitat.

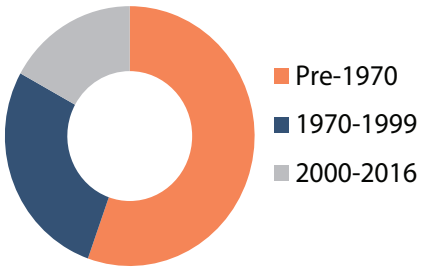
Seismic

Seismic resilience is paramount for a state that must have a functioning transportation system to recover after a Cascadia Subduction Zone earthquake. Because most bridges were built decades before modern seismic standards, many bridges in western Oregon would collapse or be unusable, and landslides would block highways. Roads would be closed for weeks to months, isolating communities, making disaster response difficult, and hindering the state's long-term economic recovery. An addi-

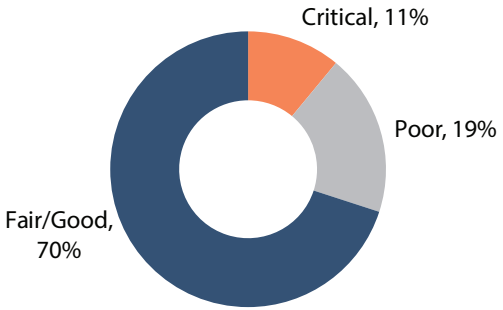
PERCENT OF BRIDGES IN POOR CONDITIONS ON FIX-IT PRIORITY CORRIDORS



AGE OF OREGON'S BRIDGES

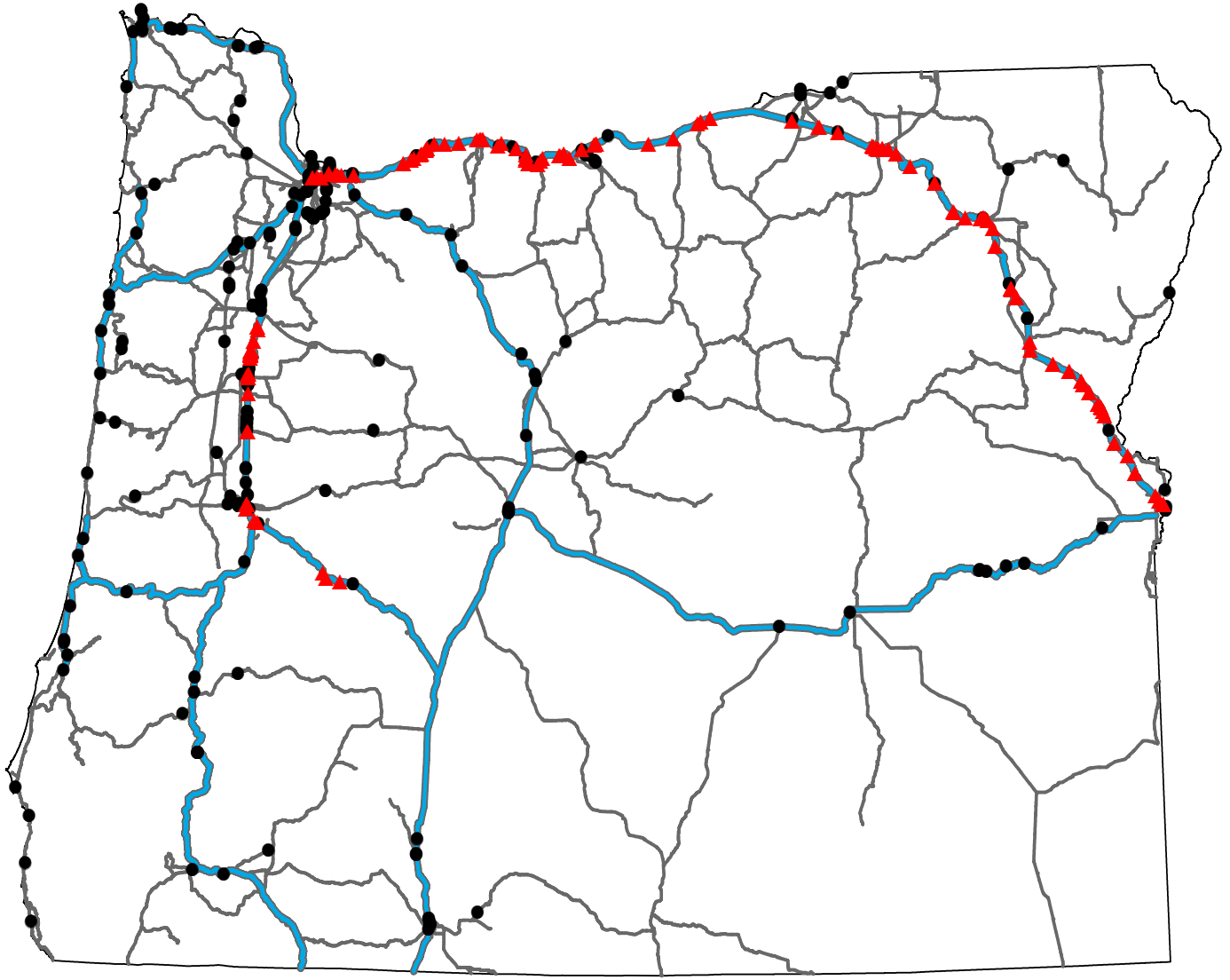


CULVERT CONDITIONS



20 YEAR BRIDGE INVESTMENTS

For illustrative purposes, based on $100 million in additional annual bridge funding. Actual projects selected would be based on updated bridge condition data. Existing funding is focused on bridge repairs; additional funding would be focused on more costly replacements.



tional investment of **$20 million per year** for the next 5-10 years would allow ODOT to triage needs in three critical areas: focusing on southern Oregon Lifeline Routes to provide minimal passable routes into and out of the region; enhancing maintenance stations for coastal communities to address roadway issues in affected areas; and addressing key local Lifeline Routes on state highways. Beyond that timeframe, $20 million per year would address the most critical landslides identified in ODOT's Seismic Plus plan. Combined with the investments described above for bridges, this funding would help Oregon prepare for a Cascadia Subduction Zone earthquake by stabilizing landslides, shoring up bridges, and improving ODOT's ability to recover the transportation system more quickly after a disaster.

Maintenance

ODOT's maintenance forces restripe roads, plow snow, and respond to crashes to keep Oregon's highways open and safe. Existing resources no longer keep pace with the maintenance needs of an aging system, responding to more extreme weather events, and dealing with increasing traffic volumes. For example, the I-84 corridor in eastern Oregon has seen an increase in truck volumes as well as an increase in frequency of freezing fog and ice events. The result has been multi-vehicle crashes and lengthy closures that delay people and goods. With current resources ODOT cannot provide 24/7 coverage on the I-84 corridor. In addition, maintenance requirements for the upkeep of traffic signs, retaining walls, tunnels, variable message signs, and other infrastructure are growing. An additional investment of **$50 million per year** and 30 full time employees would address maintenance needs in freeway corridors and across key highway assets, preserving our multibillion dollar highway system and keeping our highways more reliable and safe during the winter months.

Safety

Fatalities and serious injuries are devastating to affected individuals, families, and friends; they also cost Oregonians over $2 billion per year in hospital bills, property damage, and other impacts.[3] Safety is a factor in every transportation project and an investment priority for all modes. But more could be done to reduce traffic fatalities and serious injuries, which have been on the rise in recent years.

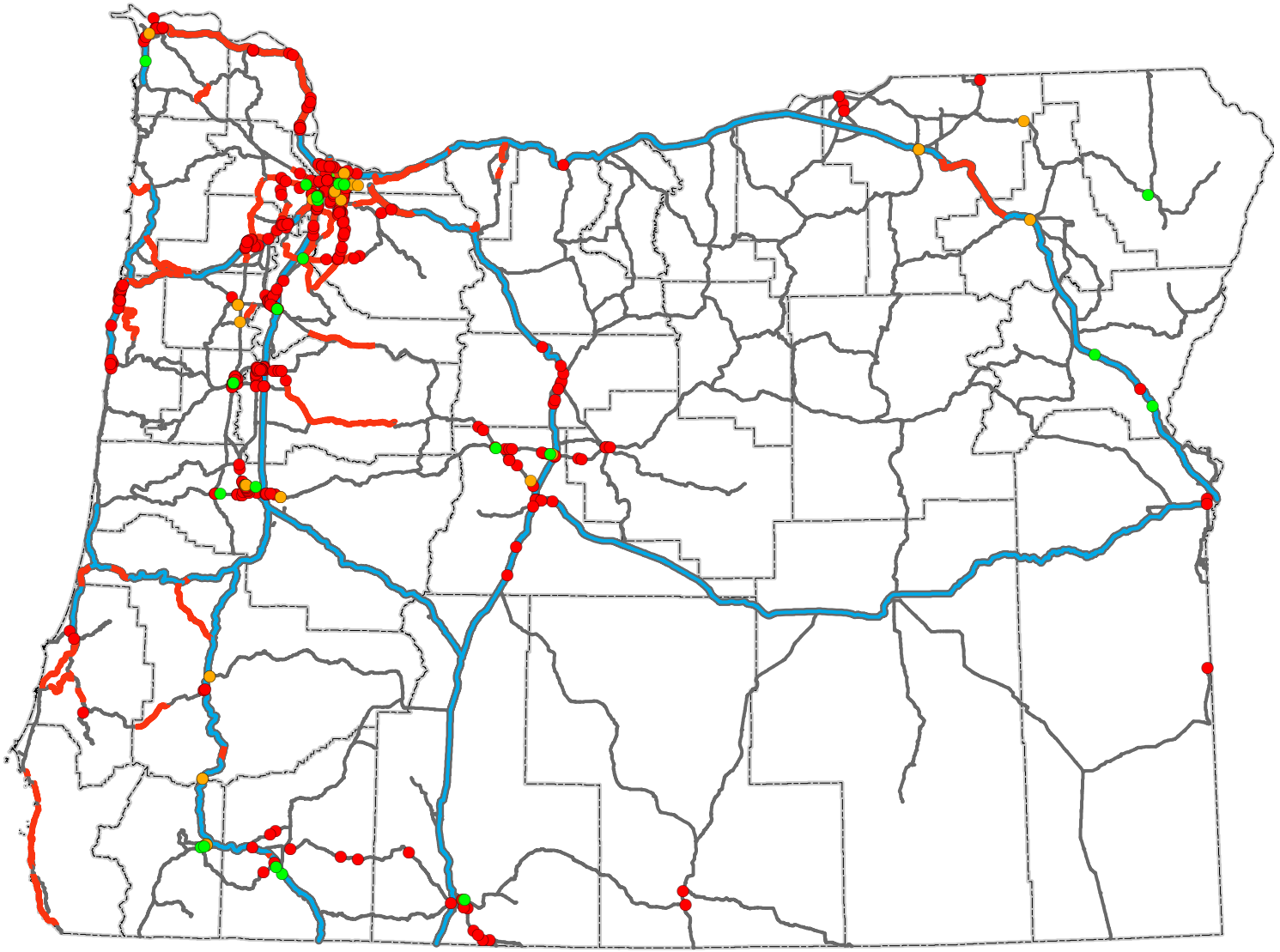
Doubling today's spending with an additional investment of **$35 million per year** for the All Roads Transportation Safety (ARTS) program would address a backlog of safety needs across the state. This program uses a data-driven prioritization process to focus on the most cost effective ways to save the most lives and avoid the worst injuries, regardless of whether they are on state or local roads, for all modes of travel. Focus would be on roadway departure crashes (55 percent of fatalities in Oregon) utilizing proven solutions with a high return on investment like rumble strips, curve warning signs, and cable barriers. For example, rumble strips along the shoulder are known to reduce all run-off-the-road crashes by 22 percent.[4] Since the funds are used on both state and local roads, this additional investment could be taken 'off the top' of the highway fund, allowing local governments to use state funding for safety projects and avoiding the red tape associated with federal funding. Alternatively, if

Thirty percent of culverts today are in poor or critical condition. Storms cause culverts to fail, closing highways, blocking truck traffic, and isolating communities.

Safety is a factor in every transportation project and an investment priority for all modes. But more could be done to reduce traffic fatalities and serious injuries, which have been on the rise in recent years.

SAFETY INVESTMENTS

For illustrative purposes, based on $35 million in additional annual safety funding. Actual projects selected would be based on updated crash data to determine highest-priority projects.



funding comes from ODOT's share of the State Highway Fund, spending would be directed toward safety projects on state highways.

Mobility and Congestion Management

The majority of goods traveling through, to, or within Oregon are shipped by truck and utilize Oregon's highways to get to market. Congested highways cost businesses millions of dollars in delay, create unreliable travel times, cause safety problems, and reduce the competitiveness of Oregon's trade-based economy. Congestion also impacts the traveling public who must use our roadways to get to work, school, daycare, and home and who also experience financial costs and reduced quality of life due to congestion.

Congestion, delay, and unreliability occur on Oregon's urban and rural highways when the volume of cars exceeds capacity, at busy interchanges, around sharp curves, and on steep hills, as well as due to bad weather and crashes. Portland experiences the most pronounced congestion in the state and has one of the highest rates of congestion in the nation; congestion has worsened in recent years as more people move to the region and the economy grows. While incremental investments have been made to help relieve area bottlenecks, they are not enough to address the issue of limited roadway capacity and growing population. Over the next 25 years an additional one million people are expected to move into the state, putting additional stress on our already crowded roadways, making congestion relief even more critical.

In Portland alone, adequately addressing congestion and mobility issues would require an investment of over $1 billion in highway projects, as well as additional investments in other modes that relieve pressure on the roads. Statewide, additional investments would be needed to improve mobility, such as addressing non-recurrent delay from safety issues, roadway geometry impacting speeds, and capacity issues causing congestion. An estimated 36.9 million annual hours of delay could be avoided by investing in congestion-relieving projects, generating an additional $928 million in annual economic output/sales.[5]

An additional investment of **$100 million per year** focused on priority corridors and congested areas would start to reduce delay and improve safety for some of Oregon's worst bottlenecks. Consistent with the Oregon Highway Plan, investments would be directed first at protecting the existing system, improving traffic operations through intelligent transportation systems (ITS), such as Real Time improvements (e.g. variable speed limits and ramp metering). Next, ODOT would implement efficiency and capacity improvements to the existing system, for example adding auxiliary lanes between interchanges that help traffic efficiently get on and off the freeway. Only after such capacity maximization measures have been employed or deemed insufficient, would priority shift towards major roadway improvements such as the addition of new lanes or building new roads.

Investments would be focused on high priority corridors across the state, on projects

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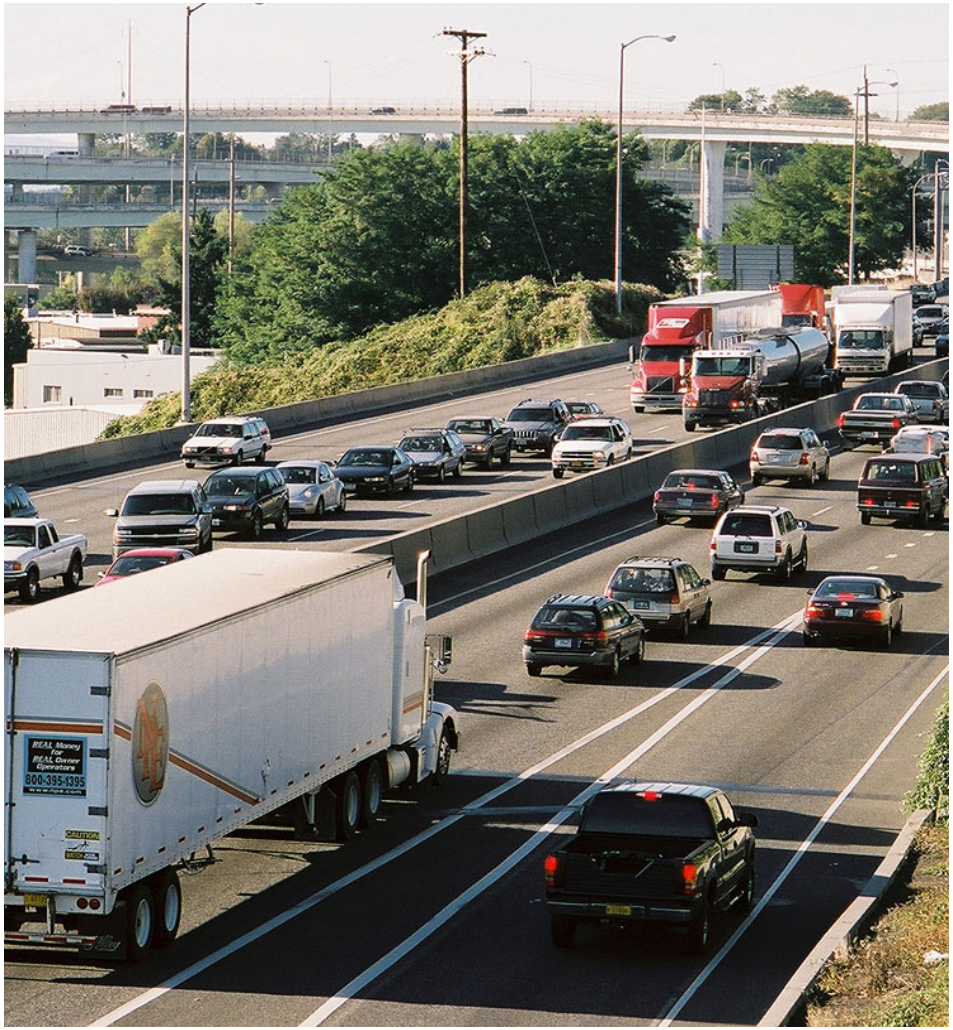
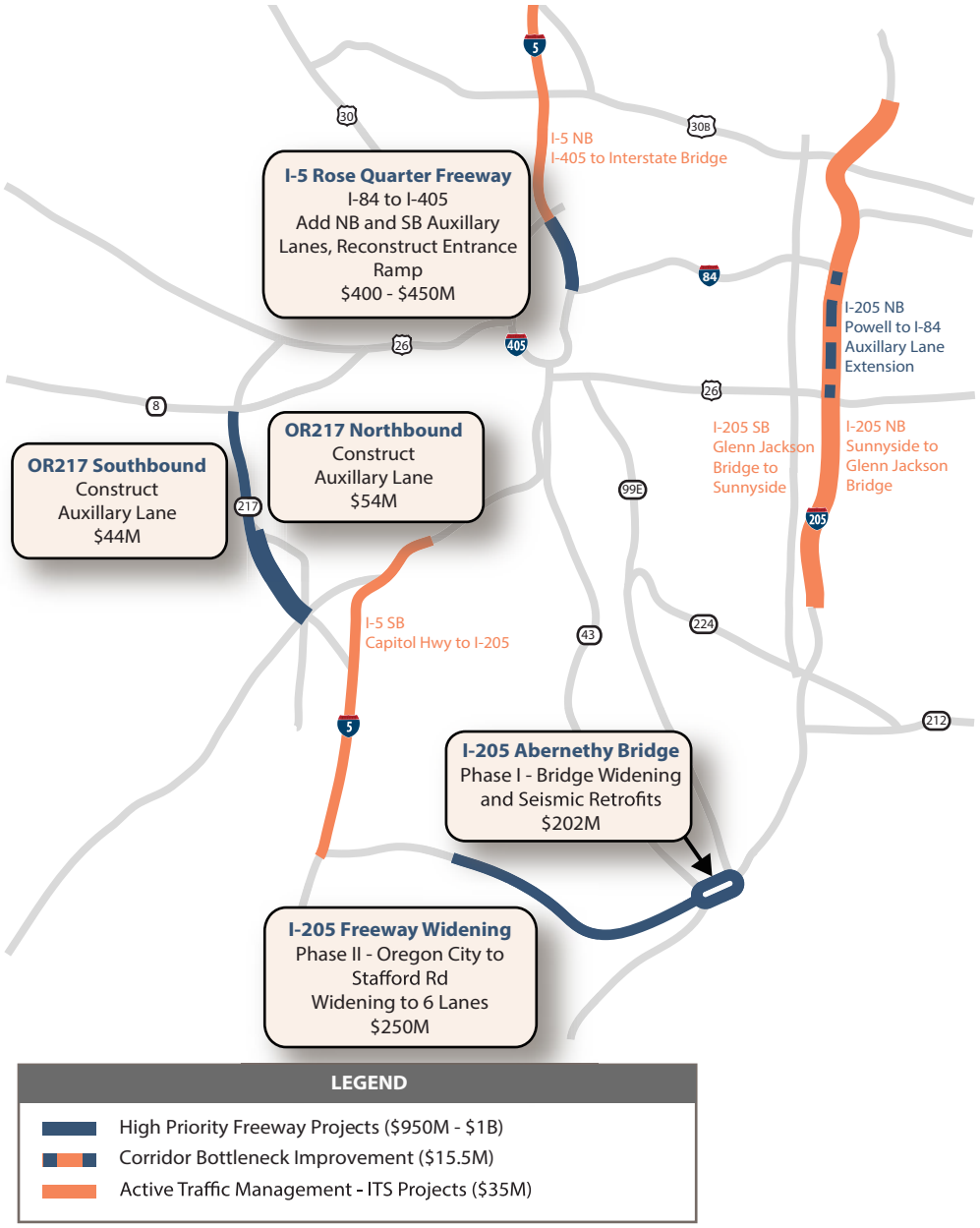


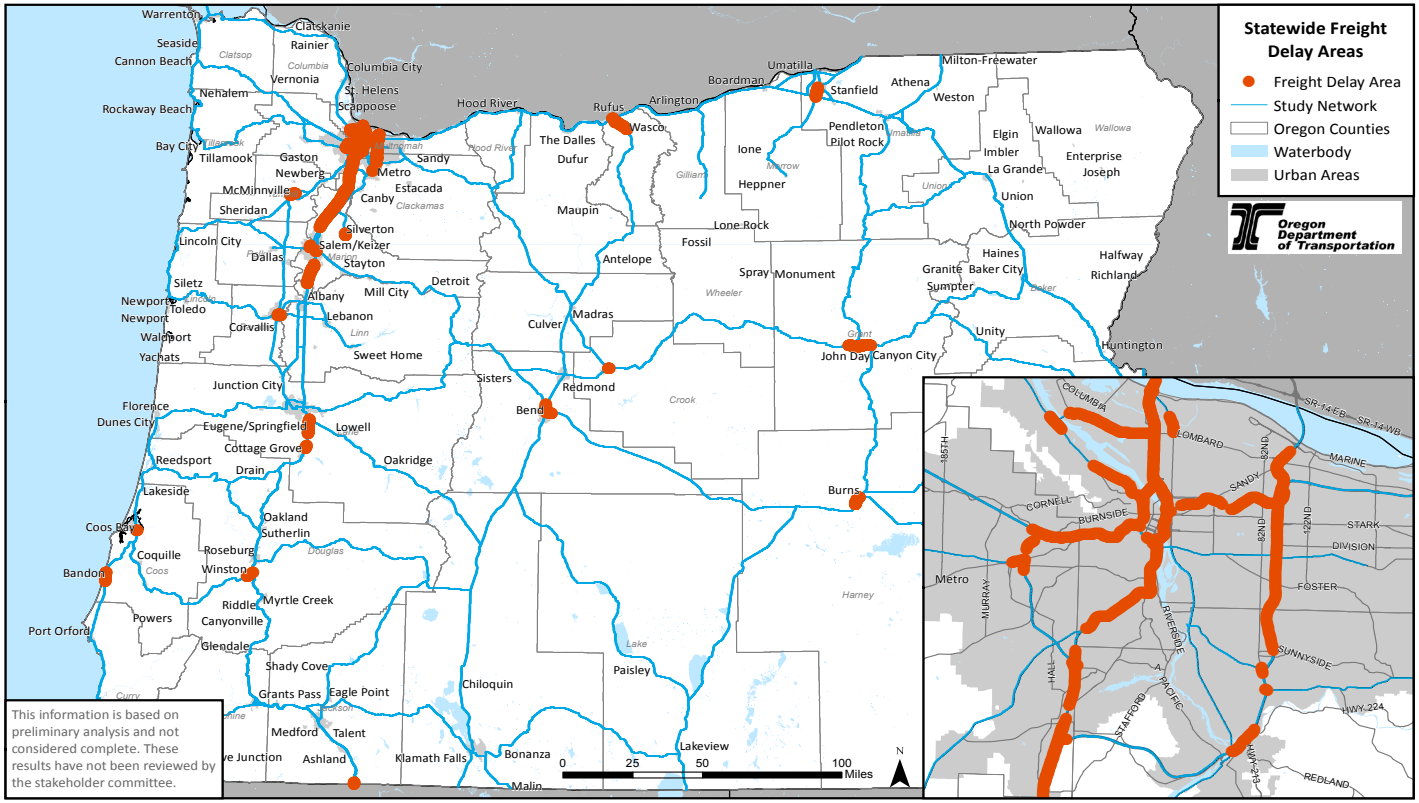
PORTLAND AREA FREEWAY PRIORITY IMPROVEMENT PROJECTS



AREAS OF FREIGHT DELAY

PRELIMINARY DATA RESULTS (DECEMBER 2016)

As it updates the Oregon Freight Plan, ODOT has generated a preliminary map of state highway segments that experience delay and unreliability for trucks.



REAL RESULTS OF REAL TIME IMPROVEMENTS

"Real Time" refers to a toolbox of ITS strategies that improve safety and operations.

Real time investments were made on Oregon 217 in the Portland metro area, including variable message signs, advisory speeds, and curve warnings. A before and after analysis found such improvements resulted in fewer injuries, more people getting through and a higher degree in certainty of travel time.

Specific results show:

- *21 percent reduction in crashes*
- *Up to 5 percent more throughput*
- *10 percent better travel time reliability*

ODOT is looking to deploy these cost-effective technologies in additional corridors.

such as:

Major bottlenecks on I-5, Interstate 205, and Oregon 217 in Portland, or for congested areas like U.S. 97 in Central Oregon.

Safety issues and congestion at interchanges such as the Beltline/Delta Highway in Eugene.

Traveler information and warning systems for inclement weather along I-84 in eastern Oregon.

Truck climbing lanes on I-5 and passing lanes on freight routes.

Investments would be targeted to projects that relieve congestion and improve reliability for both freight and passenger vehicles and that have high returns on investment.

Congestion will not be solved by highway investment alone. Spreading demand across modes will help to relieve overcrowding on our roadways. Additional investments are needed in public transportation, biking, and walking to make them more accessible, convenient, and safe, so more people can choose these options. Investments in moving goods by rail or water can also free up capacity on highways.

Biking and Walking

Everyone is a pedestrian, whether walking or using a mobility device for their entire trip or just to and from their car or bus stop. Businesses depend on well-connected walkways or bikeways to get workers to their jobs and consumers to their stores, and school age children often rely on these travel modes to get to class, especially where school bus service is not available.

The Oregon Bicycle and Pedestrian Plan identifies schools, transit stops, and businesses as critical connections and a top investment priority and recognizes they are not well-served by today's fragmented and disconnected biking and walking infrastructure. On the state system alone, around 30 percent of urban roads are missing walkway and bikeways. Similar issues exist on local road networks, which represent the majority of

Businesses depend on well-connected walkways or bikeways to get workers to their jobs and consumers to their stores, and school age children often rely on these travel modes to get to class.

roadway miles needing walkways and bikeways. Total needs to fill gaps across state and local roadways are estimated at more than $2 billion. At current funding levels, it will take over 50 years to fill the gaps and complete the biking and walking system, leaving residents under-served and disconnected in the meantime. As a result, many Oregonians cannot or feel they cannot walk or bike safely in their communities, forcing people to turn to cars for most trips. Filling gaps is also necessary to ensure accessibility for all users, including people with disabilities. Investments in biking and walking will be targeted to fill gaps and improve safety, especially for our kids.

Bikeways and Walkways on Roadways

Many of the most direct, convenient, and cost-effective biking and walking connections are within the right of way of Oregon's roadways. The same streets where people drive need to also connect people who walk, use a mobility device, or ride a bicycle. Oregon law requires that walkways and bikeways be constructed any time a road, street, or highway is built, rebuilt, or relocated, and directs that at least one percent of the State Highway Fund dollars be invested in projects that support biking and walking within the right of way of public roads, streets or highways.[6] Because of this, increased funding to address pavement condition will address accessibility issues and add more miles of bike lanes and sidewalks. However, a more targeted and strategic approach is essential, focused on making critical connections.

Priority will be given to adding bikeways and walkways near public transportation stops and around schools, focusing on Title I schools first in order to help close disparity gaps and make sure that kids who cannot afford other means of travel can still get to school. With an additional investment of **$20 million per year** for state and local roads, approximately 60 miles of walkways and bikeways could be added annually, and after 10 years, gaps would be closed within a quarter-mile radius of schools and public transportation stops. School traffic is estimated to represent 10-14 percent of all automobile trips made during rush hour.[7] More kids walking or biking instead of being dropped off means fewer cars on the road at the most congested times, benefiting all modes. Likewise, connecting to public transportation means more people can access alternatives to driving, reducing congestion and providing Oregonians cheaper travel options.

In the long term, once gaps around schools and transit are filled, funding should be focused on addressing other critical biking and walking connections, such as to downtowns, shopping, and to major employers.

Safe Routes to School, Outreach, and Education

Safe Routes to School is a popular and successful program that educates children about biking, walking, and other transportation options and teaches them about safety. Funding from ODOT and other sources provides in-classroom pedestrian and bicycle safety curriculum and local field grants but reaches less than 5 percent of Oregon students.[8] An additional investment of **$6 million per year** would provide traffic safety education for all graduating elementary school students, complement-

SAFE ROUTES TO SCHOOL

Assuring that bikeways and walkways connect schools on safe and accessible routes is a top priority for the state. The Oregon Bicycle and Pedestrian Plan identifies schools as "critical connection" points. Investments are needed in both infrastructure and education to support our children's needs.

Today there are known gaps around schools, leaving kids with little option in how to get where they need to go. Targeted investment is key to supporting a safe and connected system.

Bikeway and walk-way facilities within 1/4 mile of transit stops and schools

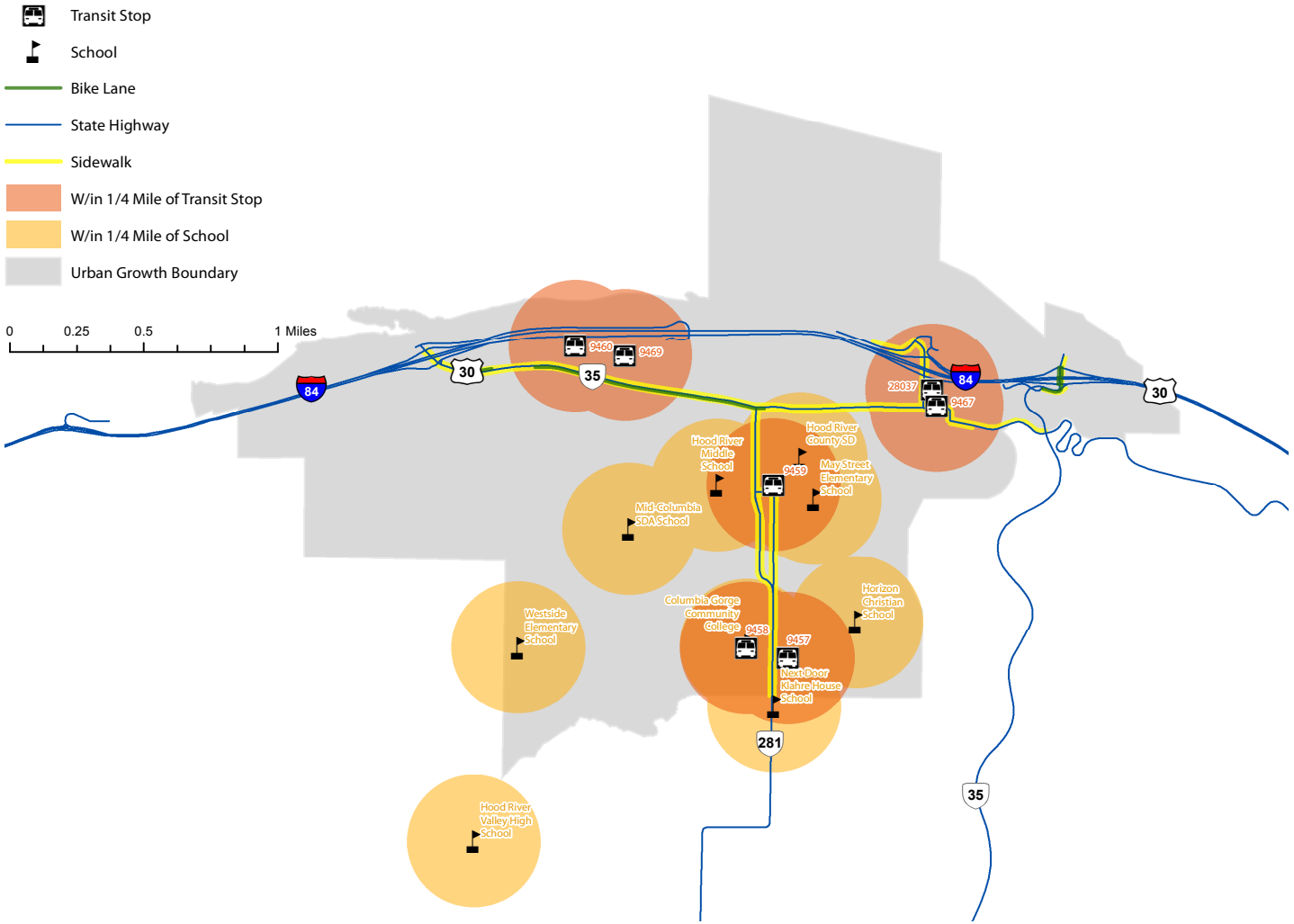
(Sample: Hood River)

Priority would be given to filling in missing sidewalks and bike lanes within 1/4 mile of schools and transit stops, as shown in this example of Hood River.

Miles of Gaps
Miles of highway within 1/4 mile of transit stop or school: 7.60

Miles of sidewalk gaps within 1.4 mile of transit stop or school: 1.46

Miles of bike lane gaps within 1.4 mile of transit stop or school: 7.03



ing investment in infrastructure.

Off-Road Bikeways and Walkways
Regional paths that provide options for cyclists and pedestrians off the road system are important in connecting people to jobs, services and recreational opportunities. By separating those on foot or on bike from automobile traffic, these paths provide a level of comfort and safety that is important to encouraging more people to walk and bike. These paths are also important for recreation and tourism, contributing $400 million in annual economic activity from the cycle tourism industry.[9]

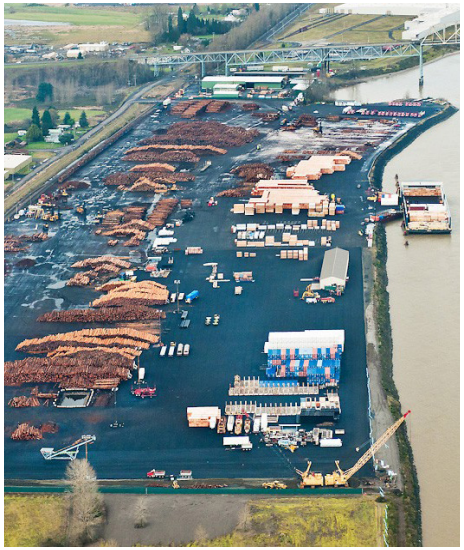
While State Highway Fund resources cannot be used to construct bikeways and walkways outside of the road right of way, federal surface transportation funds and *Connect*Oregon have helped construct a number of off-system bikeways and walkways across the state such as the Bear Creek Greenway that links the cities of Ashland, Medford, Central Point, and other locations. Ensuring a continued flow of funding from federal funds and *Connect*Oregon would allow these networks to grow and connect. Priority would go towards facilities that can be used for transportation and recreation, meeting the Regional Path designation in the Oregon Bicycle and Pedestrian Plan Strategy 2.5 D, including criteria such as a continuous path connecting two or more communities that is endorsed by elected bodies along its alignment.

Multimodal Freight

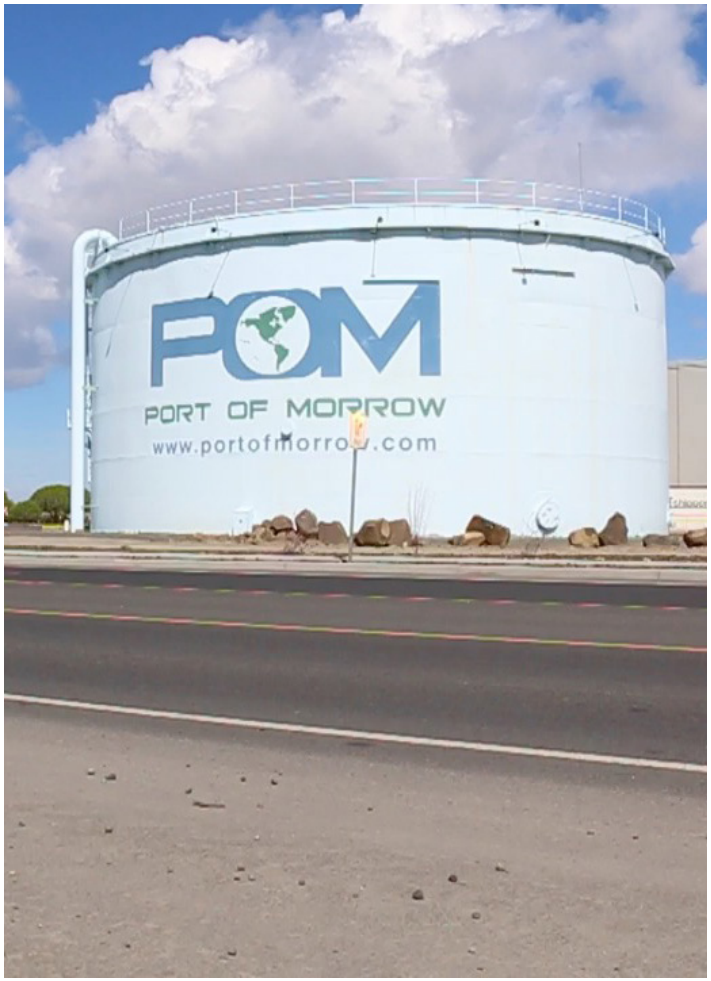
As one of the most trade-dependent states in the nation, Oregon relies on freight movement, with around 350 million tons of freight, valued at more than $350 billion flowing through the state each year.[10] Strategic investments in Oregon's multimodal freight transportation network (rail, aviation, and marine) are important to meet access and mobility needs for key multimodal transportation corridors and industries. Oregon's freight system consists of crucial infrastructure and equipment that is privately owned (such as trucks, trains, containers, tracks, and marine terminals) in addition to the elements owned by the state and other public jurisdictions. However, all elements provide public benefits and thus can result in a good return on investment from state dollars.

Rail
Industry experts have estimated annual average need to be $32-120 million for Oregon's rail system.[11] Rail is essential for moving goods in the state and represents over $15 billion annually in commodity flow by weight. Improving the rail system results in efficiencies for the goods moved on it today but would also result in shipping more by train, helping to free capacity on Oregon's congested roadways. Failure to invest in rail can result in deteriorated infrastructure that can no longer support train service, as happened on the line to Coos Bay; service disruptions like this can force shippers to shift to higher-cost modes and leave communities isolated from economic activity.

Improvements to Oregon's freight transportation network over the past decade have been primarily funded through the ConnectOregon program, a lottery-backed bond program.



As one of the most trade-dependent states in the nation, freight moves the Oregon economy, with around 350 million tons of freight, valued at more than $350 billion flowing through the state each year.



PUBLIC BENEFITS OF FREIGHT INVESTMENTS

Oregon's lottery-backed bond program, ConnectOregon, has invested nearly half a billion in the state's freight network. One such investment was made at the Port of Morrow, which was awarded $22 million in ConnectOregon dollars, leveraging another $14 million in matching funds.

This investment yielded measurable benefits to Oregon's economy. A 2013 Economic Impact Analysis of the Port found that it employs around 4,000 workers, and provides an annual economic output of over $1.6 billion.

The Oregon State Rail Plan identifies system reliability, capacity, frequency and travel times as the primary focus for investments, preserving and enhancing rail assets and infrastructure. Investment priorities include partnering with private railroads to eliminate choke points, addressing network fluidity, and maintaining a state of good repair for the rail system. Rail investments should be targeted to specific efforts including:

Improvements to shortline track, bridges, and tunnels, which would allow heavier and taller trains to be used and increase the overall speed of the system.

New facilities, such as bulk commodity aggregation facilities, which would enable increased utilization of rail services in the state.

Marine and Aviation

The Oregon Transportation Plan estimates the needs for ports and waterways to be around $56 million annually. The needs for air are not split out between freight and air, thus the freight need is some proportion of $177 million per year for airports overall. Marine and air projects that have successfully received funding in Oregon in the past include such efforts as airport taxiway and runway improvements, air cargo storage facilities, marine mooring facilities, dock and pier improvements, and marine cargo staging facilities. Development of a state marine plan would help further understand and prioritize investment needs across the state.

Multimodal (Transload) Facilities

Across marine, aviation, and rail, transload facilities are a key component of the multimodal freight system. These connection points allow bulk goods and containers alike to be transferred between one or more modes, such as from truck to rail. Transload facilities support a variety of industries moving goods into, within, and out of Oregon. Rural parts of the state benefit from transload facilities, such as the Prineville Freight Depot, which used *Connect*Oregon dollars to convert an abandoned sawmill into a facility serving truck and rail shipments in Central and Eastern Oregon.

***Connect*Oregon**

Improvements to Oregon's freight transportation network over the past decade have been primarily funded through the

Across marine, aviation, and rail, transload facilities are a key component of the multimodal freight system.

*Connect*Oregon program, a lottery-backed bond program. Since 2005, the Legislature has approved six rounds of *Connect*Oregon totaling $427 million, enabling significant state investments in non-highway multimodal freight transportation. Requests for ConnectOregon funding typically run about two dollars for every dollar of available funding, showing significant demand and unmet need.

A continuation of *Connect*Oregon funding would address strategic investment demands across the multimodal freight system. Local governments and businesses often lack sufficient capital and technical capacity to undertake multimodal transportation projects, and public financial assistance can help support these long-term economic growth and job creation projects. An additional investment of **$29 million per year** (for a total investment of $100 million per biennium) would be targeted at the investments described above, further improving freight transportation system reliability, efficiency, mobility, access to markets, and connections between modes that provide lasting economic benefit to Oregon.

Public Transportation

Public transportation is critical for connecting workers to their jobs, people with essential services in urban and rural areas, and communities to one another. Oregon receives many benefits from public transportation, including:

Reduced transportation costs for residents – Those who take the bus and do not own a car save nearly $10,000 a year.[12]

Improved transportation safety – Nationwide, buses account for only one percent of all transportation injuries.[13]

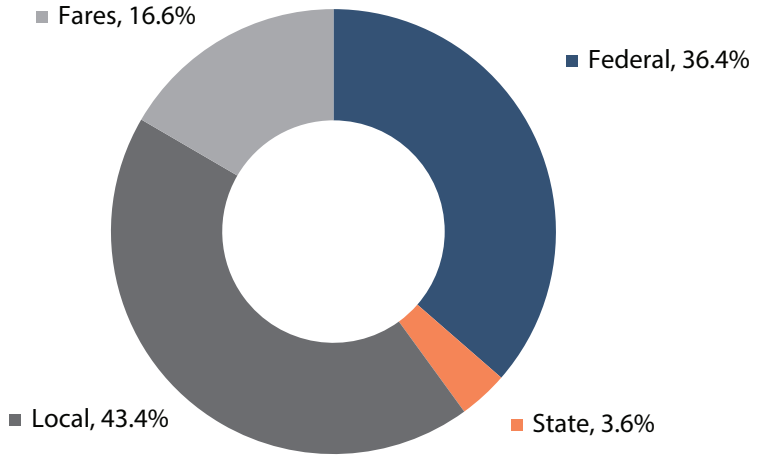
Relieving growing demand – Providing options for people to travel other than driving help keep more cars off our crowded roadways.

Increased access to services - Public transportation is a travel option for all people, including those with disabilities, low-income households, seniors, and children.

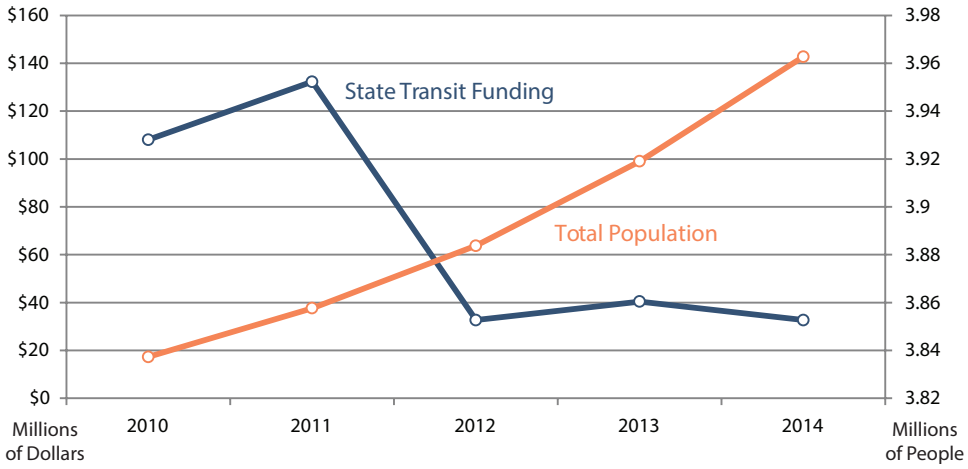
Reduced air pollution and greenhouse gas emissions – Transit is essential for reducing air pollution and GHG emissions.[14]

A wide variety of local agencies, non-profits, and the private sector operate most of Oregon's vans, buses, and passenger rail systems, while the state plays a role in some intercity services. Local public transportation providers rely heavily on federal resources and what they can generate at the local level, which is often limited. State funding represents less than five percent of today's transit investments, and is focused on service for the elderly and disabled. Since 2010, state per capita funding for transit has decreased more in Oregon than in any other state.[15]

ESTIMATED PERCENT OF OREGON PUBLIC TRANSPORTATION FUNDS BY SOURCE (2014)



OREGON'S STATE TRANSIT FUNDING VS POPULATION GROWTH



Reduced state funds in addition to reduced or flat local funding have been compounded by increased operational expenses (primarily driver wages, which represent 60-70 percent of provider budgets). Rising labor costs have forced many providers to reduce days and hours of service, and discontinue routes.

At the same time, demand for public transportation is rising. Over the past decade, ridership has increased significantly, growing twice as fast as Oregon's population.[16] Given projected population influxes and demographic trends, unmet demands on the public transportation system are likely to grow. Older adults ride at higher rates than the rest of the population, and by 2035, a quarter of Oregon's population is expected to be age 65 or older.

To sustain even today's reduced service levels given projected population growth will require a 50 percent increase in funding levels, equating to around $380 million in additional funding per year.[17] With no increase in funding, by 2035 providers could only meet one third of public transportation trips that would otherwise be taken. Beyond the base need, enhancements to the system to provide improved levels of service appropriate to the size and characteristics of each provider would cost over $1 billion more annually.

An additional investment of $108 million per year, as called for in the Governor's Transportation Vision Panel report, would start to chip away at the enormous needs for public transportation. While this is only one third of what is needed keep pace with population growth for the long term, in the near term, this amount could help to add new service to connect communities, support rides for the elderly and disabled, enhance service in urban areas, and provide technical support for rural and small providers.

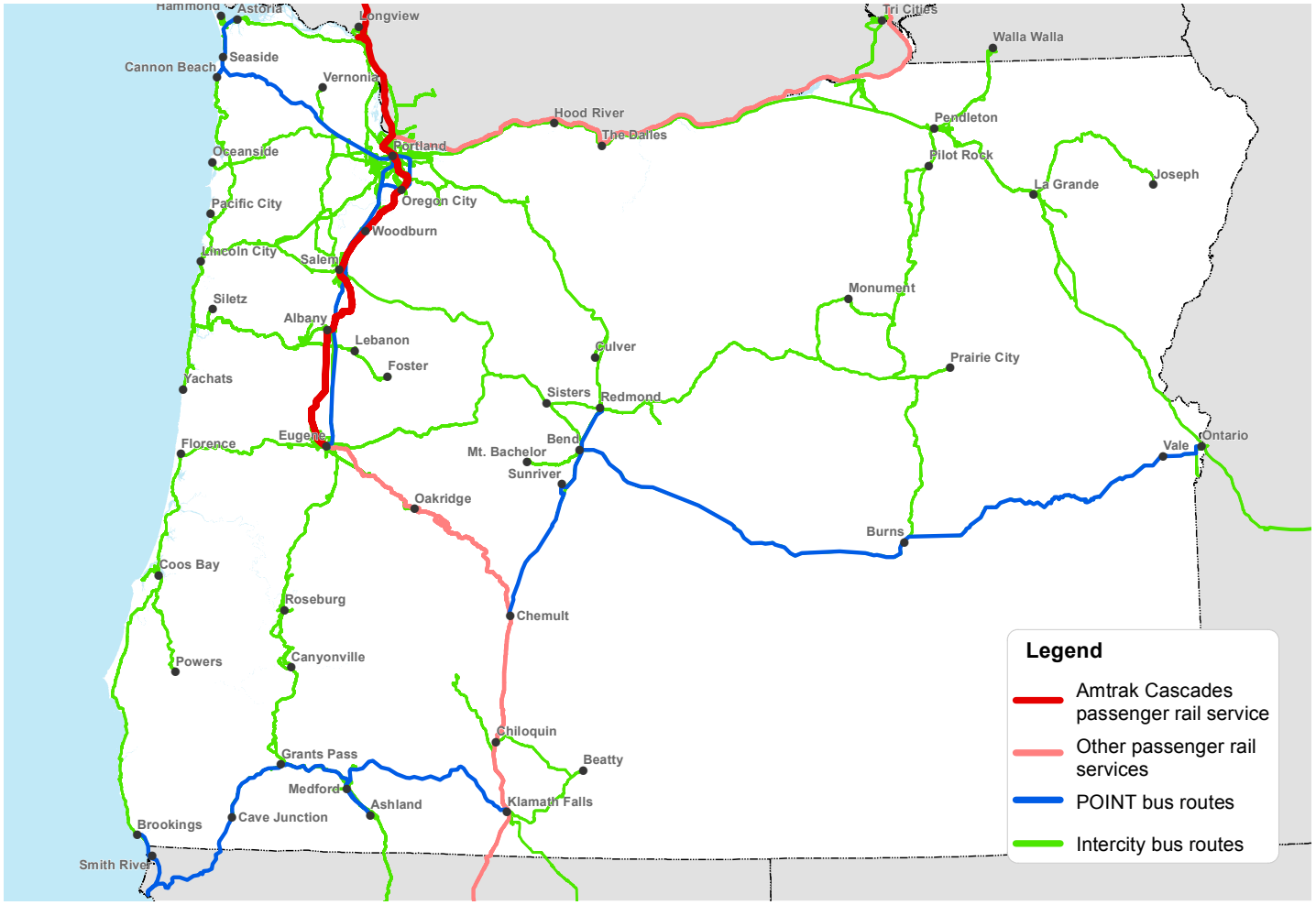
Regional and Intercity Service

While public transportation often serves people within communities, links between communities are often missing. Closing these gaps with regional and intercity service would benefit the many Oregonians who must travel long distances to their jobs due to a lack of affordable housing. Improved connections between communities could also serve the growing share of older adults who are choosing to age in place and rely on regional and intercity transit connections as critical lifelines to medical services, groceries, and other essential services. New connections between communities could reduce the need for costly demand-response service. An additional investment of **$40 million per year** would make new regional and intercity connections between communities like Sisters and Bend, Tillamook and Pacific City, as well as add new morning and evening service between places like La Grande and Pendleton. Such an investment could sustain existing state passenger rail and bus service in the Willamette Valley corridor, also adding more convenient trips to serve additional riders. Overall, focus would be placed on closing gaps between communities in under-served corridors and to population clusters in rural areas.

Demand for public transportation is rising. Over the past decade, ridership has increased significantly, growing twice as fast as Oregon's population.

INTERCITY PUBLIC TRANSPORTATION ROUTES (2016)

A variety of types of intercity public transportation services connect Oregon communities, but significant gaps remain.



Enhance Urban Public Transportation
Given today's funding, many public transportation providers operate limited routes, with infrequent service, mostly during weekdays. Because of these constraints, public transportation is available to a small section of a community's population. An additional state investment of **$40 million per year** would increase frequency, add routes and service hours, in order to reduce wait times for riders, provide better coverage, and make access to jobs, shopping, and essential services easier.

Elderly and Disabled Service
Public transit services for older adults and persons with disabilities are frequently provided thorough paratransit and dial-a-ride services that pick people up and drop them off door-to-door. While the state contributes funding for these services through the Special Transportation Fund (STF), transit providers are unable to meet the current demand in both urban and rural areas. For example, Ride Connection Inc., who serves the greater Portland area, turned down 35,000 ride requests in 2015.

More than doubling today's STF funding with an additional investment of **$15 million per year**, would expand services across the state, improving access to critical medical and human services by increasing frequency of service and adding new destinations.

Keep Vehicles in a State of Good Repair
About 2,000 transit vehicles provide service across Oregon. Around half of these were purchased using funds that flow through ODOT, primarily for rural providers. Keeping buses in a state of good repair helps ensure safe and comfortable service and avoids large repair costs. Nearly half of ODOT-purchased buses have reached replacement age, and urban providers face similar needs as well. An additional **$5 million per year** would bring the public transportation vehicle fleet up to a state of good repair.

Pooled Resources for Small Transit Providers
Small public transportation providers have limited staff, sometimes only including an executive director, a support person and a handful of drivers, some of whom are volunteers. Staff often have to wear multiple hats and may not have the expertise or time required to ensure compliance with state and federal requirements, schedule routes, identify gaps or implement technological enhancements. Some technologies can be applicable on the statewide level, and resources and funding to support their implementation are needed. An additional investment of **$8 million per year** would be targeted to the creation of pooled resources for small public transportation providers including staff or consultant support to plan and schedule routes, assess safety, create and communicate travel information, and provide training. Funding would also be used to identify and pursue technology enhancements, such as a single statewide fare collection system, and trip planning software.

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