Agenda

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Meeting: Transportation Policy Alternatives Committee (TPAC)
Date: Friday, July 28, 2017
Time: 9:30 a.m. – 12:00 p.m.
Place: Council Chamber

9:30 am	**1.**		**Call To Order, Declaration Of A Quorum And Introductions**	**Tom Kloster, Chair**
9:35 am	**2.**	*	**Comments From The Chair And Committee Members** • 2018 RTP Call for Projects Update (Kim Ellis) • CMAQ Update (Ted Leybold) • UPWP/MTIP Quarterly Report (Ken Lobeck) • TPAC Notification of Current Monthly MTIP Amendments (Ken Lobeck) • Oregon MPO Consortium Quarterly Meeting at Metro August 11, 2017 (Tom Kloster)	**Tom Kloster, Chair**
9:50 am	**3.**		**Citizen Communications On Agenda Items**	
9:55 am	**4.**	*	**Consideration Of TPAC Minutes For June 30, 2017**	
10:00 am	**5.**	*	**2018 RTP: Designing Livable Streets** Purpose: Update TPAC on the Designing Livable Streets project. Receive input from TPAC on the draft Table of Contents. • Information/Discussion	**Lake McTighe, Metro**
10:30 am	**6.**	*	**Metro Summary Legislative Overview** Purpose: Update TPAC on 2017 State Legislative Transportation Package. • Information/Discussion	**Randy Tucker, Metro**
11:00 am	**7.**	*	**Washington County Transportation Future Study** Purpose: To give a recap of the study purpose, process and findings. • Information/Discussion	**Chris Deffebach, Washington County**
11:30 am	**8.**	*	**Washington County Freight Study** Purpose: Provide TPAC with results of the Washington County Freight Study. • Information/Discussion	**Phil Healy, Port of Portland**
12:00 pm	**9.**		**Adjourn**	**Tom Kloster, Chair**

Upcoming TPAC Meetings:
- Friday, August 25, 2017
- Friday, Sept. 29, 2017
- Friday, Oct. 27, 2017
- TPAC/MTAC Workshop, Oct. 30, 2017

* Material will be emailed with meeting notice
** Material will be emailed at a later date after notice
# Material will be distributed at the meeting.

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ការគោរពសិទ្ធិពលរដ្ឋរបស់ ។ សំរាប់ព័ត៌មានអំពីកម្មវិធីសិទ្ធិពលរដ្ឋរបស់ Metro ឬដើម្បីទទួលពាក្យបណ្តឹងរើសអើងសូមចូលទស្សនាគេហទំព័រ www.oregonmetro.gov/civilrights។ បើលោកអ្នកត្រូវការអ្នកបកប្រែភាសានៅពេលអង្គប្រជុំសាធារណៈ សូមទូរស័ព្ទមកលេខ 503-797-1890 (ម៉ោង 8 ព្រឹកដល់ម៉ោង 5 ល្ងាច ថ្ងៃធ្វើការ) ប្រាំពីរថ្ងៃ ថ្ងៃធ្វើការ មុនថ្ងៃប្រជុំដើម្បីអាចឲ្យគេសម្រួលតាមសំណើរបស់លោកអ្នក

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Metro

600 NE Grand Ave.
Portland, OR 97232-2736
oregonmetro.gov

2017 TPAC Work Program

As of 7/21/17

NOTE: *Items in* ***italics*** *are tentative;* ***bold*** *denotes required items*

July 28, 2017 Comments from the chair: • 2018 RTP Call for Projects Update (Ellis) • CMAQ Update (Leybold) • UPWP/MTIP Quarterly Report (Lobeck) • Current Monthly MTIP Amendments (Lobeck) • OMPOC Meeting at Metro (Kloster) • 2018 RTP: Designing Livable Streets Information/Discussion (McTighe, 30 min) • Metro Legislative Overview Information/Discussion (Randy Tucker, 30 min) • Washington County Transportation Future Study Information/Discussion (Chris Deffebach, 30 min) • Washington County Freight Study Information/Discussion (Phil Healy, 30 min)	**August 25, 2017** Comments from the chair: • • Digital Mobility Policy Work Plan Information/Discussion (Frisbee, 30 min) • Draft RTP Constrained Revenue Forecast Report Information/Discussion (Lobeck/Leybold, 30 min) • 2018 RTP Work Plan Next Steps Information/Discussion (Ellis, 30 min) • Regional Flexible Funds Allocation (RFFA) Intergovernmental Agreement (IGA) Information/Discussion (Leybold, 30 min) • MTIP Project Delivery Information/Discussion (Leybold/Lobeck, 15 min) • Regional Over-Dimensional Truck Route Study Information/Discussion (Bob Hillier, 10 min) • Enhanced Transit Program Report Information/Discussion (Art Pearce, 30 min) • Region-wide Programs and MPO Review Information (Leybold, 30 min)
September 29, 2017 Comments from the chair: • • **MTIP Formal Amendment 17-****** Recommendation to JPACT (Lobeck, 10 min) • MTIP Project Delivery Information/Discussion (Leybold/Lobeck, 15 min) • TransPort Bylaws Draft Review Information (Winter, 15 min) • Update on RTP Investment Strategy Information/Discussion (Ellis, 30 min) • 2018 RTP: Transportation Resiliency and Emergency Routes Information/Discussion (Ellis, 30 min) • Regional Travel Options (RTO) Strategy Update Information/Discussion (Kaempff, 20 min) • *RTP Regional Mobility Corridors Information/Discussion (Ellis, 30 min)*	**October 27, 2017** Comments from the chair: • • **TransPort Bylaws Draft Review** – Recommendation to JPACT (Winter, 30 min) • TSMO Plan Update Project Scope Information/Discussion (Winter, 20 min) • Draft RTP Finance Plan Kick-off technical review (Leybold/ Lobeck, 30 min) • Draft Regional Freight Plan Kick-off technical review (Collins, 30 min) • *Policy Review Update Information/Discussion (Ellis, 30 min)* TPAC/MTAC Workshop 1: October 30, 2017 2-4 p.m., Metro Council Chamber

2017 TPAC Work Program

As of 7/21/17

NOTE: *Items in* ***italics*** *are tentative;* ***bold*** *denotes required items*

November 17, 2017 Comments from the chair: • • Draft RTP Investment Strategy Findings Information/Discussion (Ellis, 45 min) • Designing Livable Streets Information/Discussion (McTighe, 30 min) • Regional Transit Strategy & System Expansion Policy Information/Discussion (Snook, 30 min) • Draft Regional Transit Strategy Kick-off technical review (Snook, 30 min) • Draft Regional Freight Plan Information/Discussion (Collins, 30 min) • Draft Regional Transportation Safety Plan Kick-off technical review (McTighe, 30 min)	**December 15, 2017** Comments from the Chair: • • Draft Regional Travel Options (RTO) Strategy for Public Comment Information/Discussion (Kaempff, 30 min) • Draft RTP Investment Strategy Findings Information/Discussion (Ellis, 45 min) • Regional Leadership Forum #4 Background Information/Discussion (Ellis, 30 min) • Transportation Equity draft results (Cho, 15 min) • Draft Regional Transit Strategy Information/Discussion (Snook, 30 min) • Draft Regional Transportation Safety Plan Information/Discussion (McTighe, 30 min) TPAC/MTAC Workshop 2: December 4, 2017 2-4 p.m., Metro Council Chamber
January 26, 2018 Comments from the Chair: •	**February 23, 2018** Comments from the Chair: •

Parking Lot

- FTA Certification Review Report Back (TriMet, Smart)
- Federal Training Group Concept (Lobeck)
- Vehicle Electrification Project Options Information/Discussion (Leybold, Winter)
- TPAC Bylaws Review
- ODOT Summary from Legislative 2017 Session (Maker)

For agenda and schedule information, call Marie Miller at 503-797-1766. E-mail: marie.miller@oregonmetro.gov
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Memo

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Date: Monday, July 17, 2017

To: TPAC and Interested Parties

From: Ken Lobeck, Funding Programs Lead, 503-797-1785

Subject: Metropolitan Transportation Improvement Program (MTIP) 3rd Quarter FFY 2017 Completed Amendments and 4th Quarter SFY 2016-17UPWP Summary Report

BACKGROUND:

Attached with this staff memo for your review are the following:

- Attachment 1: 3rd Quarter FFY 2017 MTIP Amendment Report (4/1/17 to 6/30/17).
- Attachment 2: 4th Quarter SFY 2016-17 UPWP Summary Report (4/1/17 to 6/30/17).

Attachment 1 lists MTIP amendments completed and approved MTIP amendments during the third quarter federal fiscal year (FFY) 2017 (April 1, 2017 to June 30, 2017). A total of 55 MTIP amendments were approved. Most amendments approved during this quarter involved multiple changes (e.g. cost increases, + phase slips + description modifications, etc. combined into one project amendment. All project amendment requests submitted during this period followed the amendment rules stated in the new STIP/MTIP Amendment Matrix.

Below is a summary of the amendments approved along with the most frequent changes required:

- Formal amendments approved: 36 (65.5% of approved amendments)
- Administrative amendments approved: 19 (34.5% of approved amendments)
- New projects added to the 2015 MTIP: 18 (32.7%)
- Amendments involving project phase slips to 2018: 5 (9.1%)
- Amendments involving phase cost adjustments (e.g. cost increases/decreases): 16 (29.1%)
- Amendments involving phase slips to a later year: 5 (9.1%)
- Amendments involving significant scope changes: 5 (9.1%)
- Projects combined into a single project: 3 (5.5%)
- Projects canceled as a result of funding transfers to other projects: 3 (5.5%)

Approved Amendments by Agency

Agency	Approved Amendments	Percent of the Total 55 Approved
City of Beaverton	2	3.6%
Clackamas County	4	7.3%
Department of Environmental Quality	1	1.8%
King City	1	1.8%
Metro	10	18.2%
Multnomah County	2	3.6%
ODOT	26	47.3%
City of Portland	2	3.6%
Port of Portland	1	1.8%
Portland State University (PSU)	2	3.6%
Tigard	2	3.6%
TriMet	2	3.6%
Totals:	55	100%

Notable Project Amendment Trends:

1. Most of the project amendments being accomplished were to correctly position the project for required federal fund phase obligations.
2. With approval from FHWA, several new draft 2018 STIP projects were authorized to advance and initiate their PE phase into 2017 as administrative amendments.
3. Project phase cost increases whether major or minor continue to dominate the need for many MTIP amendments.
4. While not significant during this quarter, but will show up next quarter, many project PE phases are not progressing as fast, or being completed as their phase milestone estimates had projected. The result is many projects will experience ROW, UR, and/or Construction phase slips from 2017 to 2018.

Attachment 2 provides a summary of the regionally significant UPWP projects. A total of 12 are shown on the list. Each quarter, the lead agency provides a status update for the project. A short status update is provided for each project along with known expenditure information.

As a final note and as of the beginning of June 2017, Metro has begun posting the approved MTIP with Amendments on a monthly basis. The summary and location to the updated approved MTIP with approved amendments is stated on the next pages.

Please contact Ken Lobeck if you have any questions.

MTIP Amendment Monthly Updates Posting Summary

Project amendment are continually being submitted and approved either through a formal amendment process or administratively. Around the beginning of each month, the latest current approved amendments will be incorporated into the full approved MTIP. The MTIP will be posted on Metro's website containing projects with known approved amendments. The posting is similar to the actions ODOT accomplishes with the approved online STIP. Below is an example of a couple of projects:

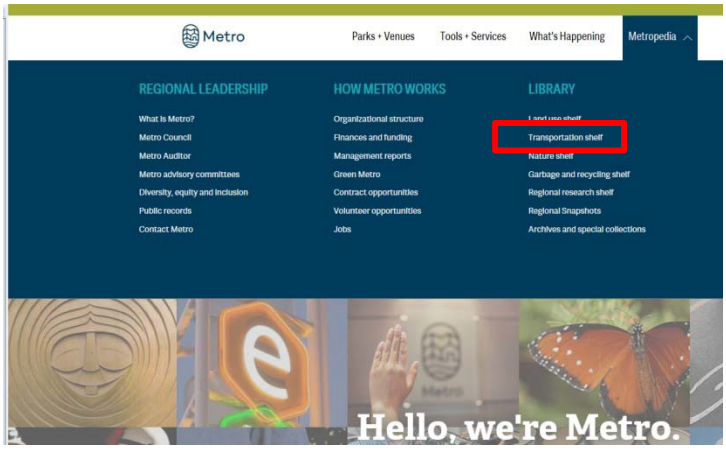
2015-2018 Metropolitan Transportation Improvement Program (MTIP)
Current Approved Project list with Approved Amendments

Metro

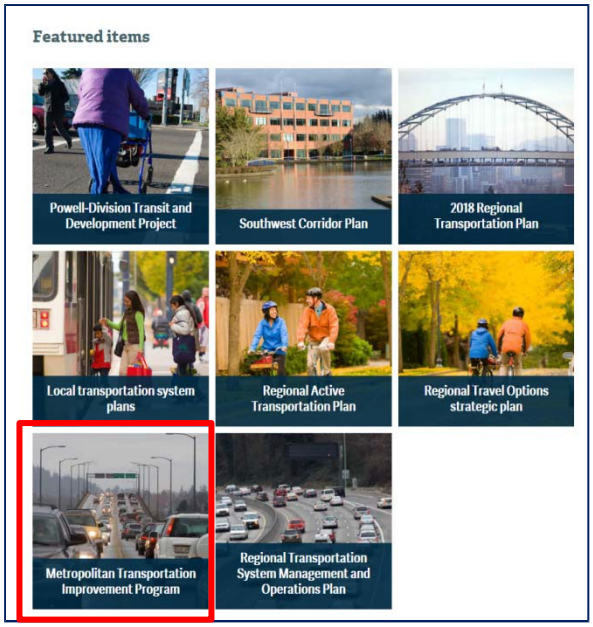
LEAD AGENCY		Clackamas County					
PROJECT NAME		**SE 122nd Ave & 132nd Avenue: Sidewalk Connections**					
Project IDs		Project Description					Project Type
ODOT KEY	**17881**	Add sidewalks					Pedestrian
MTIP ID	70469						
RTP ID							
Phase		Year	Fund Type	Federal Amount	Minimum Local Match	Other Amount	Total Amount
Purchase right of way		2015	TAP Metro	$233,298	$26,702	$0	$260,000
Construction		2015	STP	$304,000	$34,794	$0	$338,794
Construction		2015	TAP - State	$219,014	$25,067	$0	$244,081
Construction		2015	TAP Metro	$10,695	$1,224	$0	$11,919
			FY 15-18 Totals	$767,007	$87,787	$0	$854,794
			Prior Years' Totals	$200,239	$22,918	$17,927	$241,084
			Estimated Project Cost (YOE$)	**$967,246**	**$110,705**	**$17,927**	**$1,095,878**

LEAD AGENCY		Clackamas County					
PROJECT NAME		**Sunnyside Rd Adaptive Signal System**					
Project IDs		Project Description					Project Type
ODOT KEY	**18305**	Design adaptive traffic signal system and transit signal priority on Sunnyside Rd.					Transportation System Management Operations
MTIP ID	70645						
RTP ID							
Phase		Year	Fund Type	Federal Amount	Minimum Local Match	Other Amount	Total Amount
Construction		2017	STP	$1,021,623	$116,929	$0	$1,138,552
			FY 15-18 Totals	$1,021,623	$116,929	$0	$1,138,552
			Prior Years' Totals	$227,507	$26,039	$0	$253,546
			Estimated Project Cost (YOE$)	**$1,249,130**	**$142,968**	**$0**	**$1,392,098**

The MTIP with approved amendments is available for view on Metro's MTIP webpage. To access the document:

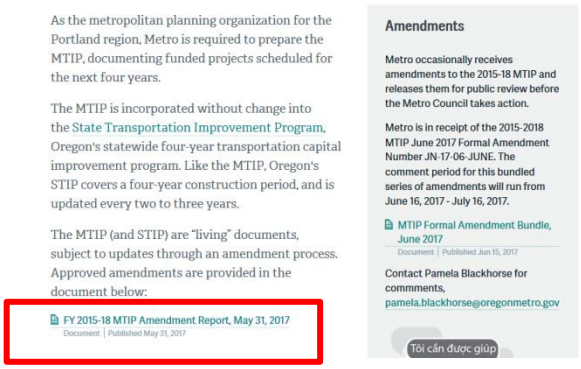


From the Metro main web page at: http://www.oregonmetro.gov/, select "**Transportation Shelf**" option in Library drop-down menu



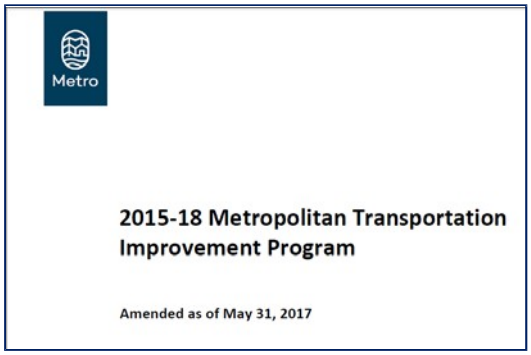
Scroll down the transportation Shelf page to the "Featured Items" menu list.

Select the Metropolitan Transportation Improvement Program in the left lower corner



Scroll down the MTIP page near the page bottom to the "Amendments" section

Select the MTIP Amendment Report icon to open the amendment report.



The link will open to the approved MTIP as amended report

The file is a pdf file and can be down loaded if you wish. Specific projects are listed by agency alphabetically, and then by ODOT Key number.

The current approved version as amended will be displayed unless the amendment approval is still pending, or was accomplished less than 30 days. Then, the previous approved project version will still be displayed.

Project information displayed includes:

Project reference identification information including ODOT Key, RTP ID, and MTIP ID numbers, lead agency, project name, the short description, and project type designation.

2015-2018 Metropolitan Transportation Improvement Program (MTIP)
Current Approved Project list with Approved Amendments

Metro

LEAD AGENCY		TriMet					
PROJECT NAME		**Low or No-Emission (Lo-No) Bus Program - FY 16**					
Project IDs		Project Description					Project Type
ODOT KEY	**20578**	Purchase zero emission battery electric buses					Transit
MTIP ID	70868						
RTP ID							
Phase		Year	Fund Type	Federal Amount	Minimum Local Match	Other Amount	Total Amount
Transit		2017	OTHER	$0	$0	$3,258,235	$3,258,235
Transit		2017	5339 (c)	$3,405,750	$601,015	$0	$4,006,765
			FY 15-18 Totals	$3,405,750	$601,015	$3,258,235	$7,265,000
			Estimated Project Cost (YOE$)	$3,405,750	$601,015	$3,258,235	$7,265,000

Programming by phase and by specific fund is included along with the obligation year. Funding totals are stated at the bottom of each project report. If the project included funding in years earlier than the current 4-year MTIP cycle, a total of the "prior year" funding will be listed as well to show the entire total project cost is stated in the MTIP.

2015 MTIP 3nd Quarter Federal Fiscal Year (April 1, 2017 to June 30, 2017) Approved Amendments								
AMEND NUMBER	ODOT KEY	PROJECT NAME	MTIP ID	MODIFICATION TYPE	RESOLUTION NUMBER	AGENCY	REQUESTED BY	REQUESTED ACTION
1237	19533	I-405: FREMONT BRIDGE APPROACH RAMPS	70836	Formal	17-4774	ODOT	Rachelle Nelson	K19533 (Fremont Bridge): Change scope to include deck repairs and add $14.9M of Fix-It funds to construction phase as approved by the OTC at the October 2016 meeting. Increase PE to $2,050,000 using funds from the State Bridge bottom line. Update name.
1238	17274	School Bus Diesel Engine Emission Reduction	70012	Formal	17-4774	DEQ	Vaughan Rademeyer	DEQ - Lead Agency Add K17274 School Bus Diesel Engine Emission Reduction to the 15-18 STIP for a total of $380,000 of Federal CMAQ funds from Metro reserves and local match.
1239	18416	Springwater Trail Gap: SE Umatilla - SE 13th Ave	70639	Formal	17-4774	Portland	Vaughan Rademeyer	Amend K18416 to slip UR & CN to 2017 cancel RW. Increase total project to $1,838,581 by adding $344,364 reallocated HPP funds & $215,636 local agency funds. PE phase increasing by $110,000 UR phase reducing by $122,000 CON phase increasing by $58,200.
1240	17268	Red Electric Trail: SW Bertha - SW Vermont Sec	70005	Formal	17-4774	Portland	Vaughan RADEMEYER	Amend K17268 Red Electric Trail: SW Bertha - SW Vermont to cancel RW increase PE to $895,914 by adding local agency funds and increase CN to $3,095,378 with $180,360 federal STP from RW and a balance of local agency funds.
1241	19531	I-84/I-5: BANFIELD INTERCHANGE DECK OVERLAY & BRIDGE RAIL RETROFIT	70835	Formal	17-4774	ODOT	Rachelle Nelson	Amend K19531 I-84/I-5:Banfield Interchange Deck Overlay & Bridge Rail Retrofit to increase PE by $4,000 from statewide IM and the construction phase by $2,055,000 ($25,000 from IM and $2,030,000 from Bridge reserves) as approved at February 2017 OTC.
1242	20703	US30: SANDY RIVER (TROUTDALE) BRIDGE	71007	Formal	17-4774	ODOT	Rachelle Nelson	Add new project; preliminary engineering only at this time.
1243	15389	SE 172nd Ave: Foster Rd to Sunnyside Rd	70084	Formal	17-4774	Clackamas County	Larry Underhill	Correct the PL phase to show $1,525,206 as obligated. Cancel PE (Funds to be reprogrammed on K17881 K18305 and K19276).
1244	18305	Sunnyside Rd Adaptive Signal System	70645	Formal	17-4774	Clackamas County	Vaughan Rademeyer	Add $364,190 Metro Federal STP (ex Key 15389) and $20,362 Local Match to increase CN to $1,138,552.
1245	19276	Jennings Ave: OR 99E to Oatfield Rd	70674	Formal	17-4774	Clackamas County	Vaughan Rademeyer	Amend K19276 Jennings Ave: OR99E to Oatfield Rd to add $224,191 Federal STP and $25,660 Match (ex K15389) to increase CN to $2,940,213.
1246	17881	SE 122nd Ave & 132nd Avenue: Sidewalk Connections	70469	Formal	17-4774	Clackamas County	Matt Peterson	Amend K17881 to add $334,368 federal TAP funds (from K15389) and $25,340 federal TAP (from Metro contingency) plus local matching funds. Increase PE to $241,084 and construction to $594,794.
1247	19287	Transportation System Management & Operations (TSMO) Program	70671	Administrative	N/A	Metro	Ken Lobeck	Add K21039 a new project by splitting $60,000 Federal from K19287.
1248	21039	Regional TSMO Program (2016)	71008	Administrative	N/A	Metro	Ken Lobeck	Add K21039 a new project by splitting $60,000 Federal from K19287.
1249	19288	Transportation System Management & Operations (TSMO) Program	70671	Administrative	N/A	Metro	Ken Lobeck	Add 2 new projects by transferring $200,000 (Federal) to K21037 and $ 65,454 (Federal) to K21038.

2015 MTIP 3nd Quarter Federal Fiscal Year (April 1, 2017 to June 30, 2017) Approved Amendments								
AMEND NUMBER	ODOT KEY	PROJECT NAME	MTIP ID	MODIFICATION TYPE	RESOLUTION NUMBER	AGENCY	REQUESTED BY	REQUESTED ACTION
1250	21037	Portal Regional Archived Data User Service 2017	71009	Administrative	N/A	PSU	Ken Lobeck	Add 2 new projects by transferring $200,000 (Federal) to K21037 and $ 65,454 (Federal) to K21038.
1251	21038	Regional TSMO Program (2017)	71010	Administrative	N/A	Metro	Ken Lobeck	Add a new project by transferring $65,454 Federal from K19288.
1252	19289	Transportation System Management & Operations (TSMO) Program	70671	Administrative	N/A	Metro	Ken Lobeck	Add 2 new projects by splitting $200,000 Federal to K21040 and $65,564 Federal to K21041
1253	21040	Portal Regional Archived Data User Service 2018	71011	Administrative	N/A	PSU	Ken Lobeck	Add a new project by splitting $200,000 Federal from K19289.
1254	21041	Regional TSMO Program 2018	71012	Administrative	N/A	Metro	Ken Lobeck	Add a new project by splitting $65,564 federal from K19289.
1255	17757	Main St Ph2: Rail Corridor-Scoffins	70594	Formal	17-4774	Tigard	Vaughan Rademeyer	Amend K17757 Main St Ph2: Rail Corridor - Scoffins (Tigard) to remove all federal funds and backfill with funding from the City of Tigard to meet current estimates.
1256	19327	Fanno Crk Trail: Woodard Pk to Bonita Rd/85th Ave - Tualatin BR	70690	Formal	17-4774	Tigard	Ken Lobeck	Add $51,424 Federal STP-U funds and redistribute the existing funding to Increase PE to $1,283,210 add a RW phase of $278,614 and decrease CN to $3,343,363. Slip CN to 2018.
1257	19099	OR224/OR212 Corridor ITS	70785	Administrative	N/A	ODOT	Vaughan Rademeyer	Cost increase to address ADA compliance requirements per CMR-02. The amendment also corrects a MTIP & STIP discrepancy between programmed fund codes.
1258	19356	OR212: UPRR Structure - Rock Creek	70808	Administrative	N/A	ODOT	Vaughan Rademeyer	Amend K19356 OR212: UPRR Structure - Rock Creek to increase PE to $ 896,000 by advancing $146,000 from the Draft 18-21 STIP.
1259	20208	US30: KITTRIDGE - ST JOHNS	70938	Administrative	N/A	ODOT	Vaughan Rademeyer	Advance PE to 2017 PE phase accelerated to enable project to start PE early.
1260	20430	I-5: MP 303.27 - MP 308.63	70972	Administrative	N/A	ODOT	Vaughan Rademeyer	PE phase accelerated to enable project to start PE early. Advance PE to 2017.
1261	20682	Greater Portland TIM TEAM - TIM and TSMO	71013	Formal	17-4785	ODOT	Vaughan Rademeyer	Add K20682 Greater Portland TIM TEAM - TIM and TSMO with $109,076 from the Portland Capability Management Model Funding.
1262	18227	NE Graham Dr Sundial Rd & Swigert Way (Troutdale)	70649	Administrative	N/A	Port of Portland	Vaughan Rademeyer	Amending: Reducing JTA funds and increasing Other local funds. Net funding change is zero.
1263	20479	REGION 1 BIKE PED CROSSINGS	71005	Administrative	N/A	ODOT	Vaughan Rademeyer	Amending: Adding and advancing PE phase in to 2017 from 2018 draft STIP.
1264	19812	2016 Region 1 Curve Warning Signs	70863	Administrative	N/A	ODOT	Vaughan Rademeyer	Slip CN to 2018 - No changes in MTIP CN already in CN.
1265	18807	OR99W: SW Beef Bend Rd - SW Durham Rd	70769	Administrative	N/A	King City	Ken Lobeck	Slip CN to 2018 - MTIP no changes because CN is already in 2018.
1266	18020	Sandy Blvd: NE 230th Ave - NE 238th Dr (Wood Village)	70485	Formal	17-4785	Multnomah County	Ken Lobeck	Amending: Adding 640k of local funds to the construction phase to address additional phase requirements.
1267	20674	Columbia Gorge Express	71014	Formal	17-4785	ODOT	Ken Lobeck	Adding new project to the MTIP.
1268	20702	OR99W SB Ramp to I-5 SB (Capital Hwy Intchg)	71016	Formal	17-4785	ODOT	Vaughan Rademeyer	Adding new project to the MTIP.

2015 MTIP 3nd Quarter Federal Fiscal Year (April 1, 2017 to June 30, 2017) Approved Amendments								
AMEND NUMBER	ODOT KEY	PROJECT NAME	MTIP ID	MODIFICATION TYPE	RESOLUTION NUMBER	AGENCY	REQUESTED BY	REQUESTED ACTION
1269	18836	I-5: N Tigard Intchge - E Portland Fwy. Intchge Sec	70777	Formal	17-4785	ODOT	ODOT	Scope and description changes adding a ROW phase and cost increases to PE and construction phases.
1270	20709	OR99W SW Naito Pkway - SW Huber St Phase 1	71017	Formal	17-4785	ODOT	ODOT	Add a new project to the MTIP.
1271	20484	SW MULTNOMAH BLVD OVER I-5	70976	Formal	17-4785	ODOT	ODOT	Adding new project to the MTIP. Advancing the PE phase from the 2018 STIP forward into the 2015 MTIP.
1272	20482	I-405 NB TO US26 WB OVER I-405 CONNECTION BRIDGE	70974	Formal	17-4785	ODOT	ODOT	Adding new project to the MTIP. Advancing the PE phase from the 2018 STIP forward into the 2015 MTIP.
1273	20472	OR99E: CLACKAMAS RIVER (MCLOUGHLIN) BRIDGE	71000	Formal	17-4785	ODOT	ODOT	Adding new project to the MTIP.
1274	20480	I-205 EXIT RAMPS AT SE DIVISION ST	71006	Administrative	N/A	ODOT	ODOT	Adding and advancing PE phase in to 2017 from 2018 draft STIP.
1275	20475	I-205 AT OR43	71003	Administrative	N/A	ODOT	ODOT	Adding and advancing PE phase in to 2017 from 2018 draft STIP.
1276	20413	US30BY (LOMBARD) SAFETY EXTENSION	70969	Administrative	N/A	ODOT	ODOT	Adding and advancing PE phase in to 2017 from 2018 draft STIP.
1277	21121	OR210: SW Scholls Ferry Rd to SW Hall ITS	71018	Formal	17-4774	Beaverton	Local Agency	Adding new ITS project to MTIP.
1278	18308	N/NE Columbia Blvd Traffic/Transit Signal Upgrade	70646	Formal	17-4774	ODOT	ODOT	Cost increase due to ADA compliance requirements for the project. Total Construction phase programmed amount increases from $300,059 to $940,899 Total project programming amount increases from $557,228 to $1,225,900.
1279	19287	Transportation System Management & Operations (TSMO) Program	70671	Formal	17-4774	Metro	Metro	Draw down to new stand alone ITS projects resulting in an empty project grouping bucket. Project will be removed from the MTIP during the 2018 MTIP Update (Key 19287).
1280	19288	Transportation System Management & Operations (TSMO) Program	70671	Formal	17-4774	Metro	Metro	Draw down to new stand alone ITS projects (K19288).
1281	19712	Community Job Connector Shuttle 2018	70857	Formal	17-4785	TriMet	Ken Lobeck	The amendment adjusts the project name to identify it as a broader shuttle service beyond North Hillsboro area as originally programmed and to shift 5307/5339 funds from Key 19334 (FY 2018 Prevent Maint project) to support the program.
1282	19334	FY18 Bus & Rail Preventive Maint (5307)	70737	Formal	17-4785	TriMet	Ken Lobeck	The amendment transfers $445,000 of 5307 and $445,000 (total $890,000) from Key 19334 to support the scope expansion to Key 19712.
1283	19275	OR8: Canyon Road Streetscape and Safety Project	70687	Formal	17-4798	Beaverton	Vaughan Rademeyer	Deprogramming all funds and combining them into ODOT's Key 18758 (part of April 2017 Formal Amendment. As a result Key 19275 - this project is canceled).
1284	18758	OR8: SW Hocken Ave - SW Short St	70757	Formal	17-1798	ODOT	Vaughan Rademeyer	Combining Key 19275 and revising scope for the combined project.
1285	20722	Portland Metro Planning SFY 2018	71019	Formal	17-1798	Metro	Ken Lobeck	Adding new FY 2017 funding for planning activities.

UPWP Regionally Significant Projects Summary Update
4th Quarter SFY 2016-17 Reporting Cycle (April 1, 2017 to June 30, 2017)
Project Status & Expenditure Updates
As of June 30, 2017

Lead Agency

2015 MTIP 3nd Quarter Federal Fiscal Year (April 1, 2017 to June 30, 2017) Approved Amendments								
AMEND NUMBER	ODOT KEY	PROJECT NAME	MTIP ID	MODIFICATION TYPE	RESOLUTION NUMBER	AGENCY	REQUESTED BY	REQUESTED ACTION
1286	19283	Regional Planning	70669	Formal	17-1798	Metro	Ken Lobeck	Canceling project and programming to avoid duplication with new project - Key 20722.
1287	18019	Arata Rd - 223rd - 238th (Fairview/Wood Village)	70484	Formal	17-1798	Multnomah County	Ken Lobeck	Adding funding to PE ROW and Construction phases to address phase funding shortfalls. As a result the construction phase can obligate it federal funds before the end of federal fiscal year 2017.
1288	18804	I-205: Johnson Creek Blvd - Glenn Jackson Bridge	70767	Formal	17-1798	ODOT	Vaughan R	Combining funds from older Key 18433 Key 19070 and new STIP Key 20483 (in new draft 2018 MTIP) into this Key 18804. Funding originally was not secured for the entire project and planned to be completed as multiple projects. Full funding has now been secured and the four projects are being merged together. No change to limits.
1289	19070	I-205: I-84 - SE Stark/Washington Street	70783	Formal	17-1798	ODOT	Vaughan R	PE funding is being transferred to Key 18804 as part of the four project merger. As a result Key19070 is being canceled as part of this amendment bundle.
1290	18772	OR212: SE Richey Rd - US26	70761	Formal	17-1798	ODOT	Vaughan R	Added funding to PE phase funding shortfall and slipping ROW to FY 2018.
1291	18779	OR213: SE Lindy St - SE King Rd	70709	Formal	17-1798	ODOT	Vaughan R	Cost increase to PE and Construction to address ADA compliance requirements and worsening pavement conditions.

Note: Administrative amendments do not require formal approval by JPACT and Metro Council and do not require a formal resolution as part of the amendment approval.

UPWP Regionally Significant Projects Summary Update
4th Quarter SFY 2016-17 Reporting Cycle (April 1, 2017 to June 30, 2017)
Project Status & Expenditure Updates

As of June 30, 2017

#	Lead Agency & Project Name	Description	ODOT Key	Obligate (Yes/No)	EA Number	Federal Fund Type	Federal Amount	Local Amount	Project Total	Expended to Date	Status Notes
1	**Clackamas County** Trolley Trail Bridge: Gladstone to Oregon City	Feasibility study of replacing the Portland Ave Trolley Bridge as an extension of the Trolley Trail, a shared-use path for bicyclists and pedestrians Funds Source: 2016-18 RFFA	19278	**No**	---	STP	$201,892	$23,107	$224,999	$0 0%	Implementation Status:0.0% ODOT and the County provided comments and responses for the IGA. The County and ODOT are close to agreement on language. ODOT will do final review. Upon agreement completion ODOT and the County will develop final project scope of work. The County will develop a RFQ document for A&E Services.
2	**Hillsboro** Oak and Baseline: S 1st – SE 10th St	Design option alternatives for traffic calming Funds Source: 2014-15 RFFA	18004	**No**		STP	$500,000	$57,227	$557,227	$0 0%	Implementation Status:0.0% Working on amending the work scope for the project.
3	**Metro** Lake Oswego – Portland Trail: Tyron Creek – Elkwood Rock Tunnel	Metro Planning study looking at potential trail connections between Foothills Park, Tryon Cove, Tryon Creek State Natural Area, Fielding Road and Elk Rock Tunnel (south portal). Funds Source: 2008-11 RFFA	17466	**YES 7/29/16**	C8035200	STP	$100,000	$11,445	$111,445	$2,409 **2.2%**	Implementation Status:? Continue to negotiate the scope of work and budget.
4	**ODOT** I-205: Stafford Rd – OR99E	The project will complete required planning and project development activities to add a third lane in each direction between Stafford Road and OR43 and a forth lane on the Abernethy Bridge to help separate through traffic. Funds Source: FAST Act Federal appropriation	19786	**YES 8/16/16**	C6035200	NHFP	$2,305,500	$194,500	$2,500,000	$269,377 **$10.8%**	Implementation Status: 5% Selected lead and sub-consultant team and completed design phase scope of work with consultant team. Completed negotiations with consultant team, and meetings with jurisdictional partners.

UPWP Regionally Significant Projects Summary Update
4th Quarter SFY 2016-17 Reporting Cycle (April 1, 2017 to June 30, 2017)
Project Status & Expenditure Updates
As of June 30, 2017

#	Lead Agency & Project Name	Description	ODOT Key	Obligate (Yes/No)	EA Number	Federal Fund Type	Federal Amount	Local Amount	Project Total	Expended to Date	Status Notes
5	**Portland** Southwest in Motion (SWIM)	The project will develop a five year active transportation implementation strategy for all of southwest Portland. Funds Source: 2016-18 RFFA	19301	**Yes 4/27/16**	C3265209	STP	$272,000	$31,132	$303,132	**$246** **0.08%**	Implementation Status: 10% Compiled data and maps on existing projects in SW Portland. Public events include a booth at both the PBOT Fixing Our Street (3/23) event and 4/25 SRTS event for the Wilson Cluster, and assembled the Public Involvement Plan. Completing the composition of the Community Working Group membership.
6	**Portland** Portland Central City Multi-modal Safety Project	Develop a strategy that identifies multi-modal safety projects and priority investments. Funds Source: 2016-18 RFFA	19299	**YES 9/21/16**	C3265210	CMAQ	$852,000	$97,515	$949,515	$67,542 **7.1%**	Implementation Status:? Received procurement certification for A&E and Related Services consultant selection from ODOT. Issued Notice to Proceed to CH2M. Hosted design charrette with Design Week Portland with focus on active transportation and the Green Loop, Provided presentation to Central Eastside Industrial Council's Land Use Committee.
7	**Portland** Regional Over Dimensional Truck Route Plan	Identify frequently traveled over dimensional routes and document minimum clearances Funds Source: 2014-15 RFFA	18024	**YES 8/24/15**	C4265202	STP	$125,000	$14,307	$139,307	$125,217 **89.9%**	**Implementation Status: 100%** Task 7 Final Report was completed in March, 2017.
8	**Portland State University** Transportation Electrification Pubic Education & Outreach Support	Electric vehicle acquisition and infrastructure development Market research & public readiness for transportation electrification Funds Source: TSMO allocation	18006	**YES 9/25/16**	C3385202	STP	$200,000	$22,891	$222,891	$37,481 **16.8%**	Implementation Status: 55% PSU, Forth and DEQ to discuss relationship with EV data and work together to provide semi-annual numbers. PSU has provided 2016 numbers to Forth who will format providing the numbers to the public and partners. Developed a forecast model to create purchase scenarios, State and regional targets. Survey launched June, 2017 and will be closed on July 20. Forth launched Go Forth Electric Showcase in May.

UPWP Regionally Significant Projects Summary Update
4th Quarter SFY 2016-17 Reporting Cycle (April 1, 2017 to June 30, 2017)
Project Status & Expenditure Updates
As of June 30, 2017

#	Lead Agency & Project Name	Description	ODOT Key	Obligate (Yes/No)	EA Number	Federal Fund Type	Federal Amount	Local Amount	Project Total	Expended to Date	Status Notes
9	**Sherwood** Cedar Creek/ Tonquin Trail: Roy Rogers Rd – OR99W	Planning for trail section: Design and construct a multi-use trail through Sherwood Funds Source: 2014-15 RFFA	18280	**YES 6/10/15**	C4345204 Fed ID 6710(006)	CMAQ	$419,039	$47,961	$467,000	$163,641 **39.1%**	Implementation Status:? The Prospectus and a Final Draft was delivered by CH2M in December, 2016. This project is nearly complete and documents required for formal acceptance by the City need to be worked out with the LAL in order to close the project out.
10	**Tualatin Hills PRD** Beaverton Creek Trail Westside Trail – SW Hocken Ave	The project will design and construct a 1.4-mile multiuse off-street trail along the TriMet light rail corridor between the Westside Regional Trail and SW Hocken Avenue in Beaverton Fund Source: 2016-18 RFFA	19357	**YES 9/9/16**	C8345200	STP	$800,000	$91,564	$891,564	$2,874 **0.3%**	Implementation Status:? ODO and DOJ are in the finalizing of the scope of work and RFP for July deadline. Property owners have been contacted and are supportive of the proposed trail corridor and local jurisdictions have been contacted.
11	**Washington County** Washington County Arterial Pedestrian Crossings	Study specific roadway segments to enhance existing and create new designated arterial crossings along multiple avenues. Fund Source: 2016-18 RFFA	19359	**YES 8/1/16**	C2345200	STP	$636,000	$72,793	$708,793	$19,617 **2.8%**	Implementation Status: 30% Issued NTP to (Kittelson and Associates. County staff worked on project web page development and held Project Kickoff Meeting with County and Kittelson staff in April to review the draft of content for screening memorandum. June monthly status meeting focused on the latest version of the memorandum to be completed for the open house after the County Traffic Engineer provides input. The ODOT-Kittelson SOW addresses the project six month timeline in terms of consultant activities. County staff implementation of the online open house would add 4-5 weeks to the SOW timeline, but with no additional consultant expenses. County staff held a public involvement process review meeting, with focus was on the online open house web page format, referenced materials and timing of activities.

UPWP Regionally Significant Projects Summary Update
4th Quarter SFY 2016-17 Reporting Cycle (April 1, 2017 to June 30, 2017)
Project Status & Expenditure Updates

As of June 30, 2017

#	Lead Agency & Project Name	Description	ODOT Key	Obligate (Yes/No)	EA Number	Federal Fund Type	Federal Amount	Local Amount	Project Total	Expended to Date	Status Notes
12	**Wilsonville** French Prairie Bridge: Boones Ferry Rd-Butteville Rd	Project development for construction of bike/ped/ emergency vehicle bridge crossing over Willamette River Funds Source: 2010-13 RFFA	17264	**YES 6/10/15**	C4035201	STP	$1,250,000	$143,068	$1,393,068	**$384,166** **27.6%**	Implementation Status: 25% Second Technical Advisory Committee and Task Force meetings held with bridge evaluation criteria finalized. Geotechnical assessment and hydraulic investigation memos finalized. A draft of the traffic impact analysis has been reviewed and commented on, and a preliminary assessment of the bridge alignments and location alternatives has been completed by consultant team.

Summary Notes:

1) UPWP Regionally Significant projects are awarded federal funds from various sources (often as part of the RFFA call) which are committed to the Planning phase in the MTIP/STIP to complete various planning and pre-NEPA project development activities. Generally, these are unique projects with focused objectives, and are not annually recurring projects. These projects will be programmed in the MTIP/STIP as stand-alone projects for IGA development and obligation purposes.

2) Projects with funding programmed in the Planning phase become UPWP projects. Projects with funding programmed in the Preliminary Engineering phase are not UPWP projects. Their activities as part of NEPA and/or Preliminary Specifications & Estimates (PS&E). They are monitored through the regular federal capital project delivery process managed by the ODOT Local Agency Liaisons (LALs).

3) UPWP projects also can have their funds de-obligated by FHWA if no expenditure activity has occurred after 1-year from the obligation date. Due to this, UPWP quarterly reports need updates concerning current project expenditures from the lead agency as part of the report.

4) Status Notes: Includes the project implementation status percent which represents the approximate delivery and completion of approved project scope work elements. The implementation status is at 0% until the federal funds are obligated and the project receives its Notice to Proceed (NTP) .

Memo

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Date: Monday, July 17, 2017

To: TPAC and Interested Parties

From: Ken Lobeck, Funding Programs Lead, 503-797-1785

Subject: Metropolitan Transportation Improvement Program (MTIP) July 2017 Amendments Notification

BACKGROUND:

The summer months of July and August are the critical months for federal fund obligations. Approximately 90% of the annual federal year fund obligations will occur during the end of July and through August. Federal Fiscal Year 2017 is no different. However, prior to completing the federal fund obligations, MTIP and Statewide Transportation Improvement Program (STIP) project amendments may be first required to ensure:

- The correct federal funding and matching funds are stated in proper phase for the project.
- Cost adjustments to phases are completed.
- Scope, description, lead agency, or other required adjustments are completed to ensure they match up with the Intergovernmental Agreement (IGA), National Environmental Policy Act (NEPA) document, etc. as a pre-curser requirement to the fund obligation.
- The amendments support required federal or state approvals, or changes to project documents (IGA, PCR, etc.) which then allows the federal funds to move forward to be obligated.

As July 2017 began, formal amendments to the MTIP ceased due to insufficient time to complete all processing and approvals in time to meet the end of federal year 2017 obligation timing requirements. Actions for these projects will need to occur in fall, 2017 through the new 2018 MTIP and STIP.

MTIP administrative modifications/amendments as authorized within the STIP/MTIP Amendment Matrix continue. As the end of federal obligation year approaches, administrative amendments are occurring for two primary reasons:

- Increase or adjust phase funding, make minor project descriptions, limit changes, or other required allowable administrative corrections needed to authorize the phase fund obligations.
- Make necessary adjustments as noted above to allow any required federal or state approvals to occur where the MTIP/STIP is used as a validation tool.

As of mid July 2017, Metro submitted the first July administrative amendment project bundle to ODOT for approval. A copy of the first July 2017 administrative amendment bundle is included on the next page. There will be a second administrative amendment bundle that will be submitted around the end of July. Currently, the second July administrative amendment bundle contains three projects. That number is expected to increase. Administrative amendments will continue well into August, as required in support of the above. This will help ensure federal funds can be obligated before the end of the FFY 2017 obligation year.

Metro July 2017 MTIP Administrative Amendment Bundle

Amendment Number: AB17-05-JULY1, Resolution: N/A
Number of projects within this amendment:
Amended Project Summaries and Narratives

Metro

Project List				
ODOT Key	Lead Agency	Project Name	Project Description	Amending Changes
19279 **(1)**	Gresham	SANDY BLVD: NE 181ST AVE TO EAST GRESHAM CITY LIMIT	Construction of multimodal, freight access and mobility facilities	Slip ROW from 2017 to 2018
20382 New (2)	Multnomah County	Morrison Street: Willamette River (Morrison) Br	Remove existing lead-based paint and apply new protective paint. Remove current debris from bridge bearings, paint. Add a maintenance access catwalk for the fixed river spans	Adding new project to MTIP – PE phase only. Advancing PE form 2018 to 2017
13502 **(3)**	Portland	NE Columbia Boulevard at OR99E (MLK Jr. Boulevard)	Construct right turn lane, sidewalk, ADA ramps and planting strip on Columbia including additional sidewalk work on MLK	Adding a UR phase by de-obligating unexpended STP and match and shifting it from PE to UR.
19794 **(4)**	Portland	SE 122ND AVE: JOHNSON CREEK BRIDGE REPLACEMENT	Emergency replacement of bridge #51C20.	Add UR phase to the project
19297 **(5)**	Portland	EAST PORTLAND ACCESS TO EMPLOYMENT AND EDUCATION	Sidewalks crossings bus stops bike facilities and other safety facilities	Slip ROW from 2017 to 2018 due to PE not completed in time to obligate ROW before the end of 2017. Construction schedule not impacted.
18836 **(6)**	ODOT	I-5: N TIGARD INTCHGE – E PORTLAND FWY. INTCHGE	Construct a SB auxiliary lane from Lower Boones Ferry Rd to the I-205 Interchange and widen the NB Lower Boones Ferry Exit Ramp.	Cost increase: Add a total of $1.1 million to the project ($700k from Key 18836 and $400k from the ODOT Bridge program reserves)
18757 **(7)**	ODOT	OR213 Operational Improvements	ADA Ramps, signal replacement, audible pedestrian equipment and drainage at the intersections of Foster Rd. Woodstock Blvd and Flavel St.	Slip Construction phase to 2018
18841 **(8)**	Washington County	OR217: OR10 - 99W SB AUXILIARY LANE	Design work for a southbound Auxiliary Lane from the intersection of OR10 to 99W	Cost decrease: transfer PE phase funding ($700K) total to Key 18836 also being completed as part of this amendment bundle

Projects Currently Identified to Be Included in the Second July 2017 MTIP Administrative Bundle				
ODOT Key	**Lead Agency**	**Name**	**Description**	**Required Change**
19719	ODOT	OR212/224 SUNRISE CORRIDOR: 122ND AVE - 172ND AVE	Funding for RW protective purchases	De-obligate a total of $360k and re-program to Keys 19720 and 19721
19720	ODOT	OR224 (MILWAUKIE EXPRESSWAY): SE RUSK RD - I-205	Add a westbound lane and improve the signals	Add $270k total to the PE phase. Funding from Key 19719 above.
19721	ODOT	I-205 NB: MP13.3 - SUNNYBROOK EXIT	Add a northbound auxiliary lane from westbound Sunrise entrance ramp to Sunnybrook exit ramp.	Add $90k total to the PE phase. Funding from Key 19719 above.

Meeting minutes

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Meeting: **Transportation Policy Alternatives Committee (TPAC)**

Date/time: Friday, June 30, 2017 | 9:30 a.m. to noon

Place: Metro Regional Center, Council chamber

Members Attending	**Affiliate**
Tom Kloster, Chair	Metro
Joanna Valencia	Multnomah County
Chris Deffebach	Washington County
Lynda David	SW Washington Regional Transportation Council
Judith Gray	City of Portland
Don Odermott	City of Hillsboro and Cities of Washington County
Eric Hesse	TriMet
Dave Nordberg	Oregon Department of Environmental Quality
Phil Healy	Port of Portland
Glenn Koehrsen	Community Representative

Alternates Attending	**Affiliate**
Steve Williams	Clackamas County
Amanda Owings	City of Wilsonville and Cities of Clackamas County
Chris Strong	City of Gresham and Cities of Multnomah County
Jon Makler	Oregon Department of Transportation

Members Excused	**Affiliate**
Karen Buehrig	Clackamas County
Nancy Kraushaar	City of Wilsonville and Cities of Clackamas County
Katherine Kelly	City of Gresham and Cities of Multnomah County
Kelly Brooks	Oregon Department of Transportation
Michael Williams	Washington State Department of Transportation
Rachael Tupica	Federal Highway Administration
Tyler Bullen	Community Representative
Charity Fain	Community Representative
Heidi Guenin	Community Representative
Patricia Kepler	Community Representative
Alfred McQuarters	Community Representative

Guests Attending	**Affiliate**
Luke Pelz	City of Beaverton
Zoe Monahan	City of Tualatin
Dwight Brashear	SMART/City of Wilsonville
Mark Lear	Portland Bureau of Transportation
Sorin Garber	SGA

Metro Staff Attending

Ken Lobeck, Senior Transportation Planner
Jamie Snook, Principal Transportation Planner
Grace Cho, Associate Transportation Planner
Marie Miller, Administrative Assistant
Kim Ellis, Principal Transportation Planner
Lake McTighe, Senior Transportation Planner
Caleb Winter, Senior Transportation Planner
Nicholas Simmons, Transportation Intern

1. **Call to Order, Declaration of a Quorum and Introductions**

Chair Kloster called the meeting to order at 9:40 a.m. and declared a quorum was present. Member introductions were made.

2. **Comments From the Chair and Committee Members**

- ***Call for Projects Update (Kim Ellis)*** Ellis presented information on the RTP Call for Projects with key dates and updates from the project. A workshop will be held on July 10, 2017 to provide agencies, partners and local jurisdictions the opportunity to have their questions answered and review examples of projects online with the new database called the RTP Project Hub. The deadline for submitting project information in the Hub is July 21, 2017. Project list endorsements are due by Aug. 25, 2017.

  Members asked questions. A summary of Metro staff responses follow:
  - Studies and planning projects should not be included on the RTP project list. Instead, agencies should provide a list of studies and planning projects with a brief description of the study (including its purpose) and estimated cost when they submit their project lists. A memo transmittal would be sufficient.
  - The pilot project evaluations were originally due July 21, but have been extended to August 25 with project list endorsements. A pilot project evaluation worksheet is being developed for agencies to use, and will soon be available online at: oregonmetro.gov/2018projects.
  - Local cost sharing between agencies should be tracked separately outside of the Hub.
  - Modeling details for projects that change roadway capacity or add bike infrastructure must be resubmitted through the Hub, even if modeled in the 2014 RTP.

- ***Regional Transportation Snapshot (Tom Kloster)*** Chair Kloster pointed to the June 2017 Regional Snapshot on Transportation in members' packets.

- ***Congestion Mitigation Air Quality Program (CMAQ) Update (Grace Cho)*** Ms. Cho presented information on statewide CMAQ funding allocation discussion. She reminded TPAC members the reason for the statewide CMAQ discussion is because two areas (Eugene and Salem) have become eligible to receive Federal CMAQ funding. ODOT has brought stakeholders together at meetings to work on the statewide redistribution of CMAQ funding throughout 2017. A proposal for that distribution was presented to the OTC in June. With more details being worked on, it is expected a decision will be made at the OTC July 20 meeting. Metro staff is developing a comment letter for JPACT to approve for the July OTC meeting.

- ***Regional Travel Options (RTO) Strategic Plan Kickoff (Caleb Winter)*** Winter presented information on the new RTO Strategic Plan. Since this was first presented by Dan Kaempff in March to TPAC, Alta Planning + Design has been hired to lead this effort. Over the next few months, they'll be reaching out to our regional partners in several different ways to gather input. Through July and August, interviews will be conducted with key RTO program partners to capture their thoughts on how the program should evolve. Later in August, through October, Metro and Alta will be conducting a series of five workshops to discuss issues relative to the RTO program, and gather stakeholder input on policy direction for the program over the next 10 years.

  Staff is casting a wide net with these workshops, because one of our goals for this strategy update is to bring new partners from around the region into the program to help expand our reach into more suburban communities and to more meaningfully engage communities of color. Workshop notifications will be sent soon. An update on progress will be presented at TPAC in

September and December with expected action on the plan from JPACT next spring. Contact Dan Kaempff with any questions.

- ***I-84 Multimodal Integrated Corridor Management Deployment Plan (Caleb Winter)*** Winter reported on a grant awarded by the USDOT for an Integrated Corridor Management (ICM) Plan. This work was described as integrating operations of the transportation networks (road, transit, bike, etc.) in the travel shed from the Willamette River to Troutdale, between NE Sandy and SE Powell. The planning work begins with developing objectives and a shared vision over the next several months, before considering a range of management tools to help agencies coordinate their responses to recurring and non-recurring congestion. A Project Steering Committee composed of Metro, ODOT, TriMet, City of Gresham, City of Portland, Multnomah County and FHWA Oregon Division has formed that will work toward a spring 2018 completion of the plan. An ICM Evaluation workshop was held the previous week with FHWA to bring the steering committee up to speed on details with national examples. Input will be gathered at a stakeholder workshop and through online surveys that will inform this ICM plan, to be presented to TPAC at a later date.

  Judith Gray asked what the break down was between Incident Response compared to tools to deal with recurring congestion. Winter reported that the primary purpose of ICM is to give these agencies the ability to integrate operations for both incidents and recurring congestion for all users (drivers, freight, transit and other travel options) with improved safety. Traffic today will re-route in an ad-hoc way and this ICM plan helps agencies reassess management tools. When asked how drivers could be educated for better travel on freeways, Jon Makler reported that deployment of electronic advisory messages to alert drivers helps, but transportation operators are always looking at more ways in which to improve driver education and safer conditions.

- **Comments from Committee Members.** Chris Deffebach reported that Washington County was identified as one of the new Oregon Solutions projects. The Cedar Mill Creek Flood Radiation Project will build roads around the NIKE campus to prevent flooding. Business owners, local jurisdictions and agencies have this project tool to help mediate areas regarding flood areas. It's a reminder to find solutions in planning for issues such as storm water runoffs and flood control.

  Chair Kloster asked if ODOT would present a legislative overview at July's TPAC meeting. Jon Makler agreed to provide an ODOT summary from highlights of the recent legislative session.

3. **Citizen Communications on Agenda Items**
   There were no comments.

4. **Consideration of TPAC Minutes for May 26, 2017**

   MOTION: To approve the minutes of May 26, 2017 as presented.
   Moved: Chris Deffebach Seconded: Jon Makler
   ACTION: Motion passed unanimously.

5. **2015-18 Metropolitan Transportation Improvement Program (MTIP) Amendment Resolution 17-4819**

Ken Lobeck presented a request for TPAC approval recommendation on Amendment Resolution 17-4819 to JPACT enabling two new projects, one proposed canceled project plus one partially deprogramming action to occur in the 2015-18 MTIP allowing final approval to then occur from USDOT.

This consists of four projects affecting Clean Water Services, Gresham, Portland and ODOT.

Clean Water Services – Rock Creek Fueling Infrastructure at Hillsboro
City of Gresham – Division Street Corridor Improvements Project
City of Portland (new project) – SW Moody Avenue and Bond Avenue Corridor Improvements
ODOT (new project) – OR99W SW Naito Parkway to SW Huber Street, Phase 2

Following details provided of each project, it was asked where clean water services funding was for the Port of Portland. They applied for a grant but have not seen any response, or known information on a reallocation process. Lobeck will research this matter and provide information when known.

MOTION: To approve recommendation to JPACT on Amendment Resolution 17-4819.
Moved: Judith Gray Seconded: Glenn Koehrsen
ACTION: Motion passed unanimously.

6a. 2018-2021 Metropolitan Transportation Improvement Program (MTIP) Resolution 17-4817

Grace Cho presented an overview of the adoption draft of the 2018-2021 MTIP, which represents nearly $1.5 billion in transportation funding expected to be invested in the region's transportation system over fiscal years 2018-2021 from the four agencies responsible for administering federal transportation dollars (Metro, ODOT, SMART, and TriMet).

Ms. Cho reported that a link to the adoption draft of the 2018-2021 MTIP, resolution and staff report in the meeting packet provides more information on the development of the 2018-2021 MTIP, including the public comment. She reminded TPAC members the adoption of the 2018-221 MTIP is a necessary step to make the transportation projects and programs defined in the 2018-2021 MTIP eligible to receive federal funds and to reimburse project costs.

A question was asked if projects that are split between MTIP years are obligated to be reported for both cycles, or in just one. Grace Cho and Ken Lobeck reported that there is some overlap in projects between the current MTIP (2015-2018) and the adoption draft MTIP (2018-2021). The timing and how to get projects completed in the timelines reported has been difficult, with FHWA looking to find solutions for this with partners. More monitoring of projects closer to end of cycles is expected, identifying the delays and cost increases, and why they are occurring will help with the solution.

The implications to the region is if projects are delayed and have cost overruns, it could mean funding is withdrawn on projects or possibly would reduce future funding available to the region. FHWA understands this problem needs to be addressed. Mr. Lobeck will present more information on this in the fall.

MOTION: To approve recommendation to JPACT on Resolution 17-4817 Adopting the 2018-2021 MTIP.
Moved: Don Odermott Seconded: Eric Hesse
ACTION: Motion passed unanimously.

6b. 2018-2021 Metropolitan Transportation Improvement Program (MTIP) Air Quality Conformity Determination Resolution 17-4816

Grace Cho presented information on the federal required air quality conformity analysis, which is the update of each RTP and/or development of new MTIP. The air quality conformity determination must demonstrate compliance with all federal and state mandates pertaining to air pollutants for the region to remain eligible to receive federal funds for transportation projects. The air quality analysis for the 2018-2021 MTIP looked at 213 projects, underwent public comments and agency comments, which are

in the meeting packet. Staff is asking TPAC to recommend to JPACT the approval of the 2018-2021 MTIP Air Quality Conformity Determination Resolution 17-4816.

MOTION: To approve recommendation to JPACT on Resolution 17-4816 MTIP Air Quality Conformity Determination.
Moved: Dave Nordberg Seconded: Jon Makler
ACTION: Motion passed unanimously.

7. 2018 RTP: Transportation Equity Evaluation Update

Grace Cho presented information on the Transportation Equity Assessment conducted as part of the 2018-2021 MTIP development. She mentioned the purpose of the transportation equity assessment was helpful with testing a suite of evaluation measures prior to the RTP Call for Projects in order to identify issues in methodology and reporting systems. Asked to define historically marginalized population, Ms. Cho reported historically marginalized populations are defined as population of color, low income, limited English speakers, seniors of 65 years or older, and youth 17 years or under.

The evaluation measures were grouped primarily around four topics areas: Accessibility, Transportation Safety, Affordability and Environment. Due to, capacity constraints affordability measure is being deferred until a later time. The six system evaluation measures addressing transportation, and results, are:

- Access to jobs – Holding steady or seeing (very) small increases. Increased access to jobs tends to be gained in transit.
- Access to community places, defined as access to civic places, access to foods/retail/commercial business/medical offices, libraries – Holding steady or small incremental increase and/or decrease. Increase seen within transit; decrease saw within bike for one instance.
- Access to travel options – Access to Transit showed incremental increase in sidewalks and bicycle infrastructure near transit. Mileage and density showed incremental increases in sidewalk, bike, and trail mileage and density.
- Transportation safety investments – Only 13% of 2018-2021 MTIP are transportation safety investments. Of the 13%, 76% are in historically marginalized communities, and 60% are in focused historically marginalized communities. Per capita spending is higher in historically marginalized communities.
- Exposure to Non-Freeway Vehicle Miles Traveled – With the 2018-2021 MTIP investments, the analysis showed that vehicle miles traveled slightly decreases in historically marginalized communities.
- Resource Habitats and Transportation Investments – The disproportional percentage of 2018-2021 MTIP transportation investments with a potential impact to high value habitat in areas with historically marginalized communities indicates the information of the potential impact be brought forward so appropriate consideration be incorporated.

In summary, Ms. Cho mentioned that five of the six evaluation measures performed in the desired direction for historically marginalized communities. Additionally, the methods developed around the three themes: Accessibility, Transportation Safety, and Environment, tends to work and can be deployed as part of the 2018 RTP.

A question was asked on whether the evaluations were conducted for individual projects or at a system wide level. Ms. Cho responded that the MTIP uses a system-wide approach for evaluating. She also mentioned there are some limitations to the system-wide evaluation approach.

Clarification was made that project findings were for testing the methodology, for better learning about MTIP projects. Glenn Koehrsen added that access to transit for seniors on bikes may differ on results depending on the health/age and distance of travel; another important factor in the evaluations.

Steve Williams asked what the methodology was for the impact to habitat measure. Ms. Cho provided an explanation of the methodology.

Jon Makler recommended not getting distracted from the results on the evaluations which identifies potential environmental impacts but focus on results that work. Don Odermott concurred; identify what projects enhanced efforts to identify new strategies for new projects. Shifting populations of HMC need to be addressed beyond short-term investment periods for better strategic planning, which can be done for RTP programs and MTIP.

Ms. Cho summarized the specific recommendations to address habitat results:

- Investigate and categorize transportation investments into tiers based on potential impacts
- Inform sponsors and ODOT local liaisons for monitoring as projects go through environmental and project development. Track mitigation strategies and engagement with HMC.
- Metro staff needs to follow up and report as part of 2021-2024 MTIP
- Adopt and follow up through on resource habitat recommendations. Monitor MTIP implementation
- Address and refine method issues. As part of prep for 2018 RTP investment package evaluation
- Different evaluation strategy for maintenance projects vs. capital projects (future work program)

Some of the lessons learned with the evaluation measures were that generally they work, but certain measures need to be simplified and to communicate what the results mean. For example, the assessment speaks to direction toward goals, but not to a specific community experience. Also, mentioned was despite having a testing phase, more time is needed to work through the methodological challenges and build the appropriate methods.

Steve Williams reviewed the list of 37 projects on the list provided which identifies transportation projects with potential habitat impacts in historically marginalized communities, with 19 of these projects, the project identified is maintenance projects (repairing, repaving, etc.) with no environmental impact, yet identified as potential environmental impact. It was suggested that project lists be reviewed and sorted out using the example from FHWA categorical exclusion project lists that exempts maintenance projects from environmental impacts analysis.

Don Odermott missed seeing more of a cross mix of projects on the list with potential habitat and environmental justice impacts. More use of tools that are available to distinguish between low/high impacts might be more advantageous for the measurements. Judith Gray regretted not seeing the measurements for affordability at this time, but appreciated that the tools for developing this measurement would be available for the next RTP. It was agreed that it is challenging to capture all the information needed accurately with different methodology in test runs, but this was a good start with testing on MTIP projects to help with RTP, and to develop improvements for the future.

8. **2018 RTP: Designing Livable Streets**
   Agenda item tabled until next TPAC meeting.

9. 2018 RTP: Regional Transit Strategy

Jamie Snook provided an update on work developing the Regional Transit Strategy and emerging transit strategies. The objectives of the Regional Transit Strategy are to:

- Implement the 2040 Growth Concept and Climate Smart Strategy
- Update RTP transit-related policies and performance measures
- Update the current Regional Transit Network Map and High Capacity Transit May
- Update the Transit System Expansion Policy
- Recommend a coordinated strategy for future transit investments and identify potential partnerships, strategies and funding sources for implementation

We are building a strong Regional Transit Vision that coordinates plans and priorities of our regional partners. Building off of the Climate Smart Strategy, the regional transit vision is to make transit more frequent, convenient, accessible and affordable for everyone. Comprised of three components:

- Transit service improvements: local and regional transit service improvements designed to meet current and projected demand in line with local and regional visions.
- Capital investments: high capacity transit and new enhanced transit strategies such as signal priority, queue jumps, enhanced transit corridors or high capacity transit options such as bus rapid transit or light rail.
- Transit supportive elements: including policies such as Travel Demand Management and physical improvements such as sidewalks, crossings and complementary land uses.

Jamie Snook provided information on a new concept emerging; enhanced transit corridors. This was developed as a way to quickly implement transit projects that increase speed, capacity and reliability in congested and heavily used transit corridors. These improvements tend to be relatively low cost, context sensitive, and quickly deployed when compared to HCT projects. Information on the ETC concept and levels of categories was explained, and where enhanced transit corridors was placed in the Regional Transit Spectrum. Work will continue to be developed on this as projects occur.

A series of maps was presented that showed regional transit connections in and out of our region, key bottlenecks in the region, future transit network (TriMet Service Enhancement Plan), the adopted High Capacity Transit map, which will be updated with changes (I-5 bridge crossing, Lake Oswego to Portland, Gresham to Damascus, Southwest Corridor and Powell Division lines), potential new transit corridors, and Transit Vision Draft with proposed updates.

Jon Makler asked if the I-5 bridge crossing was consistent with what is currently stated in the RTP. Chair Kloster and Jamie Snook confirmed that the Columbia River Crossing is listed with our long-term needs in project lists, and needs to be placed on the map for future needs. It will be listed in the RTP this way. Eric Hesse added that the RTP project draft list needs to reconcile with project development to advance progress. First steps are placing this on the strategic map. Don Odermott suggested highlighting a north/south connection between Columbia County and Washington County, on the map showing external transit connections, in relation to significantly more demand using Cornelius Pass Road.

Kris Deffebach commented on calling these maps 2018 when they contain some proposed connections and transit lines that may or may not be developed. A change in legend titles and identification for proposed projects will be updated to reflect this with current RTP. Continued development that encompasses a broader vision for transit strategy will be defined with future maps. It was noted that a better defined enhanced transit corridors map be developed, one that provided distinct further developed within the City of Portland, and future ETC where more development will be needed.

Jamie Snook briefly described the transit supportive elements that help form transit strategy: shared mobility programs, technology, access to transit, and other programs, policies and plans. The Transit System Expansion Policy framework was explained, with planned updating to:

- Apply to projects seeking FTA Capital Investment Grant (CIG) funding (commuter rail, light rail, BRT, corridor-based BRT, streetcar)
- Simplify existing criteria
- Ensure local support
- Guide the decision-making process for transit capital project prioritization

The core criteria assessment would apply to all projects that would likely seek federal funding from the FTA CIG program. This assessment focuses on mobility and ridership, land use supportive and market potential, cost effectiveness, equity benefit and environmental benefit. The assessment helps highlight which investment or set of investments perform best and their alignment with the transit vision. Local jurisdictions or agencies that want to move a project forward towards implementation would then be evaluated through the readiness assessment.

A question was asked how future growth and transit demands could be addressed before critical mass occurs, knowing that statistics don't adequately exist to identify these needs now. Mobility corridors may help plan and provide strategies to expected congestions. Chair Kloster added that major travel corridors and regional centers often overlap, showing high level travel directions. Monitoring of growth in the region with interconnected system maps that show trends for future travel needs can help us design better, futuristic anticipated fast and reliable transit systems.

Kris Deffebach commented on support of the system maps. It was suggested that acronyms that define the lines and specific areas on each map might be better, and extended from what PBOT has on maps now. Each of the lines now are in different phases of development, completed, or may never exist in the future. Clarity on the maps is needed.

Don Odermott commented on the enhanced transit corridor concept as a good idea. Washington County is working with TriMet on needs for planned growth with fresh looks regarding transit. He agreed that we need to plan now so we don't need to fix transit failures later. The heavily traveled north/south Hwy. 217 is being bypassed, which shows on the map as a need for a possible missing corridor. Having the RTP reflect this to add the corridor to the map was suggested.

Eric Hesse commented on the intent with what is being built on from all these strategies and plans; the jurisdictions are working together to help identify future needs and SEP visions. Knowing changes happen and reacting to them, we are making progress and will have these changes reflect in RTP project lists. Amanda Owings added that it was good to see the Lake Oswego to Portland line listed in the future project list. Judith Gray added that the City of Portland would be happy to share information from their TGM grant for planning concepts with their HCT corridor planning at the Transit work groups and coordinating committees.

10. Adjourn

Chair Kloster reported that combined TPAC/MTAC workshops are planned. Notice will be given for these. There being no further business, meeting was adjourned by Chair Kloster at 12 p.m.

Meeting minutes respectfully submitted by,
Marie Miller
Planning and Development, Metro

Attachments to the Record, Transportation Policy Alternatives Committee meeting, June 30, 2017:

Item	Topic	Document Date	Description
1	Agenda	6/30/2017	June 30, 2017 Meeting Agenda
2	TPAC Work Program	6/23/2017	TPAC Work Program as of 6/23/2017
3	RTP Fact Sheet	June 2017	2018 RTP Plan Fact Sheet
4	Metro's Call for Projects	May 2017	Overview for Metro's Call for Projects
5	Project Cost List Projects	June 2017	Project Cost List Projects for Metro's Call for Projects
6	RTP Call for Projects	June 2017	2018 Call for Projects for Agencies and Jurisdictions
7	Regional Snapshot on Transportation	June 2017	Regional Snapshot on Transportation
8	TPAC Minutes from May 26, 2017 Meeting	5/26/2017	Draft Minutes from TPAC May 26, 2017 meeting
9	Draft Resolution 17-4819	June 2017	Draft Resolution 17-4819 June 2017 Formal MTIP Amendment
10	Exhibit A to Draft Resolution 17-4819	June 2017	Exhibit A to Draft Resolution 17-4819, 2015-18 MTIP
11	Memo	6/21/2017	June 2017 MTIP Formal Amendment plus Approval Request of Resolution 17-4819
12	Attachment 1: June 2017 MTIP Formal Amendment	6/21/2017	June 2017 Formal MTIP Amendment Project Location Maps in Support of Resolution 17-4819
13	Memo	6/30/2017	2018-2021 MTIP and Air Quality Conformity Determination
14	Draft Resolution 17-4817	June 2017	Draft Resolution 17-4817, 2018-2021 MTIP
15	Handout	June 2017	Document Link to MTIP Adoption Draft
16	Staff Report	6/30/2017	Staff Report in Consideration of Draft Resolution 17-4817 to Approve 2018-2021 MTIP
17	MTIP Public Comments	June 2017	MTIP Public Comments, Project Specific
18	MTIP Public Comments	June 2017	MTIP Public Comments, Directed to Specific Partner Agencies
19	Draft Resolution 17-4816	June 2017	Draft Resolution 17-4816, Air Quality Conformity Determination
20	Handout	June 2017	Document Link to 2018-21 MTIP Air Quality Conformity Determination
21	Staff Report	6/30/2017	Staff Report in Consideration of Draft Resolution 17-4816 Air Quality Conformity Determination for MTIP
22	Memo	6/30/2017	2018-2021 MTIP Transportation Equity Analysis – Beta Test Results and Lessons Learned
23	Handout	June 2017	2018-2021 MTIP Transportation Equity Assessment - Projects with Potential Habitat and Environmental Justice Impacts – DRAFT
24	Memo	June 21	Update on 2018 RTP Transportation Design - Designing Livable Streets and Trails Guide
25	Handout	5/22/2017	RTP: Roster for Technical Design Work Group

26	Handout	6/14/2017	Draft Table of Contents Metro Designing Livable Streets and Trail Guide, Prepared by Kittelson & Associates, Inc.
27	Memo	6/21/2017	Regional Transit Strategy draft policy framework and vision
28	Map	June 2017	Attachment Map: Regional High Capacity Transit System Plan
29	Handout	June 2017	Regional Transit Strategy Vision and Strategies
30	Map	n/a	Attachment 3: 2014 RTP: Regional Transit Network Map
31	Handout	10/4/2016	Attachment 4: Enhanced Transit Corridors
32	Handout	10/4/2016	Enhanced Transit Corridors Typologies
33	Handout	Fall 2016	2018 Regional Transit Strategy
34	Handout	June 2017	2018 RTP: Guidance for updating information in the RTP Project Hub
35	Presentation	6/30/2017	June 2017 MTIP Formal Amendment & Approval Request of Resolution 47-4819
36	Presentation	6/30/2017	2018-2021 Metropolitan Transportation Improvement Program
37	Presentation	6/30/2017	2018-2021 MTIP Transportation Equity Results
38	Presentation	6/30/2017	Regional Transit Strategy

Memo

Metro
600 NE Grand Ave.
Portland, OR 97232-2736

Date: July 19, 2017
To: TPAC and Interested Parties
From: Lake McTighe, Senior Transportation Planner
Subject: Update on 2018 RTP Transportation Design - Designing Livable Streets and Trails Guide

Purpose

- Update TPAC on the Designing Livable Streets and Trails Guide project.
- Receive input from TPAC on the major elements of the draft Table of Contents for the guide.

Project Overview

Transportation design is one of eight policy priority areas for the update of the 2018 Regional Transportation Plan (RTP) update.[1] Transportation design policy and guidance will be updated and informed by the Designing Livable Streets and Trails Guide project. The purpose of the project is to update and provide new design guidance for roadways and regional trails to support achieving regional land use and transportation goals and policies.

The Designing Livable Streets and Trails Guide project will:

- Update current regional street and green street design guidelines.
- Create design guidelines for regional multi-use paths and regional nature trails.
- Develop resources, including decision making guidance, an image library, community stories, and case studies.
- Develop web-page for easy access of guide and resources.
- Convene workshops, forums and tours to engage, build partnerships, and increase awareness and knowledge of the role of designing livable streets in improving safety and creating healthy, equitable communities and a strong economy.
- Update RTP Design Classification policy map.

Project Approach and Timeline

Scoping of the project started in 2015 and was informed by interviews with agency staff. The project is anticipated to be completed by the end of 2018. The Transportation Design Work Group will provide input and technical expertise and will advise Metro staff on the project. Briefings on the progress of the project will be made to the Transportation Policy Alternatives Committee (TPAC) and the Metro Technical Advisory Committee (MTAC); those committees will also provide technical input. The work group will meet between six and eight times.

The bulk of the project is divided into two phases. Phase 1, currently underway, seeks input from the work group to determine the content and organization of the design guide. The final product in

[1] The policy priorities define the primary focus of the technical work, policy discussions and engagement activities to support development of the 2018 RTP. Each of the policy priority areas has a work group that will provide input to staff on draft materials and implementing policy direction from the Metro Council and regional policy committees. http://www.oregonmetro.gov/public-projects/2018-regional-transportation-plan

Phase 1 will be an annotated outline and example visualizations used to gain agreement on the structure and content of the guide. Phase 2 will develop and finalize the design guide and supporting materials. Engagement activities coordinated by Metro will delve into particular topic areas will take place in both phases. Metro will coordinate the project with relevant 2018 RTP topic areas, including freight, safety, transit and equity.

June 2015 to March 2017 – Scope Project

- Metro conducted interviews with staff from local jurisdictions and agencies to inform the scope of work.
- TPAC and MTAC provided input on the project scope in Sept and Oct of 2015.
- Metro developed a scope of work and selected Kittelson and Associates and their sub-consultants for the project.

April to December 2017 - Phase 1: Draft Outline, Determine Content and Policy Updates

- Develop outline for the guide, receive input from work group on major elements to include in the guide.
- Develop annotated outline indicating intent and level of detail for the content.
- Develop example chapter and visualizations.
- Update Design Classification policy map in the RTP.

January to December 2018 - Phase 2: Develop Guide and Resources

- Public comment on the draft 2018 RTP.
- Develop guide and resources.
- Develop webpage.

The Transportation Design Technical Work Group met for the first time on Thursday, June 29 and provide input on the Draft Table of Contents and list of resources (input is reflected in the attached version). Input from TPAC and MTAC, will be addressed in the Draft Annotated Table of Contents (TOC). The Annotated TOC will provide partners with an understanding of what is (and is not) proposed to be included in the updated design guide, and to provide an understanding of the intent, level of detail, examples, case studies, etc that will be included.

Project Team and Work Group

Input on the development of the guide and supporting resources will be provided through a variety of formats. The key participants directly involved in the project are identified below.

- **Project Management Team**: The project is guided by Lake McTighe (Metro, project manager), Lidwien Rahman (ODOT, project liaison), and Kittelson and Associates.

- **Consultant Team**: Kittelson and Associates (Karla Kingsley, Hermanus Steyn, Marc Butorac, Julia Knudsen), GreenWorks (Mike Faha, Gill Williams), Paste in Place (Ryan Sullivan), KLiK Concepts Erin Riddle, Brenda Fuste Bond Payne), and Morgan Holen, consulting arborist.

- **Technical Work Group**: Work group members include topical experts and community, business, city and county partners. The primary role of the work group is to provide in-depth and professional review of the design guidelines as they are developed.

- **Metro Internal Review Team**: Project deliverables are reviewed by an internal review team at Metro covering topics on freight, trails, wildlife habitat, transit, pedestrian and bikeway travel, placemaking and equity.

- **Metro Council and technical and policy advisory committees**: Briefings on the project will be made throughout the process to the Metro Council and to the Transportation Policy Alternatives Committee (TPAC), the Metro Technical Advisory Committee (MTAC), the Joint Policy Advisory Committee on Transportation (JPACT) and the Metro Policy Advisory Committee (MPAC).

Project Background

Metro street design guidelines were first developed in 1997 to provide a set of tools to elected officials, public agency staff, and the private sector for achieving regional livability goals, including protecting air and water quality. A primary goal was to implement the 2040 Growth Concept by linking land-use and transportation planning and providing design guidance for streets that was responsive to surrounding land uses. The design guidelines also provided tools to address state and federal transportation policies related to context sensitive design, the Clean Water Act and the awareness of the impacts of transportation on habitat, wildlife and endangered species.

The program started with the release of the Creating Livable Streets guidelines. Since then the program has grown to include a suite of guidelines. The guidelines are currently only available in hard copy through mail order, and the webpage content for the program is minimal. The need to update the design guides was identified as an implementation activity in the 2010 RTP.

Description of current guidelines:

- Creating Livable Streets—Street Design Guidelines. Last updated in 2002, these guidelines describe how communities can design streets to better serve walking, biking and transit while also preserving auto travel and freight movement. The guidelines described in the handbook serve as tools for improving existing streets and designing new streets.

- Green Streets—Innovative Solutions for Stormwater and Stream Crossings. Created in 2002, this handbook describes basic stormwater management strategies and illustrates "green" street designs with features such as street trees, landscaped swales and special paving materials. The handbook also provides guidance on balancing the needs of protecting streams and wildlife corridors from urban impacts and providing access across streams as part of good transportation design.

- Trees for Green Streets—An Illustrated Guide. This handbook describes the role of street trees in managing stormwater. Appropriate tree species for the region are illustrated in the book, with a list of major characteristics. The handbook is intended for use in conjunction with the Creating Livable Streets and Green Streets handbooks.

- Wildlife Crossings– Providing safe passage for urban wildlife (will not be updated through the project). This was developed in 2009 and describes an approach to identifying wildlife inventory and linkages and mitigating the ecological effects of roads on wildlife populations through wildlife crossings.

- Green Trails (will not be updated through the project)– Guidelines for environmentally friendly trails. Developed in 2002, this handbook describes approaches to developing trails

and paths that are friendly to the surrounding environment, keeping impacts on natural resources to a minimum.

The guidelines are intended to be used in a variety of ways; however use of the guidelines has declined as they become more outdated and more people desire resources to be available on-line. Metro utilizes the handbooks when commenting on and providing technical assistance on transportation plans, projects and program. The Regional Transportation Functional Plan (RTFP), the implementing plan of the Regional Transportation Plan (RTP), specifies that city and county street design regulations shall allow implementation of the recommended designs. Additionally, transportation projects funded with federal Regional Flexible Funds must follow the design guidelines.

Since the region's growth strategy was adopted and the current design guidelines were last updated, many transportation projects have been completed. Lessons learned and recognition of new challenges should inform the project and the update of the design guidelines, including:

- Use of outcomes based planning framework and performance based design
- One size approach to transportation design does not fit all projects
- Adoption of the 2010 Regional Freight Plan, the 2014 Regional Active Transportation Plan, and the 2014 Climate Smart Strategy
- Completion of the 2012 Regional Transportation Safety Plan, identification of high injury corridors in the region, and rising pedestrian deaths in the region
- Expanding national research and efforts related to street design, especially for bikeway and intersection designs
- Nature can be part of the street
- Recognition of regional trails and multi-use paths as an important part of transportation
- Stormwater management is the responsibility of transportation planners and engineers
- Design can help reduce speeds and prevent severe injury crashes
- Autonomous vehicles
- Rising use of e-shopping and door to door delivery of goods
- Rising severe crashes
- Rapidly growing bicycle commute trips
- Growing diversity
- Growing aging population

Next Steps

July 28	Update to Transportation Policy Alternatives Committee (TPAC)
Aug 2	Update to Metro Technical Advisory Committee (MTAC)
Sept 28	Work Group Meeting #2 – Annotated Outline
Nov9	Work Group Meeting #3 Final Annotated Outline/Sample Visualizations
2018	Phase 2 Begins

Attachments

- Work Group Roster
- Draft Table of Contents – Metro Designing Livable Streets and Trails Guide

Metro

www.oregon**metro.gov/rtp**

5/22/17

2018 REGIONAL TRANSPORTATION PLAN

Roster for Design Technical Work Group

Metro is working with local, regional and state partners and the public to update the region's shared vision and strategy for investing in the regional transportation system for the next 25 years.

To support development of the 2018 Regional Transportation Plan, Metro staff are convening eight technical work groups to provide input to the project team on implementing policy direction from the Metro Council and regional policy advisory committees. In this role, the work group members review and provide feedback to Metro staff on draft materials and analysis, keep their respective elected officials and agency/organization's leadership informed. The work groups also help identify areas for further discussion by the Metro Council and regional technical and policy advisory committees.

Work group members include topical experts and representatives from the Metro Technical Advisory Committee (MTAC) and the Transportation Policy Alternatives Committee (TPAC) or their designees, and other community, business, city and county partners. Meetings of the technical work groups are posted on Metro's calendar at www.oregonmetro.gov/calendar and www.oregonmetro.gov/rtp.

Design Work Group | *as of 5/22/17*

	Name	Affiliation
1.	Lake McTighe (project manager) Anthony Buczek Robert Spurlock	Metro
4.	Chris Strong	City of Gresham
5.	Denver Igarta (planning) Scott Batson (engineering) Zef Wagner (alternate)	Portland Bureau of Transportation, City of Portland
6.	Jeff Owen	TriMet
7.	Dyami Valentine (planning) Rob Saxton (engineering, alternate)	Washington County
8.	James Reitz Richard Blackmun (alternate)	City of Forest Grove
9.	Jeannine Rustad	Tualatin Hills Parks and Recreation District
10.	Scott Hoelscher (planning) Rick Nys (engineering)	Clackamas County
11.	Carol Chesarek	Community member/ MTAC
12.	Stephanie Noll	Street Trust
13.	Zach Weigel	City of Wilsonville
14.	Joseph Auth Rich Crossler-Laird Lidwien Rahman (project liaison)	Oregon Department of Transportation
15.	Ryan Guy Hashagen	Better Blocks PDX, Portland Pedals
16.	Brendon Haggerty	Multnomah County – Public Health
17.	Bob Galati Julia Hajduk (alternate)	City of Sherwood
18.	John Boren	City of Hillsboro
19.	Allan Schmidt	Portland Parks and Recreation, City of Portland

20.	Mike Houck	Urban Greenspaces Institute
21.	Kathryn Doherty-Chapman	Oregon Walks
22.	Nico Larco	Sustainable Cities Initiative, University of Oregon
23.	Eileen Cunningham	Multnomah County – Planning and Engineering
24.	Tim Kurtz	Portland Bureau of Environmental Services, City of Portland
25.	Stacey Revay	City of Beaverton

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The following Draft Table of Contents (TOC) is based on the information in the existing *Creating Livable Streets*, *Green Streets*, and *Trees for Green Streets* guides, work sessions with Metro staff, and a review of other agency best practices. The specific information for each section will be determined during the development of the Annotated Outline. The content for the guide will be a combination of existing material from the existing guides and new information from current policies and best practices.

METRO DESIGNING LIVABLE STREETS & TRAILS GUIDE
DRAFT TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION

1.1 Purpose
- Regional Land Use and Transportation Vision
- Regional Transportation Plan (RTP) Goals

1.2 Who Will Use the Guide

1.3 How to Use the Guide

1.4 Summary

CHAPTER 2: DESIGN POLICY

2.1 Introduction: Describes what is in chapter and why it is important

2.2 Street and Trail Design in Land Use Context
  i. Context sensitive design
  ii. One size approach to transportation design does not fit all projects
- Lessons Learned and New Challenges

2.3 Design Outcomes: Designing for Today and Future
- Safety (elimination of serious and fatal crashes)
- Transportation Choices
- Efficient and Reliable Travel
- Healthy People
- Security
- Healthy Environment –(clean air and water, protected habitat)
- Reduced Green House Gas Emissions
- Sustainable Economic Prosperity
- Equity (leading with race)
- Vibrant Communities and Efficient Urban Form
- Resiliency

- Fiscal Stewardship (asset management, ROI)

2.4 Design in Context – Flexibility in Design – describes big picture design policy

2.5 Regional Policy

- 2040 Regional Land Use Types
- Regional Design Classifications
- Outcomes based planning - moving people
- Regional Modal Plans
- Regional Transportation Functional Plan (RTFP)
- Climate Smart Strategy
- Vision Zero
- Racial Equity

2.6 State Policy

2.7 National Policy

2.8 Relationship to Local Policies

CHAPTER 3: DESIGN CLASSIFICATIONS

3.1 Introduction: Describes what is in chapter and why it is important

3.2 Design Functions

- Functions by Street and Trail Design Type
  - Pedestrian Access: People walking and people using a mobility device
  - Bicycle Access: People riding bicycles
  - Transit Access: People using transit
  - Truck Freight Access: Moving Goods, deliveries, e-commerce
  - Auto Access: People driving, automated and driverless vehicles
  - Place-making and Public Space
  - Public Green Space
  - Corridors for Nature (reducing urban heat through tree canopy,increasing wildlife habitat, handling intense precipitation events,
  - Utility Corridors
  - Enhancement/Buffer Zone
  - Physical Activity
  - Emergency Vehicle Access

3.3 Regional design classifications

- Throughways: Freeways and Highways (may be combined)
- Boulevards: Regional and Community (may change Community to Main Streets)
- Streets: Regional and Community
- Roads: Urban and Rural (may change Urban to Industrial)

- Regional Multi-Use Paths (new)
- Regional Nature Trails (new)

CHAPTER 4: DESIGN ELEMENTS AND CONSIDERATIONS

4.1 Introduction: what is in Chapter, why and how to use

4.2 Design Principles

- Priorities for Design Type and Context (macro and micro: zoning, main streets, schools, transit, business)
- Building frontages – best practices
- Designing for Each Function
- Connectivity
- Crime Prevention Through Environmental Design (CPTED) principles
- Design for all ages and abilities

4.3 The Street Realm: describes the different realms

4.4 Design Elements

- Land Use Realm
- Pedestrian Realm
  - Frontage Zone, including edge treatments of adjacent parking lots
  - Sidewalks
  - Pedestrian Through Zone (clear space for ADA)
  - Curb Zone: street furniture, bike share, green infrastructure
  - Transit stops and shelters
  - Enhancement/Buffer Zone
  - Curb Extensions
  - ADA
- Bikeway Realm
  - Protected bikeways/cycletracks (consideration, driveways)
  - Bike boxes
  - Signing and markings
  - Street crossings
- On-Street Realm
  - Access Management/Driveways (at sidewalk grade)
  - Traffic Calming
  - Vertical Speed Controls
  - Passive and Proactive Design
  - Medians
  - Mid-Block Crossings

        - Transit priority Lanes
        - Bus and Bikeway Interactions
        - Lane Width
        - Mixing Zones/ bike ped shared space/ Shared streets
    - Intersections
        - Raised intersections/ treatments
        - Crosswalks
        - Roundabouts/ mini-roundabouts
        - bikeways
        - Large vehicle turning
        - Pavement markings
        - Multimodal Considerations at Complex Intersections
    - Lighting
    - Wayfinding
    - Transition zones – transitioning from one land use context to another
    - Nature Corridors
    - Street trees
        - Climate resilient
        - Sidewalks around existing trees
        - Species that won't damage sidewalk
    - Stormwater Management
        - Green Stormwater Infrastructure – GSI: planters, swales, basins
        - Street Trees (climate resilient species)
        - pervious Surfaces (pavements, pavers – sidewalks, bikeways, islands, some streets)
        - Manufactured technologies
        - Detention
        - Design considerations: site conditions(infiltration, slopes, utilities, contamination); goals (volume reduction, flow control, water quality) approach (regional vs. distributed) maintenance
        - Performance data
    - Wildlife Crossings
    - Noise Mitigation
        - Buffers, Sound Walls
    - Regional Trails and Multi-Use Paths
        - Context
        - Designing with nature
        - ADA

- Widths – separating users
- On-street connections
- Bridges
- Intersections
- Crossings – mid-block and end block
- Driveways
- Lighting
- Surfaces
- Wayfinding

4.5 Design Considerations

- Emergency Vehicle Access – Emergency vehicle routes
- Safe Routes to School Access
- Transit routes
- Freight routes
- Environmental constraints (parks, wetlands, streams) / Wildlife Habitat
- Topography/ Slope and structures (Retaining Walls, Bridges)
- Automated and driverless vehicles, emerging technologies
- Climate change adaptation (heat, more rain, street trees, shade, shelter, pavement)Removing Existing Parking
- Maintenance
- Above and Underground maintenance (especially for stormwater management)
- Limited Right of Way (ROW) Considerations
- Volume to Capacity Ratio – Land Use
- Traffic Diversion (from street calming, bicycle boulevards, etc)
- Streets on the Urban-Rural Divide
- Public Perception of "Road Diets"
- Public Perception of Trails (including safety and security)
- Case Studies

CHAPTER 5: DESIGN CLASSIFICATIONS IN CONTEXT

5.1 Introduction: what is in chapter, why it is important, how to use

5.2 Streets: Urban and Suburban Context

- Throughways: Freeways and Highways (may be combined)
- Boulevards: Regional and Community (may change Community to Main Streets)
- Streets: Regional and Community
- Roads: Urban and Rural (may change Urban to Industrial)

5.3 Trails: Urban and Suburban Context

- Regional Multi-Use Paths (new)
- Regional Nature Trails (new)

CHAPTER 6: DECISION-MAKING IN CONTEXT

6.1 Introduction: what is in chapter, why it is important, how to use

6.2 Policy guides decision making

- Policy Guidance
- Applying Engineering Principles
- Focus on Intended Outcome

6.3 Performance-Based Design

- Developing Complete Networks to Serve the Desired Functions
- Defining Priorities and Needed Functions for Each Street, Trail
- Flexibility in Design
- Evaluating Trade-offs – Approach to prioritizing modes (NCHRP) Project 15-52 (prioritize modes Matrix)
- Data to support decision making

6.4 Applications – What/If Scenarios

- Retrofit versus New Street
- Constrained Right-of-Way (ROW)
- Intersections
- Case Studies

CHAPTER 7: IMPLEMENTATION STRATEGIES

7.1 Project Development Guidance

7.2 Temporary/Pilot Implementation

- Moving the curb with paint
- Parklets
- Temporary street closures
- Interim public plazas

7.3 Low-cost/Near-term

7.4 Incremental change (e.g. lot-by-lot through development)

7.5 New Street and Trail Designs

7.6 Repaving

7.7 Evaluation/Performance Based Design

7.8 Case Studies

HB 2017-10

- a brief overview -

Transportation Investments

Safety, Preservation, Maintenance & Seismic

Raises funds to improve state's bridges, highways and culverts, and make safety and seismic investments.

Provides historic levels of investment to cities and counties for maintenance of local infrastructure.

Multimodal Transportation

Provides funding in the first biennium to Connect Oregon program and directs funds for both the Treasure Valley Transmodal Facility and the MidWillamette Valley Transmodal Facility. Creates a funding mechanism that makes Connect Oregon a permanent program.

Public Transit

Makes new substantial statewide investment in public transit to improve the connectivity and frequency of bus service in rural and urban communities.

Bicycle & Pedestrian

Creates dedicated investments for bicycle and pedestrian commuter paths in Connect Oregon.

Provides $10 million per year for Safe Routes to Schools increasing to $15 million in 2023. Plus 1 percent of state highway fund revenue for bike and pedestrian projects on the highway system.

Marine Investment

Provides funding for marine dredging and derelict vessel removal.

Electric Vehicles

Provides $12 million per year for rebates for electric and other zero emission vehicles to promote their use in Oregon.

Roadside Rest Areas

Adds six rest areas and three state parks to the portfolio of rest areas managed by the Travel Information Council and provides funds to upgrade facilities.

Congestion Relief & Freight Mobility

OR 217: Makes full investment in bottleneck relief.

I-205: Widens northbound I-205 from Powell Boulevard to I-84. Uses technology to ease congestion. Requires planning to widen the freeway from Stafford Road to the Abernethy Bridge.

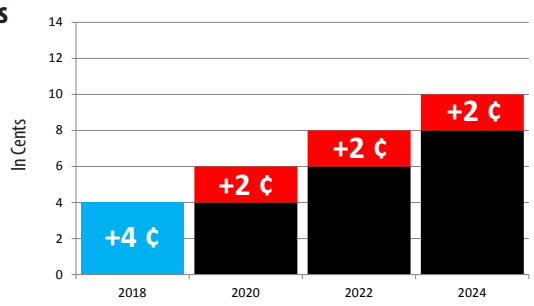
I-5 Rose Quarter: Invests in new lanes to improve reliability and plan for connectivity improvements across the freeway.

Funding Investments

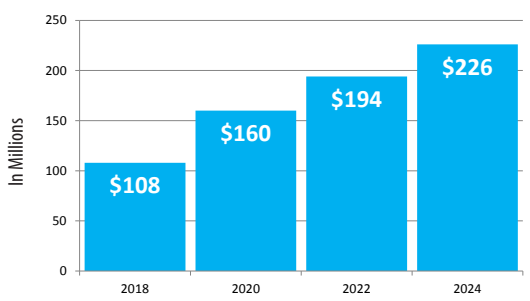
Vehicle Registration Fees, Title Fees, and Fuels Tax

Four increases stair-stepped over **six years.**

Last three increases conditioned on accountability.

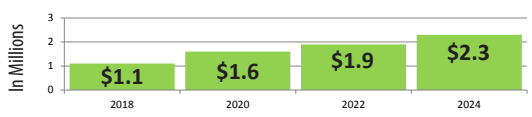


Vehicle Registration Fees, Title Fees and Fuels Tax Annual New Revenue Estimate

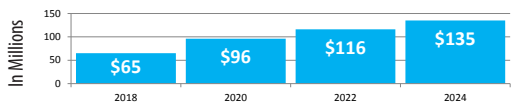


State Highway Fund (ODOT Share)

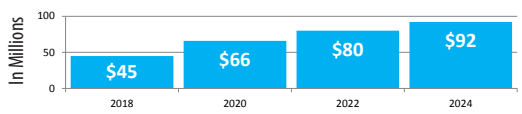
1% of ODOT's share of State Highway Fund Revenue goes to Bike/Ped.



State Highway Fund (Local Government Share)



Counties

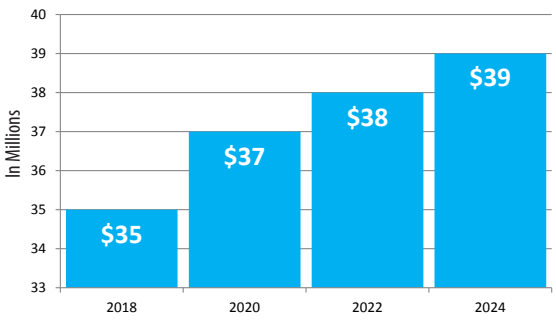


Cities

New Light Vehicle Dealer Privilege Tax

The privilege tax revenue is dedicated to **electric vehicle rebates** & **Connect Oregon**.

New Light Vehicle Dealer Privilege Tax Annual Revenue Estimate



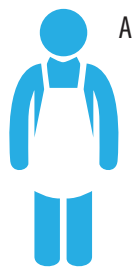
Bicycle Excise Tax

$15 fee

Only adult bicycles that cost $200 or more with wheels 26 inches or larger. The bicycle excise tax is expected to generate an **annual average revenue of $1.2 million.** Dedicated to bicycle and pedestrian projects in Connect Oregon.

Statewide Payroll Tax

1/10th of 1% of wages, deducted by employer from payment to employee.

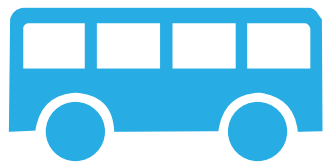


A worker earning minimum wage pays:

39 ¢ per week

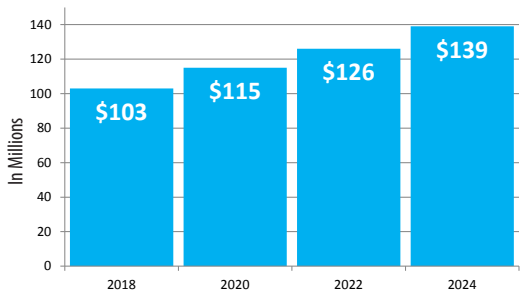
About $20.28 per year

The payroll tax revenue is dedicated to



public transit

Statewide Payroll Tax Annual Revenue Estimate



Policy

Accountability

Directs the commission to create a Continuous Improvement Advisory Committee for ODOT, measure and report on transportation system condition for all jurisdictions, create a transparency website, conduct benefit cost analysis for capacity building projects and create a stronger connection between the commission and the internal auditor of ODOT.

Value Pricing

Creates a pathway for use of value pricing to relieve Portland Metro area congestion.

Clean Fuels

Guarantees certainty with cost containment measures in statute for consumer protection.

Use of Salt

Requires a statewide winter maintenance strategy that includes the use of salt.

Jurisdictional Transfers

Transfers Outer Powell Boulevard in Portland, Pacific Highway West in Eugene, Springfield Highway in Springfield, Territorial Highway and Springfield-Creswell Highway in Lane County to local governments. Transfers Cornelius Pass Road in Multnomah and Washington Counties to ODOT.

House Bill 2017 –10 Amendment
Transportation Proposal
Section by Section Review

Accountability
Section 1. ○ Definitions for Oregon Transportation Commission and Department of Transportation statutes.
Oregon Transportation Commission
Section 2. Amends ORS 184.612 to: • Clarify that members of the Oregon Transportation Commission serve at the pleasure of the Governor. • Allow the Governor to remove a commissioner, provided notice is given with an opportunity for a hearing. • Prohibit members of the Commission from having a direct or indirect fiduciary interest in matters that relate to the Commission's duties at the time of their appointment. • Require Commission to meet at least quarterly (currently, the Commission meets monthly). • Set Commission quorum and general duties. • Authorize Commission to hire staff.
Sections 3 & 4. • Deleted.
Section 5. Amends ORS 184.619 • Allows OTC to adopt rules and establish policy (re-statement of current law).
Section 6. General Duties. Re-organizes and restates current law. Amends ORS 184.619 • Develop and maintain state transportation policies • Develop and maintain 20-year plan for multi-modal to include aviation, highways, mass transit, ports, rails, and waterways (restates and expands on ORS 184.618). • Coordinate with OSMB, OBDD, Aviation, cities, counties, mass transit districts, and transportation districts. • Develop list of projects for 20-years in the future that are capable of being accomplished using resources reasonably expected to be available. • Review and approve STIP, budget, capital construction, construction priorities, and selection, vacation, or abandonment of state highways. • Adopt statewide transportation strategy to reduce greenhouse gas emissions (re-states ORS 184.889)
Section 7. • Adds Sections 8 to 13 and ORS 366.150 to the Department of Transportation section of Chapter 184 (ORS 184.610 to 184.656).
Section 8. Authority to enter into agreements. • Expands the Commission's authority to undertake research projects. • Specifies some terms that must be included in research agreements.

Section 9. Real property inventory

- Requires the Commission to compile an inventory of property that is in excess of the department's operating needs.
- Requires the Commission to periodically review the department's property to ensure that property is being used to support the state highway system.

Section 10. Continuous Improvement Advisory Committee (CIAC)

- OTC shall appoint a CIAC composed of members of the commission, employees of ODOT, and transportation stakeholders.
- CIAC will advise OTC on ways to maximize efficiency, submit key performance measures, and report each odd-numbered year to the Joint Committee on Transportation concerning activities, recommendations, and actions taken.

Section 11. Describing transportation infrastructure conditions.

- Directs the Commission, in cooperation with counties and cities to develop uniform standards to describe the condition of the infrastructure
- Requires each county and city to report on the condition of the infrastructure under its jurisdiction.
- Requires the withholding of distribution of highway money to any county or city that has not reported by February 1 each year.
- Requires the Commission to report to the Legislative Assembly on the condition of the state's transportation infrastructure by April 1 in odd-numbered years.

Section 12. Website

- Requires the Commission and ODOT to develop and maintain an internet web site with certain information:
    - List of projects in the STIP, including information concerning each project and its status as it proceeds through the process. At completion, the information must report on a project's initial estimates for completion date and cost.
    - Reports of expenditures from counties and cities
    - Reports of the condition of Oregon's transportation infrastructure including information received from local government.
    - Results of audit reports.
    - Links to county and city web sites.
    - Links to web sites for *Connect*Oregon projects.

Section 12a.

- Applies requirements for reporting historical data to 2018 and afterwards.

Section 13. Cost Benefit Analysis

- Sets out the requirements for the Benefit / Cost analysis that must be completed before a large project (over $15 million) that adds capacity to the state highway system is added to the STIP.
- Requires that a project's Benefit / Cost analysis be available to the public when the project is considered for addition to the STIP.
- Exempts the statewide balancing projects (section 71d), multimodal projects (section

71f) and congestion relief projects (section 12) selected by Legislative action from the Benefit / Cost Analysis requirement.

Section 14. Criteria for Project Selection

- Changes the criteria that the Commission must use when selecting projects for the STIP:
  - Removes three criteria (operational effectiveness/reliability; reduce need for future highway capacity; and, improve connectivity)
  - Strengthens Benefit / Cost criteria, linking it to B/C analysis (section 13)
  - Adds consideration of seismic resiliency
  - Adds consideration of aggregate site locations

Section 15. Internal Auditor

- Directs the Commission to designate an internal auditor who reports jointly to the Commission and the ODOT director.
- Sets out the duties of the internal auditor.
- Requires the internal auditor to submit audit reports on the Commission. The Commission is required to post the reports after redacting material exempt from public disclosure.

Sections 16 and 17. Deleted.

Section 18. Report to Joint Legislative Audit Committee

- Directs OTC to report on audits of ODOT to Joint Legislative Audit Committee and Joint Transportation Committee once each biennium.

Section 19. Department of Transportation. Amends ORS 184.615

- Establishes the Department of Transportation.
- Outlines responsibility of OTC for strategic planning for the statewide transportation systems.

Section 20. Appointment of ODOT Director. Amends ORS 184.620

- Authorizes the Oregon Transportation Commission to appoint the Director of Transportation after consultation with Governor.
- Director of Transportation serves at the pleasure of the Commission.
- Restates the Director's authority to organize the department.

Sections 21 to 24. Deleted.

Section 25. Director's duties. Amends ORS 184.633

- Adds a duty to construct, coordinate and promote an integrated transportation system in cooperation with cities, counties, districts ports and private entities.

Joint Committee on Transportation

Section 26. Committee Membership and Terms

- Establishes Joint Committee on Transportation
- Specifies appoint authority, membership and terms.

- Provides for staffing of the Joint Committee by the Legislative Policy and Research Office.

Section 27. Committee's Responsibilities

- Responsibilities to include examination of transportation policy, general legislative oversight of ODOT, and recommendations to the Joint Committee on Ways and Means relating to transportation.

Section 27a & 27b.

- Requires the Committee to study whether the funds provided by this 2017 Act are adequate to maintain the state's transportation infrastructure.
- Requires the Committee to report prior to the adjournment of the 82nd legislative session (2023).
- Sunsets the requirement to study the adequacy of infrastructure funding on January 2, 2024.

Section 27c and 27d. Project Cost Reports

- Requires the OTC to study and report to the Joint Committee:
  - The cost to complete the Abernethy Bridge and I-205 Freeway Widening Project no later than February 1, 2018.
  - The cost to complete the I-5 Rose Quarter Project no later than February 1, 2020.
- Sunsets the study and reporting requirement on June 30, 2020.

Section 27e and 27f. Inner Powell Boulevard Study

- Directs the OTC to study the cost of upgrading Inner Power (SE Powell from SE 9th to I-205) and of transferring Inner Powell to the City of Portland.
- Directs the OTC to report to the Joint Committee on Transportation (see section 26).
- Sunsets the study and reporting requirement on June 30, 2020.

Sections 28, 28a, 28b, 29 and 30. Conforming amendments

Highway Maintenance, Preservation, and Seismic Upgrades

Vehicle Registration Fees, Title Fees and Fuel Taxes

Tax & Fee Schedules will Change in next edition of the rough draft -10s

Section 31. Adds Sections 32 and 37 to Oregon Vehicle Code

Sections 32, 33 and 39. Registration Fee Surcharge

- Directs ODOT to determine the combined MPG rating for each registered vehicle.
- Creates a registration surcharge of $13 in addition to the current $43 per year registration fee paid for cars, pickup, vans, SUVs and similar vehicles.
- Increases the vehicle registration surcharge in tiers based on MPG rating, effective January 1, 2020:

- 0-19 MPG, $18
- 20-39 MPG, $23
- Over 40 MPG, $33
- Electric vehicles, $110 unless the owner has registered the vehicle in the OReGO program.

- Increases the vehicle registration surcharge, effective January 1, 2022:
  - 0-19 MPG, $20
  - 20-39 MPG, $25
  - Over 40 MPG, $35
  - Electric vehicles, $115 unless the owner has registered the vehicle in the OReGO program.

Section 34. Registration Fee Changes, Effective January 1, 2018

- Increases the surcharge for vehicles held by rental or leasing companies to $2 (was $1).
- Sets the fee for utility or light trailers at $58.
- Increases the registration fee for mopeds and motorcycles to $39 (was $24).
- Increases the registration fee for low-speed vehicles and medium-speed electric vehicles to $58 (was $43).
- Increases the registration fee for state-owned and undercover vehicles to $10 (was $3.50).
- Increases the registration fee for fixed-load vehicles to:
  - $61, for vehicles under 3,000 pounds GVW (was $54).
  - $82, for vehicles over 3,000 pounds GVW (was $75).
- Increases registration fee for trailers for hire to $30 (was $27) on the effective date of this Act.
- Increases the registration fee for government-owned vehicles to $10 (was $3.50) and school vehicles to $10 (was $7.50).
- Increases the registration fee for motor homes that are 6 to 14 feet in length to $86 (was $54).
- Increases registration fee certain vehicles registered by owner-class:
  - Government-owned, $5 (was $3.50)
  - School vehicles, $5 (was $7.50).
- Increases registration fee certainly permanently registered vehicles:
  - Antique vehicles to $100 (was $54)
  - Special interest vehicles to $100 (was $81).
  - Racing activity vehicles to $100 (was $81).
  - Trailers to $10.
- Increases the surcharge for adding a vehicle to a fleet to $3 (was $2) and for renewing registration for a vehicle within a fleet to $2 (was $1).
- Increases the registration fees for trucks registered between 8,000 pounds and 26,000, tow trucks, commercial buses, vehicles operated by charitable organizations that are registered by weight, trucks used to transport manufactured structures and farm vehicles in order to maintain cost responsibility on January 1, 2018.

House Bill 2017 –10 Amendment
Transportation Proposal
Section by Section Review

Sections 35 and 36. Registration Fee Changes, Effective January 1, 2022.

- Increases the fee for utility or light trailers at $63 (was $58).
- Increases the registration fee for mopeds and motorcycles to $44 (was $39).
- Increases the registration fee for low-speed vehicles and medium-speed electric vehicles to $63 (was $58).
- Increases the registration fees for heavy vehicles registered as tow trucks, commercial buses, vehicles operated by charitable organizations that are registered by weight, trucks used to transport manufactured structures and farm vehicles in order to maintain cost responsibility.

Section 37. Title Fee Surcharge

- Directs ODOT to determine the combined MPG rating for each vehicle.
- Creates a title surcharge of $16 in addition to the current title fee.
- Increases the title surcharge in tiers depending on MPG, effective January 1, 2020:
  - 0-19 MPG & non-motorized, $21
  - 20-39 MPG, $26
  - Over 40 MPG, $36
  - Electric vehicles, $110

Sections 38 and 39. Title Fee Surcharge, effective January 1, 2022.

- Increases the title surcharge in tiers depending on MPG:
  - 0-19 MPG & non-motorized, $24
  - 20-39 MPG, $29
  - Over 40 MPG, $39
  - Electric vehicles, $115

Sections 39a. Amends ORS 803.090.

- Restructures title fee statute. The fees for title transactions are not changed.

Sections 39b to 39t.

- Conforming amendments.

Sections 40 and 44. Gas Tax Increase

- January 1, 2018, 34¢ per gallon 4¢ per gallon increase in gasoline tax

Sections 41 and 44.

- Repeats the changes the gas tax because, under current law, the temporary 11¢ aviation gas tax, also in ORS 319.020, will sunset.

Sections 42 and 44. Use Fuel (Diesel, Propane and CNG) Tax

- January 1, 2018, 34¢ per gallon 4¢ per gallon increase

Sections 43 and 44.

- Repeats the changes the use fuel tax because, under current law, the temporary waiver of the tax on biodiesel made from used cooking oil, also in ORS 319.530, will sunset on January 1, 2020.

Section 45. Conditional increases in fuel tax after 2020.

In order for a 2¢ per gallon tax increase on motor fuel and use fuel to become effective on January 1, 2020, the OTC must certify the items below in a report to the Joint Committee on Transportation:

- The OTC has identified sufficient shovel-ready highway projects and maintenance or operational uses of the increased fuel tax revenue to justify the increase.
- The uniform reporting standards for state, county and local transportation have been developed and are being followed.
- City and County reports have been submitted and posted as required.
- ODOT is implementing the tiered registration and title fees.
- The I-205 Active Traffic Management Project and the I-205 Corridor Bottleneck Project have been completed.

The OTC must also submit a report on:

- A list of the shovel-ready highway projects that will be undertaken with the revenue that will become available as a result of the increase.
- The amount of bonds the commission considers necessary to be issued to complete shovel-ready highway projects to be commenced after January 1, 2020.
- The status of any projects exceeding $20 million that have not been completed, including:
  - The Treasure Valley Intermodal Facility Project.
  - The Value Pricing Set-Up Project.
  - The design, cost analysis and construction option packages for construction of the I-5 Rose Quarter Project for legislative consideration.
  - The design, construction, financial status and progress of projects estimated to cost more than $20 million that are identified in this 2017 Act (I-205 Abernethy Bridge and Freeway Widening Project, the OR 217 Northbound Project, OR 217 Southbound Project) and other state transportation projects implemented after October 2017.

In order for a 2¢ per gallon tax increase on motor fuel and use fuel to become effective on January 1, 2022, the OTC must certify the items below in a report to the Joint Committee on Transportation:

- The Continuous Improvement Advisory Committee (CAIC) has been appointed and has reviewed on all transportation projects costing $50 million or more and completed.
- CIAC recommendations for improvement reported to the OTC at least 6 months before the report date have been implemented.
- The OTC has identified sufficient shovel-ready highway projects and maintenance or operational uses of the increased fuel tax revenue to justify the increase.
- The uniform reporting standards for state, county and local transportation have been developed and are being followed.
- City and County reports have been submitted and posted as required.
- Payments to cities and counties that are delinquent with required reports have been

withheld.
- Public contracting agencies that would receive fuel tax revenue are in compliance with public contracting least cost requirements of the public contracting code (ORS 279C.305 or under review by the Bureau of Labor and Industries for compliance with ORS 279C.305 or the commission has requested from the bureau confirmation of such compliance;
- ODOT is implementing the tiered registration and title fees.

The OTC must also submit a report on:
- A list of the shovel-ready highway projects that will be undertaken with the revenue that will become available as a result of the increase.
- The amount of bonds the commission considers necessary to be issued to complete shovel-ready highway projects to be commenced after January 1, 2024.
- The status of any projects exceeding $50 million.
- The design, construction, financial status and progress of projects estimated to cost more than $20 million that are identified in this 2017 Act (I-205 Abernethy Bridge and Freeway Widening Project, the OR 217 Northbound Project, OR 217 Southbound Project) and other state transportation projects implemented after October 2017.

In order for the 2¢ per gallon increase on January 1, 2024 to become effective, the OTC must certify the items below in a report to the Joint Committee on Transportation:
- The Continuous Improvement Advisory Committee (CAIC) has reviewed on all transportation projects costing $50 million or more and completed.
- CIAC recommendations for improvement reported to the OTC at least 6 months before the report date have been implemented.
- The OTC has identified sufficient shovel-ready highway projects and maintenance or operational uses of the increased fuel tax revenue to justify the increase.
- The uniform reporting standards for state, county and local transportation have been developed and are being followed.
- City and County reports have been submitted and posted as required.
- Payments to cities and counties that are delinquent with required reports have been withheld.
- Public contracting agencies that would receive fuel tax revenue are in compliance with public contracting least cost requirements of the public contracting code (ORS 279C.305 or under review by the Bureau of Labor and Industries for compliance with ORS 279C.305 or the commission has requested from the bureau confirmation of such compliance;

The OTC must also submit a report on:
- A list of the shovel-ready highway projects that will be undertaken with the revenue that will become available as a result of the increase.
- The amount of bonds the commission considers necessary to be issued to complete shovel-ready highway projects to be commenced after January 1, 2022.
- The design, construction, financial status and progress of projects estimated to cost

more than $20 million that are identified in this 2017 Act (I-205 Abernethy Bridge and Freeway Widening Project, the OR 217 Northbound Project, OR 217 Southbound Project) and other state transportation projects implemented after October 2017.

Sections 46 through 47. Deleted.

(Fees related to heavy trucks)

Sections 48 to 50. Permit Fees

- Adjusts light vehicle trip permits in sync with fuel tax and registration fee surcharge increases on January 1, 2018, 2020, 2022 and 2024.
- Light vehicle and recreational trip permits increase from $30 (current law) to $35 (January 1, 2024).

Sections 51 to 53. Road Use Assessment Fee

- Increases the road use assessment fee (a weight mile tax for extraordinary loads) to maintain cost responsibility in 2018, 2020, 2022 and 2024.
- The fee increases from 7.1¢ per mile (current law) to 11.8¢ per mile by January 1, 2024.

Sections 54 to 56. Variance Permit Fees

- Increases variance permit fees to maintain cost responsibility in 2018, 2020, 2022 and 2024.
- The four individual fees each increase by $1.50 from current law by January 1, 2024.

Sections 57 to 59. Weight Receipt

- Increases the fee for a weight receipt to maintain cost responsibility in 2018, 2020, 2022 and 2024.
- The weight receipt fee increases by $2.00 from current law by January 1, 2024.

Sections 60 to 62. Deleted.

Sections 63 to 65. Weight Mile Tax

- Increases the weight-mile tax tables to maintain cost responsibility in 2018, 2020, 2022 and 2024.
- Many heavy commercial trucks are registered at 80,000 gross vehicle weight. These vehicles pay 16.38¢ per mile (current law). They will pay 25.12¢ per mile on or after January 1, 2024.

Sections 66 to 68. Flat Fees

- Increases the flat fees (an alternative to the weight-mile tax available to log haulers, farm trucks, sand and gravel trucks and chip haulers) to maintain cost responsibility in 2018, 2020, 2022 and 2024.
- The annual fees per 100 weight on or after January 1, 2024 will be:
  - Log haulers - $12.60 (from $7.59 in current law)
  - Farm trucks - $10.30 (from $6.23)
  - Sand and gravel - $12.60 (from $7.53)
  - Chip haulers - $50.80 (from $30.65)

Section 69. Deleted

Sections 70 and 71. Replacement of Heavy Vehicle Registration Card

- Adjusts the fee for replacement heavy vehicle registration card to align with other heavy vehicle fee increases to $3.00 effective January 1, 2020 ($2.50 in current law).

Section 71a, 71b and 71c. Distribution of Revenue

- Distributes the revenue raised by the tax and fee increases in this Act according to the following formula:
  - $30 million per year after 2021 to pay debt service for bonds to finance the I-5 Rose Quarter Project
  - $10 million per year ($15 million per year after 2022) for the Safe Routes to Schools Program
  - Balance:
    - 50 percent to ODOT for state highways
    - 30 percent to Counties
    - 20 percent to Cities

- Designates the money to be received by ODOT for the following purposes:
  - To repay bonds authorized by this Act and then,
  - For Highway Safety - $10 million per year (increasing to $15 million after 2022)
  - For the following purposes:
    - 40% for bridges
    - 30% for seismic improvements to highways and bridges
    - 24% for maintenance and replacement of pavement and culverts
    - 6% for maintenance, preservation and safety improvements

Section 71d. Highway, Road and Street Projects

- Requires the OTC to use the bond proceeds to finance the transportation projects identified within each ODOT region.
- Requires the OTC to allocate money to designated projects in ODOT Regions no later than January 1, 2024:
  - Region 1, $249,700,000 for the following projects:
    - OR 211 Improvements from the intersection with OR 213 to the intersection with Molalla Avenue in City of Molalla
    - WaNaPa Street Improvements in City of Cascade Locks
    - Port of Hood River Bridge Replacement EIS
    - Columbia Blvd Pedestrian Safety Improvements
    - Powell Blvd jurisdiction transfer (see section 134)
    - I-205 Active Traffic Management
    - I-205 Corridor Bottleneck Project
    - OR 217 Northbound Project
    - OR 217 Southbound Project
    - Improvements to Graham Road at I-84 in City of Troutdale
  - Region 2, $201,950,000 for the following projects:
    - Oregon Manufacturing Innovation Center Access Roads in Columbia

County
    - I-5 at Aurora-Donald Interchange, Phase 1
    - OR 99E in City of Halsey
    - OR 214 pedestrian safety improvements at the intersection with Jefferson Street in City of Silverton
    - Territorial Highway jurisdictional transfer (see section 134)
    - US 20 Safety Upgrades: Albany to Corvallis
    - OR 58, passing lanes west of Oakridge
    - OR 22, Center Street Bridge seismic retrofit in City of Salem
    - OR 99 Improvements in Eugene - jurisdictional transfer (see section 134)
    - OR 126 Florence-Eugene Highway EIS Study
    - 42nd Street in City of Springfield (see section 134)
    - Newberg-Dundee Bypass, Phase 2 (design only)
  - Region 3, $75,000,000 for the following projects:
    - Scottsburg Bridge on OR 38
    - Southern Oregon Seismic Triage
  - Region 4, $76,493,000 for the following projects:
    - US 97 / Cooley Rd Mid-term Improvements
    - US 97 at Terrebonne
    - Improvements to Alder Creek Road in Wheeler County
    - Pedestrian safety improvements in City of Dufur
    - Pedestrian safety and road improvements in City of Prineville
    - Tom McCall Road Roundabout
    - Pedestrian safety and road improvements in City of Arlington
  - Region 5, $43,647,000 for the following projects:
    - Port of Umatilla Road
    - Hermiston North First Place Project
    - OR 30 / Hughes Lane intersection
    - Eastern Oregon Trade and Event Center Access Road Project
    - Pedestrian safety and road improvements in City of Heppner
    - Pedestrian safety and road improvements in City of Milton-Freewater
    - Columbia Development Authority - Umatilla Army Depot Access
    - Pedestrian safety and road improvements in City of Burns
    - Pedestrian safety and road improvements in City of Irrigon
    - US 20 Freight Mobility Enhancements
    - Cedar St. / Hughes Lane intersection enhancements in Baker County
- The Commission may reallocate money to projects within the region in which a project is located when the project is completed for less than the amount allocated. When all the projects within a region are completed, the Commission may reallocate any remaining balance to projects in the remaining regions.
- Jurisdictions participating in transfers of jurisdiction may receive the amount allocated only after agreeing to the transfer (see section 134).

Section 71e. Deleted.

Section 71f. Multimodal Projects

- Directs the department to fund the following projects from the Connect Oregon Fund:
  - Mid-Willamette Valley Transmodal Facility, $25,000,000
  - Treasure Valley Transmodal Facility, $26,000,000
  - Port of Morrow - Rail Expansion in East Beach Industrial Park, $6,550,000
  - Brooks Rail Siding Extension - $2,600,000
- Requires each potential recipient of a designated multimodal project to prepare a plan detailing expenditure of the moneys no later than January 1, 2020. If no plan is submitted, the legislative priority expires.

Section 71g. Deleted.

Section 71h through 71k. Highway User Tax Bond Authorization and Debt Service

- Allows the department to pay debt service for bonds issued to complete the projects listed in 71d from the money that it receives.
- Authorizes the issuance of $480 million in Highway User Tax Revenue Bonds to finance the projects listed in section 71d.
- Protects the interests of individuals who hold debt that was issued prior to this authorization.
- Makes these bond provisions operative on January 1, 2020.

Section 71L. Revenue Reporting

- Requires ODOT to make a quarterly report on revenues from taxes and fees authorized in this Act and other transportation revenues to the committees related to revenue or to the Legislative Revenue Officer, if the legislature is not session.

(Small cities and counties)

Section 72. Small City Program

- Increases the Small City Program from $1 million per year to $5 million per year:
  - $2.5 million contribution from ODOT.
  - $2.5 million contribution from cities.
- Requires the ODOT Director, in consultation with the League of Oregon Cities, to appoint a small city advisory committee to review and recommend applications from small cities for funding. The advisory committee will consist of a representative from a small city located in each of ODOT's five regions.

Section 73. Small County Program

- Increases the Small County Program from $750,000 to $5,750,000:
  - $250,000 contribution from ODOT
  - $5,500,000 contribution from counties.
- Grandfathers the allocation made in 2016 to six counties from the former $750,000 "county road base funding" program.
- Allocates $5,000,000 to counties with fewer than 200,000 vehicles to each county in proportion to the ratio of county road miles to vehicles in the county.
- Rescinds the language that set out the formula for determining "county road base funding."

Section 74. Free Bridge Design Program

- Conforming amendment to the statute that qualifies counties for free bridge design. It recognizes the change in the basis for determining the allocation of money to counties qualifying for the Small County Program.

Section 74a. Small City and Small County Program Changes Operative Date

- The changes to the small county and small city programs become operative on January 1, 2018.

Research on Payments from Classes of Light Vehicles

Section 75 and 76.

- Requires the Oregon Transportation Commission to determine:
  - The proportionate share that users of cars, pickup, vans and SUVs powered by different means (gasoline, diesel, propane, compressed natural gas, electricity, etc.) pay to maintain, operate and improve Oregon highways.
  - Whether users of such vehicles are paying a proportionate share.
- Allows the OTC to include recommendations for legislation, if it finds that some users are not paying a proportionate share.
- The Commission must report study results to the Joint Transportation Committee no later than September 2023.
- Sunsets the study requirement on January 2, 2024.

Section 77. Deleted.

Multimodal Transportation

(Connect Oregon)

Section 78. *Connect*Oregon Fund Amendments

- Adds definitions for the terms “Public body” and “Project of statewide significance” as used in the *Connect*Oregon program.
- Expands the funding sources for the *Connect*Oregon Fund to include the privilege tax and bicycle excise tax revenue.
- Removes public transit from eligibility for the *Connect*Oregon grants.

Section 79. Match Requirements

- Changes the required match for *Connect*Oregon grants to:
  - 50% from private entities that are Class I railroads.
  - 30% from public bodies and private entities, except for Class I railroads.

Section 80. ConnectOregon Part 1 and Part 2

- Part 1, traditional *Connect*Oregon:
  - Adds input from area commissions on transportation
  - Retains air, bicycle/pedestrian, marine and rail projects as eligible.
  - Retains modal review process.
  - Retains considerations for project selection.

    - Adds consideration of whether a project is located near an aggregate mining or processing site for project selection.
- Part 2, projects of statewide significance:
    - Makes air, marine and rail "projects of statewide significance" eligible
    - Creates new considerations for selection of aviation projects.
    - Creates new considerations for selection of marine, Class I rail, and Class II or Class III rail "Enhance" projects.
    - Creates new considerations for selection of marine, Class I rail, and Class II or Class III rail "maintenance" projects.
- Limits eligibility of bicycle and pedestrian to those projects that expand and improve commuter routes, including trails, footpaths and multiuse trails.
- Removes the public transit modal review process because public transit projects are no longer eligible for *Connect*Oregon grants.
- Creates criteria for Part 2 projects that are marine enhancement transportation projects:
    - Is located in a deep water port.
    - Is located where freight is transferred between water and another transportation mode.
    - Improves efficiency of port operations or transportation system efficiency.
    - Improves accessibility, connections, safety or mobility between port and other modes of transportation.
    - Has a significant economic benefit.
    - Leverages private funding.
- Creates criteria for Part 2 projects that are marine maintenance transportation projects:
    - Maintains or improves channel depth or width.
    - Preserves high-use or high-volume dock or pier infrastructure.
    - Maintains connections to a port facility.
    - Preserves critical equipment necessary to maintain port functionality.
- Creates criteria for Part 2 projects that are Class II or Class III railroad enhancement transportation projects:
    - Allows a Class II or Class III railroad to transportation a substantial volume or value of freight in relation to other Class III railroads.
    - Connects a Class II or Class III railroad to a deep water port.
    - Improves efficiency of the line.
    - Improves capacity of the line.
    - Connects to new or expanding business requiring rail service.
    - Improves connectivity with Class II or Class III railroads.
- Creates criteria for Part 2 projects that are Class II or III railroad maintenance transportation projects:
    - Maintains or increases functionality of the railroad.
    - Maintains or improves a critical bridge, tunnel or other structure needed for rail service.
    - Provides jobs to economically disadvantaged areas.
    - Helps protect rail infrastructure from seismic vulnerability.

- Improves a railroad that serves industries important to Oregon.
- Increases the volume or value of freight.
- Improves connections to highways or intermodal terminals.

- Creates criteria for Part 2 projects that are Class I railroad enhancement transportation projects:
  - Eliminates or improves an identified rail congestion point.
  - Improves the capacity or efficiency of the rail system.
  - Has a strong benefit to Oregon's economy.
  - Improves operations and efficiency of shared rail passenger service providers.
  - Improves accessibility to ports or other intermodal terminal.
  - Improves the safety or reliability of the rail system.
- Creates criteria for Part 2 projects that are Class I railroad maintenance transportation projects:
  - Connects to Class II or Class III railroads, ports, intermodal terminals or highways.
  - Improves seismically vulnerable portions of the railroad or bridges.
- Creates criteria for Part 2 projects that are aviation transportation projects:
  - Be located at a category I, II, III or IV airport.
  - Facilitate rescue or recovery efforts following a seismic event.
  - Serves joint military and civilian operations.
  - Facilitates expanded commercial services, excluding purchase or operation of aircraft.

Section 80a.

- Conforming amendment, recognizing a change in the numbering for the aviation criteria within *Connect*Oregon criteria.

Section 81.

- Conforming amendment, recognizing that 1% of the money available for *Connect*Oregon is allocated to ODOT for administrative expense in section 83.

Section 82.

- Direction to Legislative Counsel concerning the compilation of the next edition of ORS, putting the next four sections of the bill into the sections of ORS concerning the *Connect*Oregon program, ORS 367.080 to 367.086.

Section 83. Distribution of *Connect*Oregon funding.

- If more than $75 million available for *Connect*Oregon, the amount available will be used as follows:
  - 47% to *Connect*Oregon Part One for:
    - Air
    - Marine
    - Rail
  - 7% to ConnectOregon Part One for bike / ped.
  - 1% to ODOT to pay ConnectOregon administrative cost.
  - 45% to *Connect*Oregon Part Two for:

- Air
- Marine
- Rail

- In the event that there is not at least $75 million available for *Connect*Oregon Program, *Connect*Oregon Part Two would not apply. The amount available for ConnectOregon will be used as follows:
  - 92% to *Connect*Oregon Part One for:
    - Air
    - Marine
    - Rail
  - 7% to *Connect*Oregon Part One for bike / ped.
  - 1% to ODOT to pay *Connect*Oregon administrative cost.

Section 84.

- Allows ODOT to request reimbursement from the State Parks and Recreation Department for bicycle and pedestrian projects that comply with Constitutional provisions that apply to State Park's money for trails and paths.

Section 85.

- Requires OTC to streamline *Connect*Oregon application review process.
- Requires OTC to report to the Joint Committee on Transportation on implementation of the streamlined application review process by September 15, 2017.

(Dredging)

Sections 86 to 88. Transfer to Marine Navigation Improvement Fund

- Statute requires Department of Administrative Services, Oregon State Marine Board and ODOT to determine how much gasoline is used by power boats and to transfer the amount of revenue attributable to the tax collected, net of refunds and collections cost, to Oregon State Marine Board. The statute is amended to:
  - Transfer an amount equivalent to 2¢ of gasoline tax to Business Oregon's Marine Navigation Improvement Fund to operate the State of Oregon's portable dredge.
- Changes to the Marine Navigation Improvement Fund allowing the Fund to accept and spend money for the operation of the State's dredge.

Revenue for Traffic Congestion, Freight Mobility and Multimodal Transportation Projects

Section 89. Definitions for sections 89 to 106

- Defines a "taxable bicycle" as a new bicycle with a wheel diameter of at least 26 inches and a retail sales price of $200 or more.
- Defines a "taxable motor vehicle" as a new vehicle with a gross vehicle weight rating of 26,000 or less that is:
  - An automobile, van, minivan, sports utility vehicle, cargo van, recreational vehicle,

motorcycle, all-terrain vehicle, trailer, pickup truck or truck other than an all-terrain vehicle (ATV).
  - A bus trailer;
  - A commercial bus, motor vehicle, or vehicle;
  - An electric assisted bicycle;
  - A fixed load vehicle;
  - A moped or motor-assisted scooter;
  - A camper;
  - A motor home;
  - A tank vehicle;
  - A motor truck, a truck tractor or a truck trailer; or,
  - A worker transport bus

Section 90. Privilege Tax on Retail Motor Vehicle Sale

- Imposes a tax on the privilege of engaging in the business of selling taxable motor vehicles at retail.
- Computes the privilege tax by multiplying retail sales price of a new taxable motor vehicle by 0.50%.
- Allows a vehicle dealer to collect the amount of the privilege tax from the purchaser of the motor vehicle.

Section 90a. Collection by Vehicle Dealers

- Allows vehicle dealers to collect and process the privilege tax at the same time/manner dealers collect other document processing fees.
- Clarifies that the privilege fee is in addition to and not in lieu of any document processing fee.

Section 91. Use Tax on Motor Vehicles

- Imposes a use tax computed by multiplying retail sales price of a new taxable motor vehicle by 0.50% for vehicles purchased outside of Oregon.
- Allows the use tax to be reduced to zero by the amount of tax paid where the vehicle was purchased.

Section 92. Excise Tax on Bicycles

- Imposes a $15 excise tax on a taxable bicycle (26 inch or greater wheel diameter with a retail price of $200 or more).

Section 93. Use Tax Collection

- Collection of use tax.

Section 94. Exemptions from Privilege Tax

- Exempts the sale of taxable motor vehicles from the privilege tax when the vehicle is sold to:
  - A purchaser who is not an Oregon resident, or,
  - A business if the use of the vehicle will primarily take place outside of Oregon.
- Allows vehicle dealers to obtain a resale certificate to avoid pyramiding of the excise tax on vehicles purchased for resale.

Section 95.
- Refunds for excess payments of privilege tax.

Section 96.
- Directs the Department of Revenue to deposit of proceeds of the privilege tax, net of administrative and enforcement expenses, until December 31, 2023, as follows:
  - $12 million to the Zero-Emission Incentive Fund to provide rebates for the purchase of light-duty zero-emission or plug-in hybrid electric vehicles.
  - The balance to the Connect Oregon Fund.
- Directs the Department of Revenue to deposit of proceeds of the use tax on taxable motor vehicles, net of administrative and enforcement expense, will be deposited in the State Highway Fund.

Sections 96a and 96b.
- Directs the Department of Revenue to deposit of proceeds of the privilege tax, net of administrative and enforcement expenses in the Connect Oregon Fund, on or after January 1, 2024.

Section 97.
- Directs the Department of Revenue to deposit of proceeds of the excise tax on bicycles, net of administrative and enforcement expenses, in the Connect Oregon Fund for the purposes of grants for bicycle and pedestrian transportation projects.

Administrative Provisions for Privilege and Use Tax and Excise Tax

Section 98. Collection Point
- Defines the collection point for the privilege tax and the use tax on motor vehicles and excise tax on bicycles as the point of sale.
- Requires sellers of taxable vehicles to file returns with the Department of Revenue.

Section 99.
- Requires a seller of taxable vehicles to hold the funds in trust until required to provide payment to the Department of Revenue.
- Outlines the method of issuing a notice of liability and appeals process.

Section 100.
- Requires purchasers of taxable vehicles to remit use (motor vehicles) and excise taxes (bicycles) by 20th of the month following the month the tax was due.

Section 101.
- Requires a seller of taxable vehicles to retain records related to retail sales for five years from the sale of vehicles.

Section 102.
- Allows the Department of Revenue to issue subpoenas in civil actions and outlines responsibility of individual to respond to subpoena.

Section 103. Disclosure of Tax Information

- Allows the Department of Revenue to disclose information to the Department of Transportation and vice-versa for purposes of administering the motor vehicle use tax.
- Identifies circumstances in which an individual may appeal the disclosure.

Section 104.

- Outlines applicability of other provisions of tax law to the privilege tax, use tax and excise tax provisions of sections 89 to 111.

Section 105.

- Requires Department of Revenue to collect the privilege, use and excise tax.
- Allows the Department of Revenue to adopt or establish rules and procedures necessary for the implementation, administration and enforcement of the provision of this 2017 Act.
- Directs ODOT to enter an agreement with the Department of Revenue for the purposes of implementation, administration and enforcement of Section 112 of this 2017 Act.

Section 106. Administration of Vehicle Use Tax

- Directs the Department of Revenue to enter into an agreement with ODOT for assistance in the administration of the vehicle use tax.

Section 107.

- Applies the privilege, use and excise tax provisions (sections 89 to 106) to transactions that occur on or after January 1, 2018.

Section 108.

- Directs Legislative Counsel to place the next section in the Oregon Vehicle Code (ORS chapters 801 and following).

Section 109. Proof of Payment of Taxes When Registering and Titling Vehicles

- Requires that a purchaser of a taxable motor vehicle who purchased the vehicle from a seller that is not subject to the privilege tax to provide proof to ODOT / DMV before registering or titling the vehicle:
  - That the use tax has been paid; or,
  - That the use tax is not required.
- Authorizes ODOT to adopt rules to administer this provision.

Section 110.

- The preceding provision becomes operative on January 1, 2018.

Section 111. Tax Moritorium

- Prohibits a local government from imposing certain taxes listed below unless the tax is authorized by statute or in effect prior to the effective date of this Act (see section 176). Local government may not impose:
  - A privilege tax on the business of selling taxable motor vehicles at retail unless the tax is in effect prior to the effective date of this Act (see section 176).
  - Any other privilege, excise, sale or use tax on taxable motor vehicles that is in effect prior to the effective date of this Act (see section 176).

- The moratorium on local option taxes on motor vehicle taxes is lifted three years after the effective date of this Act (see section 176).

Section 111a. Report on Enforcement of Vehicle Dealer Regulations

- Directs ODOT to submit a report to the Joint Committee on Transportation on its enforcement of the law requiring certification of vehicle dealers.
- ODOT must submit reports twice, before September 15, 2019 and before September 15, 2021.

Section 112. Expedited Review by the Oregon Supreme Court

- States Legislative intent: The revenue raised by the privilege tax is not subject to the provisions of Article IX, section 3a of the Oregon Constitution.
- Establishes the Oregon Supreme Court as the court of original jurisdiction over the question of whether the Legislative intent is valid.
- Allows any person affected or aggrieved by the Legislative intent to petition the Supreme Court for expedited review if:
  - The petition for review is filed within 30 days of the effective date of this Act.
  - The petition shows grounds for review.
- Requests the Supreme Court to give priority for review.
- Filing of petition stays the crediting of the balance of funds received, but not the collection of the tax.
- Limits subject of review to:
  - Provisions imposing the privilege tax.
  - Legislative history and supporting documents related to Article IX Section 3a,
- Allows the Supreme Court to appoint a special master to hear evidence and to prepare recommended finds of fact in this matter.
- Rescinds the privilege tax, if the Supreme Court determines that the privilege tax is a tax on the ownership, operation or use of a motor and, therefore, that the use of privilege tax revenue would be governed by Article IX, section 3a.

Sections 113 and 114. Deleted.

Section 115.

- Conforming amendment in the tax code concerning penalties for not filing required tax returns.

Section 116.

- Conforming amendment to the State Highway Fund statute, recognizing receipt of use tax revenue.

Section 117.

- Exempting the privilege and use tax from provisions that exempt vehicles that are titled and registered vehicles from ad valorem taxes.

Sections 118,118a and 118b. Road Usage Charge Rate

- Adjusts the road usage charge, the per-mile fee that is paid by participants in the OReGO program so that it remains in sync with the fuel tax. The road usage charge is

currently 1.5¢ per mile.
- 1.70¢ per mile, beginning January 1, 2018.
- 1.80¢ per mile, beginning January 1, 2020.
- 1.90¢ per mile, beginning January 1, 2022.
- 2.10¢ per mile, beginning January 1, 2024.

Section 118c. Electric Vehicles In OReGO
- Allows an electric vehicle owner to participate in OReGO without regard to the 5,000 participant limit to the OReGO pilot program.

Traffic Congestion Relief and Freight Mobility
Congestion Relief Districts

Section 119. Feasibility Study within Highway Cost Allocation Study
- Directs the Office of Economic Analysis (OEA) to study the feasibility of performing a highway cost allocation study within the boundaries of a county, Metro and TriMet.
- OEA must report to the Joint Committee on Transportation on the results of the study no later than September 15, 2018.

Traffic Congestion and Freight Mobility

Section 120.
- Directs OTC to establish traffic congestion relief program.
- Directs OTC to seek federal approval, if federal approval is needed, to implement value pricing no later than December 31, 2018.
- Directs OTC, after it has obtained federal approval, to implement value pricing on:
  - I-205 beginning at the Washington state line to where it intersects with I-5.
  - I-5 beginning at the Washington state line to the intersection of I-205.
- Allows OTC to use value pricing at other locations.
- Allows the proceeds of value pricing to be deposited in the Congestion Relief Fund for the traffic congestion relief program, subject to any restrictions in federal law.
- Allows OTC to enter into agreements with State of Washington for back office infrastructure for collecting tolls.
- Requires OTC to report to the Joint Committee on Transportation prior to imposing value pricing.

Section 120a. Congestion Relief Fund
- Creates the Congestion Relief Fund
- Sets out purpose of the Congestion Relief Fund a implementation and administering the congestion relief program established by the OTC (see section 120).

(Task Force on Mega Transportation projects)

Section 121
• Establishes the Task Force on Mega Transportation projects. Defines mega transportation packages as:
  ○ Projects in excess of $360 million
  ○ Attract high level of attention
  ○ Has substantial direct and indirect impacts on the community or environment
  ○ Require a high level of attention to manage successfully
• Outlines the membership and duties of the task force.
• Directs LPRO to provide staff support.

Section 122 • Sunsets task force on December 31, 2018.
Public Transportation and Public Safety
Section 122a • Imposes an employee-paid payroll tax of one-tenth-of-one-percent on wages earned in Oregon. • Directs employers to withhold the tax and deduct it from wages. • Directs employers to report and pay withholding to the Oregon Department of Revenue. • Directs employers to file an annual report of the tax paid by employees with Oregon Department of Revenue. • Penalizes employers for failure to withhold the tax from wages.
Sections 122b to Section 122h. • Conforming amendments to statutes relating to tax withholding.
Section 122i. • Applies statutory provisions concerning audit of tax returns, refunds, assessments, etc. to the new employee-paid tax imposed under section 122a.
Section 122j • Directs Department of Revenue to deposit revenue collected in a suspense account. • Directs Department of Revenue to transfer the proceeds, net of administrative and enforcement expense, to the Statewide Transportation Improvement Fund.
Section 122k. • Applies the new tax program to tax periods on or after July 1, 2018.
Section 122L. • Creates the Statewide Transportation Improvement Fund for the purpose of improving public transportation service, except that moneys from the fund may not be used for light rail.

Section 122m.

- Definitions that apply to the public transportation improvement program described in sections 122o thru 122r.

Section 122n.

- Prescribes the formula to the used by the OTC for distribution of money from the Statewide Transportation Improvement Fund:
  - 90% to mass transit and transportation districts, counties where no district exists, and federally recognized tribal governments, provided no entity receives less than $100,000.
  - 5% to transportation districts, counties where no district exists, and federally recognized tribal governments for competitive grants.
  - 4% for intercity public transportation service providers to improve service between communities.
  - 1% for a public transportation technical resource center to assist providers in rural areas.
- Distributes the 90% to qualified entities (districts, counties and tribal governments) in proportion to the amount of tax paid in each entity's area, provided that no entity is eligible for less than $100,000. Also, no public transportation provider that receives money under the program shall receive less than a similar proportionate amount.
- Allows the OTC to supplement grants for intercity service from the amount set aside for competitive grants.
- Allows the OTC to adopt rules for competitive grants, for intercity service and as needed to implement the public transportation improvement program.
- Specifies the minimum content of an improvement plan. An improvement plan must identify the percentage allocated to each improvement project to:
  - Increase the frequency of bus service in communities with a high percentage of low-income households.
  - Procure buses powered by natural gas or electricity in areas with a population of 200,000 or more (TriMet, Salem-Keizer, and Eugene-Springfield).
  - Implement reduced fare programs in communities with a high percentage of low income households
  - Expand bus routes and service in communities with a high percentage of low income households
  - Improve frequency and reliability of connections between communities both within and outside of the provider's service area.
  - Coordinate between service providers to reduce the fragmentation of service.
- A qualified entity must show how it allocated money in the preceding year, if it received money in the preceding year.
- ODOT must make applications for funding available to the public.

Section 122o.

- Requires the governing body of a mass transit, transportation district or county to appoint an advisory committee to assist the governing body in disbursing the money that it receives from the Statewide Transportation Improvement Fund.

- Describes the duties of the advisory committee.

Section 122p.

- Requires every recipient of money from the Statewide Transportation Improvement Fund to report within 30 days of the end of each fiscal year:
  - Actions taken to mitigate impact on low-income communities.
  - The adopted budget for the upcoming fiscal year.
  - Results of any audit including the Comprehensive Annual Financial Report, tri-annual review by the Federal Transit Administration, and any federal audit.

Section 122q.

- Requires OTC to report on the implementation and outcomes to the Joint Committee on Transportation no later than February 1, 2020.

Section 122r.

- Makes the Statewide Transportation Improvement Program (section 122m to 122q) operative on January 1, 2019.
- Allows the Commission and the department to take actions necessary to implement the program prior to the operative date.

(Safe Routes to Schools)

Section 123.

- OTC may provide matching grants for Safe Routes to Schools subject to the following:
  - Projects must fit within plan developed under ORS 195.115 (Reducing barriers to pedestrians and bikes).
  - Cash match of 40%.
  - Provide other information required by the Commission.
- Provides for reduced match of 20% if:
  - School is located within city with population less than 5,000,
  - Project reduces hazards within a safety corridor, or
  - The school qualifies as a Title I school.
- OTC will prioritize grants for projects located within 1 mile of pre-K, K, grades 1–8, or any combination of K–12 schools.
- Match-grants must be used to reduce barriers and hazards for children walking or bicycling to school including, but not limited to, projects that:
  - Improve sidewalks,
  - Reduce vehicle speeds,
  - Improve pedestrian and bicycle crossings, or
  - Create or improve bicycle lanes.

Section 124.

- Adds references to Section 123 to ORS 184.740 (Safe Routes to Schools).

Roadside Rest Areas
Section 125. • Transfers $3.33 million to the Oregon Travel Information Council (OTIC) for management of the rest areas currently in its portfolio for management from January 1, 2018 to June 30, 2018.
Sections 126 and 128. Rest Areas Transferred in FY 2019-20 • Transfers rest areas from ODOT and State Parks and Recreation to the OTIC. The rest areas are Suncrest (I-5 near milepost 22), Deadman Pass (I-84 near milepost 229), The Maples (OR 22 near milepost 35), Sunset (US 26 near milepost 29), Cow Canyon (US 97 near milepost 69), Beaver Marsh (US 97 near milepost 207), and Midland (US 97 near milepost 282). • Requires ODOT to transfers $8.005 million to OTIC for FY 2019 (an increase from $6.55 million per year) to reflect management responsibility for these rest areas and the others under OTIC's management.
Sections 127 and 128. Rest Areas Transferred in FY 2020-21 • Transfers rest areas from ODOT and State Parks and Recreation to the OTIC. The rest areas transferred are Van Duzer Corridor State Park (OR 18 near milepost 10), Ellmaker Wayside State Park (US 20 near milepost 32), and Peter Skene Ogden State Park (US 97 near milepost 113). • Requires ODOT to transfers $9.16 million to OTIC for each fiscal year beginning with FY 2020 to reflect management responsibility for these and other rest areas under OTIC management.
Section 129. • Requires OTIC to develop a transition plan for the additional rest areas in consultation with ODOT and State Parks and Recreation. • Requires OTIC to present its transition plan to the Joint Committee on Transportation no later than September 15, 2018.

Section 130.
• At least 6 months before each rest area transfer takes place:
  ○ The ODOT or State Parks and Recreation must provide site maps, interagency agreements and intergovernmental agreements, and contracts associated with each rest area due to be transferred.
  ○ OTIC must conduct a full site inspection of each rest area.

Section 131. • Requires ODOT to transfer about $19.4 million to OTIC so that OTIC can make capital improvements to rest areas under its management. • Sets out an eight schedule for the transfers.

Former City of Damascus

Section 132.

- Corrects an error in the transitional legislation for the former city of Damascus. The 2015 statute required the former city's apportionment of State Highway Fund money to be deposited in Clackamas County's general fund. The correction specifies the State Highway Fund money must be used for uses permitted by Article IX, section 3a for the Oregon Constitution.

Overcrossing Fences

Section 133. Overcrossings. Amends ORS 366.462

- Allows ODOT to conduct a risk assessment before installing fences on overpasses. Legislation adopted in 1993 requires ODOT to install fences on overpasses to prevent vandals from throwing rock and other objects onto traffic.

Jurisdiction Transfer

Sections 134 and 135.

- The following jurisdiction transfers must be made after ODOT reaches agreement with the respective cities:
  - Two segments of OR 99 (State Highway No. 91) in Eugene to the City of Eugene, excepting that the department will retain ownership of two bridges.
  - Pioneer Parkway (State Highway No. 228) to the City of Springfield.
- ODOT must use money allocated for SE Powell from its intersection with I-205 (approx. SE 174th) to its intersection with the city limits of Portland to make improvements prior to transferring segments of SE Powell to the City of Portland. The department may upgrade and transfer SE Powell in phases.
- The following jurisdiction transfers must be made after ODOT reaches agreement with the respective counties:
  - The portion of Territorial Highway (State Highway No. 200) within Lane County must be transferred to Lane County, excepting that the department will retain ownership of certain bridges until the bridges are replaced. The transfer may take place in phases.
  - A portion of the Springfield-Creswell Highway (State Highway No. 222) must be transferred to Lane County, excepting that the department will retain ownership of certain bridges until the bridges are replaced.
  - The Delta Highway, a Lane County road, from the intersection with I-105 to the intersection with Beltline must be transferred to ODOT.
  - The Cornelius Pass Road, a Multnomah County and Washington County road, must be transferred to ODOT from the intersection with US 30 to the intersection with US 26.

Sections 136 to 138. Statewide Winter Maintenance Strategy

- Requires the OTC to develop a statewide winter maintenance strategy that includes the use of salt, taking into consideration best environmental practices.
- Requires the OTC to report on its winter maintenance strategy no later than September 15, 2019 to the Joint Transportation Committee.
- Sunsets the reporting requirement on January 2, 2020.

Section 139. Operative Dates for Tax and Fee Increases

- Makes sections increasing fuel taxes, registration fees, title fees, etc. operative on January 1, 2018, 2020, 2022 and 2024.

Repeals

Section 140.

- Repeals ORS 184.613 (OTC meetings), 184.618 (Duties of the Commission), 367.017 (Urban Trail Fund), 184.889 (Statewide Transportation Strategy development), and section 17, chapter 63, Oregon Laws 2012 (Authority of OTC to change allocations to OTIC).

Section 141.

- Abolishes Urban Trail Fund and transfers remaining balance to Connect Oregon Fund.

Sections 142 and 143. Conflict Amendment with Enrolled HB 2149 (Chapter 62, OL 2017)

- Resolves conflicts between HB 2017, as amended, and Enrolled HB 2149, that sets the registration fee rate for prisoner off war registration plates, if both become law. HB 2149 has already become law.

Sections 144 to 146. Conflict Amendment with HB 2290 A-Engrossed

- Repeals sections of HB 2290A to resolve conflicts in motor vehicle fee rates if both HB 2017, as amended, and HB 2290A are adopted. HB 2290A related to fee collected by ODOT DMV. HB 2290A is currently in Ways and Means.

Severability

Section 147.

- States legislative intent that all parts of this Act are independent. If any part is determined to be unconstitutional by the Oregon Supreme Court or is referred to voters and not approved, remaining parts of the Act shall remain in effect.

Zero-Emission And Electric Vehicle Rebates

Section 148. Definitions for the Rebate Program

- "Light-duty zero emission vehicle" means a vehicle that:
  - Has a GVWR of 8,500 pounds or less.
  - Can go at least 55 MPH
  - Is primarily powered by a battery and may have flywheel or capacitor energy

storage.
    - Is primarily powered by fuel-cell technology or
    - Has energy storage capacity to travel 75 miles or more and a zero-emission alternative power unit.
- "Plug-in hybrid electric vehicle" is a hybrid electric vehicle that:
    - Has a 10 mile range on electricity alone.
    - Has a super ultra-low emission of power source as defined by the Environmental Quality Commission.

Section 149. Rebates for New Vehicles

- Directs the Department of Environmental Quality (DEQ) to set up a program to provide rebates to purchasers of new light-duty zero emission or plug-in hybrid electric vehicles (qualifying vehicles).
- Allows DEQ to hire a contractor to manage the program.
- Sets limits for the rebates provided for purchase of qualifying vehicles:
    - $2,500 - $1,500 - vehicles with 10 kilowatt hours or more storage capacity.
    - $1,500 - $750 – vehicles with less than 10 kilowatt hours of storage capacity.
- Sets eligibility criteria for purchases and 24 or more month leases.
- Requires at least a 24 month holding period or notice to DEQ / its manager and claw-back of rebate if the qualifying vehicle will be sold sooner.
- Allows a vehicle dealer to advertise the availability of rebates on its premises.
- Allows the Environmental Quality Commission to adopt rules for administration of the rebate program.

Charge Ahead Oregon Program

Section 150. Rebates for New or Used (Low / Moderate Income)

- Directs DEQ to establish the program to offer rebates to low-income and moderate-income households that scrap high-emission (20 year or older, internal combustion powered) vehicles and replace them with new or used light-duty zero-emission vehicles.
- Allows DEQ to design the program, including designating geographic areas and limiting the number of rebates available.
- Allows Charge Ahead rebates to range from $1,250 to $2,500.
- Sets eligibility criteria for purchasers, purchases and 24 or more month leases.
- Requires at least a 24 month holding period or notice to DEQ / its manager and claw-back of rebate if the qualifying vehicle will be sold sooner.
- Allows DEQ to hire a contractor to manage the program.
- Allows the Environmental Quality Commission to adopt rules for administration of the rebate program.

Section 151. Performance Audits

- Directs DEQ to periodically audit both the Zero-Emission and Electric Vehicle Rebate and the Charge Ahead Oregon programs.
- Requires DEQ to report to the legislature annually by October 30 of each year with:

- Description how money from the Zero-Emission Incentive Fund have been used.
- An analysis of the programs' effectiveness.
- Recommendations for legislation to improve the programs.
- Reports of the audit results.

Section 152. Zero-Emission Incentive Fund

- Creates the Fund.
- Links the fund to revenue from the privilege tax (see section 96).
- Allows DEQ and its contractors to use money from the fund for zero-emission and charge ahead program purposes.

Sections 153, 154 and 155. Zero-Emission Neighborhood Electric Vehicles and Motorcycles

- Expands the Zero-Emission Vehicle Rebate Program to allow neighborhood electric vehicles and zero-emission motorcycles on January 1, 2019.
- Sets limits for the rebates:
  - $750 - $375 – neighborhood electric vehicles.
  - $750 - $375 – zero-emission motorcycles.

Sections 156 and 157. Operative and Sunset Dates

- The Zero-Emission Vehicle Rebate and Charge Ahead Oregon provisions become operative on the effective date of this 2017 Act (see section 176).
- The Zero-Emission Vehicle Rebate and Charge Ahead Oregon provisions sunset on January 2, 2024.

Low Carbon Fuel Standards

Section 158.

- Adds sections 159 to 167 to ORS Chapter 468A, Air Quality.
  -

Section 159.

- Defines terms for the low carbon fuel standards (LCFS) provisions.
  - "Biodiesel" means a motor vehicle fuel derived from nonpetroleum resources, except palm oil.
  - "Credit" means a unit of measure generated when a fuel with a carbon intensity that is less than the LCFS is available for use in Oregon. One credit is equal to one metric ton of carbon dioxide equivalent.
  - "Deficit" means a unit of measure generated when a fuel with a carbon intensity that is more than the applicable LCFS is available for use in Oregon. One deficit is equal to one metric ton of carbon dioxide equivalent.
  - "Regulated party" means a person responsible for complying with the LCFS.

Section 160. LCFS – Amends ORS 468A.275

- Directs the Environmental Quality Commission (EQC) to adopt by rule a clean fuels program (see section 162) to facilitate compliance with the LCFS and manage and contain the cost of compliance with LCFS.

- Removes statutory provisions that are duplicative of the direction to adopt a clean fuels program.

Section 161.

- Requires EQC to adopt rules that prohibit B100 from being considered as a low-carbon fuel unless it meets national standards (ASTM D 6751) when tested using the European standard testing procedure (EN 15751).
- Allow EQC to adopt new rules if the referenced standards are changed.

Section 162. Clean Fuels Program

- Sets out minimum design requirements for the EQC's rule establishing the clean fuels program:
  - Regulated parties generate deficits and may reconcile the deficits to comply with the low carbon fuel standards for a compliance period by obtaining and retiring credits.
  - Regulated parties and credit generators may generate credits for fuels used as substitutes or alternatives for gasoline or diesel.
  - Regulated parties, credit generators and credit aggregators may have opportunities to trade credits.
  - Regulated parties may carry a small deficit over to the next compliance period without penalty.
- Directs DEQ to:
  - Monitor the availability of fuels needed to comply with the low carbon fuel standards throughout the compliance period.
  - Monitor the price of credits on a monthly basis and make the information available on its web site.
  - Calculate the average cost or cost-savings per gallon of gasoline and diesel and the total greenhouse gas emissions reductions attributable to the LCFS annually.
  - Post the formula for the calculations and the results on its web site.
  - Provide information to the Oregon Department of Agriculture so that it can provide the formula and results to each gas station so that gas station owners or operators can make the information available to the public.

Section 163. Office of Economic Analysis Role

- Directs the Office of Economic Analysis (OEA) at the Department of Administrative Services to coordinate with DEQ to develop a fuel supply forecast to project fuel supplies that comply with LCFS. OEA will also forecast the supply of credits. Specifies minimum content of the forecast.
- Allows OEA to appoint a forecast review team to consult, among other tasks, on the design of the forecast.
- Requires that the forecast be made available no later than 90 days prior to the beginning of the calendar year.

Section 164. Forecast Deferral

- Requires DEQ to order forecast deferral at least 30 days prior to the beginning of the calendar year if the fuel supply forecast projects that the amount of credits available is

less than 100 percent of those needed to comply with the LCFS.
- Sets out minimum content of the DEQ order.

Section 165. Emergency Deferral
- Requires DEQ to issue an emergency deferral within 15 days of when it determines that there is a known shortage of fuel or fuel required to meet the LCFS. Sets out standards.
- Sets out steps that DEQ must take if DEQ orders an emergency deferral.

Section 166. Credit Clearance Markets
- EQC's rules concerning the clean fuels program must include credit clearance markets, in addition to the other requirements set out for the rule (see section 162).
- Requires DEQ to hold a credit clearance market when at least one regulated party reports a net deficit during a compliance period. The regulated party must participate in the clearance market.
- Sets $200 as the maximum price for credits in 2018 and allows the maximum price to be adjusted for inflation using the West Region CPI.
- Prescribes actions by a regulated party that still has a deficit when the credit market closes.

Section 167. Exemptions from the Clean Fuels Program
- The clean fuels program does not apply to fuel used in:
  - Farm vehicles
  - Farm tractors
  - Implements of husbandry
  - Log trucks
  - Vehicles that are used primarily in construction work and transportation goods or people on the highway only incidentally.
  - Boats and other watercraft
  - Railroad locomotives.

Section 168 and 169. Price Volatility Review
- Requires DEQ, after January 1, 2019, to review the price history of clean fuels program credits. If credit prices have been volatile, DEQ must analyze the price history to determine the cause of the volatility and to recommend measures to address it.
- DEQ recommendations to address price volatility may not:
  - Require regulated parties to purchase credits for more than the maximum price.
  - Require regulated parties to sell credits.

Section 170. Program Review
- Requires DEQ to conduct a program review of the clean fuels program no later than February 1, 2022. DEQ must report the program review results to the interim legislative committees related to environment and natural resources.
- Prescribes topics to be covered by the review.
- Requires DEQ to consult with the OEA with regard to the fuel supply forecast.

Section 171. Public Information on LCFS Effect on Gas Price.

- Amends current law that requires gas station owners and operators to post information about the amount of federal, state and local tax included in the retail price of gasoline.
- Requires station owners and operators to disclose the per-gallon cost of the LCFS to customers. Owners/operators may post the information on the pumps, printing it on receipts, or post it nearby where customers can see it.
- Prescribes the wording of the LCFS notice.

Sections 172 and 173. Operative Dates for LCFS Provisions

- LCFS provisions become operative on January 1, 2018, except for section 168 that becomes operative on January 1, 2019.
- Allows EQC to adopt rules and DEQ to take actions prior to the operative date to implement the clean fuels program.

Section 174. Exemption

- The EQC rulemaking for the clean fuels program is exempt from the criteria that EQC rulemakings in this area must meet.

Miscellaneous

Section 175. Captions

Section 176. Effective Date

- This 2017 Act become effective on the 91st day following adjournment sine die (October 8th assuming a July 10th adjournment).

Key Takeaways

- **The need for investment:** Future population and employment growth means traffic congestion will more than double. Delays for trucks will quadruple. Without major investments in driving, walking, bicycling and transit, traffic levels will be much worse than today.
- **Transit:** Transit demand will triple by 2055. Increased MAX frequency, more bus and shuttle-type service, faster service and better station access will be needed to meet increased intra-county and inter-county transit demands.
- **Major Roads:** Many arterials will be over capacity by 2055. Widening existing arterials and improving connectivity can improve safety and alleviate some congestion, but cannot meet traffic demands.
- **New Roadways:** North-south roads between the I-5/ Wilsonville area and US 26 and between US 26 and US 30 are expected to be over capacity by 2055. Two roadways were modeled: A limited-access road between Hillsboro and Wilsonville, and a "northern connector" between US 26 and North Portland. Both could significantly reduce traffic on adjacent streets and freeways and improve freight travel, but both have adverse environmental and land-use impacts.
- **Freeways:** Freeways will see the worst congestion. Adding lanes beyond those planned in each direction on I-5, US 26, I-205 and Hwy 217 could help reduce delays if the added lane is for exclusive use by trucks, bus and HOV vehicles. Tolling or other strategies may be needed to see additional benefits.
- **Biking and Walking:** Improving bicycle and pedestrian facilities on all major roads will help meet the increasing demands and safety needs for bikers and walkers. Trails can play an additional role.
- **Smart Technology:** Increased efficiencies of the existing system and measures to reduce demand will continue to be important parts of the transportation solution. Fast changing technology will require ever faster changing policies and analysis.

Next Steps

What happens now?

The County will use results from this Study to prepare for its long-term transportation needs. This may include further study of projects and policies. The County will also continue partnerships with other agencies and jurisdictions to further explore transportation options with a regional focus.

For more information

Visit **WCTransportationFutures.org** to learn more and to read the full Study Report.

Contact us

WCTS@co.washingon.or.us
(503) 846-6737

Washington County
Transportation Futures Study
Exploring options • Informing choices

February 2017

Executive Summary

The Washington County Transportation Futures Study evaluated long-term transportation strategies and investments needed to sustain the County's economic health and quality of life for decades to come. Funded by the Oregon Legislature in 2013, the Study assumed the County's Transportation System Plan (TSP) was implemented and looked further into the future, focusing on longer-term land use and transportation challenges and opportunities.

The Study offers insight into transportation needs and comparisons between policy choices on how to meet future travel needs. This is a study, not a plan. It will help decision-makers inform regional, county and local plans and priorities.

Taking Stock

Since the 1970s, Washington County has:

- Become more diverse
- Exceeded growth expectations
- Adopted land use plans consistent with state and regional goals
- Implemented transportation funding strategies
- Expanded roadway, transit, bicycle and pedestrian networks
- Seen decreases in vehicle miles traveled per capita.

The future of Washington County

Population & Employment

The County will be denser with more people per square mile than Portland has today. In 40–50 years, we can expect:

- A 40-55% increase in population. A 40% increase in population is the equivalent of another Hillsboro, Beaverton and Tigard combined.
- Downtown Beaverton, Tanasbourne, Tigard Triangle and other centers will continue to develop into a mix of residential, employment and commercial uses.
- A decline in vehicle miles traveled per person. The number will be less than in 2010.
- A 100-145% increase in employment.
- Employment growth to be focused on Hillsboro, Hwy 217 corridor and southern Washington County.
- More daily trips will be coming into the County than out of the County. The share of daily trips within the County will also increase.

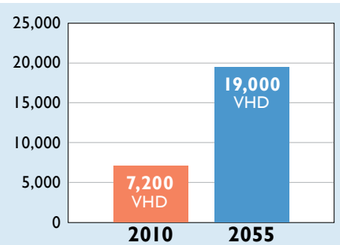
Traffic

More people and more jobs results in more trips. Traffic in 2055 will be worse even with changes in how we travel. We're anticipating:

- Transit, walking and bicycle trips will increase at a faster rate than auto trips. However, a 50% increase in people traveling by vehicle will result in about 3 million vehicle trips per day.
- Increased congestion throughout the day, especially on freeways and at regional access points. None of the Study's transportation options will eliminate or even reduce vehicle delays to today's levels.
- Congestion on major roads which will create more cut-through traffic on local roads.
- Traffic delays will more than double compared to today.
- Delays of freight traffic to increase over four-fold due to more trucks on the road and their dependence on the most congested freeways and roads.
- Improvements in bicycle, pedestrian, transit, highway and roads, smart technology and demand management are needed to meet increased travel demands.

Vehicle Hours of Delay

on Washington County roads during PM Peak Period



Washington County Trend Scenario Package A

What we learned

Three investment packages, three policy directions

The Study analyzed hundreds of transportation investment options and projects to address future travel needs. Options were organized into three packages that represent different policy directions. Each package includes significant investments in roads, transit, bicycling and walking facilities, smart technology and programs to reduce vehicle trips.

- **Package A:** Continuation of current policies and planned investments with additional investments in transit and demand management.
- **Package B:** Extension of current policies, with a focus on improving major roads (arterials).
- **Package C:** Beyond current policies focusing on the regional system by adding capacity on throughways, new roads and new transit facilities.

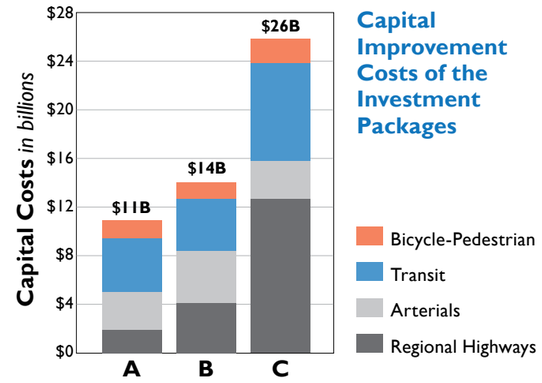
Relative Costs

The price of the future

The cost of studied investments could range from:

- **$11 billion** to build out the major urban streets with bike lanes and sidewalks on both sides of the street and implement enhanced transit services
- **$14 billion** for enhancing our existing roads
- **$26 billion** to build new roadways, added freeway lanes and transit in exclusive right-of-way.

These investments would cost more than planned resources could fund.



Capital Improvement Costs of the Investment Packages

EXISTING MAJOR ROADS (ARTERIALS)

Widening existing arterials, adding passing lanes, access management, and improving connections between arterials:
- ✓ Can reduce traffic delay by 5%
- ✓ Can improve safety
- ✓ Can shift traffic out of neighborhoods

✓ **New arterial connections** — such as connecting arterials for a route around Cooper Mountain between Roy Rogers and Cornelius Pass roads south of TV Hwy — could reduce traffic on adjacent arterials, such as 175th, up to 20%.

✗ **Cornelius Pass Road** remains the only alternative to US 26/I-405 and I-5 for trips to the airport and I-5 North. Even if it were four lanes, the demand for this route is expected to exceed capacity and increase the need for safety improvements.

✗ **Traffic on arterials** will increase in urban centers. Slower traffic speeds and installing more crossings and sidewalks can promote walkability and improve safety, but would reduce vehicle capacity through these areas.

BIKING AND WALKING

Bicycling and pedestrian trips could double by 2055 as urban areas develop. Planned investments would complete bike/pedestrian improvements on 60% of the County's major roads by 2035.
- ✓ With 100% of County roads complete with bicycle and pedestrian facilities, 80% of households will be within a quarter-mile of bicycle lanes and sidewalks.
- ✗ Increased traffic congestion could make bicyclists and pedestrians feel less safe.
- ✓ "Complete streets" with bike lanes and sidewalks and trails can improve traveler safety.

NEW ROADS

Increased demand is expected on:
- ✓ North-south roads between US 26, 99W and I-5
- ✓ Freight access to the airport and I-5 north
- ✓ East-west routes, especially US 26.

A "**northern connector**" tunneled between US 26 and US 30 with a bridge across the Willamette River to Columbia Blvd would:
- ✓ Attract 60% of the truck traffic on US 26 through the tunnel
- ✓ Reduce traffic on US 26, I-405 and I-5 through Portland
- ✓ Shorten truck trips and improve access to industrial areas and I-5 North
- ✓ Reduce traffic on Cornelius Pass and Germantown roads.

A **limited access road** between US 26 at Hillsboro and I-5/I-205 at Wilsonville would:
- ✓ Reduce future vehicle traffic delay
- ✓ Shift traffic from adjacent roads, such as TV Hwy, Hwy 219 and local roads
- ✓ Allow use of existing roads for farm and local traffic
- ✓ Have higher traffic volume in the urban area than it would outside the Urban Growth Boundary.

Faster speeds on the new roadways would:
- ✓ Attract traffic
- ✗ Increase vehicle trips
- ✗ Increase safety risks.

Construction of new roads would mean:
- ✗ Increased environmental and community impacts
- ✗ Impacts to natural, agricultural and developed communities.

More roads and highways could mean:
- ✗ Increased vehicle use
- ✗ Increased greenhouse gas emissions
- ✓ Improved air quality due to reduced delays.

PROGRAMS TO REDUCE VEHICLE TRIPS

Policies and programs that discourage driving alone and that encourage biking, walking and transit use can:
- ✓ Increase non-auto use by 50% in city centers
- ✓ Reduce the number of vehicles, particularly when congestion is high.

Pricing, either through toll lanes on freeways or new road-user charges, could:
- ✓ Reduce hours traveled by 15% or more, if implemented with higher charges at peak periods.

TRANSIT

Demand for transit in Washington County could almost triple by 2055. Transit trips to Portland will more than double, improving an alternative to the most congested routes. Implementing existing regional service expansion plans is not enough to meet this demand. The following investments can help:

- ✓ Increased bus and light rail service
- ✓ MAX trains running every six minutes or better in the US 26 and the I-5 corridors
- ✓ Faster light rail service and more park and rides, which could increase demand for transit up to 20% between Hillsboro and Portland
- ✓ With planned service improvements, 80% of households will be within a quarter-mile of transit.

✗ Buses will experience the same congestion levels as other vehicles, unless investments that prioritize buses are made.

FREEWAYS

Freeways (I-5, US 26, I-205 and Hwy 217) will see the worst congestion increase. Without improvements, delays will increase throughout most of the day and will result in cut-through traffic.

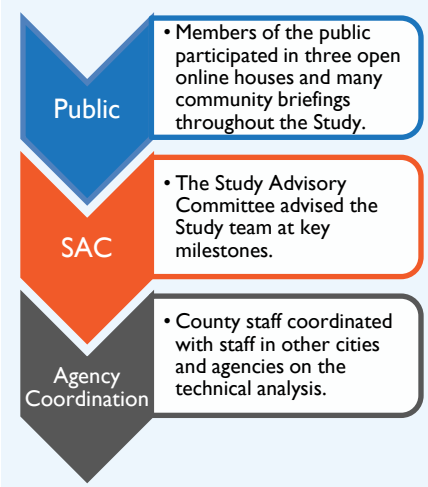
Adding a lane in each direction on these freeways and managing these lanes for trucks, buses and high-occupancy vehicles (HOV) could:
- ✓ Reduce truck delays up to 50% due to exclusive truck lanes
- ✓ Increase carpooling
- ✗ Result in new lanes filling up, even when limited to HOVs, transit and trucks
- ✗ Require more aggressive management, such as tolling, to create additional travel time savings in the added lanes.

Faster speeds with the added lanes would:
- ✗ Increase the total number of vehicle miles traveled
- ✗ Increase crash risk
- ✗ Contribute to greenhouse gas emissions, unless mitigated by safer and cleaner vehicles.

SMART TECHNOLOGY: SELF-DRIVING CARS?

Smart technology such as self-driving cars could:
- ✓ Allow vehicles to travel more closely together, allowing more cars to use the same road
- ✓ Reduce congestion and crashes and related delays
- ✗ Create more congestion if the number of vehicles on the roads increase.

Washington County
Transportation Futures Study
Exploring options • Informing choices



Public Comments on Study Findings

Public involvement was a central piece of the Washington County Transportation Futures Study. The County worked with community members at each Study milestone, including development of community values, understanding the county's transportation past and future trends, collecting transportation investment ideas, and evaluating the ideas in three packages. At each step, the County worked with jurisdictional partners and sought public feedback through online open houses, community briefings, advisory committees, and other activities.

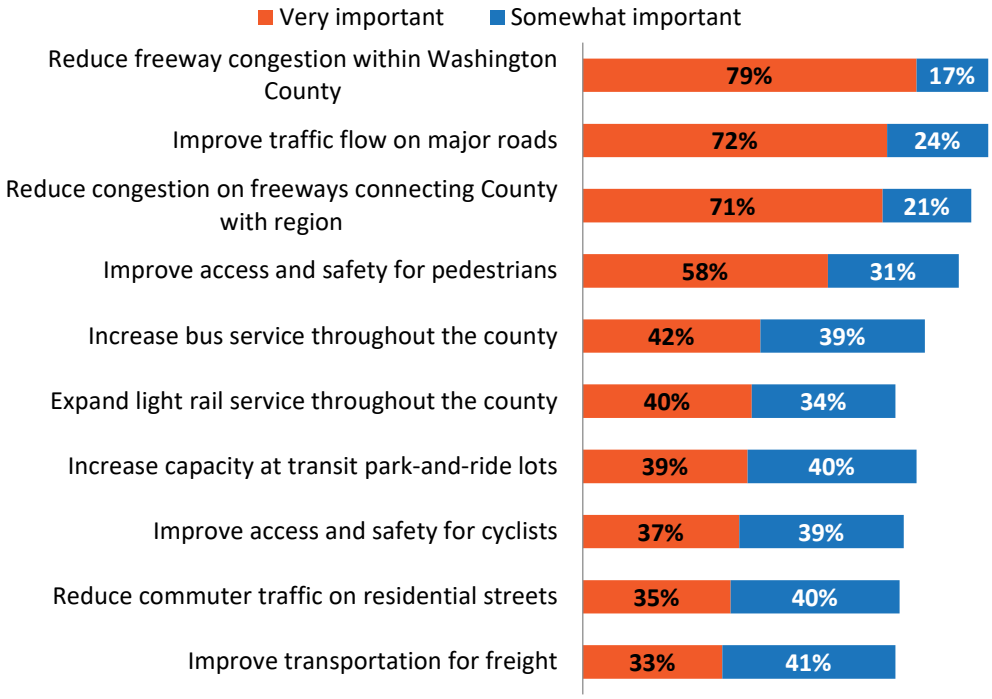
This report provides a snapshot of public feedback on the Study findings. Input was gathered through **two key efforts**:

- **Online open house and survey** that were available to anyone and advertised via mailed postcard to all County residents. It provided detailed Study findings and educational information and asked corresponding questions. *(A representative sample with over 5,400 participants. 94% said they live in the County and 61% work in the County.)*
- **Telephone survey** among a representative random sample of County residents age 18 years and older. This short 15-minute survey did not provide Study findings. It focused on asking about opinions on transportation priorities, select projects and willingness to pay for investments. *(400 participants, margin of error +-5%)*

Transportation Concerns

Phone survey: Almost all County residents (88%) **expect transportation will be a problem** in Washington County in the future. 79% say reducing congestion on freeways within the County is very important and 71% say reducing congestion on freeways leading to the County is very important.

How important is it for the County to achieve these values and goals?



Willingness to pay and support for funding sources

Phone survey: Residents are willing to pay to improve transportation. The polling shows that **3 in 4 people are willing to pay** $100 per year to improve transportation in the County. Nearly half would be willing to pay up to $300 per year.

Online survey: **People support traditional ways of paying for improvements**. 2 in 3 support or strongly support a gas tax, and over half support/strongly support paid parking. There is less support for user charges (46%) and tolling (44%).

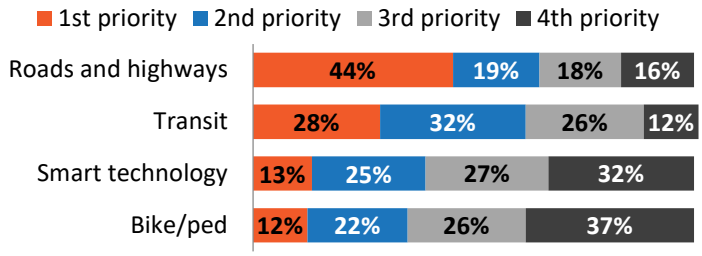
Transportation priorities

The results of both the online survey and the phone survey demonstrate **support for a multimodal system.** Online survey participants gave highest priority to transit improvements, followed closely by freeways. They said the highest values are improved traffic flow, followed by transportation alternatives and access to essential destinations. Roads, highways and public transportation were top priorities in the phone survey, but active transportation and technology are also important.

Transportation Priorities: *Online Survey*

Online Survey: *Participants were given 28 points to distribute among seven transportation investment areas.*

Transportation Priorities: *Phone Survey*



Phone survey*: Participants were asked to rank first to fourth the priority they would give to four investment areas.*

Online Survey: Transportation Investments

The online survey asked participants to provide their levels of support for a wide range of potential transportation investments:

Transit enhancements: People strongly support transit improvements. Between 82-91% support/strongly support each of the following: completing planned bus services, more frequent bus service, more MAX trains, express MAX, and park and rides and shuttle connections.

Only about half support/strongly support investments that would impede vehicle traffic flow (buses priority at intersections and separated bus lanes).

Bicycle & pedestrian enhancements: Approximately 3 in 4 people support or strongly support each of the bike/ped investments:

- Complete bike lanes and sidewalks system.
- Protected bikeways on major roads.
- Network of off-road facilities.
- Safety and amenities for bicycles and pedestrians.

Smart technology: 80% support/strongly support exploring ways to use smart technologies to reduce the need for widening or building new roads.

Projects to reduce vehicle trips: 80-90% support/strongly support programs to increase telecommuting and ride sharing and manage parking. There less support for tolls (43%) or user charges (39%).

Arterial network: People showed mixed support for proposed investments to enhance the arterial network:

- 81% support/strongly support connecting existing arterials with new arterials, and 75% support/strongly support expanding existing arterials with additional vehicle lanes.
- 68% support/strongly support managing driveway access and reducing the number of intersections on key arterials.
- There is less support for reducing traffic speeds (52%).

New freeway lanes: Participants showed mixed support for proposals to add a new lane on the County's major freeways.

- 62% support/strongly support restricting one new freeway lane to freight, bus and HOV only.
- 52% support/strongly support widening freeways for general purpose traffic, without any traffic priority.
- 46% support/strongly support charging tolls on new lanes.

Support for New Roads

Both the online survey and telephone polling asked participants to provide their levels of support for two potential new roads. Results were similar for both. Online survey showed high levels of support, but also greater uncertainty compared to other investments.

Northern Connector

60% of people phone surveyed said they strongly or somewhat favor building a new limited access road connecting Highway 26 with Highway 30 and North Portland, and 16% were undecided. Online survey results were similar: 76% support/strongly support the road and 15% were undecided.

Reducing congestion on US-26 and the Sunset Tunnel dominates as the primary reason people favor it. People who are opposed or undecided question whether the road is necessary, and cost was a concern.

North/South road

68% of people phone surveyed said they strongly or somewhat favor building a new limited-access north/sound road through rural Western Washington County connecting Hillsboro and Wilsonville, and 9% were undecided. Online survey results were similar: 64% support/strongly support the road and 16% were undecided.

Reducing congestion and improving the flow of traffic dominate as the primary reasons people favor building the road. Those opposed are concerned that it doesn't do enough to relieve traffic on Hwy 217 and about effects on the environment and farmland.

Support is similar whether the road is located inside or outside the Urban Growth Boundary.

FINAL REPORT

WASHINGTON COUNTY FREIGHT STUDY

JULY 2017

FINAL

TABLE OF CONTENTS

APPENDICES (AVAILABLE UPON REQUEST)

ACKNOWLEDGEMENTS

The study was organized by the **Westside Economic Alliance (WEA).**

Study sponsors include:

- Intel
- Portland General Electric (PGE)
- Norris, Beggs & Simpson Financial Services
- Providence Health Plan
- The Standard
- Oregon Department of Transportation
- Metro
- Hillsboro Chamber
- Tualatin Chamber
- Port of Portland
- City of Hillsboro
- City of Tualatin
- City of Wilsonville
- Washington County

Consultants:

- DKS
- WSP | Parsons Brinckerhoff

1 EXECUTIVE SUMMARY

1.1 BACKGROUND

International trade is a critical part of Oregon's economy. Businesses in the state exported $22 billion of goods in 2016[1], making Oregon the 14th most trade-dependent state in the nation by exports' share of state GDP.[2] Trade is also a key driver of employment in the state, supporting over 500,000 jobs.[3]

Geography and past investments in infrastructure have made the Portland metropolitan area a gateway for freight movement by sea and air, and a hub for movement by rail and highway[4]. A large proportion of Oregon companies that produce goods for export are located in the Portland Metropolitan area, and many others use the infrastructure of the Portland Metropolitan area to move goods.

Washington County is the economic engine of the Portland-metro region and the state. The computer and electronics industry, which accounts for nearly half of state exports in terms of value[5], is centered on the western part of the Portland-metro region, primarily in Washington County[6]. The county contains over 15 percent of the state's jobs (second highest in the state) and has the highest average wages[7]. Given the trade-dependent nature of many businesses in Washington County, it is important to understand how freight congestion impacts these companies' ability to operate, compete, and grow.

1.2 STUDY PURPOSE AND SCOPE

The Transportation Futures Study analyzed the future transportation needs of Washington County based on anticipated population and employment growth. It found that delays for trucks would be more than twice that for other vehicles[8]. While that study outlined broad transportation needs for all users in the county, study partners determined that additional freight-specific data and analysis were needed to further identify and prioritize needs for trucks.

Previous studies have explored the dependence of traded sector jobs on the transportation system in the region. The purpose of this study is to identify and prioritize infrastructure problems within Washington County that impact freight. The results will inform the development of regional, state and federal funding requests and need for road improvements. They will also provide input regarding freight

[1] Oregon Department of Administrative Services, Office of Economic Analysis and International Trade Administration, U.S. Department of Commerce, 2014.
[2] U.S. Department of Commerce, International Trade Administration, Oregon Exports, Jobs and Foreign Investment, February 2017.
[3] Office of Trade and Economic Analysis, International Trade Administration, U.S. Department of Commerce, 2013.
[4] Economic Development Research Group (EDRG), Economic Impacts of Congestion on the Portland-metro and Oregon Economy, 2014.
[5] U.S. Department of Commerce, February 2017.
[6] Greater Portland Export Initiative (GPEI), Portland Region Westside Freight Access and Logistics Analysis, October 2013.
[7] U.S. Department of Labor, Bureau of Labor Statistics. County Employment and Wages in Oregon – Fourth Quarter 2015, July 2016
[8] Washington County, Transportation Futures Study, February 2017.

flows and market considerations (including cost sensitivity and urgency) to the future demand forecast for the Hillsboro Airport Masterplan.

Under the guidance of the Steering Committee composed of project partners, the study:

- Reviewed existing plans, studies and data
- Conducted interviews with companies that ship or carry goods into or out of Washington County
- Analyzed recent truck operations using real-time speed and volume data.
- Evaluated and prioritized truck needs within Washington County

1.3 KEY FINDINGS

- As the economic engine of Oregon and a major exporting region, Washington County is highly dependent on freight infrastructure.
- In addition to computers and related components, plastic, wood, paper, tools, nursery, seed, fruit and tree nut products all represent significant exports produced in Washington County[9].
- The Portland metropolitan area has the bulk of identified delay areas and corridors in the state according to the recently completed Freight Highway Bottleneck Project (FHBP)[10].
- Due to its relative speed and flexibility, truck is by far the most common mode. Whether on its own or in combination with other modes, it is a part of most freight trips.
- Businesses' heavy reliance on trucks makes highway and arterial congestion a major concern for many firms in Washington County and the region. Congestion adds time to deliveries, resulting in significant costs to businesses. Most interviewed firms indicated that highway congestion was a serious impediment and complained of significant impacts from consistent, pervasive roadway congestion. A severe national truck driver shortage, exacerbated by federal requirements and traffic delays, is impacting the ability of businesses to move goods.
- New real-time truck operations data on arterials was analyzed with truck counts in an analysis that allowed more detailed understanding of local delay and reliability issues critical to freight movement than previously.
- The limited number of routes into the county, the degree of delay and unreliability on them and the importance of county freight to the economy make access to Washington County a statewide issue. These concerns were expressed by stakeholders and supported by this evaluation and the statewide FHBP.
- The I-5 corridor was most often cited by stakeholders and represents the highest need in both this analysis and the statewide bottleneck study.
- The US 26 corridor near the Sylvan Tunnel followed I-5 in terms of stakeholder concerns and freight operational performance in this analysis and was also identified as a delay corridor in the statewide study.
- Many Washington County highways and arterials suffer from congestion throughout much of the day. Other key areas of freight operational delay and unreliability include portions of OR 217, OR 8, Tualatin-Sherwood Road, Cornelius Pass Road and Murray Boulevard.

[9] WSP, Washington County Export Analysis, November 1, 2016.
[10] https://www.oregon.gov/ODOT/TD/TP/Pages/FreightHighwayBottlenecks.aspx

- Farm to market roads near the edge of the urban area are not built for the volumes or loads they are subject to.

1.4 Stakeholder Suggestions to Improve Freight Movement

Stakeholders had a number of suggestions to improve freight movement, including the following general approaches:

- Adding HOV or truck-only lanes
- Providing incentives to encourage off-peak delivery
- Adding lanes or interchanges at bottleneck areas along specific corridors
- Expanding transit service, routes, and facilities along congested corridors
- Higher speed limits

Each of these tools offers its own set of opportunities and limitations. They might work in some locations or for some industries and not others. However, they should all be explored as part of a comprehensive approach to freight delay and reliability issues in the Portland metropolitan area.

1.5 Conclusions

This freight needs analysis was intended to provide information to decision-makers in establishing transportation funding priorities. Freight delay and reliability within and to Washington County are a major regional issue. Due to the importance of county traded sector businesses to the economy, the freight needs identified here rise to the level of statewide significance.

As summarized in this report and detailed in technical memos, this study identified and prioritized Washington County Freight needs. This study finds that freight access to, and movement within, Washington County represents a significant cost to businesses and drag on the economy. These findings demonstrate the location of significant freight needs in and around Washington County and underscore the importance of developing and funding road improvements to meet them.

2 Study Background and Purpose

2.1 Trade and the Oregon Economy

International trade is a critical part of Oregon's economy. Businesses in the state exported $22 billion of goods in 2016[11], making Oregon the 14th most trade-dependent state in the nation by exports' share of state GDP.[12] A wide variety of industries are dependent on exports; top categories in terms of value

[11] Oregon Department of Administrative Services, Office of Economic Analysis and International Trade Administration, U.S. Department of Commerce, 2014.
[12] U.S. Department of Commerce, International Trade Administration, Oregon Exports, Jobs and Foreign Investment, February 2017.

include computer and electronics products, machinery, transportation equipment, agricultural products, and chemicals.[13] Trade is also a key driver of employment in the state, supporting over 500,000 jobs.[14]

Geography and past investments in infrastructure have made the Portland metropolitan area a gateway for freight movement by sea and air, and a hub for movement by rail and highway[15]. A large proportion of Oregon companies that produce goods for export are located in the Portland Metropolitan area, and many others use the infrastructure of the Portland Metropolitan area to move goods.

2.2 Washington County's Role in the State Economy

Washington County is the economic engine of the Portland-metro region and the state. The computer and electronics industry, which accounts for nearly half of state exports in terms of value[16], is centered on the western part of the Portland-metro region, primarily in Washington County[17]. The county contains over 15 percent of the state's jobs (second highest in the state) and has the highest average wages[18]. Given the trade-dependent nature of many businesses in Washington County, it is important to understand how freight congestion impacts these companies' ability to operate, compete, and grow.

A high level analysis conducted as part of this study identified major exports produced in Washington County. That analysis indicated that, in addition to computers and related components, plastic, wood, paper, cutlery and handtools, nursery, seeds, fruit and tree nut products all represented significant exports produced in Washington County[19].

2.3 Study Context

Previous studies have explored the dependence of traded sector jobs on the transportation system in the region. The Economic Impacts of on the Portland-metro Area and Oregon Economy highlighted the Oregon's trade dependence and quantified the impact of transportation delays on businesses and individuals.[20] The International Trade and Logistics Initiative examined the needs of exporters statewide in light of the loss of marine container service from the Port of Portland in 2015[21]. The Westside Freight Access and Logistics Analysis explored the transportation challenges confronting the computer and electronics industry.[22]

More recently, the Transportation Futures Study analyzed the future transportation needs of Washington County based on anticipated population and employment growth. It found that delays for

[13] Ibid
[14] Office of Trade and Economic Analysis, International Trade Administration, U.S. Department of Commerce, 2013.
[15] Economic Development Research Group (EDRG), Economic Impacts of Congestion on the Portland-metro and Oregon Economy, 2014.
[16] U.S. Department of Commerce, February 2017.
[17] Greater Portland Export Initiative (GPEI), Portland Region Westside Freight Access and Logistics Analysis, October 2013.
[18] U.S. Department of Labor, Bureau of Labor Statistics. County Employment and Wages in Oregon – Fourth Quarter 2015, July 2016
[19] WSP, Washington County Export Analysis, November 1, 2016.
[20] EDRG, 2014.
[21] International Trade and Logistics Initiative, Keep Oregon Trade Moving - Steering Committee Report, 2016.
[22] GPEI, 2013.

trucks would be more than twice that for other vehicles[23]. While that study outlined broad transportation needs for all users in the county, it also concluded that additional freight-specific data and analysis were needed to further identify and prioritize needs for trucks.

2.4 Study Purpose and Scope

Based on recent studies, the Westside Economic Alliance, the Port of Portland and numerous other business organizations and transportation agencies determined that additional work was needed to identify and prioritize infrastructure problems within Washington County that impact freight[24]. The results will inform the development of regional, state and federal funding requests and need for road improvements. They will also provide input regarding freight flows and market considerations (including cost sensitivity and urgency) to the future demand forecast for the Hillsboro Airport Masterplan.

Under the guidance of the Steering Committee composed of project partners, the study:

- Reviewed existing plans, studies and data
- Conducted interviews with companies that ship or carry goods into or out of Washington County
- Analyzed recent truck operations
- Evaluated and prioritized truck needs within Washington County

2.5 Key Definitions

Below is a list of definitions for key terms in this report.

Shipper – A company that produces goods that need to be shipped

Carrier – A firm that provides freight transportation services

Reliability – The consistency or dependability in travel times, as measured from day-to-day and/or across different times of the day (per Federal Highway Administration)

Delay – A measure of extra time spent travelling on a road segment due to congestion

Bottleneck/Delay Area – Part of the state freight network that exhibits disproportionately high costs in terms of delay or reliability in the movement of freight (from Freight Highway Bottleneck Project (FHBP), discussed in section 5)

Delay Corridor – A string or grouping of multiple delay areas (from FHBP, discussed in section 5)

Incident – An event that creates a delay on a road segment

[23] Washington County, Transportation Futures Study, February 2017.
[24] See Acknowledgements for the full list of study sponsors.

3 EXISTING PLANS AND DATA

The project team reviewed past plans, studies and datasets to leverage previous efforts and data. The review allowed the team to understand the current insights into the transportation system and known deficiencies. It also allowed them to avoid repeating previous efforts and to benefit from lessons learned. A complete description of the various documents reviewed and their findings is located in the Summary of Prior Studies and Washington County Freight Data Technical Memo, which is attached to this report as Appendix A.

3.1 STATEWIDE AND REGIONAL PLANS AND STUDIES

The study reviewed the following plans:

- The Regional Transportation Plan (RTP) Freight Plan (2010)
- Economic Impacts of Congestion (2014)
- Westside Freight Access and Logistics Analysis (2013)
- The City of Portland Central City Sustainable Freight Strategy (2012)
- Metro Truck Model Update

Complete descriptions of the documents are in Appendix A. This review concluded that:

- Inadequate interchange spacing exacerbates congestion and safety issues on OR 217.
- There is a need for improved arterial connections to current and emerging industrial areas (e.g. I-5/OR 99W Connector area)
- Limited and inadequate last mile connections create chokepoints, including 124th Avenue.
- Portland-metro area is a key gateway for Oregon products and regional bottlenecks impact the entire state.
- Reliability of the roadway system is a key to C&E goods movement within the supply chain
- The Westside C&E industry is heavily dependent on two routes to PDX (US 26 and Cornelius Pass Road) both of which have significant deficiencies.
- Attempts to create urban consolidation centers to address freight congestion and distribution issues elsewhere have been largely unsuccessful. Previous studies have found increased delivery costs and time due to the insertion of an additional step in the supply chain.
- Metro is undertaking an update to its truck model within the regional travel demand model. However, the results were not ready for use as part of this study.
- The Oregon Freight Highway Bottlenecks Study was on-going during the time of this study and the results were included in Section 4.

3.2 WASHINGTON COUNTY AND LOCAL AGENCY PLANS

The team reviewed the following studies and plans:

- Washington County Transportation Futures (2017)
- Hillsboro TSP (2004 being updated in 2017)
- Wilsonville TSP (Revised 2016)
- Beaverton TSP (2010) Tigard TSP (2010)

- Tualatin TSP (2014)

Long range plans included a number of elements that are relevant for freight planning including policies, roadway designations, design requirements, freight needs and freight projects. Specific findings relevant to the Washington County Freight Study include:

- Major portals in and out of Washington County are at or approaching capacity
- Without new road capacity beyond those adopted in local TSPs, truck hours of delay, especially on freeways, is expected to increase 400 percent over the long term.
- Future levels of congestion on key highways and arterials are expected to spread traffic beyond the current peak periods into the midday, which is a critical time for local and regional freight delivery.
- Major portals including US 26, OR 217, I-5 and Cornelius Pass Road are expected to reach capacity during midday in the future.
- Added capacity from managed lanes for trucks transit and HOV could improve reliability, however growth is still anticipated to result in a doubling of delay over today.
- More aggressive traffic management, such as tolling or congestion pricing would be needed to provide greater reliability benefits for freight.
- Preferential treatments for trucks at on-ramps would help overall freight delay but they have limited value in addressing congestion on highways.
- Cargo consolidation centers near the Portland Airport, where goods are reloaded for domestic and international distribution, draw goods from all over the region. The Transportation Futures study examined whether a new Westside freight consolidation facility could better serve Washington County industry by avoiding travel on US 26 during congested periods. There is insufficient quantity of local commodities to warrant a new center in the immediate future. In addition, while a Westside center might help air cargo traffic, it would likely draw other freight traffic to the County[25].
- There are limited direct routes for freight to travel north-south in Wilsonville and improvements to complete the network have been identified. Priority routes include Day and Garden Acres Roads.
- Farmington Road/Canyon Road both need operations improvements to maintain freight mobility, some of which have been completed.
- Traffic operations on Murray Boulevard, Farmington Road, Hall Boulevard and Schools Ferry road are impacted by at grade rail crossings.
- Freight routes through downtown Tualatin impacted by travel delay include SW Tualatin-Sherwood Road, SW Boones Ferry Road and SW Martinazzi Avenue.

3.3 DATA

Specific data utilized in previous studies has limited applicability for this study due to focus or timeframe. However, Washington County has a robust traffic count program on a three year cycle which provide truck counts on urban arterials as well as some collector and rural routes. The technical memo (Appendix A) identified top truck count locations. Various locations on Tualatin-Sherwood Road

[25] WSP, Freight Sensitivity Test Technical Memo, Washington County Transportation Futures, August 2016.

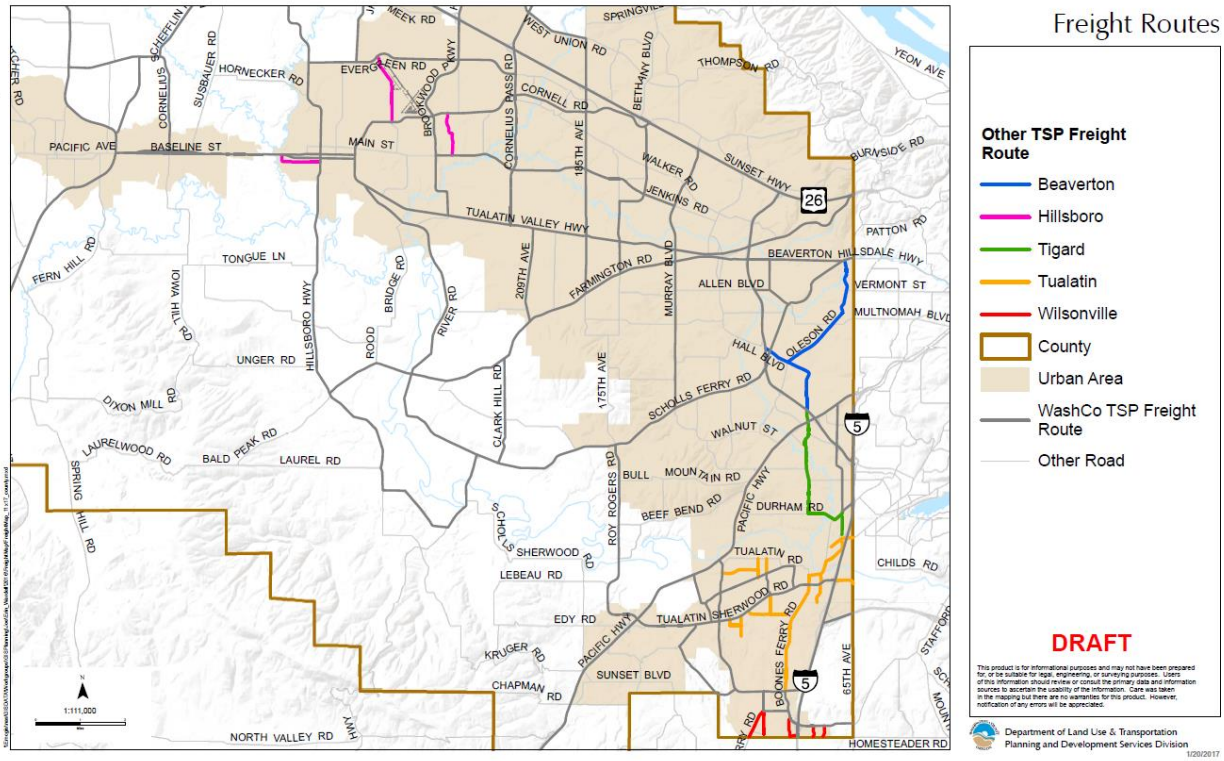
made up the top five locations by volume. These were followed by Shute Road, 185th Avenue, Cornelius Pass Road, Cornell Road and Farmington Road.

ODOT maintained truck count data on State routes shows I-5 as having the highest counts followed by US 26 and OR 217. ODOT has recently purchased real-time truck operations data from HERE which can be used to supplement previous datasets. Based on this analysis, the project team determined that truck counts on county and state facilities could be used together with HERE data to identify and analyze current locations for freight delay and reliability.

3.4 Overall Findings from Existing Plans and Data

There are a number of state, regional, county and local designated freight networks which serve a variety of purposes. While in many cases the local designations mirror the regional, several cities have more detailed networks that provide access to local destinations or routes that may be important for freight movement. Together, these designations provide a comprehensive network of freight routes that can be treated as a system for study and improvement. Washington County created a new map for this project that shows all levels of freight designation as shown in Figure 1.

Figure 1. Freight Routes



The array of truck specific data has been limited in prior transportation planning efforts and generally includes vehicle classification counts. This study will use county vehicle counts but additional datasets from prior studies are limited in nature and do not provide equal coverage for all county roads. HERE data can be used together with county truck counts to identify freight congestion that is not captured in prior studies.

4 STAKEHOLDER INTERVIEWS

Below is a summary of the stakeholder interview process and findings. More details are contained in the technical memo entitled Stakeholder Interview Summary, which is attached as Appendix B.

4.1 METHODOLOGY

4.1.1 Identification of Interview Targets

The Regional Commodity Flow Forecast, US Census Bureau Trade Statistics and Port of Portland estimates of container volumes were reviewed in order to reveal major export from the Portland-metro area. The team then used employment[26] and agricultural[27] data to determine which major regional exports are concentrated in Washington County. The Port of Portland also identified other high freight generating industries with significant employment in Washington County based on a review of confidential county business records.

The resultant targeted industries included:

- Computer and electronics
- Plastics
- Wood Products
- Paper
- Nursery Products
- Fruits, tree nuts and berries
- Metal tools, cutlery, etc.
- Prepared foods
- Recycling
- Minerals/Aggregates
- Wholesale trade
- Transportation and distribution

A more detailed explanation of the identification process can be found in Appendix B.

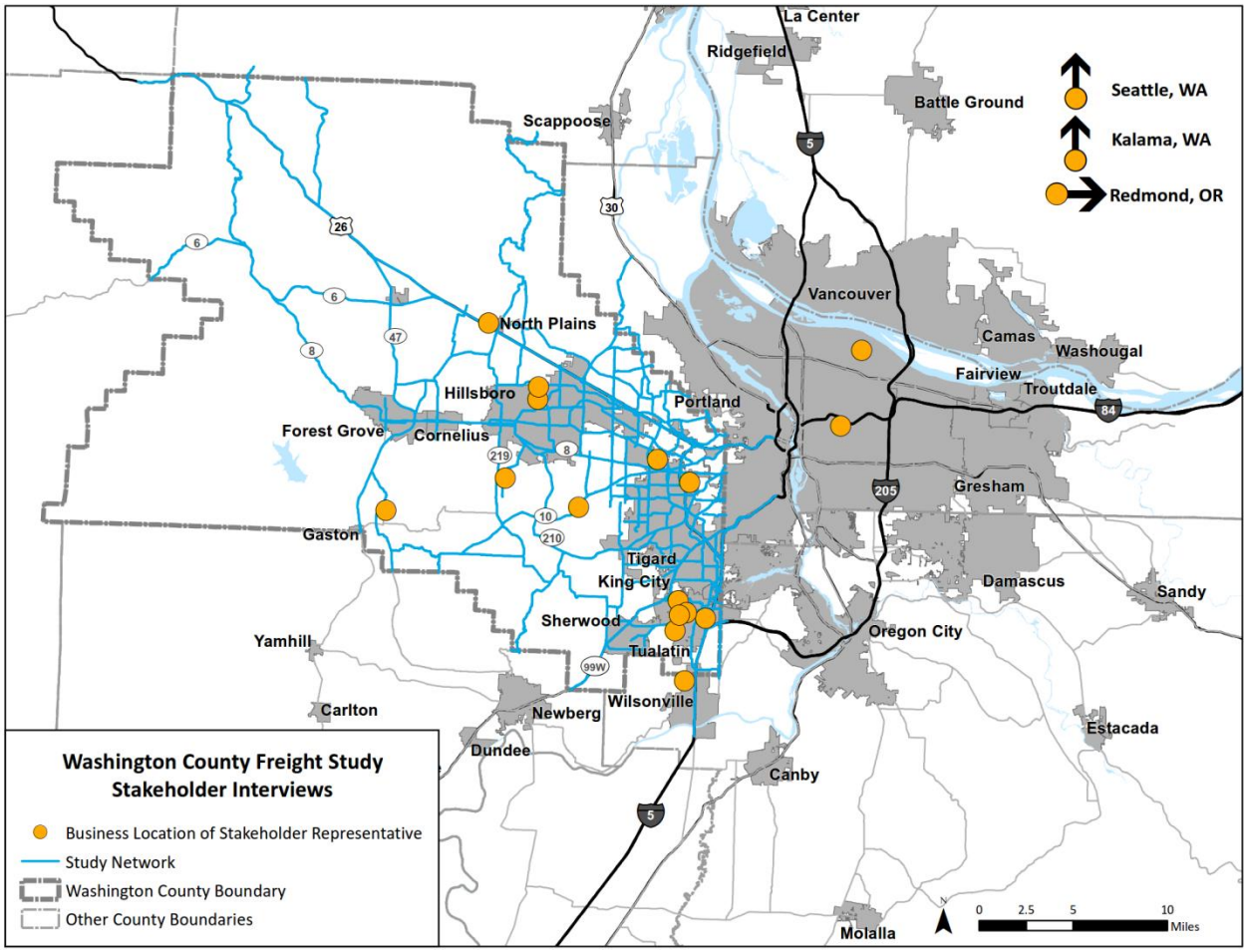
4.1.2 Companies Interviewed

Because previous efforts focused on the computer and electronics industry, this effort concentrated on reaching other industries. The Port identified firms with a larger number of employees within these industries, as well as an initial list of contacts at each. The Steering Committee reviewed the initial interview targets and supplemented the list with other firms and contacts. Finally, during initial interviews, firms were asked to provide contact information for their primary carriers, which resulted in additional transportation industry contacts.

[26] Census County Business Patterns, 2013.
[27] US Census of Agriculture, Profile of Washington County, 2012.

Ultimately, interviews were held with a total of nineteen firms throughout Washington County and the region. As shown in the map in Figure 2, firms were located throughout the county and the broader region.

Figure 2. Washington County Freight Study Stakeholder Interview Map



Firms interviewed included 13 manufacturers as well as six firms that provide freight transportation services (referred to as "carriers"). The carriers included one less-than-truckload company, two truckload companies, one perishables expeditor and two full service logistics and delivery service providers. Interviews covered the following goods and services:

- Nursery
- Berries and hazelnuts
- Plastic Footwear
- Wood products
- Paper/cardboard
- Food products
- Capital equipment for the Computer and Electronics Industry
- Restaurant supply
- Food distribution

- Aggregate/asphalt
- Health care
- Garbage/recycling
- Aviation services
- Transportation and distribution services

The list of companies interviewed is contained in the Stakeholder Interview Summary attached as Appendix B.

4.1.3 Interview Questions

Interviews covered the following topics:

- Freight type, quantities and modes
- Major gateways and routes
- Carrier selection supply chain trends
- Impact of congestion
- Strengths and weaknesses of the system
- Transportation needs and solutions

Appendix B contains the specific interview questions.

4.2 General Observations

The interviews benefitted from broad industry and geographic coverage. Due to the diversity of industries covered, firms interviewed had a range of relationships to transportation. Some provided their own delivery or were themselves carriers. They also had a variety of hours of operation, destinations and products that require the use of different modes. This diversity made it difficult to discern common themes.

Truck is by far the most common mode employed by shippers. Air freight is important to high value and time sensitive goods such as perishables and input to high end manufacturing processes. The limited frequency and carrying capacity of international flights from the Portland International Airport (PDX) means that most firms utilize other airports instead of or in addition to PDX. There is interest in additional air cargo offerings at PDX, notably the new Cathay Pacific freighter service.

Rail and marine shipping are used for long distances and heavy loads with less time sensitivity. The lack of marine container service in Portland was noted as a gap by some interviewees.

The majority of firms anticipate growth, although the degree is industry- and firm- specific. The biggest trends affecting the supply chain are the growth in direct residential delivery and the increased federal requirements on the trucking industry in terms of driver hours and maintaining electronic logs. These trends result in the need for additional drivers, which increases costs and further exacerbates a severe driver shortage.

Highway congestion was the most frequently cited problem and several firms indicated it is a serious impediment to their business. Firms traveling longer distances, who have 24-7 operations or who rely on carriers were less directly impacted by congestion. In response to congestion, most firms would like to

shift operations to start earlier in the day. However, several firms noted that they cannot avoid congestion due to customer pick-up and delivery windows or linehaul schedules.

I-5 and US 26 are the most commonly noted bottleneck areas, followed by OR 217. I-84 and I-205 were less frequently noted by those interviewed for this study. Several major arterials are overwhelmed, including Tualatin-Sherwood Road, OR 99W, and Tualatin-Valley Highway. Finally, several interviewees noted that older "farm to market" roads near the edge of the county are not sized for loads they are carrying.

General suggestions to address problems include adding truck only lanes and incentives to encourage nighttime delivery. Interviewees suggested adding lanes, interchanges or otherwise improving flow at bottleneck areas along specific corridors. Improving parallel routes, especially north-south, was a common theme. Several firms suggested expanded transit service, routes and facilities along congested corridors.

4.3 Transportation System Needs

4.3.1 General Observations

In terms of strengths of the regional transportation system, several firms noted that transit service and bicycle and pedestrian facilities were well developed. Some respondents noted that the roadway system is easy to understand and that surface streets are well developed in Washington County for the most part. Washington County's arterial roadways are mostly four-lane and perceived as operating pretty well, overall.

Substantial congestion to and from the west side during key freight times was noted as a significant weakness of the regional transportation system by most interviewees. A few businesses are not as affected by congestion due to their business model (e.g. hours of delivery, long distance destinations or reliance on carriers). Most firms and all carriers, however, complained of significant impacts from consistent and pervasive roadway congestion.

Highways and freeways are the most common congestion concern. In terms of specific facilities, I-5 and US 26 were cited most frequently. Other highways were noted to a lesser degree, along with a few arterials.

4.3.2 Suggested improvements

Following, in order of frequency, is the list of specific issues noted by more than one stakeholder:

- US 26 near tunnel, both coming in to Washington County in the A.M. and out in the P.M.
- I-5 north after 2 p.m.
- I-5 Boone Bridge
- I-5 Columbia River Bridge
- I-5/405 interchange during p.m. peak
- OR 217
- Needed alternative to I-5 (e.g. US 30)
- Cornelius Pass and Germantown Road
- I-84, especially around interchanges (Rose Quarter and I-84/I-205)

- Overloading of farm to country roads in areas at the edge of the region, such as Forest Grove and Banks (e.g. Laurel)
- Residential areas not configured for trucks (due to low trees, etc.)
- Lack of early morning bus service
- Tualatin-Sherwood Road (project on 124th Avenue should help)
- OR 99W (and 99E) through cities
- Tualatin-Valley Highway

Stakeholders suggested a number of general approaches to improve freight movement, including:

- More lanes on highways
- HOV or truck only lanes
- Incentives for off peak delivery
- Move freight at night
- More routes approved for triples or longer combination of doubles
- Incentives for sustainable practices, such as electric vehicles and fueling stations for alternative fuels
- Higher speed limit, like other western states
- Improve circulation around PDX
- Drones

The full list of specific improvements suggested by stakeholders is included in Appendix B.

5 ACCESS TO WASHINGTON COUNTY

One key finding from stakeholder interviews was that access to and from Washington County is the biggest issue affecting freight-dependent businesses in the region. This finding supported the results of previous studies, such as the Portland Regional Westside Access and Logistics Analysis. The Steering Committee therefore wanted to ensure that this study covered broader regional access issues that affect Washington County, but lie outside of the county proper. To accomplish that, this section of the study will discuss the method and results of the statewide Freight Highway Bottlenecks Project (FHBP).

The FHBP identified locations on Oregon's highway network that were experiencing significant freight truck delay, unreliability, and increased transportation costs. The FHBP looked at a number of indicators to identify these bottlenecks:

- **Delay –** The annual hours of delay that trucks accumulate on a given segment
- **Unreliability –** Unreliability of shipment travel times
- **Geometric Issues –** Percent grade, degree curvature, narrow lanes or shoulders
- **Volume –** Volume-to-capacity ratio and peak congested travel
- **Incidents –** Frequency of various collision types
- **Cost –** Transportation delay costs, inventory delay costs, and unreliability costs

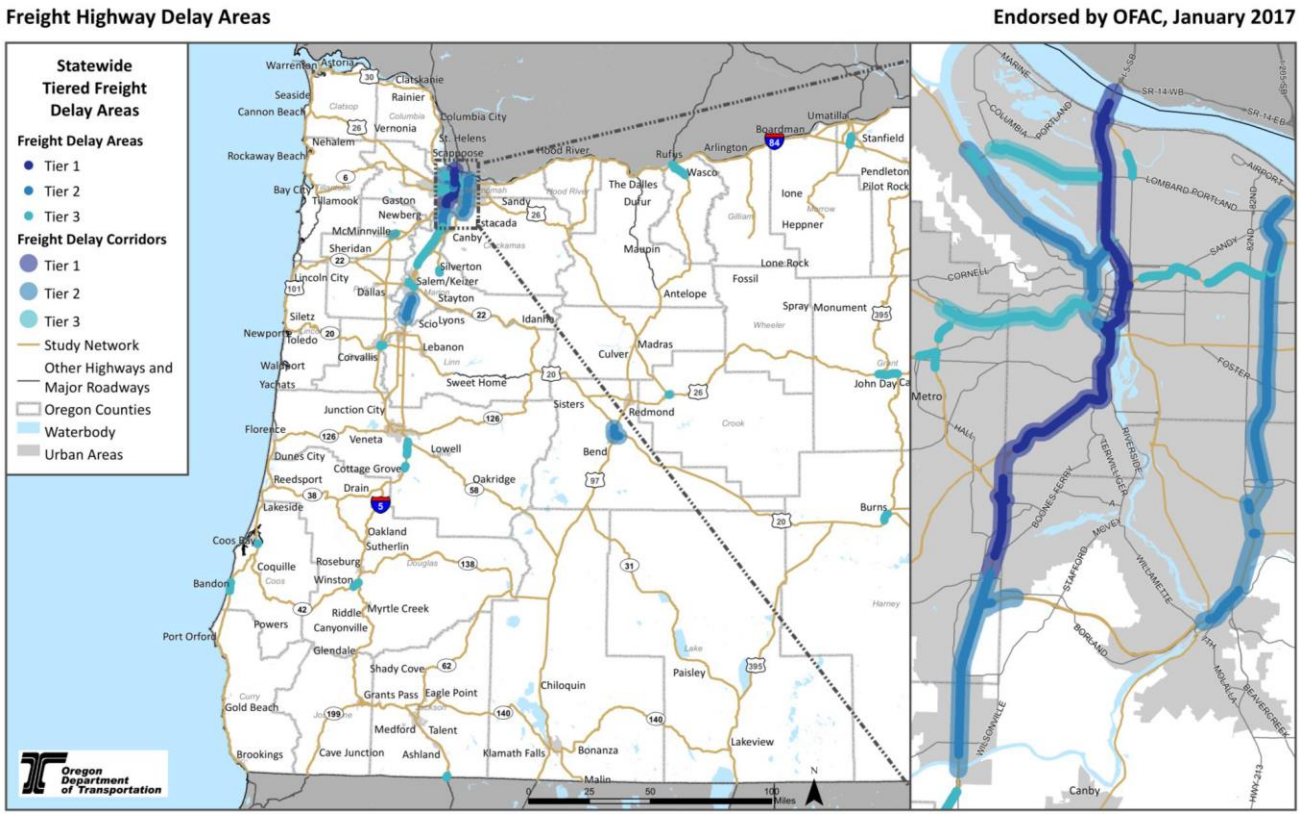
Stakeholders also considered a few additional factors to apply the aforementioned indicators to the wide variety of bottleneck locations:

- **Indicator Weight –** Stakeholder groups agreed that travel delay and unreliability were the two most important indicators of bottleneck locations. The other indicators were used primarily to understand the causes of bottlenecks and to tier the locations
- **Urban vs. Rural –** Since the analysis found that freight networks in urban areas operate at a different scale than those in rural areas, different thresholds were considered for each environment.
- **Corridors –** There were strings of delay areas, particularly in the Portland metropolitan area, that were better considered as corridors, than individual delay areas. This acknowledges the cumulative impact that adjacent segments can have on freight movements.
- **Tiering –** Bottlenecks in freight delay areas and corridors were tiered to reflect their relative impact on freight movement

The study found that bottlenecks were most severe in freight delay corridors, reflecting the high costs of cumulative delay and reliability on the industry. The analysis also found that the Portland metropolitan area had the bulk of identified delay areas and corridors, despite the fact that the thresholds for rural areas were substantially lower than those for urban areas.

As can be seen in Figure 3, several of these areas and corridors help link the city of Portland to Washington County. I-5, a vital access to Washington County from all directions, as noted in stakeholder interviews, is the only Tier 1 Corridor in the state. Additionally, all other major portals referenced by stakeholders – US 26, US 30 and I-405 – are all identified as delay corridors at the state level. The high transportation costs identified on these facilities pose a threat to the entire region, particularly Washington County.

Figure 3. Statewide Freight Highway Bottlenecks (with insert of Portland metropolitan area)



6 EVALUATION OF FREIGHT NEEDS WITHIN WASHINGTON COUNTY

As part of the effort to better understand problems confronting freight in Washington County, a study was conducted to identify the most pressing freight needs throughout the county. The study evaluated roads based on the degree of freight need, rather than the potential ability for a specific project to address the identified need. In other words, need locations, not projects, were evaluated.

The study proceeded by screening for potential freight needs, evaluating the identified needs on a set of five data-driven criteria, and then tiering the needs based on the results of the analysis. This section will provide an overview of this process and discuss the final results. More details may be found in Appendix C.

6.1 NEEDS IDENTIFICATION AND EVALUATION PROCESS

The evaluation process followed three steps:

- **Initial Screening** – Initial steps were performed to identify analysis locations.
- **Evaluation** – Locations identified as having significant freight needs were evaluated based on five criteria.
- **Tiering (Results)** – Following the evaluation process, road corridors were grouped into tiers that demonstrate the relative level of need for each location.

6.1.1 Initial Screening Based on Freight Operations

The initial screening process used several factors to identify locations for additional evaluation:

- **Conditions of existing freight operations** - The needs evaluation focused on corridors that were identified as having poor/moderate conditions in either direction for truck delay or reliability. These conditions are defined as being in the lower four categories on the operations maps displayed later in this section (

- Figure 4,

- Figure **5**,

- **Figure 6**, Figure 7).

- **Route status** – The evaluation included only locations designated on a freight network (state, regional, county, or city) or those located along a state route. Street segments that did not meet at least one of these criteria were excluded.

- **Location** – Only segments within Washington County were included.

To assess the conditions of existing freight operations, the project team reviewed annual truck freight operations data for Washington County roads, based on vehicle probe data from HERE.[28] Coverage varied by road and level of use, but was generally available for most major roads in the county, including freeways, highways, arterials, and some collectors. Operations data were combined with truck counts to calculate two measures, truck delay and truck reliability.

Truck Delay

The delay measure approximates how many minutes of delay per mile of roadway are accumulated by trucks on an average day. Delay is an important measure for freight as it demonstrates extra time spent in traffic, which corresponds with additional labor, fuel, and equipment costs to the carrier. Nationally, these incremental costs are estimated to be in the range of $60.00/hour in 2015[29].

Truck delay is calculated by combining information from two data sources: travel time data throughout the day and truck Annual Average Daily Traffic (AADT) counts. The metric uses two indicators from the travel time data: free flow travel time and average travel time. Free flow travel time is defined as the 10th percentile fastest travel time, while average travel time is simply the average of all travel time records. The difference between these two metrics provides a sense of how much slower average operations on the roadway are relative to how fast trucks could be traveling. This difference is then multiplied by the number of trucks that use the roadway, creating a total that represents the total delay faced by trucks throughout the day. This value is then divided by segment length to provide a ratio that can be compared consistently throughout the roadway network.

Results of the truck delay measure are shown by direction in the two figures below. As shown on the legend, there are six categories, with green representing better performance and orange and red representing worse performance. The specific thresholds are indicated on the legend and represent natural breaks.

As shown on the maps, the worst delays occur on I-5, followed by both directions of Tualatin-Sherwood Road, the eastbound direction of US 26 as it approaches the tunnel, and a short segment of OR 47 as it travels southbound through in Forest Grove. Other segments of US 26, OR 47, and OR 217 show up in the third worst category. Numerous highway and arterial segments are in the fourth worst category (shown in yellow), indicating moderately poor performance.

[28] https://here.com/en

[29] ATRI, An Analysis of the Operational Costs of Trucking: 2016 Update, September 2016. http://atri-online.org/wp-content/uploads/2016/10/ATRI-Operational-Costs-of-Trucking-2016-09-2016.pdf

Figure 4. Truck Delay – Northbound & Westbound Directions

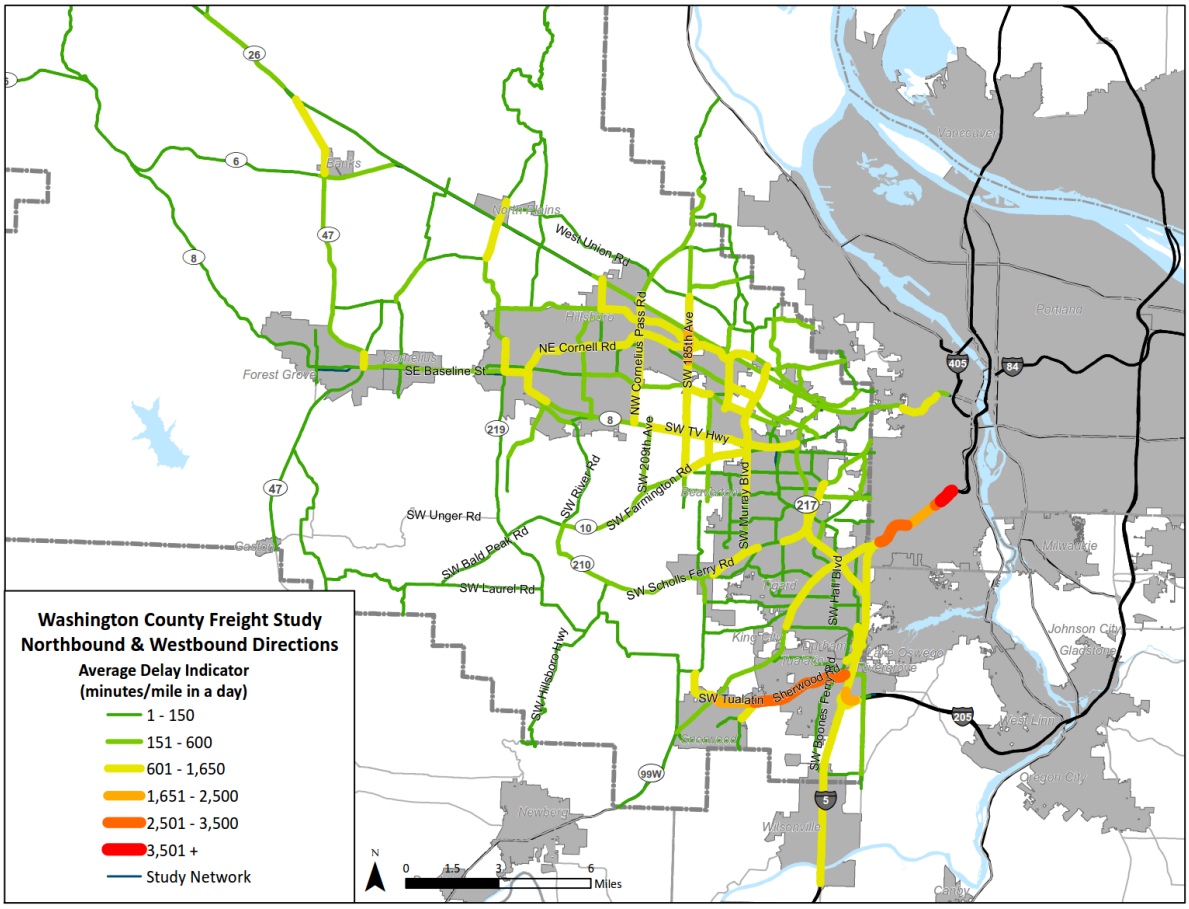
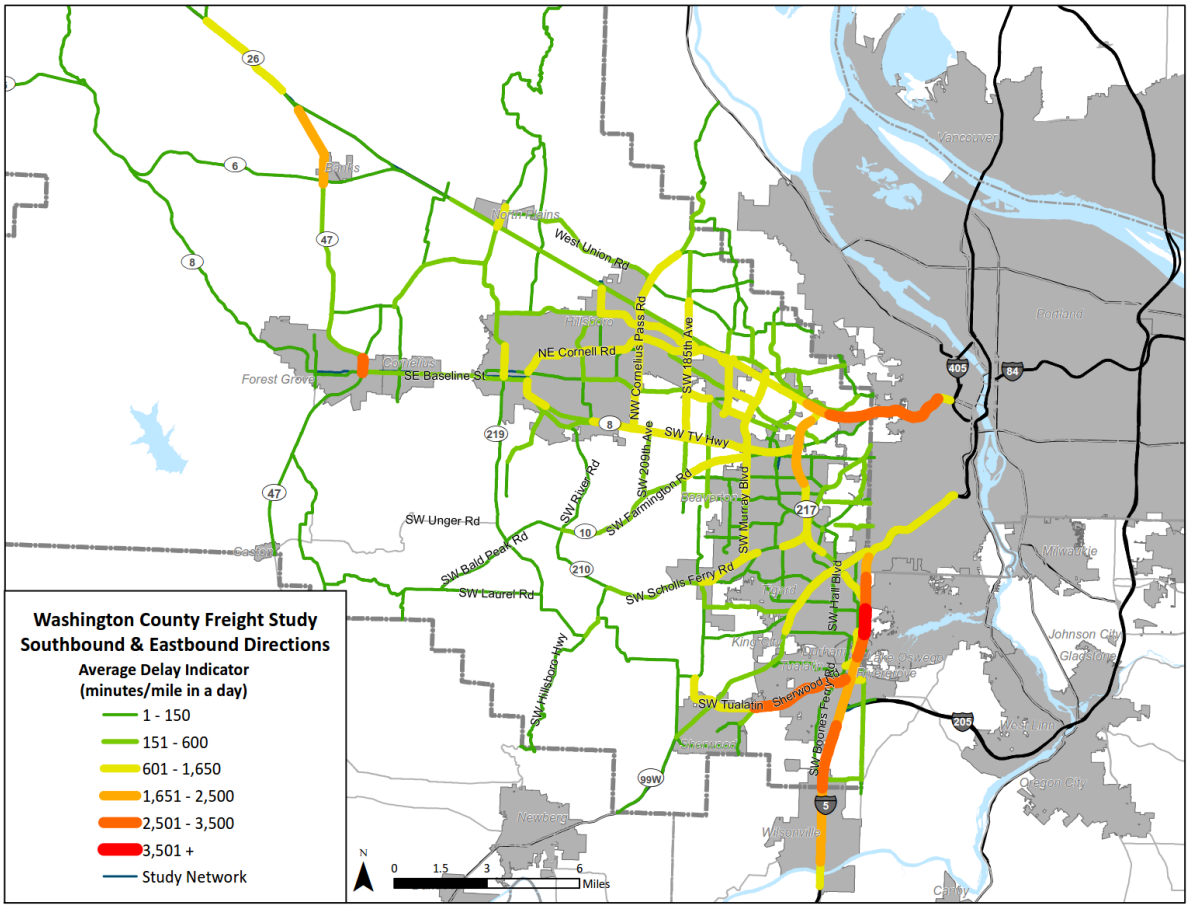


Figure 5. Truck Delay – Southbound & Eastbound Directions



Truck Reliability

A truck reliability measure was developed based on the Travel Time Index (TTI), a measure that highlights the locations on the roadway system where unreliability affects trucks. Reliability is a key measure for freight, as on-time delivery is the most fundamental performance requirement of any freight company. As expressed in stakeholder interviews summarized in Section 0, reliability is so basic that many companies take it as a given.

The truck reliability measure used in this study relies on the ratio between the 95th percentile travel time and the 50th percentile travel time to indicate how much extra time drivers must budget above the average to arrive on time most of the time. This ratio is then multiplied by the truck AADT to obtain a measure of unreliability impacts throughout the system. The 50th and 95th percentiles are calculated for the whole day, consistent with USDOT recommendations in its rule regarding performance assessment.[30] This approach captures both recurring (variation throughout the day) and non-recurring

[30] https://www.federalregister.gov/documents/2017/01/18/2017-00681/national-performance-management-measures-assessing-performance-of-the-national-highway-system

unreliability. If calculated for each hour separately, the result would highlight only non-recurring unreliability.

Results of the truck reliability measure are shown by direction in two figures below. As shown on the legend, there are six categories, with green representing better performance, and orange and red representing worse performance. The specific thresholds for each category are indicated on the legend and represent natural breaks.

As shown on the maps, many of the same facilities that had delay problems also show up as having reliability problems. I-5 again shows the worst performance, followed by US 26 in the eastbound direction. However, more segments of both facilities, as well as a longer stretch of OR 217, show up in the top categories under this metric than the delay metric. This might be because these segments have safety issues, leading to delay-causing incidents. On an already congested facility, an incident causes significant repercussions. This non-recurring delay from incidents contributes to unreliability problems.

On the other hand, Tualatin-Sherwood Road, which has severe recurrent delay problems for trucks, suffers from fewer reliability problems. This may be because the congestion is more on-going and less due to incidents. Daily congestion causes a lot of delay for trucks, but the travel time swings are less extreme.

Similar to the delay measure, moderate reliability problems are evident on the rest of the freeway system, the highways and some arterials. Fewer segments overall appear to be impacted by severe reliability issues than by delay.

Figure 6. Truck Reliability – Northbound & Westbound Directions

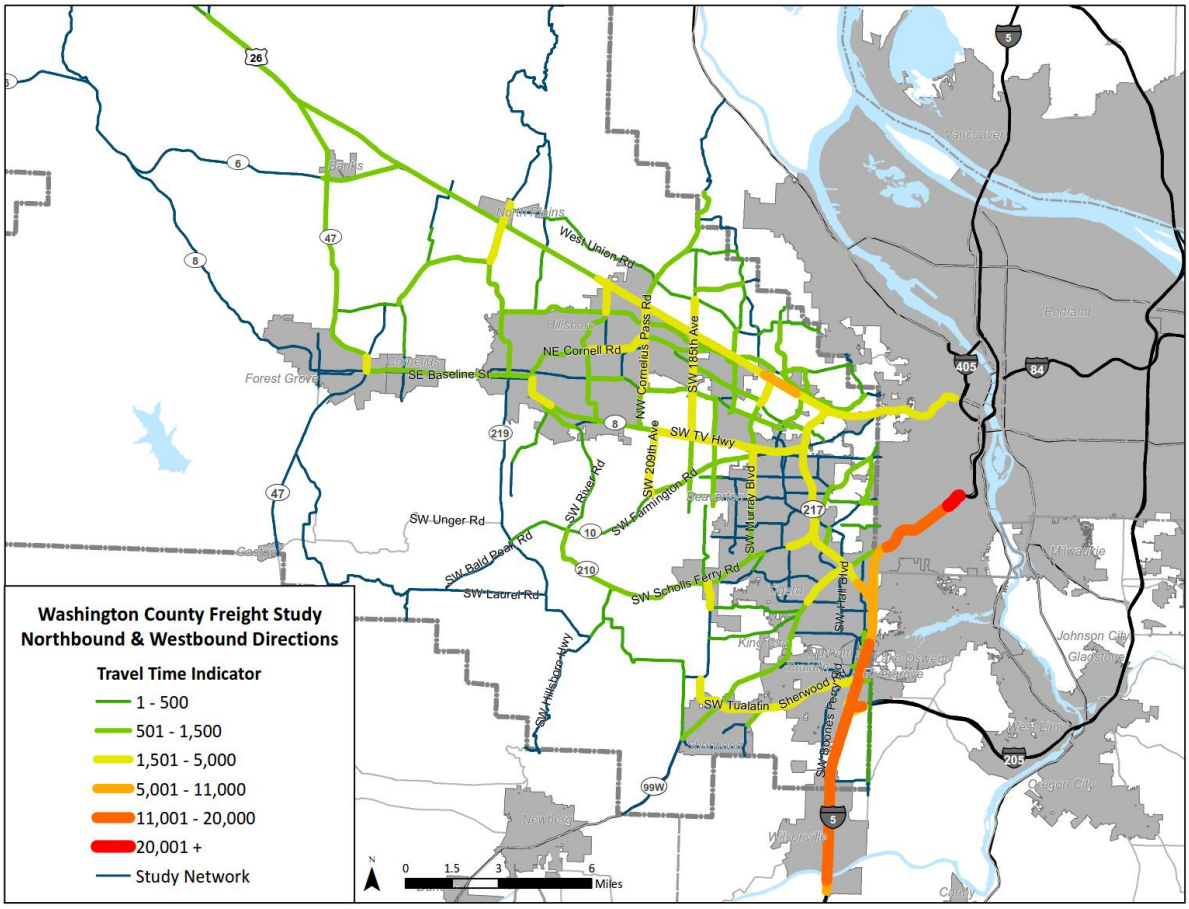
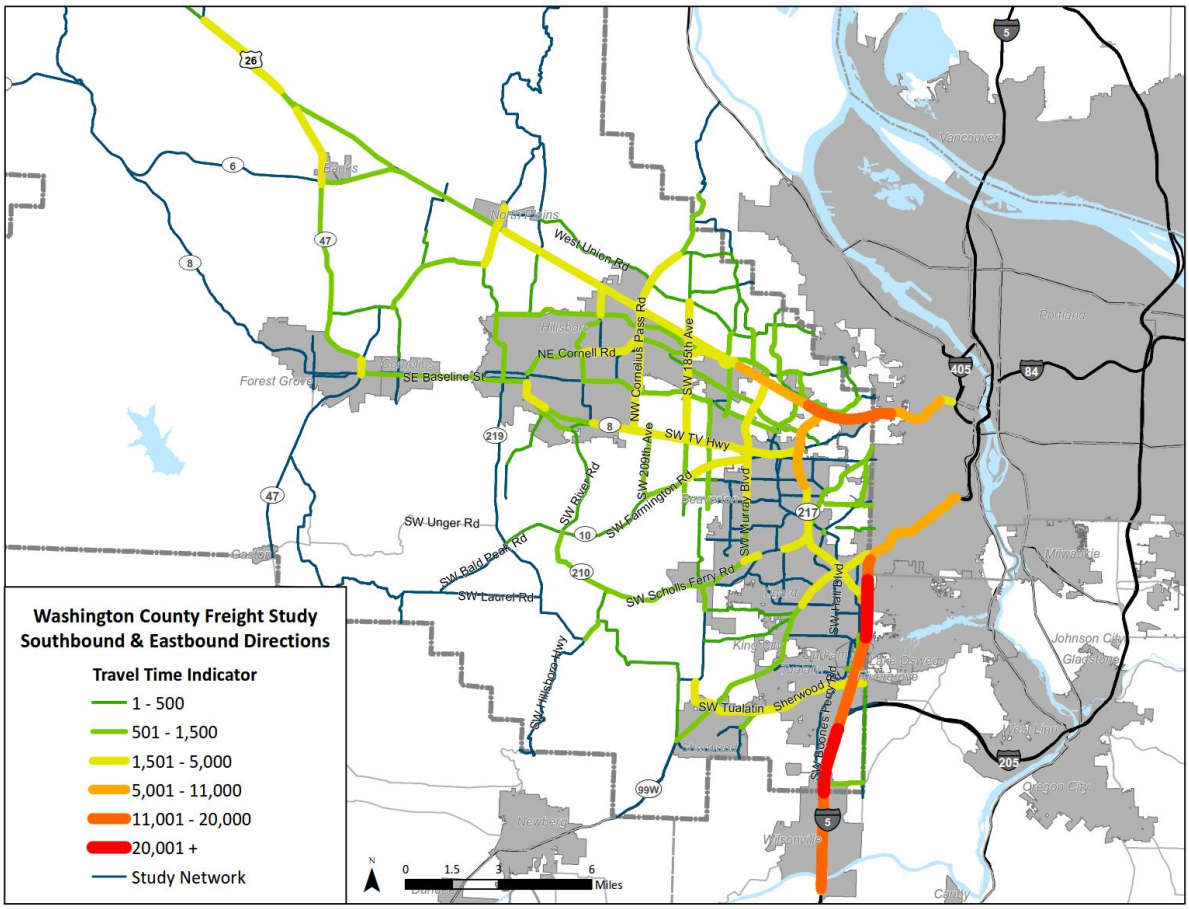


Figure 7. Truck Reliability – Southbound & Eastbound Directions



As mentioned previously, segments falling into the lower four categories on either the truck delay or reliability measures were identified as having operational problems and selected for further evaluation. Approximately 200 street segments within Washington County met these initial criteria. Adjacent segments along a corridor were aggregated into groups, which yielded approximately 60 total locations for evaluation. The final evaluation of needs is described in the following section.

6.1.2 Evaluation Process

The study team applied a set of criteria to the identified locations to evaluate the relative degree of freight need. Five evaluation criteria were developed based on stakeholder interviews, the project Steering Committee, and a consideration of available datasets:

- **Freight delay** – How much total truck delay does a segment have? This is measured as daily truck delay (in minutes) per mile.
- **Travel Time Reliability** – What is the variability of travel time along the segment? This is based on the Travel Time Reliability Index, the product of truck volumes and the ratio between 50th and 95th percentile travel times.

- **Safety** – Did the segment include a top ten percent safety need identified on Washington County or ODOT's Safety Priority Index System (SPIS)?
- **Stakeholder/Plan Identified** – Was the location identified by a stakeholder or a transportation plan as a freight congestion location?
- **Future Growth** – What is the degree of future growth that the segment is projected to carry? Growth is measured as average daily PM peak hour total traffic growth from 2010 to the horizon year (undefined year based on land use development) of the Washington County Futures Study.

Evaluation criteria were primarily data-based. Due to the variations between each dataset (including coverage and precision), the team implemented a stepped-scoring approach to smooth the effects of "noise" created by nominal differences. The stepped scoring was developed manually based on observed natural data breaks.

The scoring for each evaluation criteria ranged from 0 to 1 (safety, stakeholder/plan identified, and future growth) and from 0 to 2 (freight delay and travel time reliability). A lower score indicated a lower relative degree of need. Delay and travel time reliability criteria received a higher potential score due to the richness of the datasets. The maximum possible score by summing all criteria was 7. Table 1 summarizes the data steps and scoring used for each of the criteria.

Table 1. Summary of Evaluation Criteria

Evaluation Criteria	Scoring Method
Delay (Daily truck minutes of delay per mile)	How much total truck delay does a segment have? • <1,650 – 0.5 points • 1,651 to 2,500 – 1 point • 2,501 to 3,500 – 1.5 points • > 3,500 – 2 points
Travel Time Reliability Index (Daily trucks x unreliability factor)	How unreliable is the segment for timely freight movement? • <5,000 – 0.5 points • 5,001 to 11,000 – 1 point • 11,001 to 20,000 – 1.5 points • > 20,000 – 2 points
Safety (Number of SPIS locations)	Was the location included in Washington County or ODOT top 10% SPIS? • No – 0 points • 1 location – 0.5 points • 2+ locations – 1 point
Stakeholder/Plan Identified	Was a location identified by a stakeholder or identified in a plan? • No – 0 points • Yes – 1 point
Future Growth Locations (PM peak hour vehicle growth, 2010 to land use buildout)	How much growth is forecasted on the segment from 2010 to 2055? • Less than 300 vehicles – 0 • 301 to 600 – 0.25 • 601 to 800 – 0.5 points • 801 to 1,200 – 0.75 points • > 1,200 – 1 point

There are some limitations with the analysis worth noting. Stakeholder identification of needs was based on interviews and plans, not a statistically valid survey. While natural breaks were used to establish thresholds for the delay and reliability criteria, these were not exact and the assignment of points based on those thresholds could mean that two segments with slightly divergent results on one criteria end up with different scores. In addition, the scope of the study limited the level of detail of the analysis. Further study would be needed to investigate the cause of a delay, for example, and determine the solution, which might influence final investment priorities. In sum, this was a high level evaluation based on criteria considered to be important to the freight industry. The results shed important new light on freight needs in Washington County but should considered in that context.

Needs Evaluation Results

Each corridor segment was placed into one of three tiers based on the total score of the evaluation process:

- Tier 1 (3.5 to 7.0 points) – 11 locations
- Tier 2 (2.25 to 3.25 points) – 23 locations
- Tier 3 (0 to 2.0 points) – 26 locations

The two maps on the following pages display the evaluation results.

Figure 8. Evaluation Results – Northbound & Westbound Directions

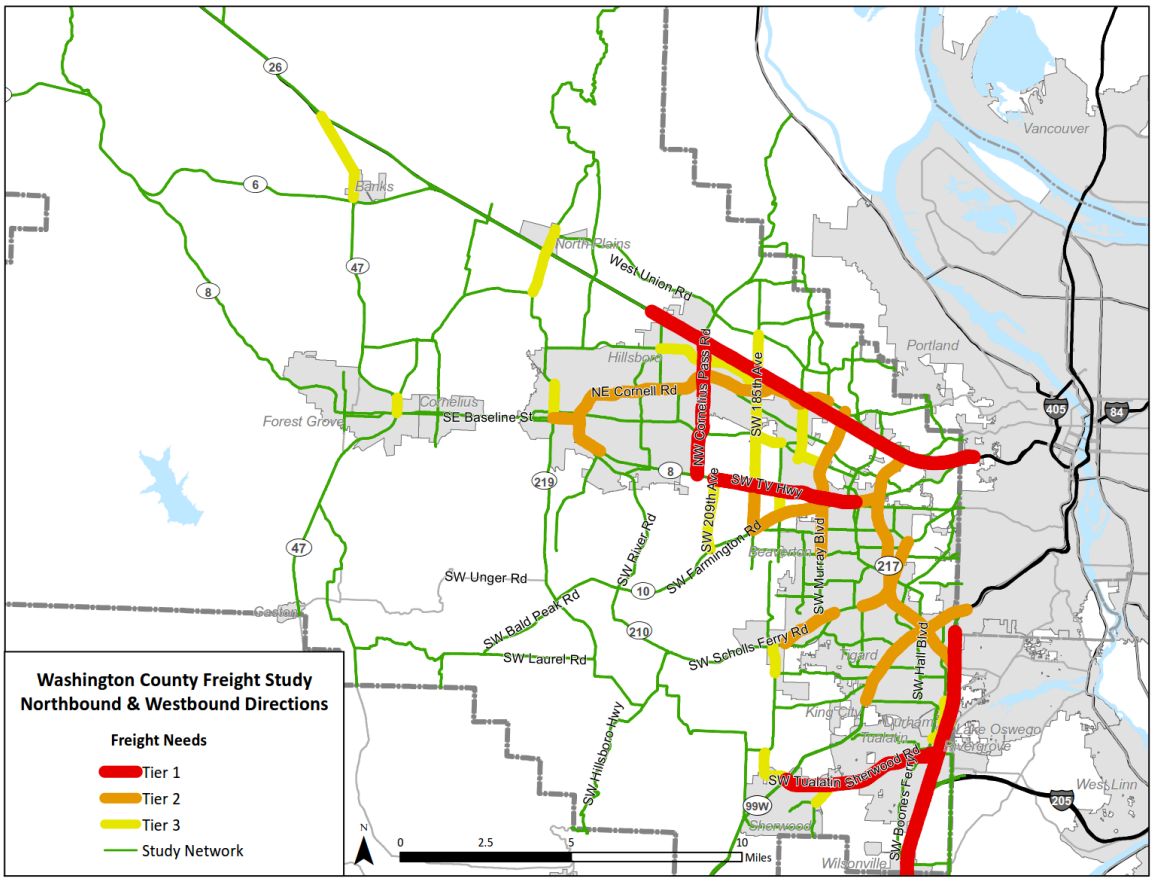
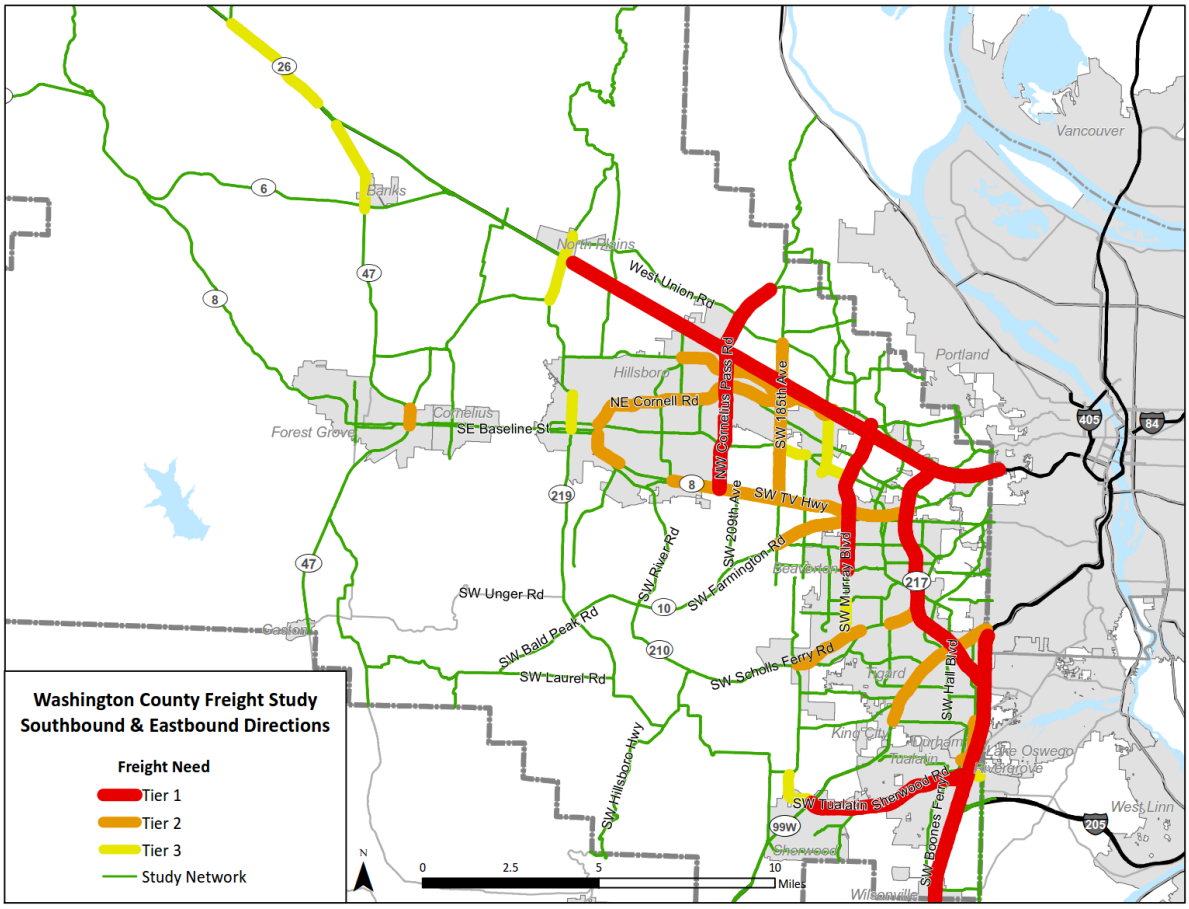


Figure 9. Evaluation Results – Southbound & Eastbound Directions



Below is the tiered list of needs based on the analysis. The list is by direction and the directions are abbreviated (NB stands for Northbound, etc.):

Tier 1 Investment Needs:

1. I-5 SB (Barbur/OR 99W to Elligson Road Interchange)
2. I-5 NB (Elligson Road Interchange to Barbur/OR 99W)
3. US 26 WB (Skyline/Scholls Ferry to Brookwood)
4. US 26 EB (Glencoe/North Plains to Skyline/Scholls Ferry)
5. SW Tualatin-Sherwood Rd WB (OR 99W to I-5)
6. SW Tualatin-Sherwood Rd EB (I-5 to OR 99W)
7. OR 217 SB (US 26 to I-5)
8. Cornelius Pass Rd SB (Germantown Road to Tualatin-Valley Highway)
9. Cornelius Pass Rd NB (Tualatin-Valley Highway to US 26)
10. Murray Blvd SB (Cornell/US 26 to Hart)
11. OR 8 WB (OR 217 to 209th)

Tier 2 Investment Needs:

1. OR 10 WB (Murray to 185th)
2. OR 10 EB (185th to Murray)
3. OR 8 EB (Brookwood to Murray)
4. OR 8 EB (Murray to OR 217)
5. OR 8 WB (Cypress/Minter Bridge to 10th/Oak)
6. OR 8 EB (10th/Oak to Cypress/Minter Bridge)
7. OR 8 WB (10th/Oak to 1st/Hillsboro)
8. OR 47 SB (Martin to OR 8)
9. Murray Blvd NB (Hart to Cornell/US 26)
10. OR 217 NB (I-5 to US 26)
11. OR 99W NB (Durham to Barbur/I-5)
12. OR 99W SB (Barbur/I-5 to Durham)
13. 160th Avenue NB (Farmington to TV Highway)
14. 162nd Avenue SB (West Union to TV Highway)
15. Cornell Rd EB (Main Street to 143rd/US 26)
16. Cornell Rd WB (143rd/US 26 to Main Street)
17. Lower Boones Ferry Rd SB (I-5 to Upper Boones Ferry)
18. NW Evergreen Pkwy EB (Brookwood to Cornell)
19. SW 72nd Ave SB (Upper Boones Ferry to Lower Boones Ferry)
20. SW Scholls Ferry Rd NB (Roy Rogers/175th to 135th)
21. SW Scholls Ferry Rd NB (121st to Allen/OR 217)
22. SW Scholls Ferry Rd SB (135th to Roy Rogers/175th)
23. SW Scholls Ferry Rd SB (OR 217 to 121st)

Tier 3 Investment Needs:

1. OR 47 SB (US 26 to Wilson River)
2. OR 47 NB (Wilson River to US 26)
3. OR 47 NB (Or 8 to Martin)
4. US 26 EB (Highway 47 to Highway 47)
5. 158th Avenue NB (Merlo to US 26)
6. 159th Avenue SB (US 26 to Merlo)
7. 161st Avenue NB (TV Highway to West Union)
8. 1st Avenue NB (Baseline to Glencoe)
9. 2nd Avenue SB (Glencoe to Baseline)
10. Lower Boones Ferry Rd NB (Upper Boones Ferry to I-5)
11. Murray Boulevard SB (Brockman to Scholls Ferry)
12. NW Evergreen Parkway WB (Cornell to Brookwood)
13. NW Glencoe Rd NB (Zion Church/Scotch Church to North Ave/Shadybrook)
14. NW Glencoe Rd SB (North Ave/Shadybrook to Zion Church/Scotch Church)
15. SW 170th Avenue NB (Farmington to TV Highway)
16. SW 209th Avenue NB (Farmington to TV Highway)
17. SW 72nd Avenue NB (Lower Boones Ferry to Upper Boones Ferry)

18. SW Jenkins Rd EB (158th to Murray)
19. SW Jenkins Rd WB (Murray to 158th)
20. SW Nyberg Street EB (I-5 to 65th)
21. SW Oregon Street NB (Oregon St/Murdock Rd Roundabout to Tualatin-Sherwood Rd)
22. SW Roy Rogers Rd NB (OR 99W to Scholls Sherwood)
23. SW Roy Rogers Rd SB (Scholls Sherwood to OR 99W)
24. SW Roy Rogers Rd NB (Bull Mountain to Scholls Ferry)
25. W Baseline Rd EB (185th to 170th)
26. W Baseline Rd WB (170th to 185th)

6.2 Overall Freight Needs Findings

- **I-5 corridor** – a critical corridor for freight both within Washington County as well as within the larger Portland metropolitan region, scored higher than any other corridor due to the scale of daily truck use, freight delay, and travel time reliability needs.
- **US 26 eastbound** – near the tunnel, scored next highest in terms of freight needs within Washington County.
- **Other top tier freight needs** – comprise nine locations on freeways, highways and arterials, including portions of OR 217, OR 8, Tualatin-Sherwood Road, Cornelius Pass Road and Murray Boulevard.
- **Tualatin-Sherwood Road arterial** – experiences the highest truck use and most significant operational problems in Washington County.
- **US 26/US 30 Cornelius Pass Road freight movement** – identified as important in prior planning efforts, including the Westside Freight Access and Logistics Analysis. This analysis reinforces those findings by demonstrating its operational and safety problems today and high future anticipated growth compared to other locations.
- **Second and third tier of freight needs** – represent 23 and 26 locations respectively, primarily located on highways and arterials. These locations do not score as high as the first tier, but still demonstrate significant freight operational needs. These locations serve a critical freight role in the context of overall freight movement within Washington County.

7 KEY STUDY FINDINGS AND CONCLUSIONS

There are a number of key takeaways that can be gleaned from the stakeholder interviews, FHBP study, and Washington County Freight Needs Evaluation. This section synthesizes and distills those findings.

7.1 KEY FINDINGS

- As the economic engine of Oregon and a major exporting region, Washington County is highly dependent on freight infrastructure.
- The Portland metropolitan area has the bulk of identified delay areas and corridors in the state according to the recently completed Freight Highway Bottleneck Project (FHBP)[31].
- In addition to computers and related components, plastic, wood, paper, tools, nursery, seed, fruit and tree nut products all represent significant exports produced in Washington County[32].
- Due to its relative speed and flexibility, truck is by far the most common mode. Whether on its own or in combination with other modes, it is a part of most freight trips.
- Businesses' heavy reliance on trucks makes highway and arterial congestion a major concern for many firms in Washington County and the region. A severe national truck driver shortage, exacerbated by federal requirements and traffic delays, is impacting the ability of businesses to move goods.
- Most interviewed firms indicated that highway congestion was a serious impediment and complained of significant impacts from consistent, pervasive roadway congestion. Firms prefer to shift their hours to start earlier to avoid congestion, however, some are limited by customer pick up or delivery times. Driving in congestion adds time to deliveries, resulting in significant costs to businesses.
- New real-time truck operations data on arterials was analyzed with truck counts in an analysis that allowed more detailed understanding of local delay and reliability issues critical to freight movement than previously.
- The limited number of routes into the county, the degree of delay and unreliability on them and the importance of county freight to the economy make access to Washington County a statewide issue. These concerns were expressed by stakeholders and supported by this evaluation and the statewide FHBP.
- The I-5 corridor was the most often cited by stakeholders in this study and represents the highest need in both this and the statewide bottleneck study.
- The US 26 corridor near the Sylvan Tunnel followed I-5 in terms of Washington County stakeholders and the operational analysis in this study and was also identified as a delay corridor in the statewide study.
- Many Washington County highways and arterials suffer from congestion throughout much of the day. Other key areas of operational delay and reliability include portions of OR 217, OR 8, Tualatin-Sherwood Road, Cornelius Pass Road and Murray Boulevard.

[31] https://www.oregon.gov/ODOT/TD/TP/Pages/FreightHighwayBottlenecks.aspx

[32] WSP, Washington County Export Analysis, November 1, 2016.

- The Transportation Futures Study found that, without new road capacity beyond those adopted in local TSPs, truck hours of delay, especially on freeways, is expected to increase 400 percent over the long term.
- Farm to market roads near the edge of the urban area are not built for the volumes or loads they are subject to.

7.2 Stakeholder Suggestions to Improve Freight Movement

Stakeholders had a number of suggestions to improve freight movement, including the following general approaches:

- Adding HOV or truck-only lanes
- Providing incentives to encourage off-peak delivery
- Adding lanes or interchanges at bottleneck areas along specific corridors
- Expanding transit service, routes, and facilities along congested corridors
- Higher speed limits

7.3 Conclusions

This freight needs analysis was intended to provide information to decision-makers in establishing transportation improvement and funding priorities. Freight delay and reliability within and to Washington County are a major regional issue. Due to the importance of county traded sector businesses to the economy, the freight needs identified here rise to the level of statewide significance.

As summarized in this report and detailed in technical memos, this study identified and prioritized Washington County Freight needs. This study finds that freight access to and movement within Washington County represents a significant cost to businesses today. Further, with anticipated growth in truck traffic going forward, businesses are rightfully concerned about the ability of the roadway network to reliably accommodate their future needs. Failure to address these infrastructure needs could result in loss of future business and drag on the economy.

These findings demonstrate the location of significant freight needs in and around Washington County. The report also underscores the importance of developing and funding road improvements to meet them.

Materials after this page were distributed at the meeting.

2018 REGIONAL TRANSPORTATION PLAN UPDATE

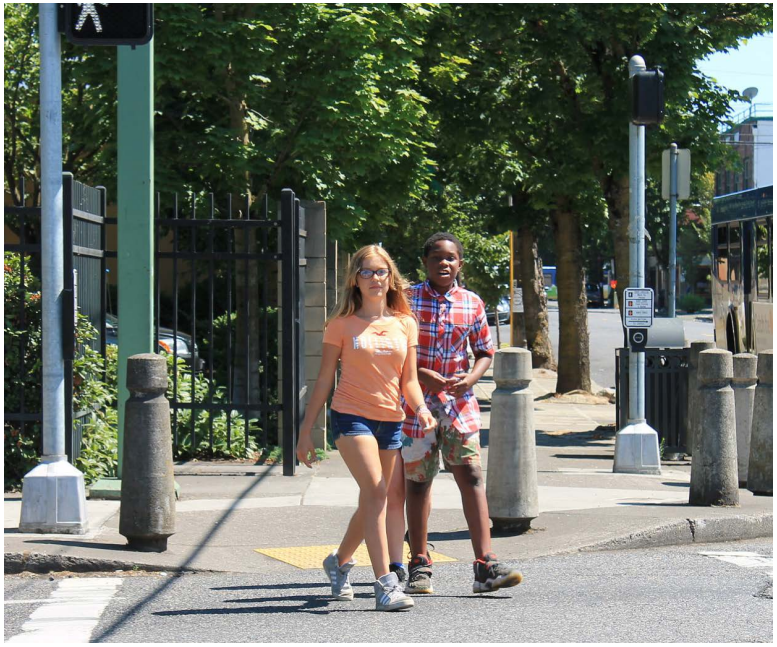
Designing Livable Streets

TPAC

July 28, 2017

Purpose

- Update TPAC on the project
- Receive input from TPAC on the major elements of the draft Table of Contents for the guide



N Lombard, St. Johns Portland

Project Overview

Main Street, Tigard

Project background

Transportation design guidance developed to implement the 2040 Growth Concept by linking land-use and transportation planning and providing design guidance for streets that was responsive to surrounding land uses

2040 Growth Concept

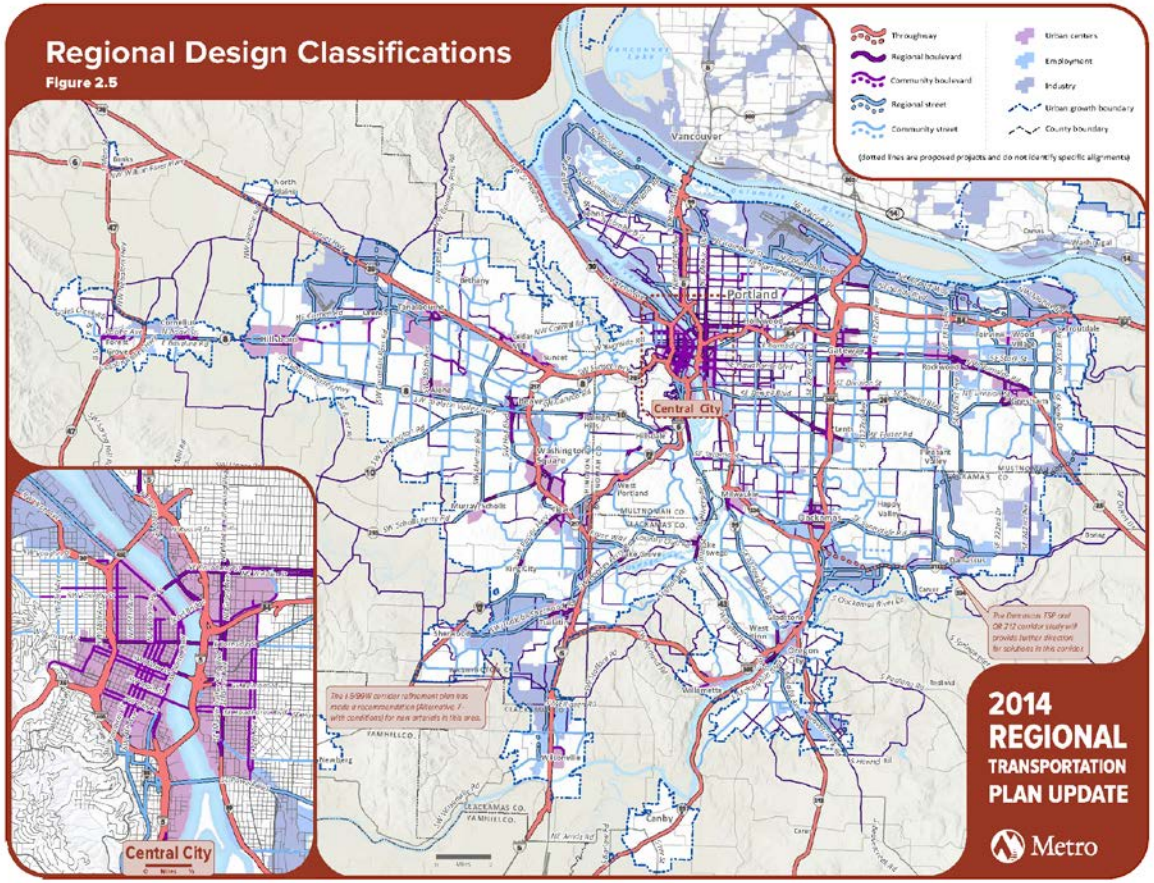
RTP Goals

Best practices in transportation design help implement RTP Goals:

1. Foster vibrant communities and efficient urban form
2. Sustain economic competitiveness and prosperity
3. Expand transportation choices
4. Emphasize efficient management of the transportation system
5. Enhance safety and security
6. Promote environmental stewardship
7. Enhance public health
8. Demonstrate leadership on reducing greenhouse gas emissions
9. Ensure equity

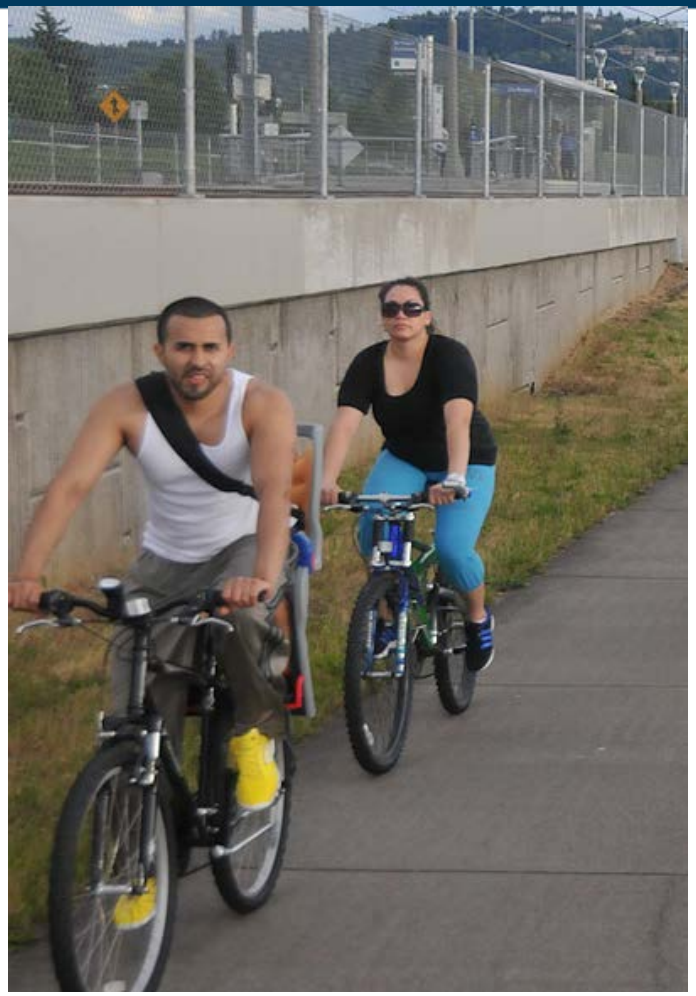
Design in 2018 RTP

Transportation design in one of eight policy priority areas for the 2018 Regional Transportation Plan update



Main project elements

- Update current regional street design guidelines
- Create design guidelines for regional trails
- Develop tools, best practices and other resources to support implementation
- Convene workshops, forums and tours to explore topics



I-205 MUP, Clackamas TC

Why an update is needed

- RTP framework has evolved – performance based planning
- New Freight, Active Transportation, and Safety plans and Climate Smart Strategy
- Relationship of livable streets to congestion, safety and mobility is better understood
- Street design has continued to evolve, especially for bikeway and intersection designs
- Lessons learned and new challenges

Project objectives

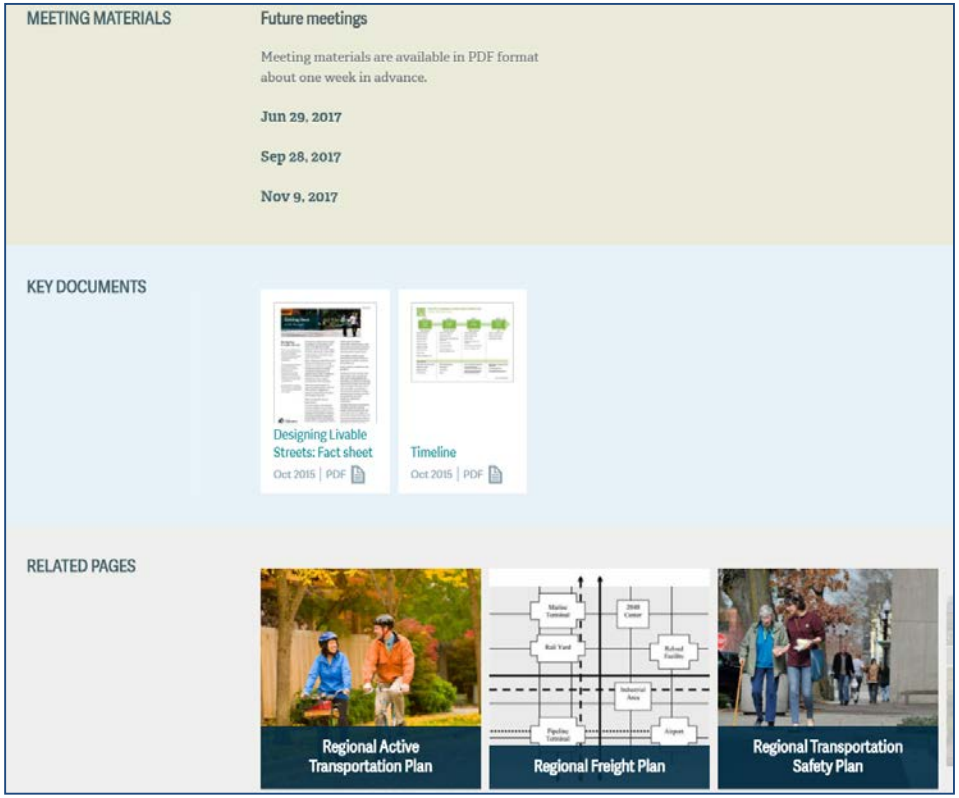
- Address recommendations from freight, active transportation, and safety plans and climate strategy
- Increase knowledge and understanding
- Inspire and educate
- Reflect unique areas of the region and the needs of diverse and different communities
- Provide up-to-date, state of the practice transportation design guidance
- Support context sensitive design and best practices in transportation projects

Project timeline

- June 2015 to March 2017 – Interview Agencies, Scope Project
- April to December 2017 - Phase 1: Draft Outline, Determine Content and Policy Updates
- January to December 2018 - Phase 2: Develop and Finalize Guide and Resources

Project guidance

- Project Management Team – Metro, ODOT, Consultants
- Consultant Team: KAI, GreenWorks, Paste in Place, KLiK
- Technical Work Group: topical experts and community, business, city and county partners
- Metro internal review team: planning, engineering, urban design, nature, transit, freight, wildlife habitat, equity, communications
- Metro policy advisory committees: TPAC, MTAC, MPAC, JPACT
- Metro Council



Project webpage:

www.oregonmetro.gov/public-projects/2018-regional-transportation-plan/design

Draft TOC for *Designing Livable Streets and Trails Guide*

Fanno Creek Trail, Beaverton – mid-block crossing

Next steps

- Aug 2- Update to MTAC
- Sept 28 - Work Group Meeting #2 – Annotated Outline
- Nov 9 - Work Group Meeting #3 - Final Annotated Outline/Sample Visualizations
- 2018 - Phase 2 Begins

Thank you!

N Lombard and Ivanhoe, freight apron

Downtown Milwaukie

2017 Regional Transportation Agenda
Resolution 17-4772
Adopted by JPACT on February 16, 2017

1. Fix it First
2. Address Metropolitan Area Congestion
3. Invest in Multi-Modal Solutions for Congestion Relief
4. Prioritize Transit
5. Improve Regional Air Quality
6. Support and Expand Local Options

Washington County

Transportation Futures Study

Exploring options • Informing choices

Study Overview, Findings, Survey Results

TPAC

July 28, 2017

2013 Legislative charge

"…evaluate the long-term transportation strategies and investments needed to sustain the county's economic health and quality of life in the coming decades"

Public process shaped study

Public

- Online open houses and community briefings

Advisory Committee

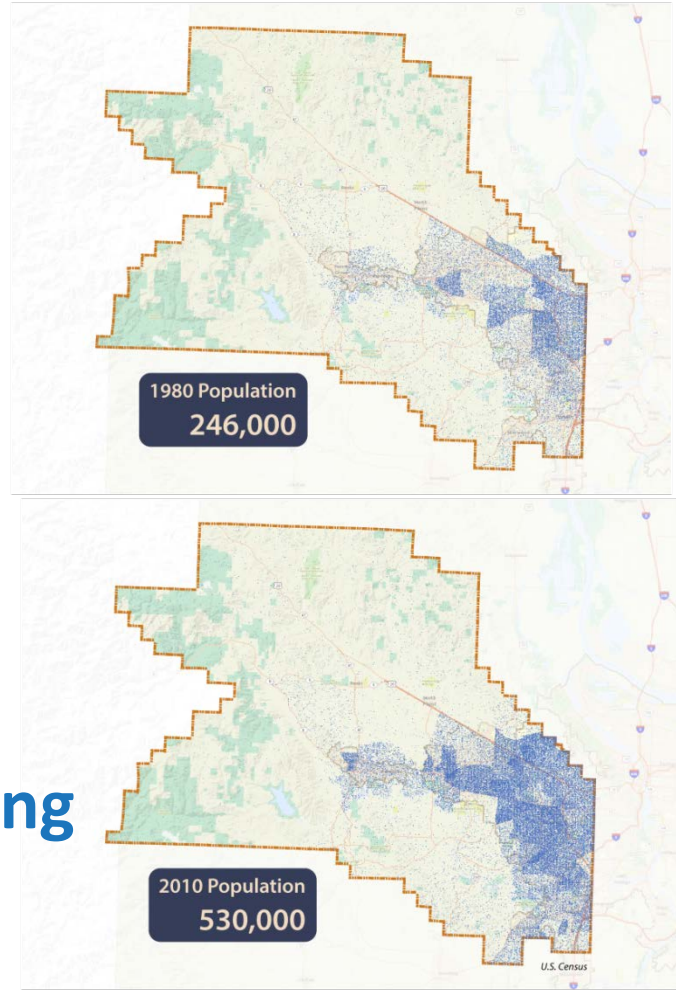
- Advised project team throughout the study

Agency Coordination

- Reviewed approach and analysis

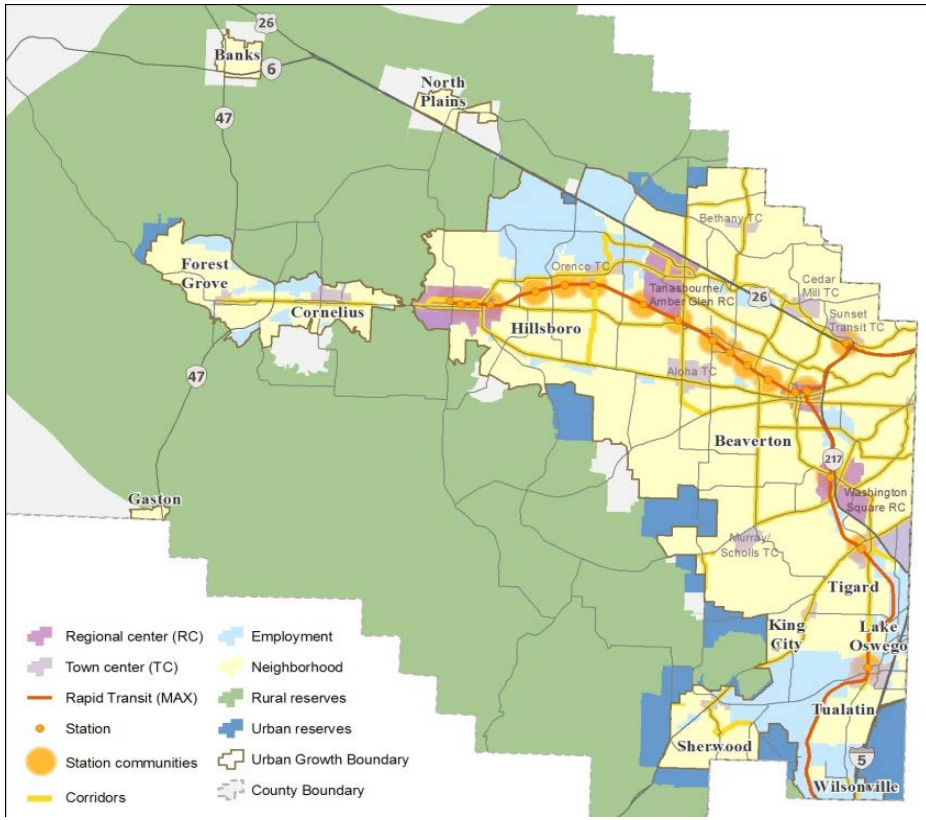
Our Past: Growth and transition

- Grew faster than predicted
- Much more ethnically diverse
- Land use plans responded to changing community values and economic conditions
- Implemented transportation funding strategies



Our Future: Urban form takes hold

- Growth scenarios based on
  - Local plans and 2040 Growth Concept
  - Urban and Rural Reserves
  - Changing demographics and technology



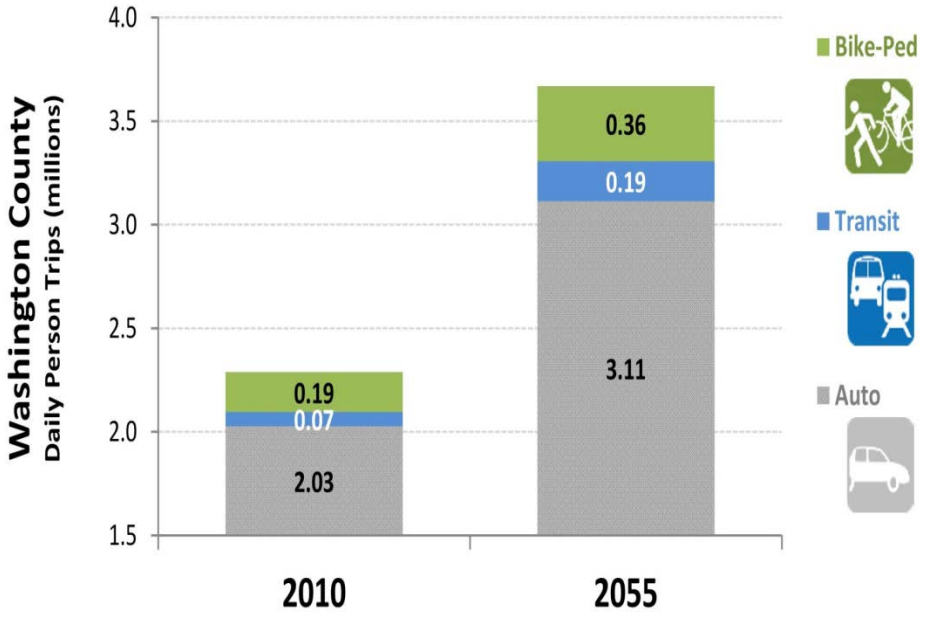
- Two scenarios
  - Current Trends
  - Increased Trade and Technology

More **people** + more **jobs** = more **urban**

- **Population could increase 40%-55%**
- **Growth targeted to urban centers and corridors**
- **Employment could increase 100%-145%**
- **More daily trips *into* the county than *out of* the county; and the share of daily trips within the county will increase**

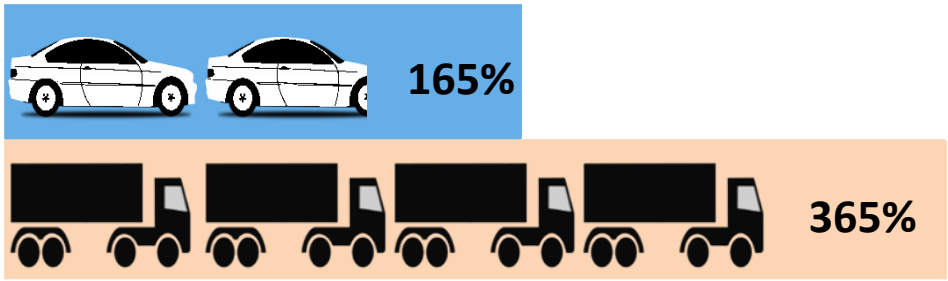
More people + more jobs = more trips

- Total trips increase up to 60%
- Driving trips to increase by 50%
- Walking and biking trips increase by nearly 100%
- Transit trips increase by over 200%



More trips = more traffic delay and congestion

- Longer travel times, especially on freeways



Vehicle hours of delay (PM Peak) % increase compared to 2010

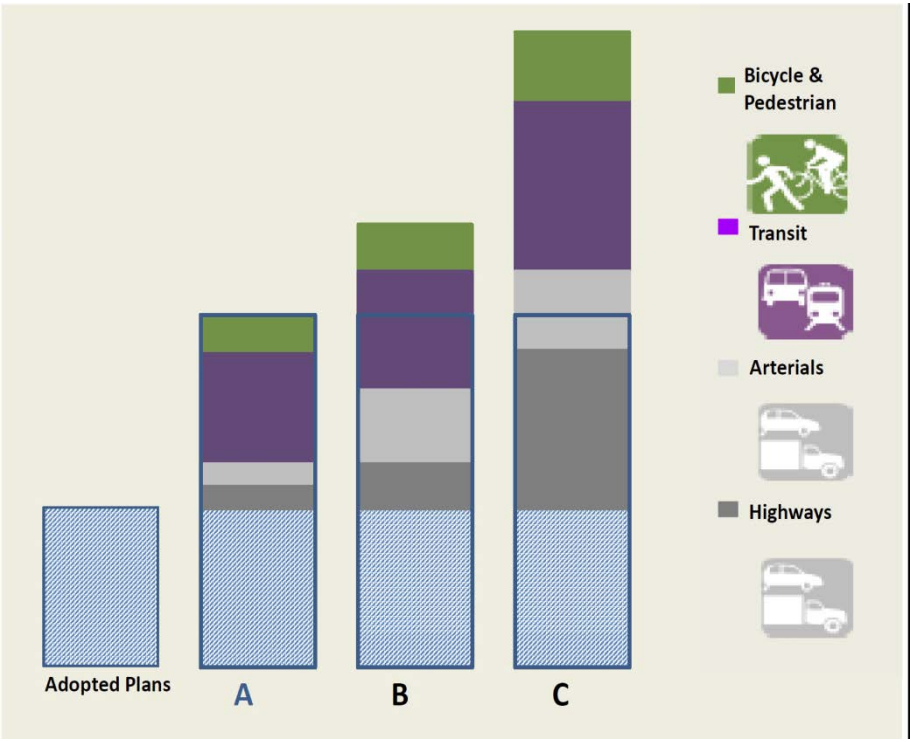
- Congested regional access points
- Truck hours of delay, especially on freeways, increases over four-fold
- More cut-through traffic

Transportation Investment Packages

A. Adopted Plans, Enhanced Transit and Demand Management

B. Builds upon A with an Enhanced Arterial Network

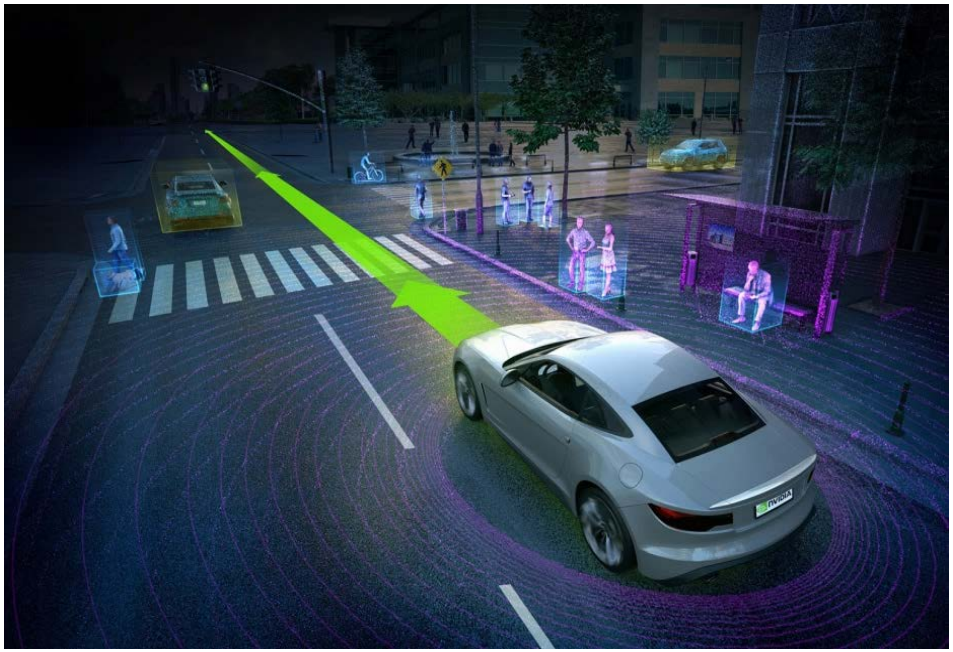
C. Builds upon A with New Major Roadway and Transit Capacity



Centers + corridors = fewer vehicle trips

- VMT per person trip continue to decline
- Improved street connectivity, parking management, and commuter programs
- Increase non-auto use by 50% in centers
- More roads = more VMT

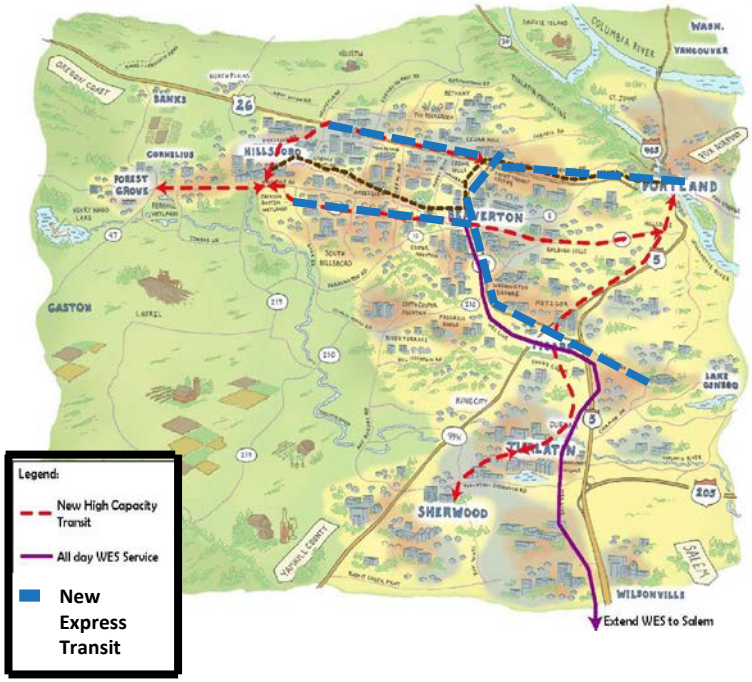
Smart technology = better efficiency and safety



- ✓ Increased efficiency with **smart streets** (signal and communications technology)
- ✓ Improved safety, and reliability with **smart cars** (connected/ autonomous vehicles)
- ✓ May increase VMT

More People + More Jobs = More Transit Demand

- ✓ Portland transit trips more than double
- ✓ Transit trips within county increase by nearly 300%
- ✓ Transit demand increases an additional 20% with express service and park & ride



- ✓ 80% of households within ¼ mile of transit
- ✓ More than 80% of low-income households within ¼ mile

Improved arterials = better traffic distribution

Improved arterial capacity, new connections and access management could:

- ✓ Reduce traffic delay by 5%
- ✓ Improve safety
- ✓ Shift traffic out of neighborhoods
- ❖ Limited freight and travel time improvement

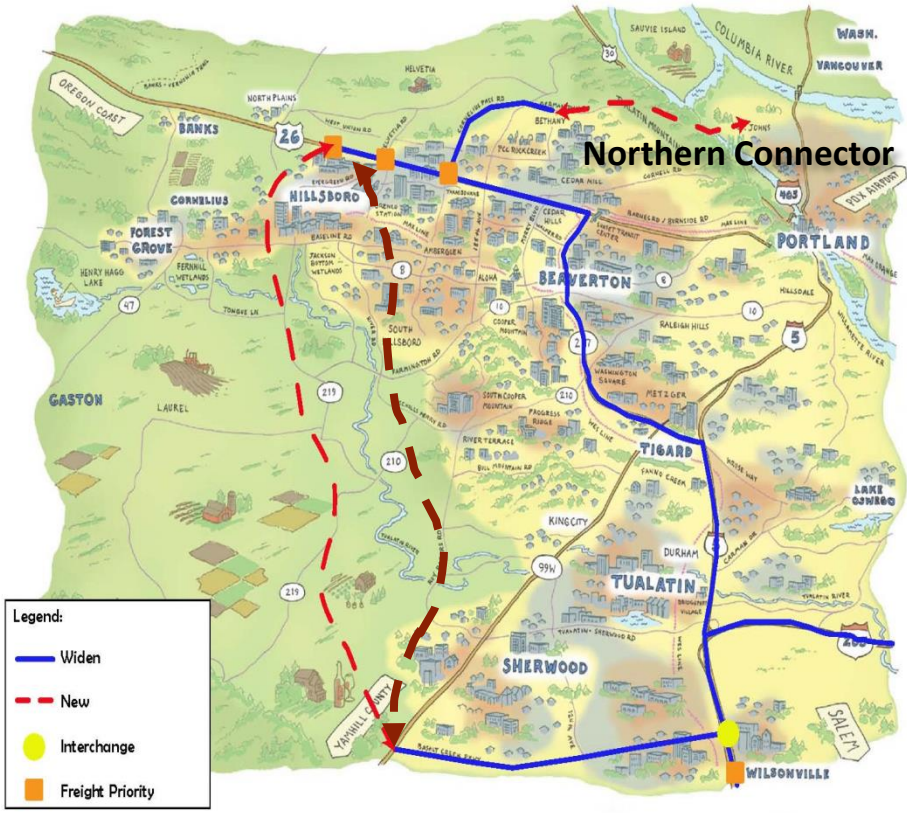
New roads + highway capacity = reduced delay and improved travel time

- ✓ Reduce traffic delay up to 15%
- ✓ Reduce cut-through traffic in urban centers by up to 14%
- ✓ Improve travel times between key regional centers

New road connections = reduced regional traffic on parallel routes

New Northern Connector:

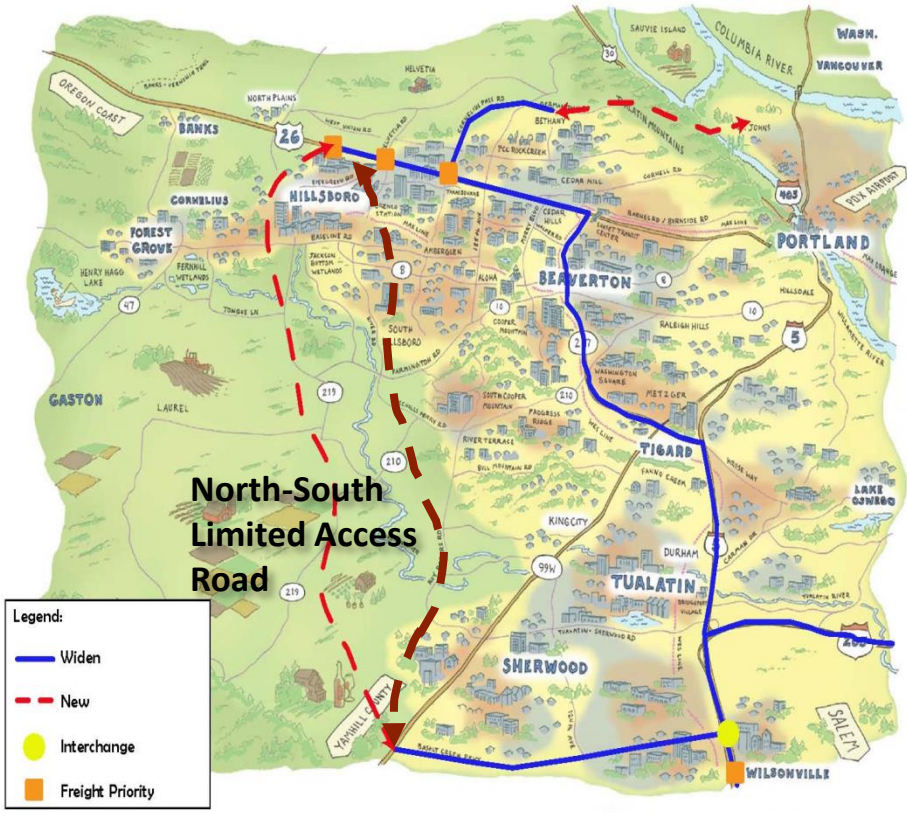
- Reduces traffic on US 26, including 60% of trucks
- Improves travel time to PDX and I-5 Northbound
- Rural, community and environmental impacts



New road connections = reduced regional traffic on parallel routes

New North-South Limited Access Road:

- Reduces traffic on TV Hwy and rural roads
- Improves travel time between Hillsboro and Clackamas County
- Rural, community and environmental impacts



Managed highway lanes = improved travel times

- Managed lanes for trucks, transit and carpool could:

  - ✓ Reduce delay for trucks by over 40%
  - ✓ Increase carpooling

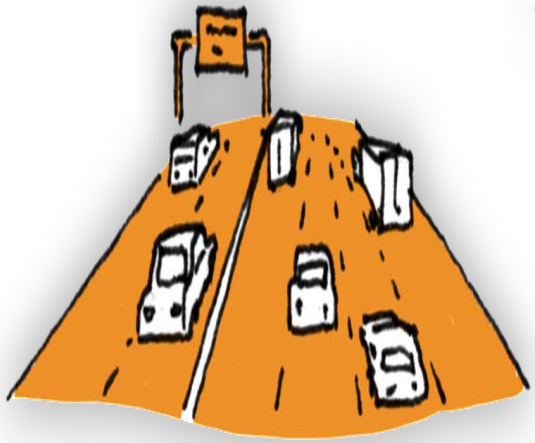
- Demand stills exceed capacity

Pricing = reduced congestion

- ✓ Tolling can help better manage traffic flow

  BUT

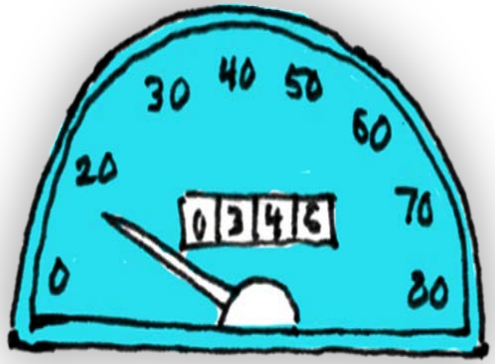
  May increase cut-through traffic



- ✓ Road user charges (VMT charge) can reduce travel demand by as much as 15%

  IF

  Implemented as a *variable fee* - by time and location



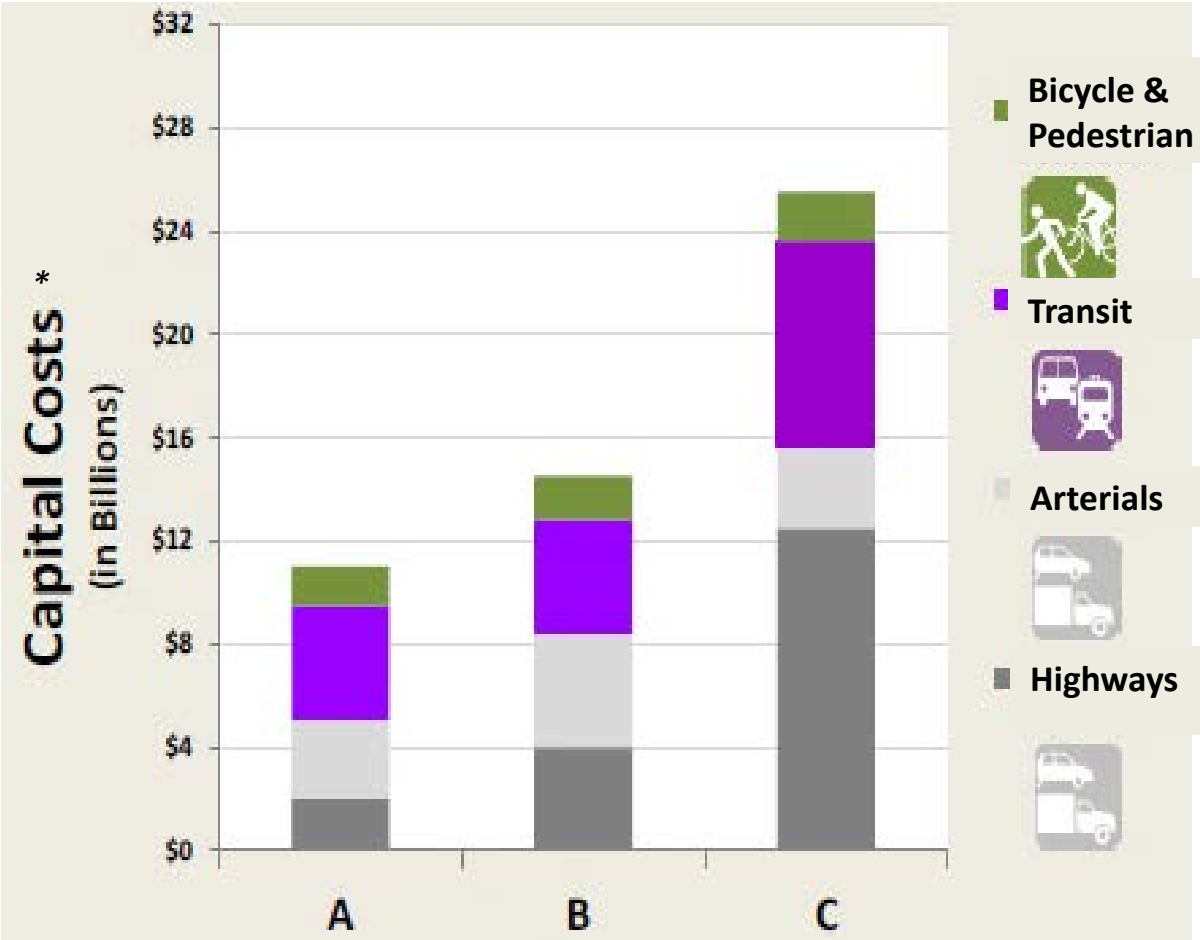
Complete streets + trails = improved health and safety

- ✓ 200% increase in walking and biking
- ✓ Almost 80% of the households will have access to a complete street (with sidewalks and bike lanes) or a trail

- ✓ Protected bike lanes, trails, and complete streets improve safety and access

Relative costs

- **Costs range from $11 B to $26 B**
- **New revenue needed**



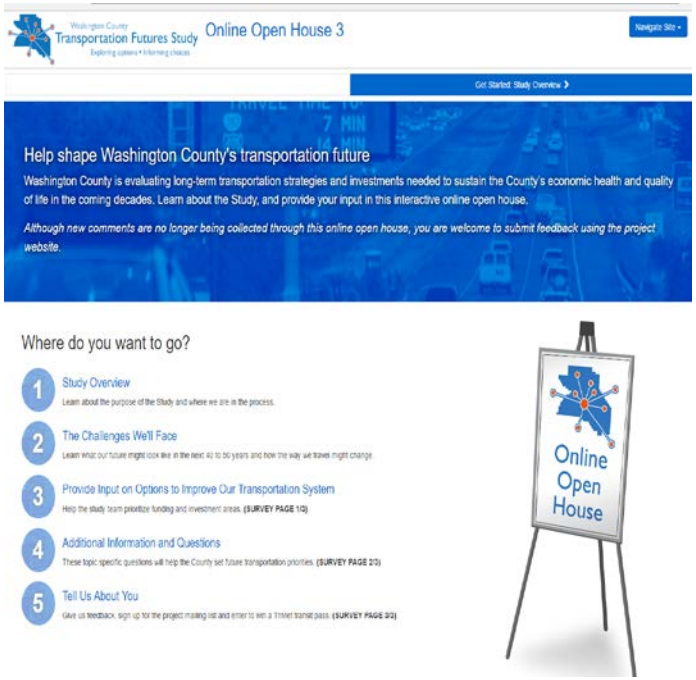
* *Estimated costs in 2016 dollars, subject to refinement*

What does the public think?

How did the County get input?

Online Open House

- **5,319** People participated *(Also, 42 participated in Spanish-language survey)*
- BIG INCENTIVE!



Random Sample Phone Survey

- Telephone survey among 400 Washington County residents age 18 years and older
- Margin of error +-5%

Transportation priorities

Overall

- People **support a multimodal system**
- Improving traffic flow is top objective

Online Open House

- Ranked transit as top priority; closely followed by new freeway lanes

Random Sample Phone Survey

- Ranked roads and highways as top priority; closely followed by transit

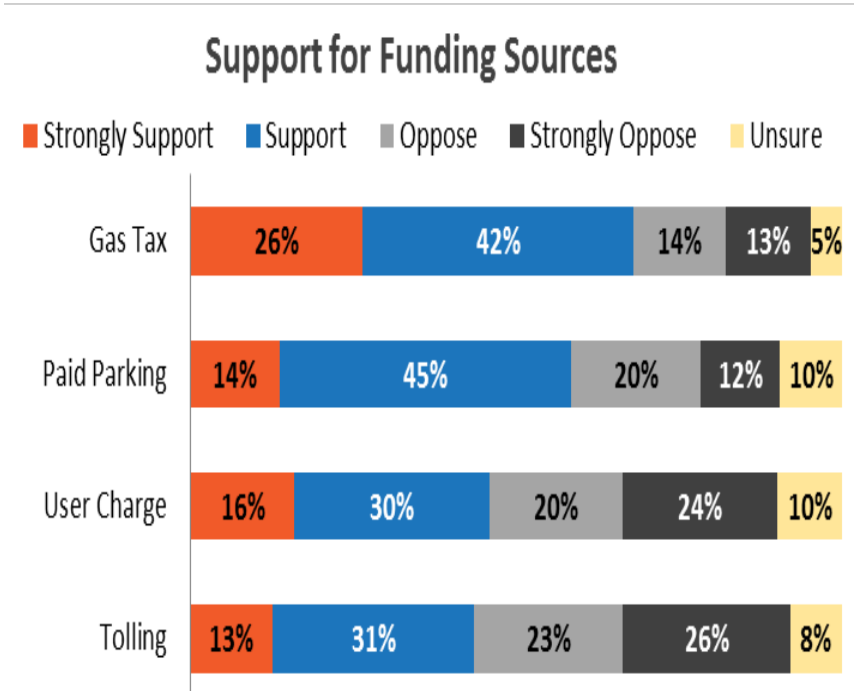
Support for new funding sources

Online Open House

- 2 out of 3 support or strongly support a gas tax, and over half support/strongly support paid parking.

Random Sample Phone Survey

- 3 out of 4 people would be willing to pay $100 per year
- 48% willing to pay $300/year



Other key findings

- 88% **expect transportation will be a problem** in the future.

- 80% support exploring ways to use **smart technologies to reduce the need for widening or building new roads**

- Over 70% said very important to **reduce freeway congestion within and connecting to Washington County**

- **60%-70% support new limited access N-S roadways**
  - Increased support if it reduces congestion
  - Decreased support if it impacts the environment

What's next?

- **Continued review of the findings**
- **Collect input on next steps:**
  - Investments
  - Studies
  - Policies
  - Partnership

Questions


NO
TURN
ON RED
END
SCHOOL
ZONE
CORNELIUS TOWN CENTER
WED 7/14 3PM LIBRARY
CELEBRATE WITH MUSIC
MANUEL LUTH PRESCHOOL
ENROLL NOW 503 357-7418

Thank you!

Study Contact Information

www.WCTransportationFutures.org

Department of Land Use and Transportation

503-846-4530

Washington County Freight Study

TPAC

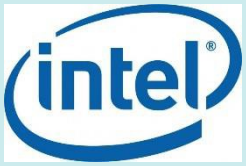
July 2017

WSP | PARSONS BRINCKERHOFF

Project Overview

- Washington County is regional engine and highly freight dependent
- Washington County Transportation Futures Study identified freight as critical challenge
- More truck movement info needed
  - to identify infrastructure problems
  - to prioritize investments
  - as input to Hillsboro Airport Master Plan
- Work encompassed:
  - Industry interviews
  - Truck operations analysis
  - Evaluation of freight needs

Partners



WSP | PARSONS BRINCKERHOFF

Interviewed 13 shippers and 6 carriers

- Nursery
- Aggregate
- Berry/Hazelnuts
- Forest Products/Paper
- Food Production
- Food Distribution
- Footwear parts
- C&E Manufacturing equipment
- Health Services
- Recycling
- Truck Load
- Less than truck load
- Parcel delivery
- Perishables
- Considered previous interviews with C&E industry

Industry Trends

- Most industries anticipate growth
- Truck driver shortage
  - Increased regulations exacerbating shortage
- Congestion is adding time to deliveries
  - Need to add more trucks to the road
  - Exacerbates congestion and the truck driver shortage
- Increase in residential deliveries
  - More trucks on local streets
- Congestion is significant cost to business

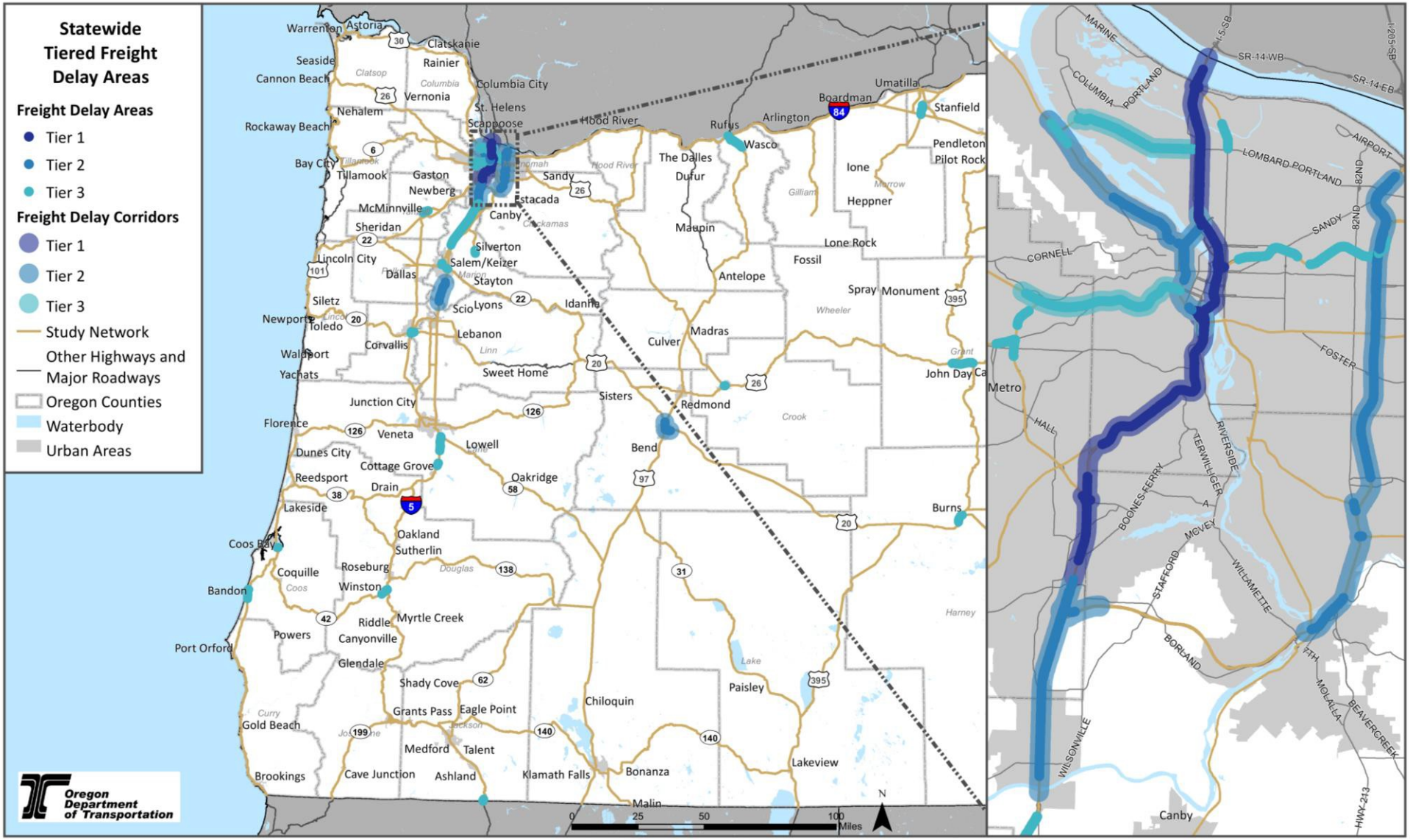
Industry Observations

- Heavy reliance on trucks
  - Severe highway congestion expected to worsen
  - Access is key issue
  - Some major arterials overwhelmed
  - “Farm to market” roads not sized for loads
- Air Freight
  - Fed Ex and UPS depend on PDX
  - Many use other gateways based on services/frequency
  - Interest in more service at PDX
- Marine shipping
  - Lack of container service in Portland
- Rail used for long distance and heavy loads

Statewide Freight Highway Bottlenecks

Freight Highway Delay Areas

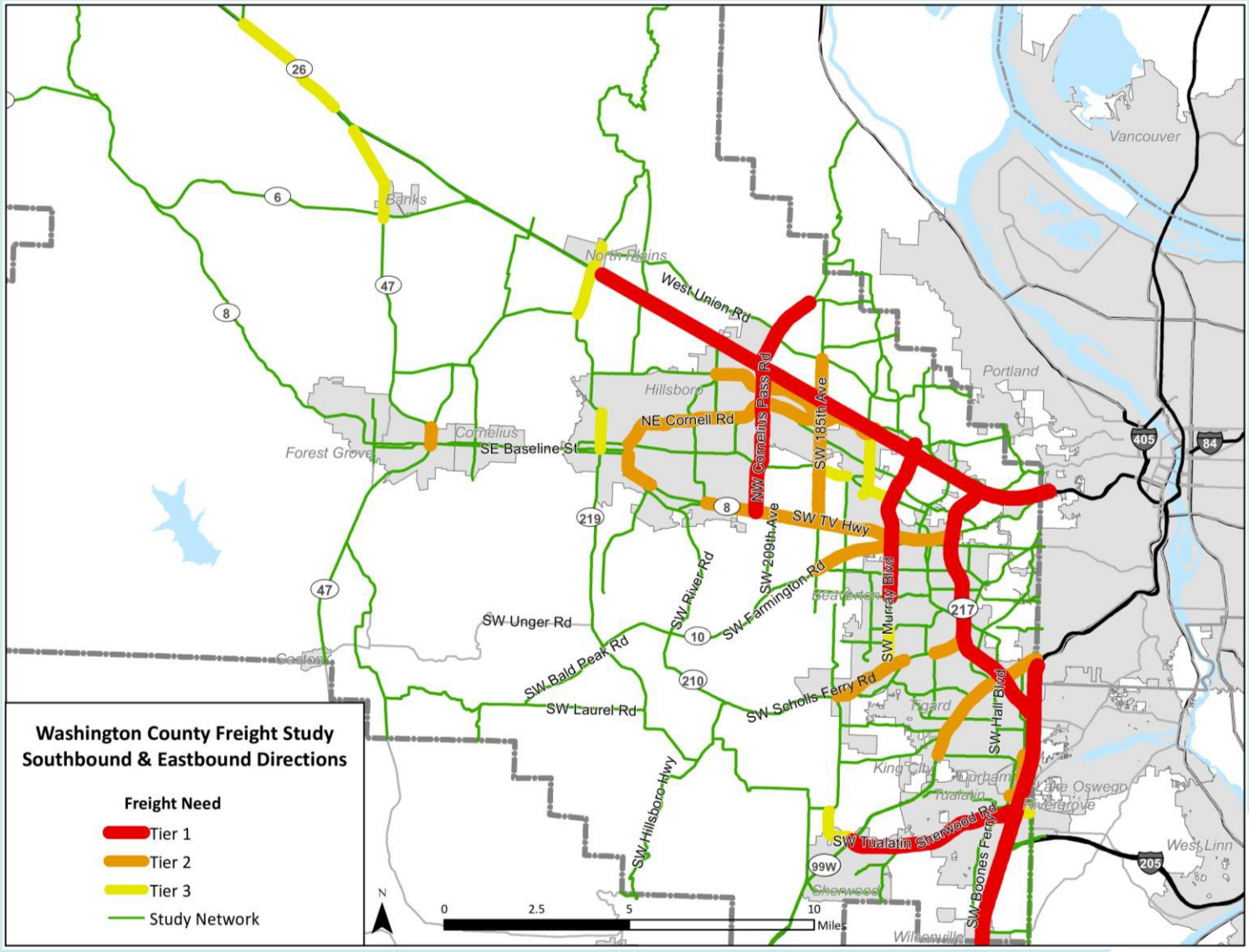
Endorsed by OFAC, January 2017



Evaluated and Prioritized Needs

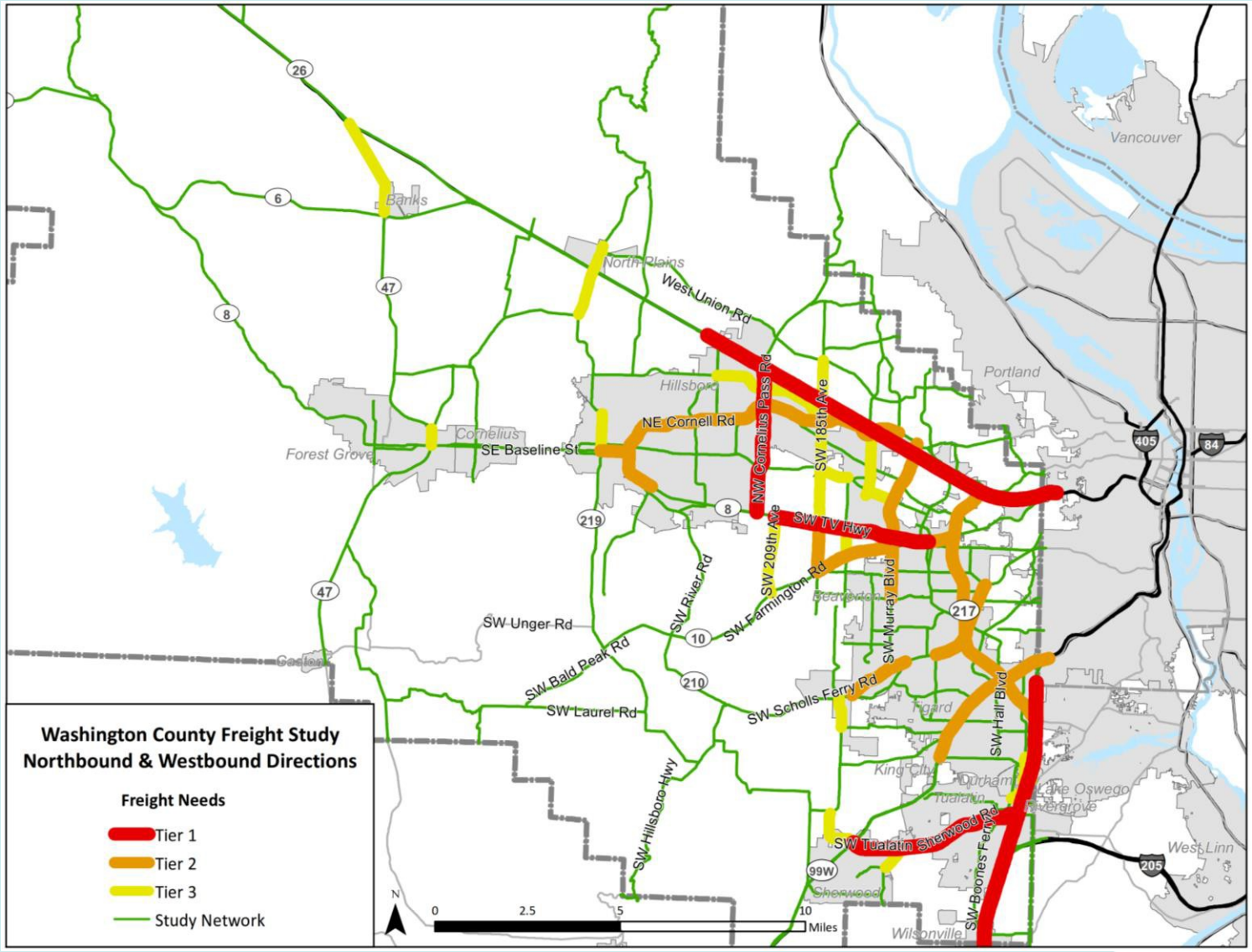
- Truck Delay
- Truck Reliability
- Freight Designation
- Safety (SPIS)
- Stakeholder Identification
- Future Congestion/Growth

Washington County Freight Needs – SB/EB



WSP | PARSONS BRINCKERHOFF

Washington County Freight Needs – NB/WB



WSP | PARSONS BRINCKERHOFF

Conclusions

- Washington County is economic engine and highly freight dependent
- Access to county is state/regional freight issue
  - I-5, I-405, US 26, US 30, etc.
- Delay and reliability within the County are major concerns
  - Tualatin-Sherwood, Hwy 217, Cornelius Pass, etc.
- Congestion represents significant cost to businesses