Clackamas to Columbia (C2C) Corridor Plan

>>> Task 3.1 Plan Summaries

KITTELSON & ASSOCIATES

February 27, 2019

This document provides summaries of applicable existing plans to provide context for the C2C project. The City of Gresham and each Project Partner is asked to develop a summary of related plans. Applicable and summarized plans are shown in bold while peripheral, not summarized plans are shown in italics:

Gresham

- **Gresham TSP**
- **Pleasant Valley Concept Plan**
- **Pleasant Valley TSP Refinement Project (in-process)**

Clackamas County

- **Clackamas County TSP**
- **172nd/190th Corridor Plan**
- **Sunrise Final Environmental Impact Statement**
- **Clackamas County TSP Update (in-process)**
- **Clackamas County Transit Development Plan (upcoming)**

Happy Valley

- **Happy Valley TSP**
- *East Happy Valley Comprehensive Plan*
- *North Carver/Pleasant Valley Area Plan (in process)*

Multnomah County

- **East Metro Connections Plan**

Portland

- *Outer Powell Transportation Safety Project*
- *Foster Streetscape Plan*
- *Portland ~~TSP~~ and Comprehensive Plan*

Metro

- **Regional Transportation Plan 2014** *and draft 2018, including policies, performance measures and targets, and project lists*
- *Powell-Foster Corridor Transportation Plan*
- *Powell-Division Transit Corridor Plan*
- *Powell-Division Transit and Development Project*
- **East Metro Connections Plan**
- **2040 Growth Concept**
- *Regional Transit Strategy*
- *Regional Freight Strategy*
- *Regional Active Transportation Plan*
- *Regional Travel Options Strategy*
- *Regional Safety Strategy*
- **Climate Smart Strategy**
- *Transportation System Management and Operations Action Plan*
- *Parks and Nature System Plan*
- *Designing Livable Streets (Kittelson provide summary)*

TriMet

- *Division Transit Project*
- **Southeast Service Enhancement Plan**
- **Eastside Service Enhancement Plan**

TABLE OF CONTENTS

East Metro Connections Plan - 2012 4

TriMET – Southeast SEP - 2016 9

TriMET – Eastside SEP - 2016 11

Gresham's TSP – 2013 13

Pleasant Valley TSP Refinement 23

Pleasant Valley Concept Plan 28

Happy Valley TSP 31

Sunrise FEIS 46

Damascus TSP Update 54

Clackamas County TSP 60

Clackamas County Transit Development Plan 66

172nd – 190th Corridor Management Plan 71

Portland TSP 79

Metro 2040 Growth Concept 82

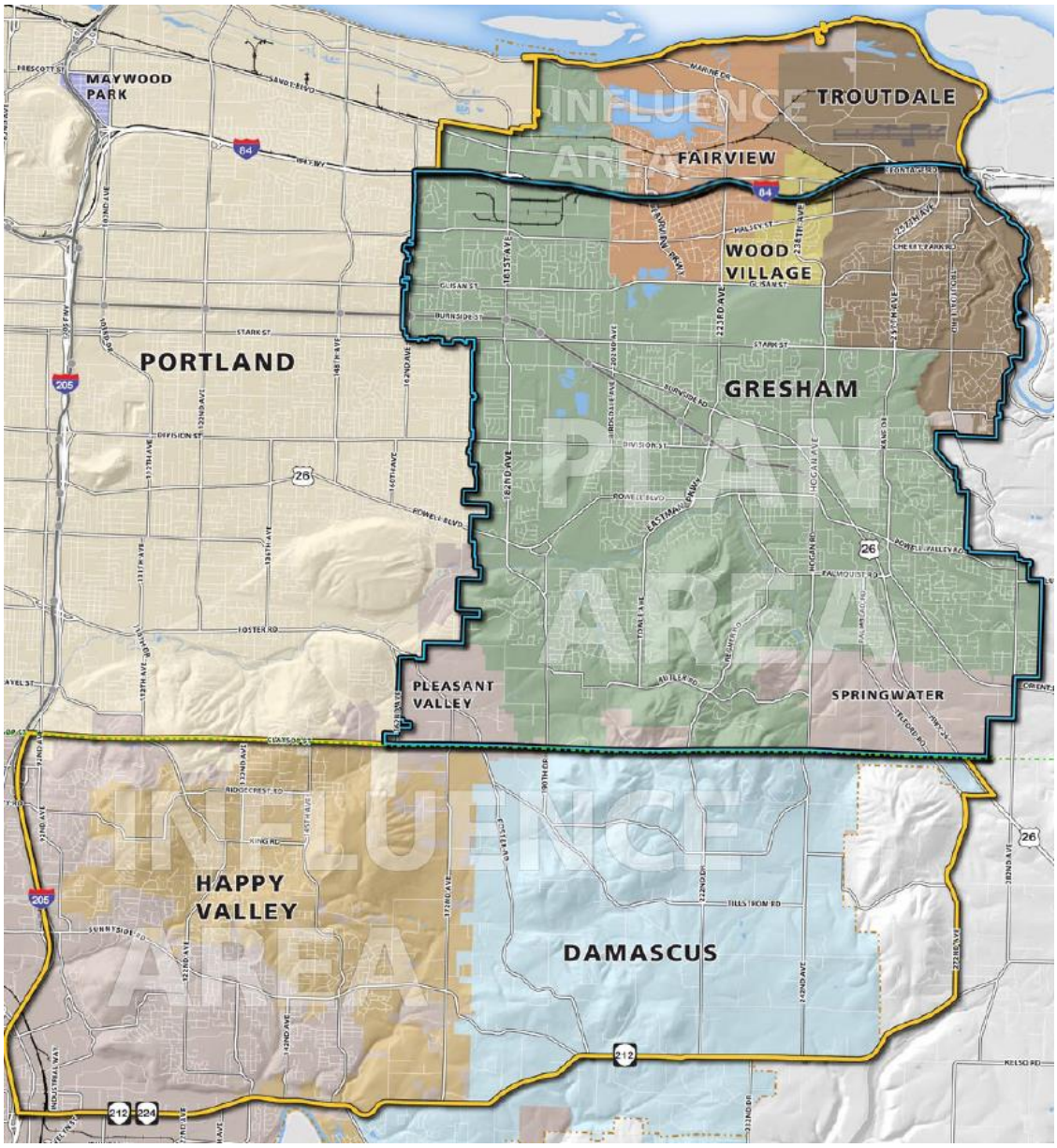
Metro – Climate Smart Strategy - 2014 84

Metro RTP 85

EAST METRO CONNECTIONS PLAN - 2012

PLAN DESCRIPTION

The East Metro Connections Plan identifies transportation and other investments that advance economic and community development. Working within the cities of Gresham, Fairview, Troutdale, Wood Village and Multnomah County, the East Metro Connections Plan has relied on coordination across jurisdictional boundaries to advocate for results that ensure prosperity of the East Metro area.



EVALUATION CRITERIA

Economic Development – access to industrial land and commercial centers.

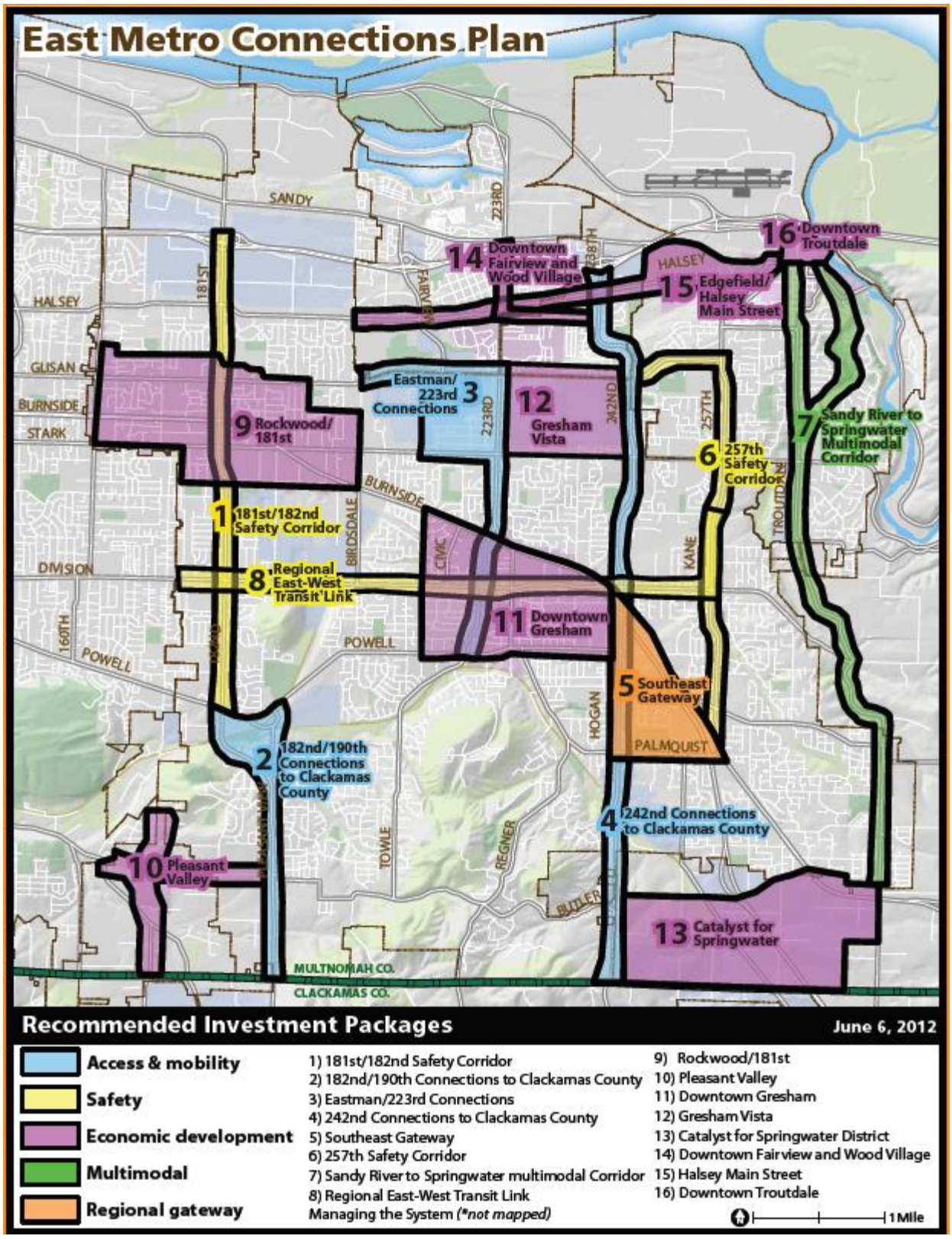
POLICIES AND STANDARDS

RTP Freight Map update

- Remove, from the RTP freight network, Burnside between 181st and 223rd to reflect its actual usage and resolve safety issues.
- Broaden the RTP freight network to include the following routes as road connectors: 223rd between Glisan and Burnside; 257th/Kane from I-84 to US 26 (Note: projects would not include major improvements that connect Kane to US 26 which might attract more through trips).
- Update the US 26/Hogan connector to be consistent with Springwater Plan.
- EMCP is not proposing changes to the National Highway System (NHS) at this time. However, a more detailed review of these networks has been conducted to ensure consistency with plans and policies.

FUNCTIONAL CLASSIFICATION AND MODAL SYSTEMS

N/A


East Metro Connections Plan
SANDY
HALSEY
GLISAN
BURNSIDE
STARK
DIVISION
POWELL
181ST
223RD
FAIRVIEW
238TH
242ND
257TH
TROUTDALE
BIRDSDALE
CIVIC
KANE
HOGAN
TOWLE
REGNER
BUTLER
160TH
MULTNOMAH CO.
CLACKAMAS CO.
14 Downtown Fairview and Wood Village
16 Downtown Troutdale
15 Edgefield/ Halsey Main Street
Eastman/ 223rd Connections 3
12 Gresham Vista
9 Rockwood/ 181st
6 257th Safety Corridor
7 Sandy River to Springwater Multimodal Corridor
1 181st/182nd Safety Corridor
8 Regional East-West Transit Link
11 Downtown Gresham
5 Southeast Gateway
2 182nd/190th Connections to Clackamas County
4 242nd Connections to Clackamas County
10 Pleasant Valley
13 Catalyst for Springwater
Recommended Investment Packages
June 6, 2012
Access & mobility
Safety
Economic development
Multimodal
Regional gateway
1) 181st/182nd Safety Corridor
2) 182nd/190th Connections to Clackamas County
3) Eastman/223rd Connections
4) 242nd Connections to Clackamas County
5) Southeast Gateway
6) 257th Safety Corridor
7) Sandy River to Springwater multimodal Corridor
8) Regional East-West Transit Link
Managing the System (*not mapped)
9) Rockwood/181st
10) Pleasant Valley
11) Downtown Gresham
12) Gresham Vista
13) Catalyst for Springwater District
14) Downtown Fairview and Wood Village
15) Halsey Main Street
16) Downtown Troutdale
1 Mile

STUDY INTERSECTIONS

No intersections analyzed.

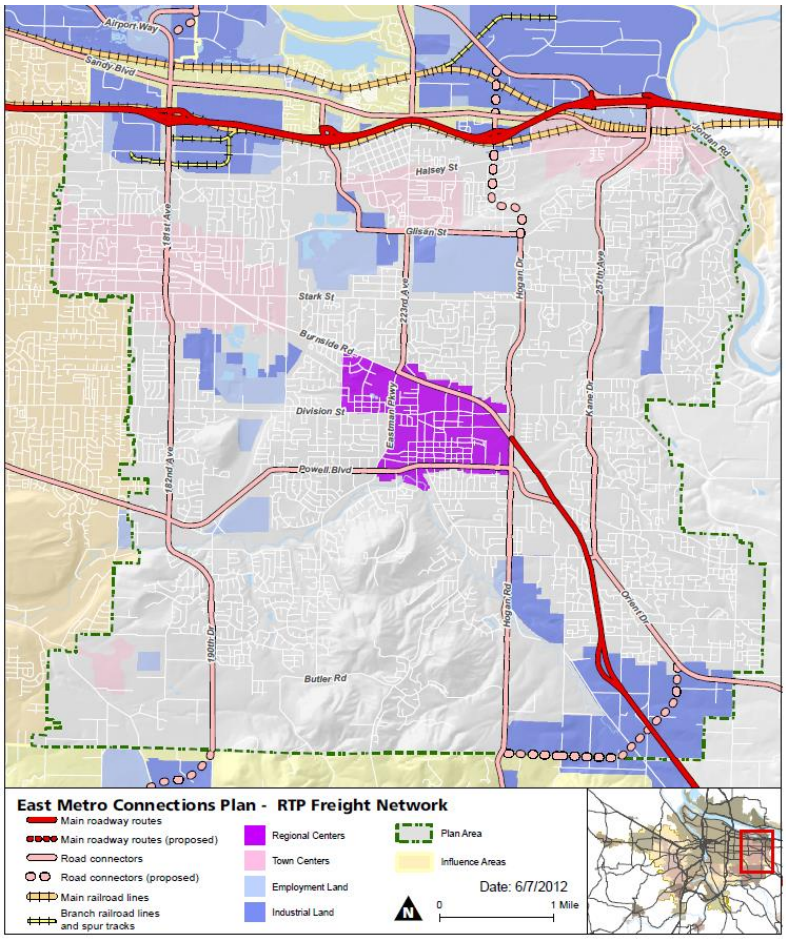
PLANNED PROJECTS

Table 31. Project List

Project Name	Description
181st/182nd Safety Corridor	Complete new crossings and sidewalk widening on 181st between Glisan and Yamhill, Stark. Complete new crossings near Centennial schools. Improve transit service to 'one-seat' ride between Sandy and Powell. Phase 2: Complete sidewalk connections between I-84 and San Rafael.
182nd/190th Connections to Clackamas County	Advance system management along entire corridor. Phase 2: Complete arterial improvements along Highland/190th and Pleasant View to Clackamas County line; coordination with 172/190th Corridor Plan.
Rockwood/181st	Complete street improvements, including pedestrian enhancements on 181st, Stark, Burnside. Phase 2: Complete pedestrian and bike improvements on Stark and Burnside.
Pleasant Valley	Phase 2: Complete arterial improvements to Jenne/Foster/ 174th. Phase 3: Complete arterial improvements to Giese Rd/ 172nd.

				Timeline			
Investment	RTP ID	Actions	catalyst?	funded	Phase I	Phase II	Phase III	cost
(1) 181st/182nd safety corridor								
	10454	181st Ave. improvements Glisan - Yamhill - complete blvd design			X			$$$
	99107	Complete sidewalk connections {181st: I-84-San Rafael}				X		$
	99136	Safety corridor: 181st/Rockwood {I-84 - Stark}			X			$
	99137	Safety corridor: Halsey {162nd-181st}			X			$$
(2) 182nd/190th connections to Clackamas County								
	10431	Highland/190th Rd. widening				X		$$$
	10859	Pleasant View Dr., Powell Loop - Highland Dr {widen, curb, gutter, sw, bike}				X		$$
	99105	190th Ave / Pleasant View widening {Butler-190th extension - all modes}				X		$$$
	99141	System management: 181st/182nd {I-84 - Powell}			X			$
(9) Rockwood/181st								
	10454	181st Ave. improvements Glisan - Yamhill - complete blvd design			X			$$$
	10459	Burnside SC pedestrian imps. 172,197, Glisan, Stark +intersecting sts			X			$
	10519	Pedestrian enhancements {Burnside: 162nd-181st}			X			$
	99109	Widen and buffer sidewalks and improve crossings {Stark: 181st-Burnside}				X		$
	99110	Widen and buffer sidewalks; add bicycle facilities {Burnside: 181st-197th}				X		$
	99111	Widen and buffer sidewalks; add bicycle facilities {Burnside: 171st-181st}				X		$
(10) Pleasant Valley								
	10460	SE 174th N/S Improvements Giese - 174/Jenne				X		$$$$
	10463	Foster Rd. Extension (north) Jenne - 172nd				X		$$$
	10464	Giese Rd. Extension {182 - 172}					X	$$$
	10465	172nd Ave. Improvements {Giese to Foster}					X	$$$
	10466	172nd Ave. Improvements {Foster to Cheldelin}					X	$$

Freight Grid update recommended to RTP – 182nd/190th included as designed for safe freight movement.


Airport Way
Sandy Blvd
Halsey St
Glisan St
Stark St
Burnside Rd
Division St
Powell Blvd
Butler Rd
181st Ave
182nd Ave
190th Dr
223rd Ave
Hogan Dr
Eastman Pkwy
257th Ave
Kane Dr
Orient Dr
Jordan Rd
East Metro Connections Plan - RTP Freight Network
Main roadway routes
Main roadway routes (proposed)
Road connectors
Road connectors (proposed)
Main railroad lines
Branch railroad lines and spur tracks
Regional Centers
Town Centers
Employment Land
Industrial Land
Plan Area
Influence Areas
Date: 6/7/2012
N
0
1 Mile

TRIMET – SOUTHEAST SEP - 2016

PLAN DESCRIPTION

The Southeast Service Enhancement Plan is about improving bus service in the Southeast area of TriMet's District, including Southeast Portland, Estacada, Gladstone, Happy Valley, Milwaukie, Oregon City, and unincorporated Clackamas County.

Based on what we've learned about the challenges people face today and how these areas will grow in the future, the Southeast Service Enhancement Plan recommends 3 new bus lines, increasing frequency, expanding hours of service, and route changes on existing bus lines, and new community/job connectors to help people get where they need to go.

POLICIES AND STANDARDS

MORE EAST-WEST SERVICE

This vision recommends improving or adding east-west service in areas where there are gaps in service or where some people must walk farther than a quarter-mile to reach their nearest bus stop. This vision calls for more east-west service on SE Johnson Creek, SE Lake, SE Harmony, SE Sunnyside, SE Jennings, SE Roots, and Highway 212.

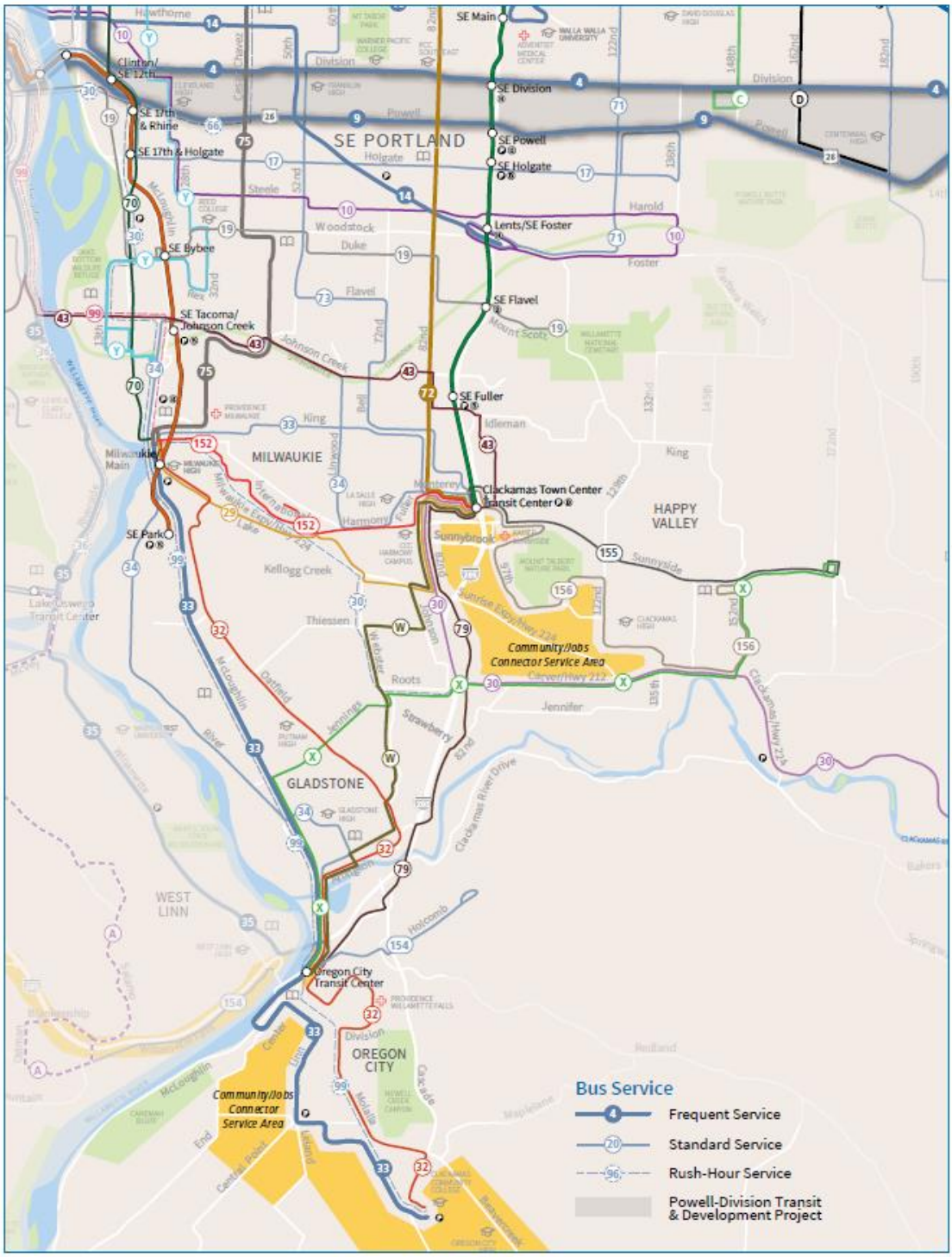
ACCESS TO OPPORTUNITIES

This vision recommends increasing frequency, expanding hours of service, and route changes on existing bus lines to improve the quality of life in the Southeast, especially for those that rely on transit as their primary source of transportation. This vision calls for more and better service on SE International Way, SE Webster, and Oatfield.

COMMUNITY/JOBS CONNECTOR SERVICE

This vision recommends community/jobs connector service in places where the businesses and/or homes are so scattered or are located on so much land that there aren't enough people within walking distance of bus stops to cost-effectively provide traditional fixed route bus service. In some instances there aren't enough roadway connections to allow people to walk to and from bus stops safely. The Clackamas Industrial Area, generally between Highway 212 and Sunnyside, and South Oregon City are candidates for community/jobs connector service in the Southeast.

- Line 155 - Extend service to 172nd on SE Sunnyside. Connect with Line 152 for a single-seat ride between Milwaukie and Happy Valley, pending layover space on both ends of the line and ridership demand.
- Line 156 - Increase frequency along SE 152nd, SE Carver, and SE 97th between Happy Valley Crossroads and the Clackamas Transit Center.
- Line X - New east-west service on SE Jennings, Highway 212 and SE Sunnyside between


SE PORTLAND
MILWAUKIE
GLADSTONE
WEST LINN
OREGON CITY
HAPPY VALLEY
SE Main
SE Division
SE Powell
SE Holgate
Lents/SE Foster
SE Flavel
SE Fuller
SE Bybee
SE 17th & Rhine
SE 17th & Holgate
SE Tacoma/ Johnson Creek
SE Park
Clackamas Town Center Transit Center
Oregon City Transit Center
Community/Jobs Connector Service Area
Community/Jobs Connector Service Area
Bus Service
Frequent Service
Standard Service
Rush-Hour Service
Powell-Division Transit & Development Project

TRIMET – EASTSIDE SEP - 2016

PLAN DESCRIPTION

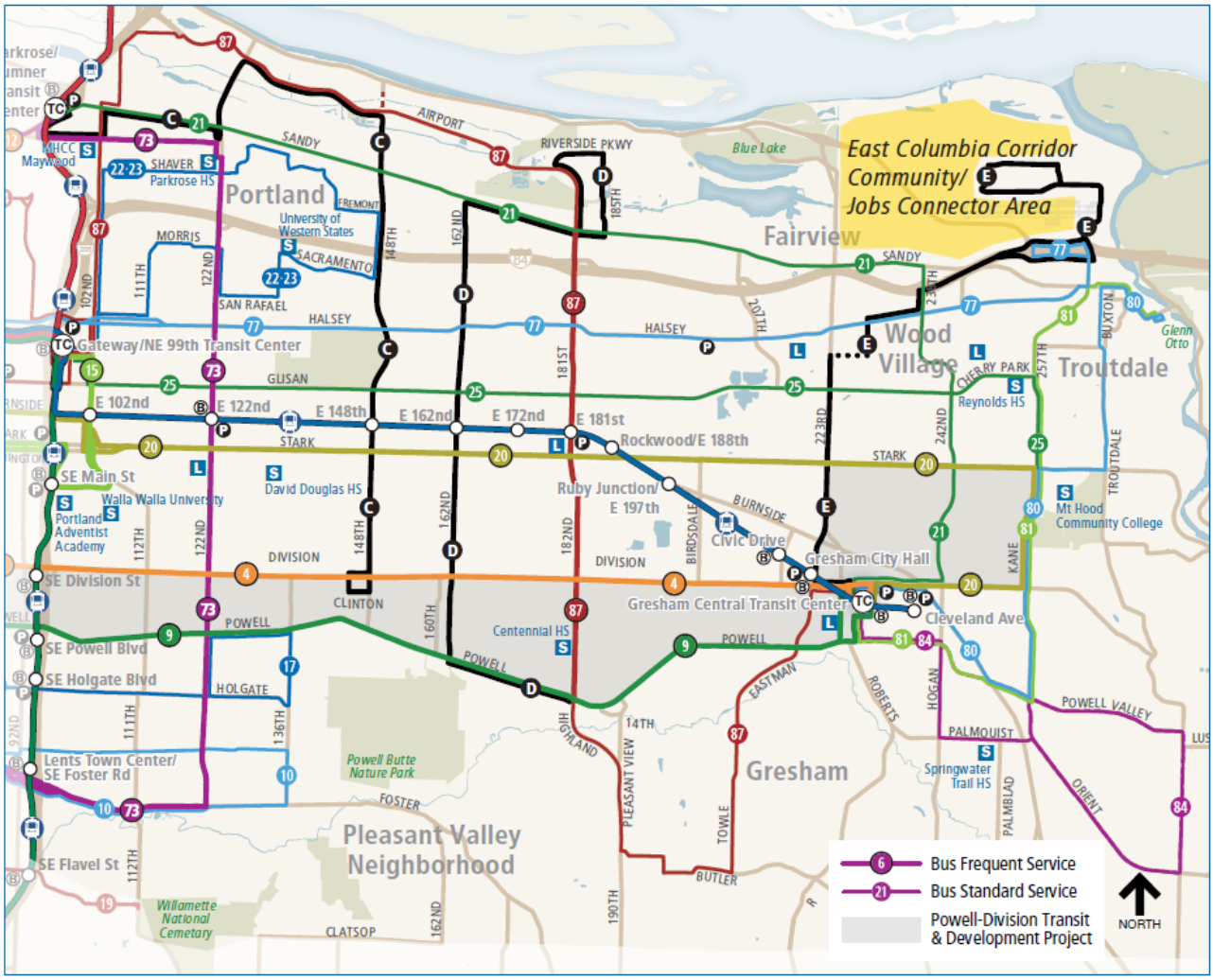
The Eastside Service Enhancement Plan is a long-term vision that will guide the expansion of bus service in East Portland, Gresham, Troutdale, Fairview, and Wood Village.

TriMet talked with riders and community members about improving bus service and about the challenges people face today and how these areas will grow in the future, this vision recommends 3 new north-south bus lines, increasing frequency, expanding hours of service, and route changes on existing bus lines, and a new community/job connector to help people get where they need to go.

POLICIES AND STANDARDS

1. More North-South Service – recommend 3 new n/s lines (148th, 162nd, 242nd north to TRIP)
2. Improving Existing North-South Service – (182nd to frequent service, with weekend service on Airport Way)
3. East Columbia Corridor Community/Jobs Connector - A community/jobs connector service could connect residents, riders and students to employment located in the East Columbia Corridor, generally between NE 223rd and the Troutdale Reynolds Industrial Park.

Future Vision for Eastside Bus Service



GRESHAM'S TSP – 2013

PLAN DESCRIPTION

Gresham's Transportation System Plan will support the growth and development of the city of Gresham as an economically vital and livable community by providing its residents and all transportation system users' safe, pleasant and convenient access and travel within, to and through the city.

STUDY AREA

Gresham TSP - 20 and 50 year Projects

EVALUATION CRITERIA

- The most frequent evaluation measure shown for intersections is v/c.

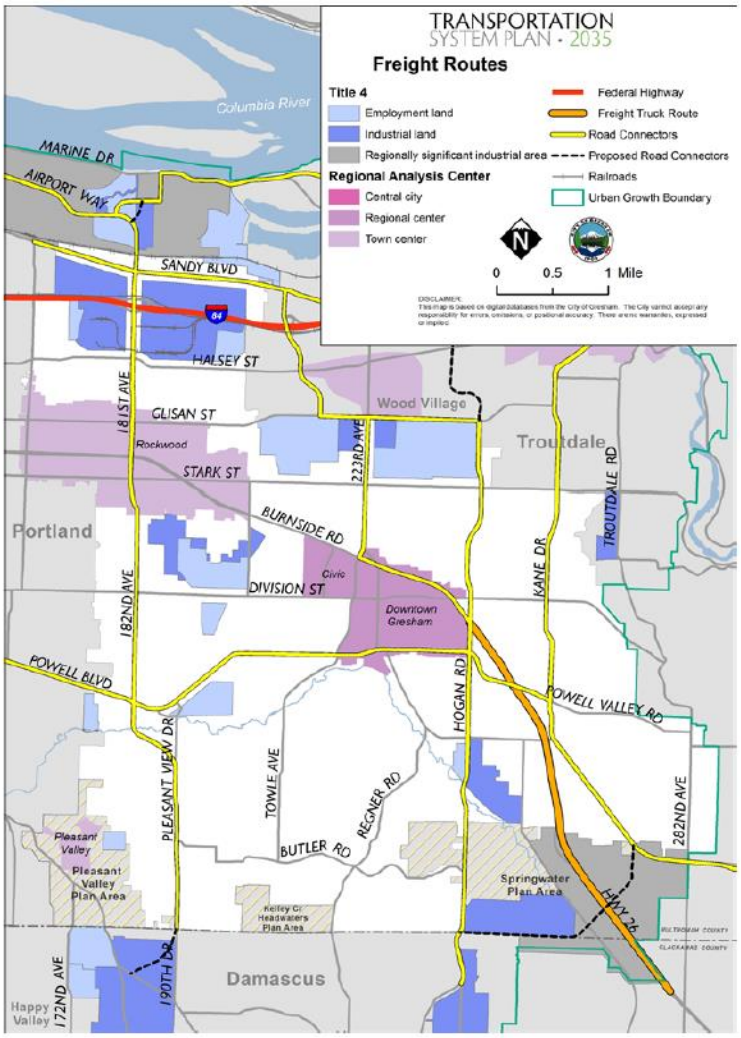
- ADT volumes were evaluated for streets to ensure classifications were appropriate.
- Within the Pleasant Valley and Springwater areas, land use was examined.

POLICIES AND STANDARDS

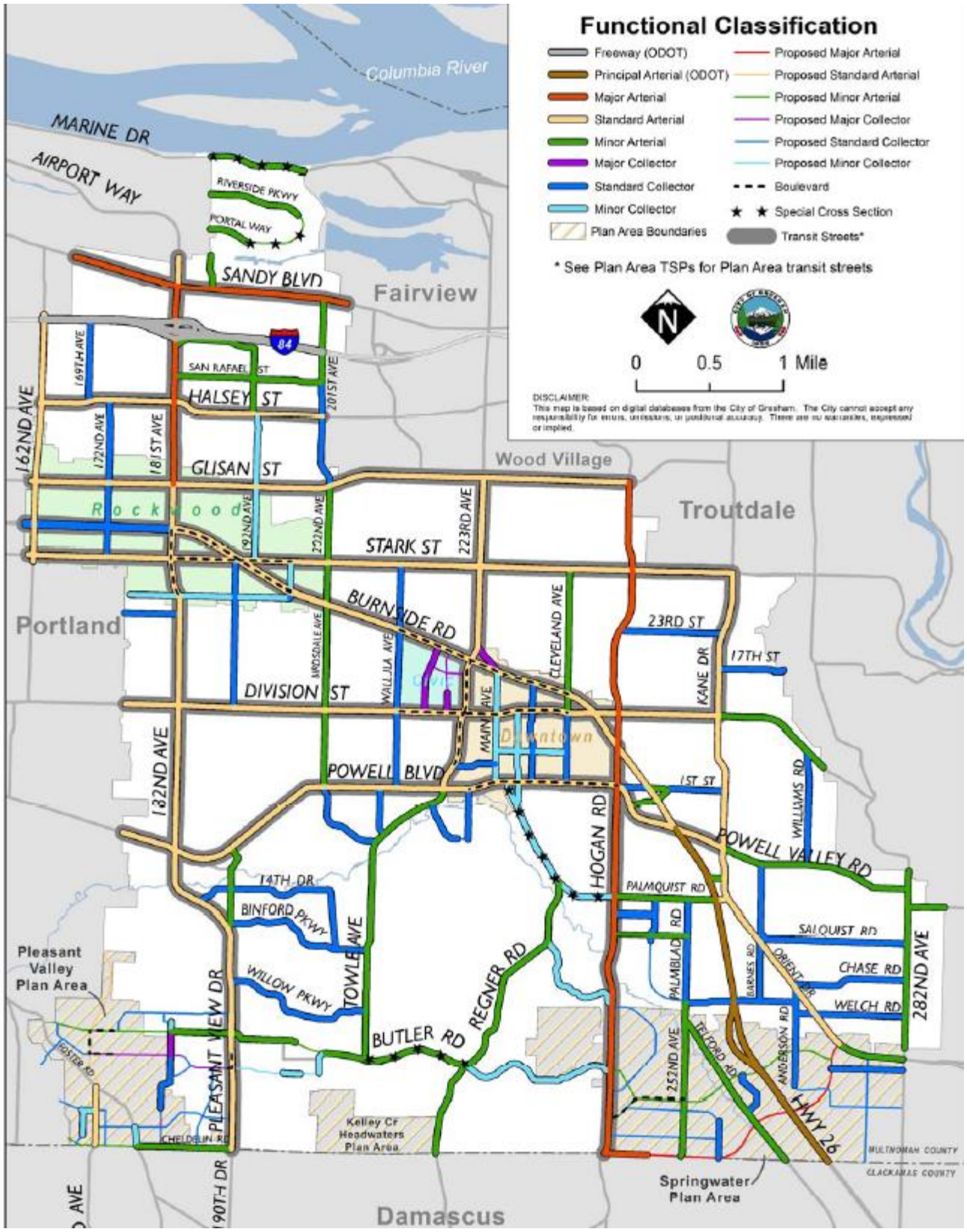
- Overall
  - Policy 1: Develop and promote a balanced transportation system that provides a variety of travel options and reduces the need to rely on automobiles.
  - Policy 2: Plan, implement and maintain an efficient transportation system.
  - Policy 3: Provide a transportation system that maximizes accessibility to and within regional centers, town centers, transit corridors, station areas, and employment centers.
  - Policy 4: Provide a safe transportation system.
- Streets
  - Policy 1: Provide a street system that accommodates a variety of travel options.
  - Policy 2: Develop a street system that meets current needs and anticipated future population growth and development.
- Transit
  - Policy 1: Advocate convenient, expanded transit service within Gresham and the east Multnomah County area.
  - Policy 2: Encourage efficient transit services to meet the current and projected transportation needs of the citizens of Gresham.
- Bicycle
  - Policy 1: Develop a continuous and convenient bicycle network.
  - Policy 2: Support programs and projects to improve bicycle safety and reduce the rate of bicycle related crashes.
- Pedestrian
  - Policy 1: Provide pedestrian facilities that are continuous, accessible, and adaptable to all users.
  - Policy 2: Improve pedestrian access to transit from residential, commercial, industrial and institutional developments.
- Truck and Rail
  - Policy: Provide for the safe and efficient movement of truck and rail freight through and within Gresham.

FUNCTIONAL CLASSIFICATION AND MODAL SYSTEMS

Provide a map of the study area roadways, functional classifications, and planned pedestrian, bicycle and transit systems (in map form). If possible, please provide the accompany shapefiles as well.



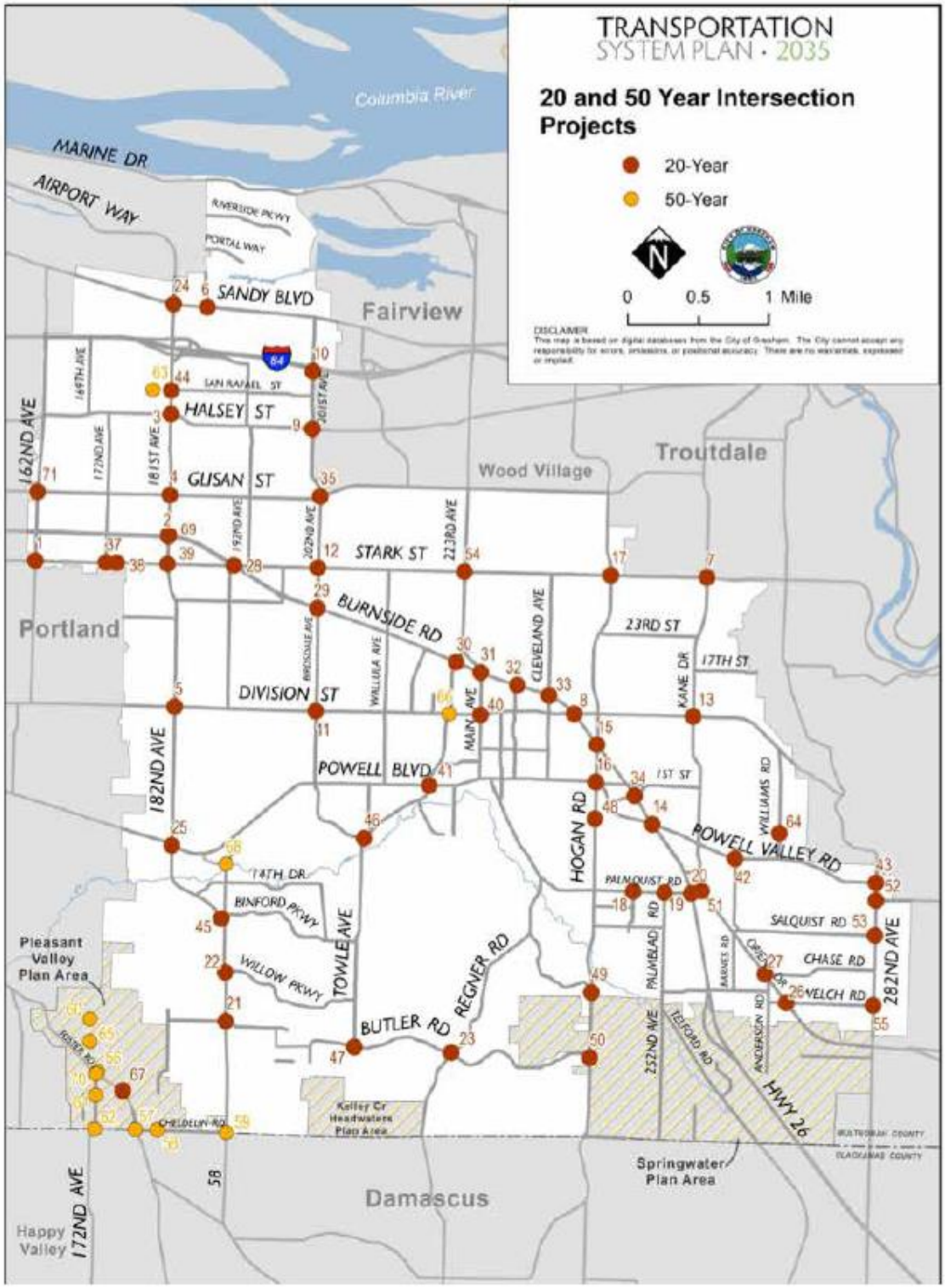
CITY OF GRESHAM TRANSPORTATION SYSTEM PLAN 141


Functional Classification
Freeway (ODOT)
Principal Arterial (ODOT)
Major Arterial
Standard Arterial
Minor Arterial
Major Collector
Standard Collector
Minor Collector
Plan Area Boundaries
Proposed Major Arterial
Proposed Standard Arterial
Proposed Minor Arterial
Proposed Major Collector
Proposed Standard Collector
Proposed Minor Collector
Boulevard
Special Cross Section
Transit Streets*
* See Plan Area TSPs for Plan Area transit streets
N
0 0.5 1 Mile
DISCLAIMER
This map is based on digital databases from the City of Gresham. The City cannot accept any responsibility for errors, omissions, or positional accuracy. There are no warranties, expressed or implied.
Columbia River
MARINE DR
AIRPORT WAY
RIVERSIDE PKWY
PORTAL WAY
SANDY BLVD
Fairview
84
SAN RAFAEL ST
HALSEY ST
GLISAN ST
Rockwood
Wood Village
Troutdale
Portland
STARK ST
BURNSIDE RD
DIVISION ST
POWELL BLVD
Downtown
Civic
23RD ST
17TH ST
KANE DR
CLEVELAND AVE
MAIN AVE
WALLULA AVE
BIRDSDALE AVE
162ND AVE
169TH AVE
172ND AVE
181ST AVE
192ND AVE
202ND AVE
201ST AVE
223RD AVE
1ST ST
HOGAN RD
POWELL VALLEY RD
WILLIAMS RD
PALMQUIST RD
SALQUIST RD
CHASE RD
WELCH RD
282ND AVE
PALMBLAD RD
BARNES RD
ORIENT DR
ANDERSON RD
TELFORD RD
252ND AVE
HWY 26
14TH DR
BINFORD PKWY
WILLOW PKWY
TOWLE AVE
REGNER RD
BUTLER RD
PLEASANT VIEW DR
FOSTER RD
CHELDELIN RD
190TH DR
Pleasant Valley Plan Area
Kelley Cr Headwaters Plan Area
Springwater Plan Area
MULTNOMAH COUNTY
CLACKAMAS COUNTY
Damascus

Map 26: Transit Plan


Existing Path
Food Store
Park/Natural Area
School
Center
0 0.5 1 Mile
Map produced: December 2016.
CITY OF GRESHAM
alta PLANNING + DESIGN
MARINE DR
SANDY BLVD
BR 2
Fairview
I-84
BR 27
HT4 BIKE PATH
BR 3
HALSEY ST
WASCO ST
HASSALO ST
BR 1
ROCKWOOD
BR 4
GRESHAM / FAIRVIEW TRAIL
BR 5
YAMHILL ST
MAIN ST
Portland
BR 6
Grant Butte
BR 7
GLISAN ST
Troutdale
Sandy River
STARK ST
BR 11
BURNSIDE RD
CIVIC
DOWNTOWN
BR 8
BR 12
BR 9
BR 10
DIVISION ST
POWELL BLVD
SPRINGWATER CORRIDOR
BR 20
BR 21
PALMQUIST RD
BR 28
BR 22
BR 23
BR 15
BR 17
BR 16
BR 18
Gresham Butte
Hogan Butte
Gabbert Hill
BR 13
BR 14
Pleasant Valley Plan Area
Towle Butte
BR 19
Springwater Plan Area
BR 25
Kelley Creek Headwaters Plan Area
RUGG RD
Multnomah County
Happy Valley
Damascus

Map 28: 20-Year and 50-Year Intersection Projects



STUDY INTERSECTIONS

Intersections within the C2C corridor study area are listed with their v/c ratios.

Intersection	2013	2035 - Improved	TSP Project – (50yr)
181st & Sandy Blvd	.73	.82	Y
181st & San Rafael	.86	.82	Y
181st & Halsey	.88	.91	Y
181st & Glisan	.86	.89	Y
181st & Burnside	.72	.90	Y
181st & Stark	.74	.90	Y
182nd & Division	.85	.89	Y
182nd & Powell	.68	.90	Y
SW Highland Dr & SW Pleasant View Dr	.93	.73	Y
SW Pleasant View Dr & SW Willow Pkwy	.42	.43	Y
SE 190th Ave & SE Giese Rd/SE Butler Rd	.42	.83	Y
SE 190th Ave & SE Cheldelin Rd			(Y)

PLANNED PROJECTS

Provide a list and descriptions of planned projects within the mobility corridor or that you'd anticipate to impact the C2C corridor. Use the table below or provide a screenshot/map/table from the planning document.

Table 32. Project List

Project Name	Location	Description
SE 190th Drive	SE 190th Drive 11th to Cheldelin Rd	Construct to standard arterial cross section 20 year - $17,008,240
181st Avenue	Glisan Street Yamhill Street	Construct to standard arterial cross section with boulevard design where applicable 20 year $11,440,061
Burnside Street	181st Avenue	Install barrier in NE 181st Ave. to block left turns to and from NE Couch St. Restripe southbound left-turn pocket to increase storage.
Sandy Boulevard - B. 181st Avenue	181st Avenue	Widen Sandy Blvd. east and west of intersection to add second eastbound and westbound lane, replacing existing right-turn lanes. Widen to add dual left-turn pocket on westbound approach. Modify signal to add protected-permitted left-turn phasing.
Halsey Street	181st Avenue	Widen to add second northbound left-turn pocket. Widen to add second southbound left-turn pocket and a southbound right-turn pocket.
Glisan Street	181st Avenue	Widen to add southbound and westbound right-turn pockets. Modify signal to add protected-permitted left-turn phasing.
Division Street	182nd Avenue	Widen to add dual left-turn pockets for eastbound and westbound approaches and to extend northbound and southbound right-turn pockets. Modify signal to add protected-permitted left-turn phasing and to add right-turn overlap phasing.
Stark Street	181st Avenue	Restripe to increase northbound and southbound left-turn pockets. Modify signal to add protected-permitted left-turn phasing
San Rafael	181st Avenue	Widen to add southbound right-turn pocket
Pleasant View Drive	Highland Drive	Install signal
SE 190th & Cheldelin Road	190th Avenue	190th and Cheldelin
SE 190th Drive & Bulter	Butler Road	Install signal
SE 190th Drive & Willow Parkway	Willow Parkway	Intersection Improvements

PLEASANT VALLEY TSP REFINEMENT

PLAN DESCRIPTION

The City of Gresham is beginning a process to review the transportation facilities in the Pleasant Valley Transportation System Plan (TSP) with primary focus on determining how the system can function adequately in the future. Alternatives that include and exclude a potential new arterial extension of SE 174th Avenue to connect between SE Giese Road and SE Jenne Road will be analyzed to understand the impacts of that connection on the overall function of the Pleasant Valley street network. The SE 174th Avenue extension was originally identified in the planning for the Powell-Foster corridors and is included in the current Metro Regional Transportation Plan (RTP) project list. A preferred alternative will be incorporated into an updated Pleasant Valley TSP and identify the long-term vision for the area as well as near-term solutions to address community concerns and support growth of the area. In addition, it will identify how improvements can be phased and their costs, right-of-way needs, and impacts.

The Pleasant Valley TSP was adopted in 2005. Since that time, planning has occurred by Clackamas County, Portland, and Metro. These plans are based on the Pleasant Valley TSP, which includes an extension of Giese Road between SE Foster Road and SE 182nd Avenue. In addition, it includes the downgrading of Foster Road into a local access street (i.e., retain current two-lane configuration), with the potential to disconnect or vacate the street in the confluence area of Kelley Creek. For example, in 2012, Happy Valley and Clackamas County jointly adopted the 172nd Avenue/190th Drive Corridor Management Plan, including a new arterial connection between SE 172nd Avenue and SE 190th Drive (the "172nd-190th Connector"). That plan considered the constraints of Jenne Road and the 174th Extension and the need to provide a more robust connection to SE 190th Avenue to supplement north/south connectivity.

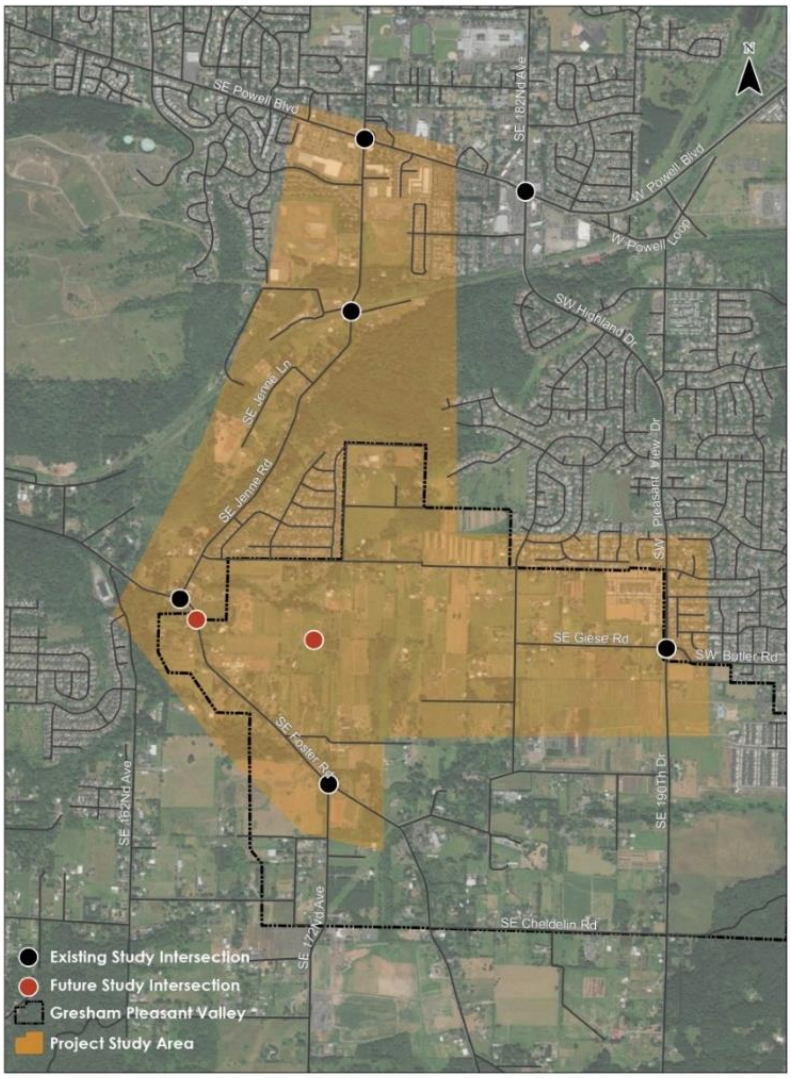
EVALUATION CRITERIA

- Environmental impacts (Wetland, stream, habitat)
- Safety
- Bicycle & Pedestrian Facilities
- Existing Transit on Powell
- Future Transit on 190th
- Town Center Access & Connectivity
- Vehicle Operations
- System Connectivity
- Cost
- Construction Staging
- Property Impacts and Purchases
- Intergovernmental Coordination

STUDY AREA

Figure 1 illustrates the Pleasant Valley Boundary as well as the project study area and study intersections.

Example Figure 1 – Project Study Area



POLICIES AND STANDARDS

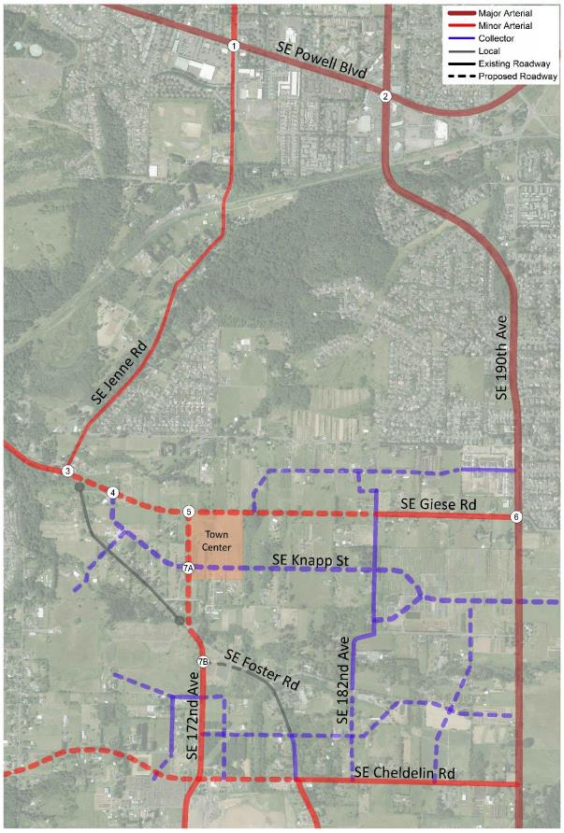
Original PV TSP

POLICIES

1. Pleasant Valley will be a community where it is safe, convenient, and inviting to walk, ride a bike and use transit. The network of streets shall accommodate walking and biking, with special pedestrian features on transit streets.
2. The community will be served by a balanced transportation system that serves all modes of travel and is coordinated with Gresham, Portland, Happy Valley, Clackamas County, Multnomah County, TriMet, ODOT, Metro and other transportation service providers to provide effective regional connections to the Pleasant Valley community.

3. The community will be served by community level transit service that connects to regional transit service, and include street designs, land use types, patterns and densities and pedestrian and bicycle improvements that support transit.
4. An efficient, well-connected street system will be planned, using a variety of street types that reinforce a sense of community, provide adequate routes for travel by all modes and preserve adequate right-of-way to serve future transportation needs.
5. Existing transportation safety issues will be addressed.
6. The Pleasant Valley Plan District map will serve as the basis for providing opportunities for through-travel on arterial streets and local access to community destinations on collectors, neighborhood connectors and local streets.
7. The plan district will provide a bicycle and pedestrian system that provides for safe, convenient, attractive and accessible bicycle and pedestrian routes on all streets. These routes shall connect the multi-use trail and parks and open spaces system, and to major activity centers such as schools, civic uses, neighborhood centers, employment areas and the town center.
8. The plan district will provide a multi-use trail system to serve as important off-street bicycle and pedestrian connections to schools, parks, commercial areas and neighborhoods within the Pleasant Valley community, particularly in areas near the confluence of Kelley and Mitchell creeks where streams limit street connectivity.
9. Transportation plans will use green street designs, as described in Metro's handbook titled Green Streets: Innovative Solutions for Stormwater and Stream Crossings and Trees for Green Streets as a resource in the development and design of streets.

FUNCTIONAL CLASSIFICATION AND MODAL SYSTEMS



STUDY INTERSECTIONS

Foster/172nd	Powell/182nd
Jenne/Foster/Giese	Giese/172nd - future
Powell/174th	Giese/190th

PLANNED PROJECTS

See Gresham TSP for current list.

ADDITIONAL INFO

Issue 4: 172nd Avenue could serve as an important link between the future Sunrise Highway to the south and the Columbia Corridor via 182nd Avenue to the north. Regional transit service in this corridor could also link Pleasant Valley neighborhoods to the commercial services in the town center and the Gresham and Clackamas regional centers.

Currently, 172nd Avenue is a narrow two-lane farm-to-market road. The 2000 RTP evaluated the comparative advantages of 172nd Avenue over Foster Road (east of 172nd Avenue) as the primary connection to Highway 212. 172nd Avenue has fewer topographic constraints, and provides more direct access to planned industrial areas along Highway 212. 172nd Avenue is also more centrally located to the Pleasant Valley/Damascus area. Based on this evaluation, the 2000 RTP upgraded 172nd Avenue to be a Major Arterial. This change in classification could transform this route into the north/south spine for the area, linking Pleasant Valley to the future Sunrise Corridor Highway to the south and Gresham and the Columbia Corridor via 182nd Avenue to the north. The location and shape of the Pleasant Valley town center should be designed in the context of the function of 172nd Avenue. The RTP recommended providing parallel routes to 172nd Avenue and more direct regional bus service linking Gresham, Pleasant Valley and Clackamas along the Sunnyside Road/172nd Avenue/Towle Road/Eastman Parkway alignment.

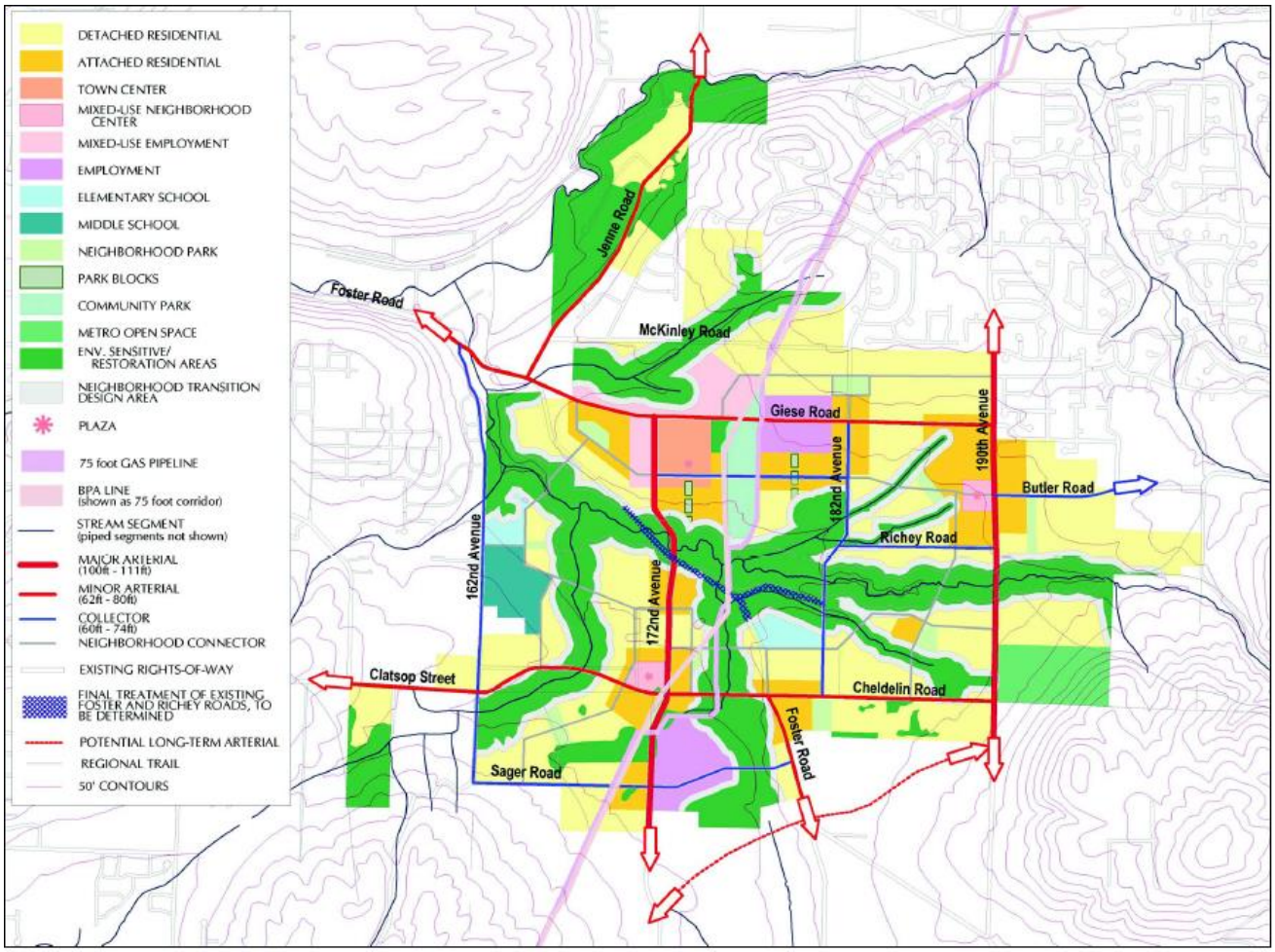
PLEASANT VALLEY CONCEPT PLAN

PLAN DESCRIPTION

The Pleasant Valley Concept Plan is a guide to the creation of a new 1,532-acre community east of Portland and south of Gresham. The Concept Plan follows a December 1998 decision by Metro to bring the area inside the regional urban growth boundary. The central theme of the plan is to create an urban community through the integration of land use, transportation and natural resource elements.

STUDY AREA

Proposed PV Concept Plan



EVALUATION CRITERIA

H. Provide transportation choices. Pleasant Valley will be a community where it is safe, convenient and inviting to walk and ride a bike. The plan will set the stage for future community-level transit service that connects to regional transit service, including street designs, land use types and densities that support transit. Recommendations will be developed to correct transportation safety issues, to address through traffic and to

provide adequate capacity for future growth. The plan will coordinate with surrounding jurisdictions to create effective regional connections and a balanced regional transportation system. A well-connected street system will be planned, using a variety of street types that reinforce a sense of community and provide adequate routes for travel. Streets will accommodate walking and biking, with special pedestrian features on major transit streets.

POLICIES AND STANDARDS

Transportation Goals:

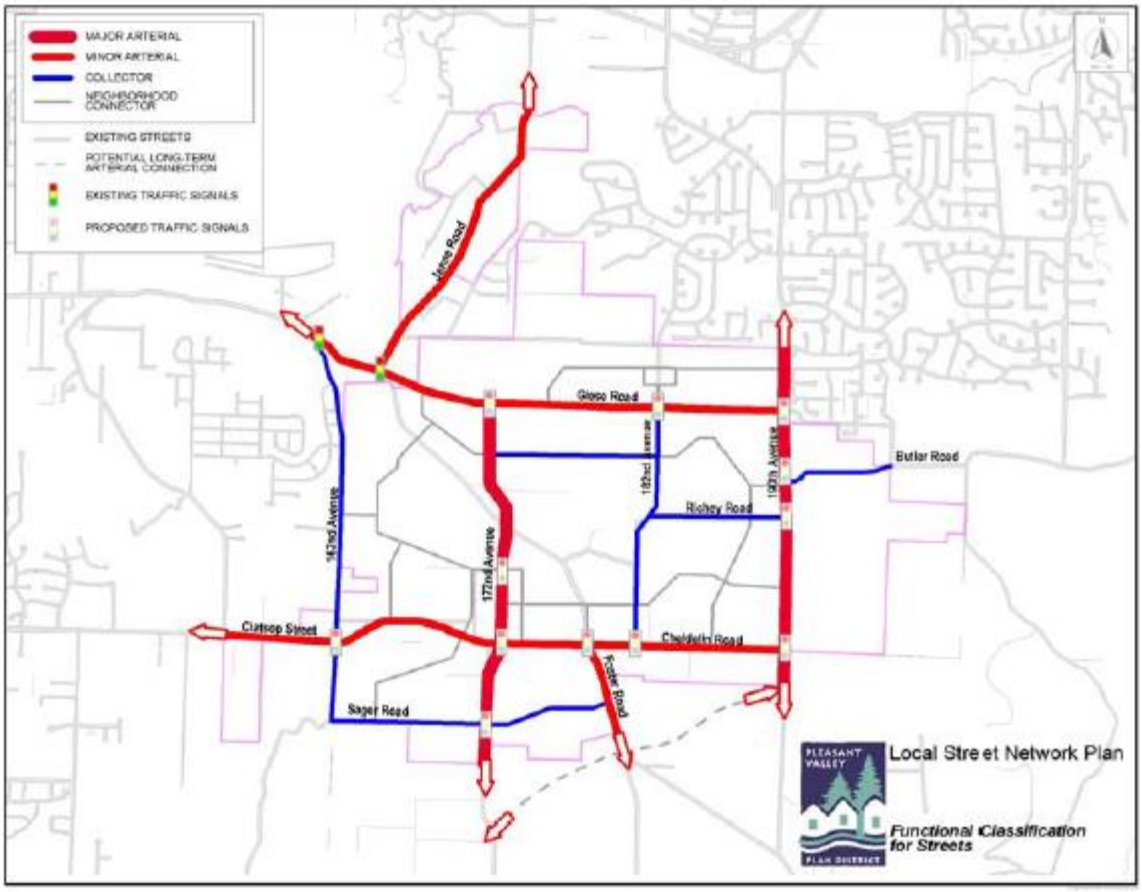
Principle 1 – Spread out the Traffic. When designing streets it is important to not only consider the roadway's traffic function, but also other modes of travel and character of the surrounding community that the street will serve. Well-designed arterial, collector and local streets are a good starting point for spreading out traffic in communities, and avoiding overly wide streets as a community and its neighborhoods grow.

Principle 2 – Design for Livability. The design of our streets directly affects our quality of life. Street design can promote community livability by emphasizing local travel needs and creating a safe, inviting space for community activity. Street design elements such as sidewalks, crosswalks, landscaped sidewalk buffers, bikeways, on-street parking, street trees, landscaping, street lighting, bus shelters, benches and corner curb extensions provide an environment that is not only attractive, but can slow traffic and encourage walking, bicycling and use of transit. Metro's handbook Creating Livable Streets provides examples of better design. Additionally, streets can be designed to be "green", where features like streets,

Principle 3 – Connectivity Works. On average, each household generates 10-12 automobile trips per day. A well-connected street system with reasonably direct connections encourages walking, bicycling, and transit use, and can reduce the number and length of these automobile trips. In well-connected street systems, local traffic is more dispersed, rather than focused on arterials where it combines with through-traffic to create congestion. With a well-connected system that provides multiple routes to local destinations, any single street will be less likely to be overburdened by excessive traffic. Police and fire response also benefits from a well-connected street system. Other benefits include: travel is more direct, better serves the development of main street and town centers as alternatives to commercial strip development, ideal for walking and biking because of more direct routes that are safer streets, allows streets to be narrower reducing costs, saving energy and reducing.

FUNCTIONAL CLASSIFICATION AND MODAL SYSTEMS

Figure 6. Network of Arterial, Collector and Neighborhood Connector



Streets

STUDY INTERSECTIONS

Gresham TSP more relevant.

PLANNED PROJECTS

From action items: Develop a short-term strategy to downgrade the function of Foster and Richey roads to serve as local access streets and a long-term strategy to disconnect and potentially vacate Foster and Richey roads in the confluence area of the ESRA. Phase implementation of new neighborhood connector that crosses the Saddle wetland complex west of Pleasant Valley Elementary School to coincide with disconnection and removal of Foster Road stream crossings in confluence area.

HAPPY VALLEY TSP

PLAN DESCRIPTION

The first Happy Valley Transportation System Plan (TSP) was adopted December 1998. Several major updates have occurred, the most recent in November 2016. The November 2016 plan update was aimed at fulfilling Transportation Planning Rule (TPR) requirements for comprehensive transportation planning in the cities of Oregon, meeting Metro Regional Transportation Functional Plan (RTFP) requirements for planning in cities in the Portland Metro area and presenting the investments and priorities for the Pedestrian, Bicycle, Transit, and Motor Vehicle systems along with new transportation programs to correct existing shortfalls and enhance critical services. For each travel mode, a Master Plan project map and list are identified to support the City's transportation goals and policies. Projects that are reasonably expected to be funded through the year 2040 were identified and are referred to as Financially Constrained Plans.

The TSP update provides specific information regarding transportation needs to guide future transportation investment in the City and determine how land use and transportation decisions can be brought together beneficially for the City and is based on needs required to meet transportation demand based on 2040 future needs.

The City's TSP includes 172nd Avenue as a Major Arterial from OR Hwy. 212 north to the Multnomah County/Clackamas County boundary just south of Foster Road and thus represents a major part of the southern area of the C2C study area. In addition, the TSP begins to "project" the eastern extension of the "190th Connector" to Tillstrom Road, and the roadway is further planned (to the east) in the 172nd Ave./190th Drive Corridor Management Plan ("172nd Plan").

In addition, the following section from Chapter 8 (Motor Vehicle Plan) specifically addresses the 172nd Plan:

172nd Avenue-190th Drive Corridor Management Plan

Clackamas County, in coordination with Happy Valley and Gresham, initiated the 172nd Avenue-190th Drive Corridor Management Plan (CMP) to identify the future look and alignment of 172nd Avenue north of Sunnyside Road and to determine how it will connect to 190th Drive in the Gresham area. The project's purpose is to accommodate the future traffic demand that will come with the buildout of developable land in Happy Valley and Gresham and, provide a north-south connection to accommodate local and regional traffic growth. The CMP carefully evaluated multiple options for the 172nd Avenue-190th Drive connection in the context of the area-wide transportation network, existing and planned land uses, environmental conditions and extensive community input. The CMP's recommendations, as shown in Figure 8-7 A to F are consistent with Happy Valley's land use and transportation planning conducted to date for East Happy Valley. The CMP elevates past work to a more specific level of planning and design.

Happy Valley supports the CMP and will implement it. Accordingly, the CMP is adopted by reference as a part of this Transportation System Plan. Where a conflict arises between the CMP and other requirements of this TSP, the CMP supersedes.

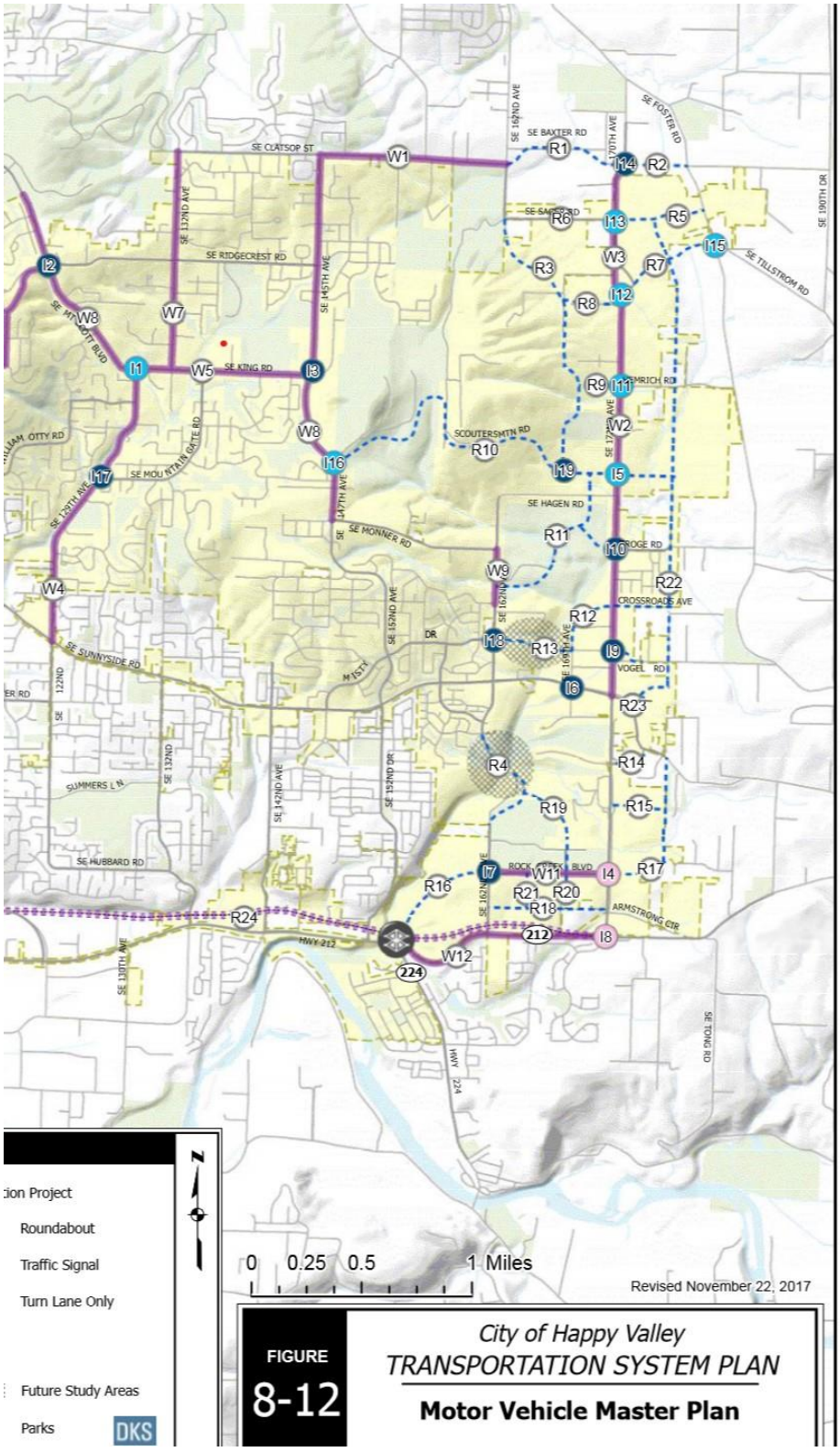
The CMP includes intersection lane configurations and traffic control treatments that are adopted as part of this TSP. They are listed in Table 8-4.

Table 8-4: Intersection Treatments 172nd Avenue / 190th Drive Corridor

Intersection	Proposed Intersection Treatment
172nd Ave / Vogel Rd	Signal
172nd Ave / Troge Rd	Signal
172nd Ave / Future Scouters Mountain Rd	2-Lane Roundabout
172nd Ave / Hemrich Rd	2-Lane Roundabout
172nd Ave / 172nd – 190th Connector	2-Lane Roundabout
172nd – 190th Connector / Foster Rd	2-Lane Roundabout
172nd Ave / Sager Rd	1-Lane Roundabout

STUDY AREA

Excerpt of Figure 8-12 from the City's TSP focusing on the 172nd Ave. Corridor



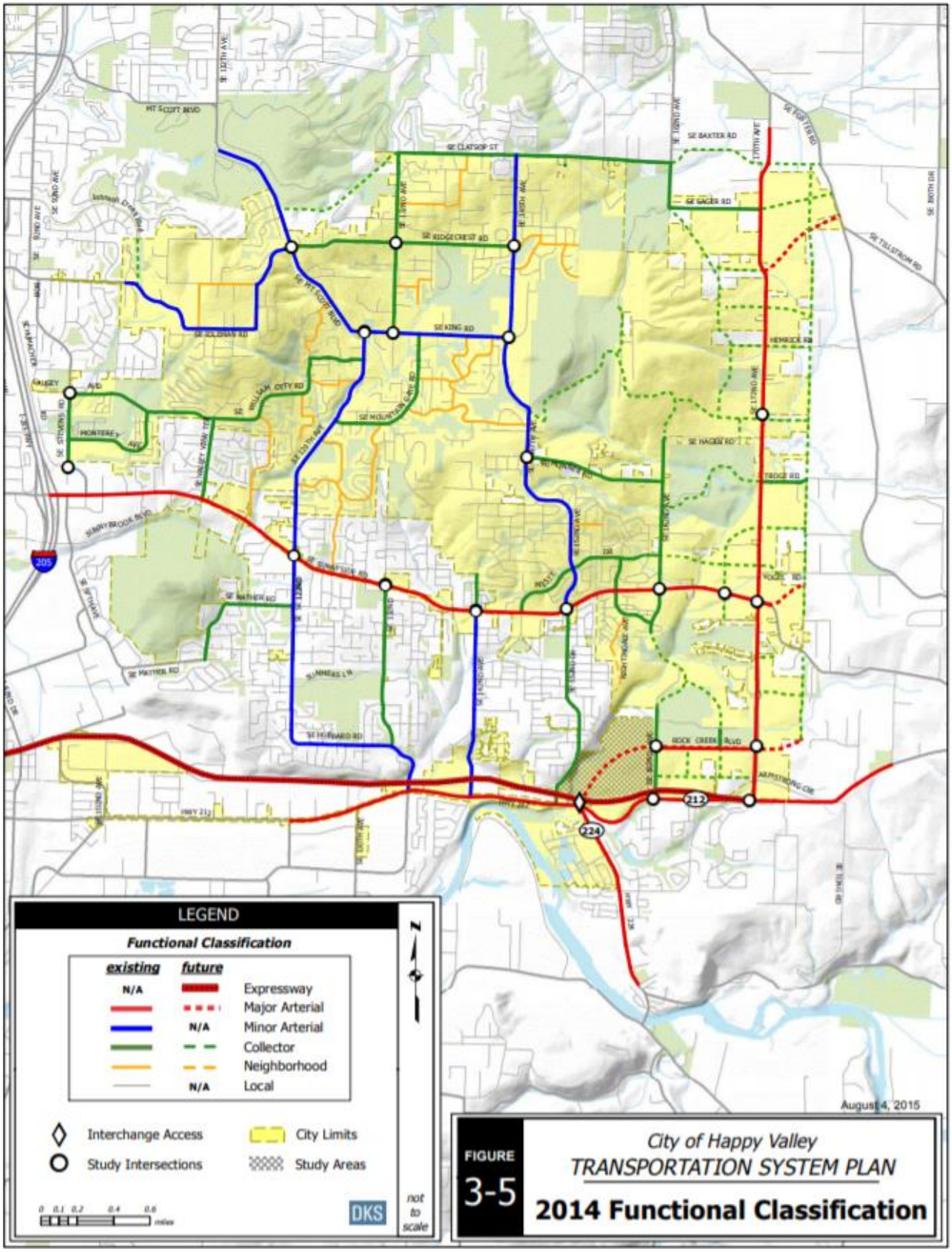
EVALUATION CRITERIA

None.

POLICIES AND STANDARDS

The evaluation criteria and goals and policies of the City's TSP are extensive and are available in Chapter Two (Goals and Policies) of the TSP at the following link: ***www.happyvalleyor.gov/wp-content/uploads/2017/12/Happy-Valley-TSP-Adopted-12-5-17.pdf***

FUNCTIONAL CLASSIFICATION AND MODAL SYSTEMS

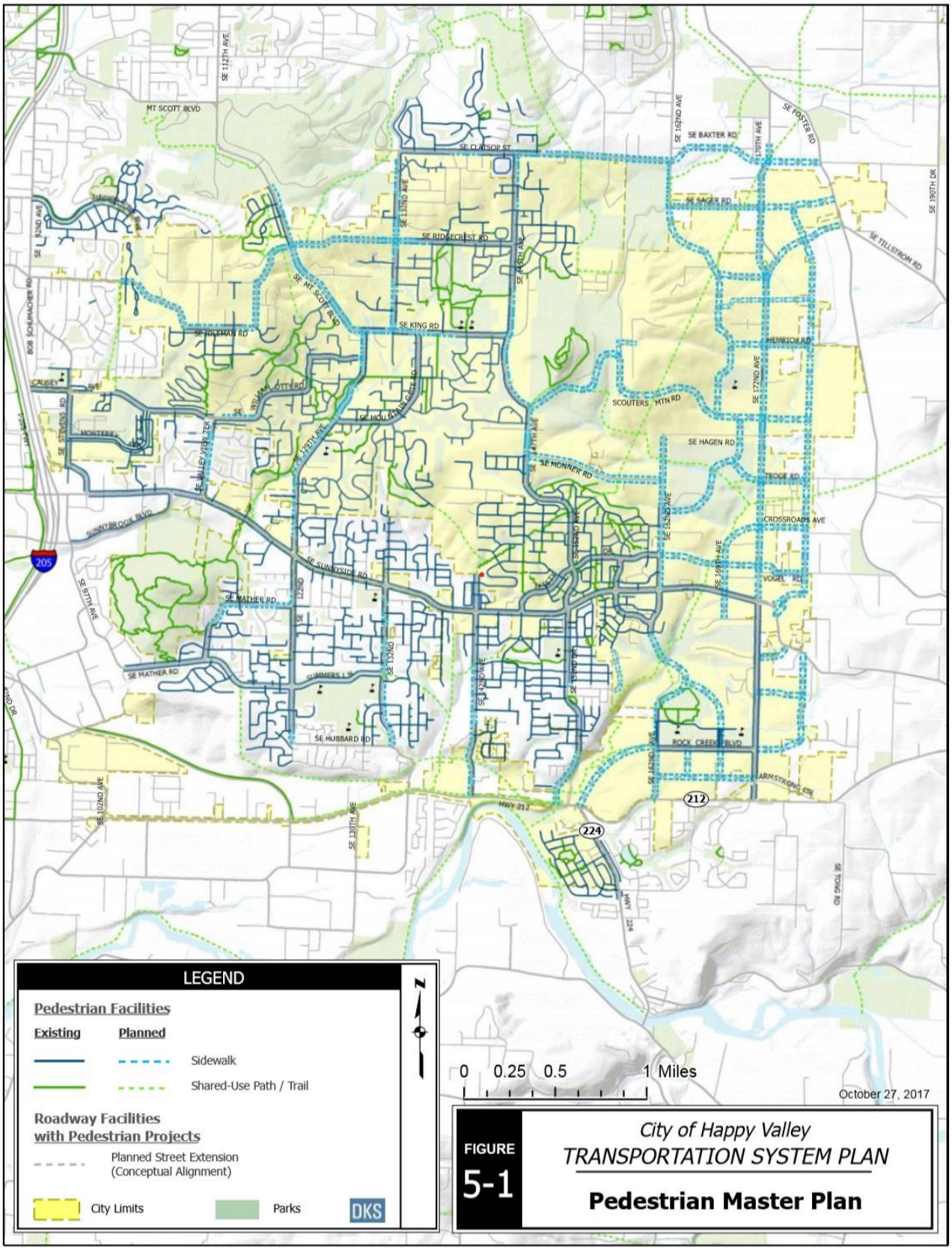


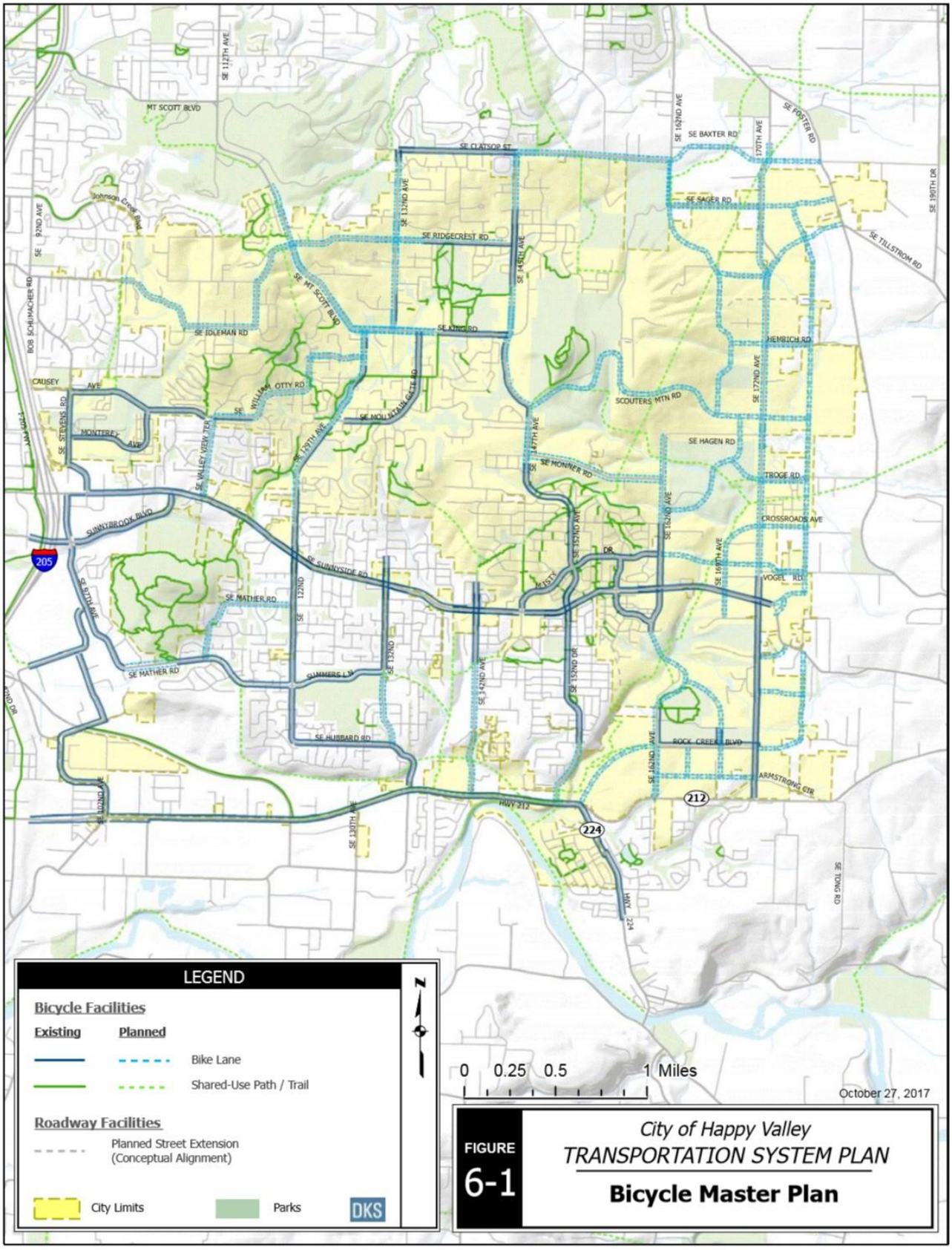
STUDY INTERSECTIONS

None.

PLANNED PROJECTS

See Figures, Text and Table, below.


LEGEND
Pedestrian Facilities
Existing
Planned
Sidewalk
Shared-Use Path / Trail
Roadway Facilities with Pedestrian Projects
Planned Street Extension (Conceptual Alignment)
City Limits
Parks
DKS
N
0 0.25 0.5 1 Miles
October 27, 2017
FIGURE 5-1
City of Happy Valley
TRANSPORTATION SYSTEM PLAN
Pedestrian Master Plan
MT SCOTT BLVD
SE CLATSOP ST
SE RIDGECREST RD
SE KING RD
SE HAGEN RD
SE MONNER RD
SE MATHER RD
SE HUBBARD RD
SE SUNNYSIDE RD
SE BAXTER RD
SE SAGER RD
SE TILLSTROM RD
SCOUTERS MTN RD
SE CROSSROADS AVE
ROCK CREEK BLVD
SUNNYBROOK BLVD
205
212
224


LEGEND
Bicycle Facilities
Existing
Planned
Bike Lane
Shared-Use Path / Trail
Roadway Facilities
Planned Street Extension
(Conceptual Alignment)
City Limits
Parks
DKS
N
0 0.25 0.5 1 Miles
October 27, 2017
FIGURE
6-1
City of Happy Valley
TRANSPORTATION SYSTEM PLAN
Bicycle Master Plan
MT SCOTT BLVD
SE CLATSOP ST
SE BAXTER RD
SE POSTER RD
SE SACER RD
SE TILLSTROM RD
SE RIDGECREST RD
SE IDLEMAN RD
SE KING RD
HEMRICH RD
SCOUTERS MTN RD
SE HAGEN RD
SE MONNER RD
TROGE RD
CROSSROADS AVE
VOGEL RD
SUNNYBROOK BLVD
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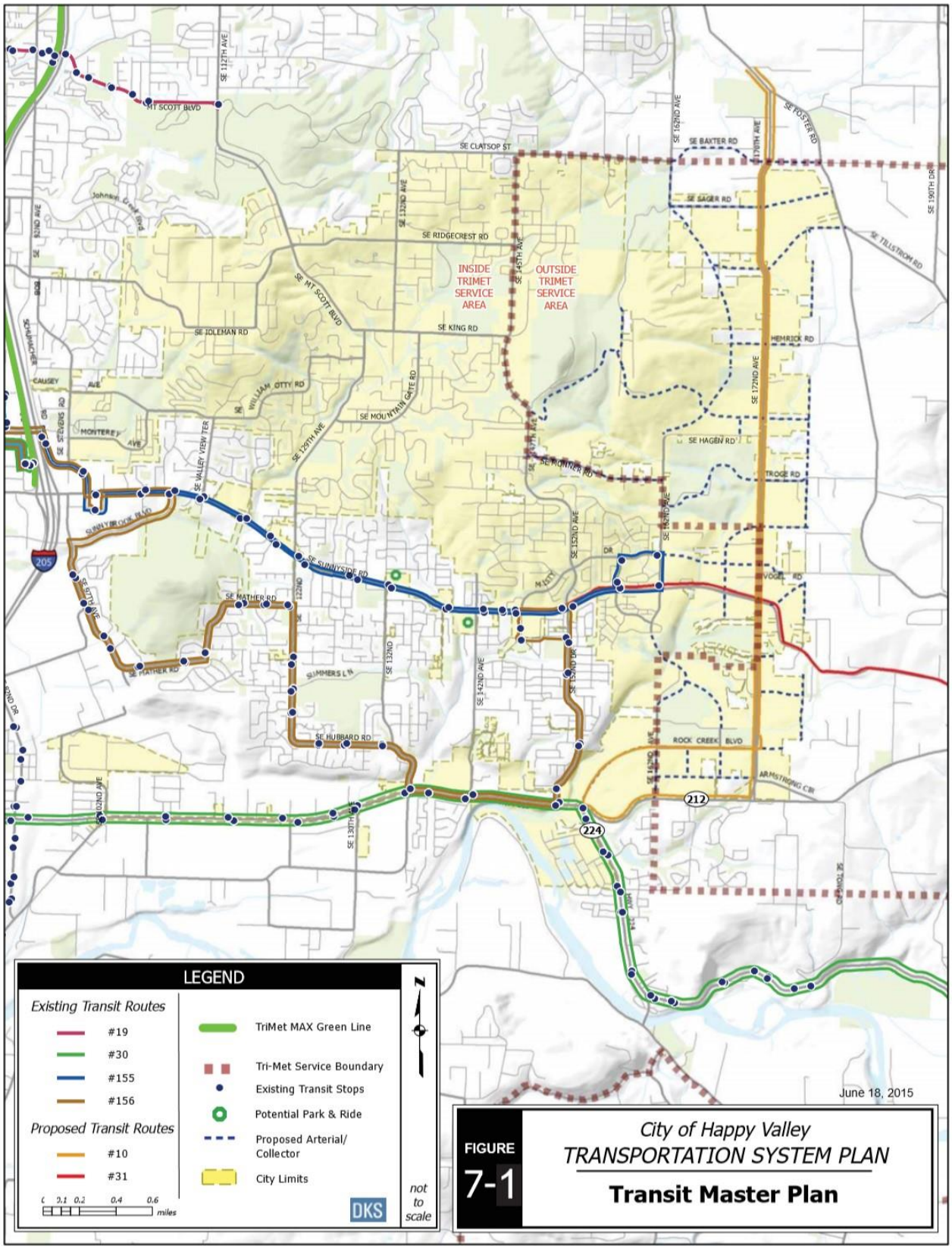
SE MATHER RD
SE HUBBARD RD
ROCK CREEK BLVD
ARMSTRONG CIR
HWY 212
HWY 224
205
212
224



MOTOR VEHICLE MASTER PLAN

The Motor Vehicle Master Plan combines both improvement projects identified in current plans (Happy Valley TSP, Clackamas County TSP, Rock Creek Comprehensive Plan, East Happy Valley Comprehensive Plan, Metro RTP, 172nd Avenue-190th Drive CMP, Happy Valley Town Center Plan, etc.) and those determined as the outcome of the Happy Valley TSP update analysis. These improvements are shown in Figure 8-12 and listed in Table 8-7.

Projects from the RTP list include the cost estimate provided by Metro if applicable. The planning level cost estimates for the remaining projects are based on general unit costs for transportation improvements, but do not necessarily reflect the unique project elements that can significantly add to project costs. Each of these project costs will need further refinement to detail right-of-way requirements and costs associated with special design details as projects are pursued. The estimated cost to obtain required right-of-way was included in all of the roadway widening projects. It was assumed that the new roadway/extension projects would be constructed on land dedicated by the associated development, therefore, right-of-way costs are not included in their cost estimates.

Table 8-7: Motor Vehicle Master Plan Projects

ID	Project	Improvement	Cost Estimate ($1,000s)
Intersection Improvement			
I1	129th Avenue/Mt. Scott Boulevard/King Road	Install a traffic signal or roundabout, add eastbound right turn lane	$1,500
I2	Mt. Scott Boulevard/Idleman Road/Ridgecrest Road	Install a traffic signal or roundabout, improve vertical curve, align eastbound and westbound approaches	$1,500
I3	145th Avenue/King Road*	Install a traffic signal or roundabout	$1,500
I4	172nd Avenue/Rock Creek Blvd	Add second eastbound left turn lane	$200
I5	172nd Avenue/Scouter Mountain Road**	Install a two-lane roundabout	$1,500
I6	Sunnyside Road/169th Avenue	Install a traffic signal	$500
I7	162nd Avenue/Rock Creek Boulevard	Install a traffic signal or roundabout	$1,000

I8	172nd Avenue/OR 212	Add second eastbound left turn lane, second southbound right turn lane, widen to two eastbound and westbound lanes	$1,000
I9	172nd Avenue/Vogel Road**	Install a traffic signal	$500
I10	172nd Avenue/Troge Road**	Install a traffic signal, rebuild creek bridges	$8,000
I11	172nd Avenue/Hemrich Road**	Install a two-lane roundabout	$1,500
I12	172nd Avenue/172nd-190th Connector**	Install a two-lane roundabout	$1,500
I13	172nd Avenue/Sager Road**	Install a one-lane roundabout	$1,000
I14	172nd Avenue/Cheldelin Road**	Install a traffic signal	$500
I15	Foster Road/172nd-190th Connector**	Install a two-lane roundabout	$1,500
I16	147th Avenue/Scouters Mountain Road	Install a traffic signal or roundabout	$1,000
I17	129th Avenue/Mountain Gate Road	Install a traffic signal	$500
I18	162nd Avenue/Misty Drive	Install a traffic signal	$500
I19	162nd Avenue Extension North/Scouters Mountain Road	Install a traffic signal or roundabout	$1,000
Roadway Widening			
W1	Clatsop Street Widening East	Widen to 3-lane facility between 145th Avenue and 162nd Avenue	$4,300
W2	172nd Avenue Widening South*	Widen to 5-lane facility between Sunnyside Road and 172nd-190th Connector Road	$14,200
W3	172nd Avenue Widening North*	Widen to 3-lane facility between 172nd-190th Connector to Cheldelin Road	$5,100
W4	122nd/129th Avenue Widening	Widen to 3-lane facility between Sunnyside Road and King Road and smooth curves	$5,400

W5	King Road Widening	Widen to a continuous 3-lane facility cross-section between 129th Avenue and 145th Avenue	$3,900
W6	132nd Avenue Widening*	Widen to 3-lane facility from Clatsop St to King Rd	$4,900
W7	145th – 147th Avenue Widening	Widen to 3-lane facility from Clatsop Street to Monner Road	$8,300
W8	Mt. Scott Boulevard	Widen to 3-lane facility from 129th Avenue to north City limits	$4,800
W9	162nd Avenue Widening*	Widen to 3-lane facility from Palermo Avenue to Hagen Road	$2,400
W10	Idleman Road Widening	Widen to 3-lane facility from Mt. Scott Boulevard to west city limits, correct roadway alignment.	$7,600
W11	Rock Creek Boulevard East	Widen to 5-lane facility from 162nd Avenue to 177th Avenue	$2,500
W12	OR 212/224*	Widen to 5-lane facility from Rock Creek Junction and 172nd Avenue	$30,000
New Roadway			
R1	Clatsop Street Extension East	Construct a new 3-lane facility between 162nd Avenue and 172nd Avenue. May follow a portion of Baxter Road right-of-way	$2,800
R2	Clatsop Street – Cheldelin Road Extension	Construct a new 3-lane facility between 172nd Avenue and Foster Road	$1,400
R3	162nd Avenue Extension North*	Construct a new 2/3-lane facility between Hagen Road and Clatsop Street	$7,700
R4	162nd Avenue Extension South*	Construct a new 3-lane facility 157th Avenue to Highway 212	$19,600
R5	Sager Road Extension East	Construct a new 3-lane east-west facility from 172nd Avenue to Foster Road	$2,000
R6	Sager Road Extension West	Upgrade to a 2-lane east-west facility from 162nd Avenue to 172nd Avenue	$2,000

R7	172nd-190th Connector*	Construct a new 5-lane facility between 172nd Avenue and Foster Road	$4,600
R8	Wooden Heights Road	Construct a new 2-lane east-west facility from 162nd Avenue to 177th Avenue	$1,100
R9	Hemrich Road Extension	Construct a new 3-lane east-west facility from 162nd Avenue to 177th Avenue	$2,200
R10	Scouters Mountain Road	Construct a new east-west 2/3-lane facility over Scouter's Mountain between 147th and 177th Ave	$9,500
R11	Troge Road Extension*	Construct a new 3-lane facility between 162nd Avenue and 177th Avenue, construct new bridge over Rock Creek at 172nd Avenue	$2,900
R12	169th Avenue Extension	Construct a new 3-lane facility from Sunnyside Road to 177th Avenue	$4,300
R13	Misty Drive Extension*	Construct a new 3-lane east-west facility from 162nd Avenue and 177th Avenue	$10,100
R14	Rock Creek Court Extension	Construct a new 2/3-lane east-west facility from 172nd Avenue and 177th Avenue	$1,200
R15	Big Timber Court Extension	Construct a new 2/3-lane east-west facility from 172nd Avenue and 177th Avenue	$1,200
R16	Rock Creek Boulevard West Extension*	Construct a new 5-lane east-west facility from 162nd Avenue to the Sunrise Corridor Rock Creek interchange	$2,600
R17	Rock Creek Boulevard East*	Construct a new 3-lane east-west facility from 172nd Avenue to 177th Avenue	$2,800
R18	Rock Creek East-West Roadway	Construct a new 3-lane facility south of Rock Creek Boulevard between 162nd and 172nd Ave	$2,800
R19	Parklane Drive North Extension	Construct a new 3-lane north-south facility from 162nd Avenue to Stadium Way	$2,300

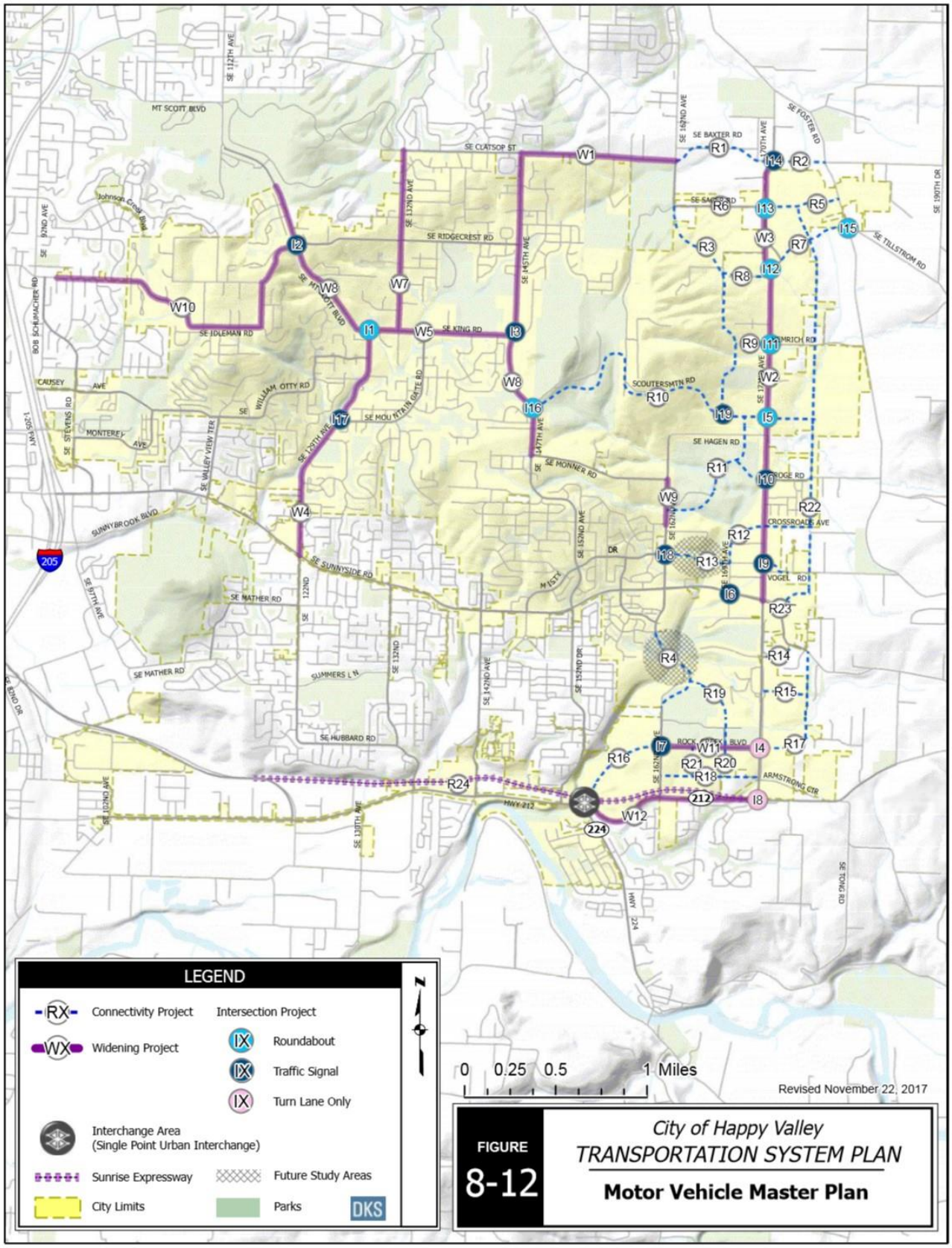
R20	Parklane Drive South Extension	Construct a new 3-lane north-south facility from Rock Creek Boulevard to Rock Creek East-West Collector	$900
R21	167th Avenue	Construct a new 3-lane north-south facility from Rock Creek Boulevard to Rock Creek East-West Collector	$900
R22	177th Avenue	Construct a new 3-lane north-south facility from Rock Creek Boulevard to Sager Road Extension East	$16,600
R23	Sunnyside Road East Extension*	Construct a new 5-lane east-west facility from 172nd Avenue to Foster Road, realign existing Sunnyside Road to south, includes 2-lane roundabout at Upper Sunnyside Road/Lower Sunnyside Road	$10,400
R24	Sunrise Project Phase 2*	Construct new 6-lane expressway to Rock Creek Junction	$100,000
Intersection Improvements			$26,200
New Roadways			$212,000
Roadway Widening			$93,200
Total			$331,500

* Project identified in the 2014 Federal Regional Transportation Plan (RTP) Update Financially Constrained scenario.

**Intersection project per the 172nd / 190th Corridor Management Plan preferred alternative.

Sunrise Expressway defined on page 8-13.

The C2C Project is fundamentally addressed by the inclusion of 172nd Ave. and the early sections of the 190th Connector in the City's TSP.


LEGEND
Connectivity Project
Widening Project
Intersection Project
Roundabout
Traffic Signal
Turn Lane Only
Interchange Area
(Single Point Urban Interchange)
Sunrise Expressway
Future Study Areas
City Limits
Parks
DKS
N
0 0.25 0.5 1 Miles
Revised November 22, 2017
FIGURE
8-12
City of Happy Valley
TRANSPORTATION SYSTEM PLAN
Motor Vehicle Master Plan

SUNRISE FEIS

PLAN DESCRIPTION

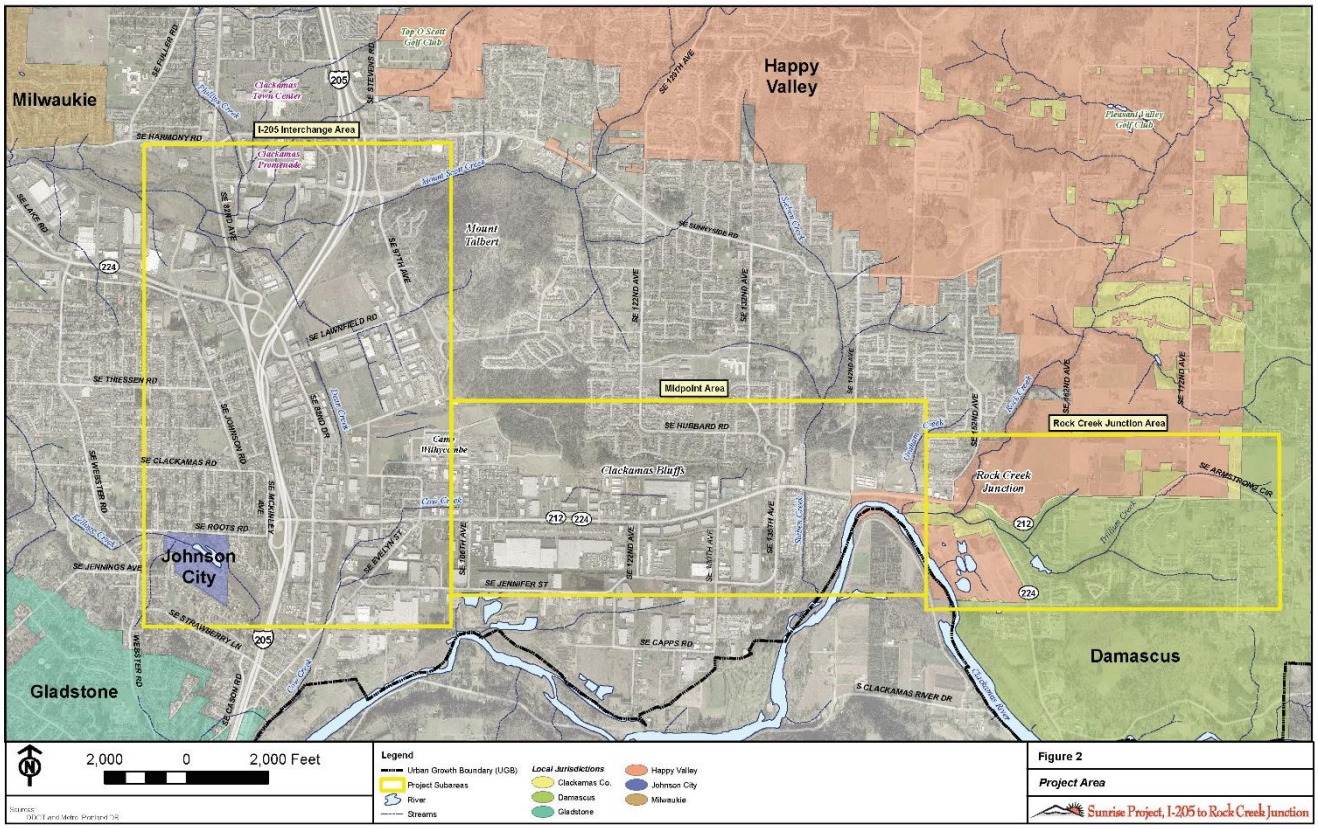
The Oregon Department of Transportation (ODOT) and Clackamas County plan to build a new, east-west oriented, limited-access highway-called the Sunrise Project-from Interstate 205 (1-205) to the Rock Creek Junction in Clackamas County, Oregon. A Draft Environmental Impact Statement *(DEIS)-Sunrise Corridor OR 212/224 (1-205 to US 26}-was* published in 1993. A Supplemental Draft Environmental Impact Statement (SDEIS) published October 10, 2008, evaluated two build alternatives, a no build alternative, and six design options.

The Sunrise Project **Preferred Alternative** will be part of the state highway network (as defined in the Oregon Highway Plan), connecting 1-205, the Milwaukie Expressway, and OR 212/224. The highway will have six through-lanes plus two auxiliary lanes. The Sunrise Project will become the designated OR 212/224, with the existing OR 212/224 becoming a county arterial.

Major benefits from the project are significantly slowing the growth of traffic congestion and improving safety on 1-205 and OR 212/224. Building the project will support planned growth in the northwest area of Clackamas County. Key issues in building the project are protecting a significant wildlife corridor and addressing noise impacts to a large residential area. Major environmental impacts from the **Preferred Alternative** include conversion of approximately 500 acres of land to highway use; relocation of about 80 businesses and 53 residences; creation of noise impacts to 241 residential properties after implementation of abatement measures; removal of about 94 acres of wildlife habitat; impacts to 23 acres of wetlands; and creation of 114 acres of new impervious surface. Minor impacts would involve the risk of encountering hazardous materials during construction, difficulties in managing soil and embankments due to nearby landslides and wet and loose soils, the costs and disruption from moving utility facilities, a decline in visual quality around 1-205 to SE 142nd Avenue, and the acquisition of 0.18 acres of the recreation field at Clackamas Elementary School, addressed as a Section 4(f) *de minimis* finding.

STUDY AREA

The general location of the new facility, named the proposed Sunrise Project, is depicted in Figure 1, Project Vicinity. The proposed Sunrise Project would extend approximately five miles between I-205 and Rock Creek Junction. Under **Alternatives 2** and **3**, the west end transition to existing roadways would be to SE Johnson Road and under the **Preferred Alternative** would be to SE Webster Road. The project would extend to SE 172nd Avenue on the east end. Figure 2 shows the project area. The project is often discussed by subarea. Three subareas are outlined on Figure 2 and cover the following geographic areas:



EVALUATION CRITERIA

The following section from the FEIS identifies the approach and criteria used to identify and evaluate the alternatives that were considered.

Screening Criteria for Goal 1: Transportation/Operations

1. Optimize performance of regional transportation system.
2. Provide additional vehicular capacity for regional travel at least equivalent to a fourlane, limited access highway between I-205 and Rock Creek Junction as indicated by the 1998 Sunrise Major Investment Study conclusion and the 2000 RTP amendment.
3. Provide connectivity and access for bicycles and pedestrians along any new highway facility as well as improve the connectivity of the I-205 multi-use path.
4. Provide flexibility for high capacity transit (HCT) within or in association with any new regional highway facility.
5. The projected service levels of new intersections and interchange movements should be in balance with the projected operational levels of connecting roadway facilities.
6. Provide appropriate access for emergency vehicles in any new highway improvements.
7. Provide a facility that addresses the goals and policies of the Oregon Highway Plan, including mobility standards, access management, and rail and highway compatibility.
8. Improve travel safety on state highways and associated interchanges/intersections within the corridor.

9. Provide a cost-effective solution

Screening Criteria for Goal 2: Industrial and Commercial Vitality

1. Improve the efficiency and safety of truck access to the interstate and regional highway system for freight distribution centers in the corridor.
2. Maintain or improve local circulation needs of affected industrial uses.
3. Minimize construction impacts to local businesses.
4. Provide I-205 access for the Lawnfield business area at least as direct as shown in the adopted 1996 interchange design and endorsed by the Lawnfield Area Business Organization group in 1996.
5. Minimize displacements of businesses and retain as much viable industrial land as possible.

Screening Criteria for Goal 3: Community Livability

1. Provide connectivity to the regional highway system for the residential collector and minor arterial streets of SE 135th, SE 142nd, and SE 152nd avenues.
2. Provide local roadway connectivity.
3. Minimize residential displacements.
4. Minimize, where practicable, project related noise impacts to established residential uses.
5. Minimize, where practicable, project related visual impacts.
6. Avoid disproportionate adverse impacts on low-income and minority communities.
7. Avoid dividing established residential areas.

Screening Criteria for Goal 4: Natural and Cultural Resources

1. Avoid impacting as much as practicable the existing terrestrial and riparian wildlife corridors.
2. Consider opportunities for enhancing terrestrial and aquatic corridors and habitat in the project area.
3. Protect streams/mitigate impacts to riparian areas.
4. Avoid/minimize/mitigate impacts to protected wetlands.
5. Protect habitat/mitigate impacts to T&E species.
6. Protect ground and surface water quality.
7. Avoid impacting National Register eligible historic sites in the project corridor.
8. Avoid/minimize/mitigate impacts to known archaeological sites.
9. Minimize impacts to air quality.

POLICIES AND STANDARDS

No policies or standards were proposed as part of the Sunrise Expressway FEIS.

FUNCTIONAL CLASSIFICATION AND MODAL SYSTEMS

The Sunrise Expressway FEIS did not address road functional classifications.

STUDY INTERSECTIONS

The Sunrise Expressway FEIS included traffic analysis for many intersections, from SE 172nd Avenue west to I-205, south into the Clackamas Industrial Area, north to Sunnyside Road and Sunnybrook Blvd, as well as at the I-205/OR224 interchange. Those most relevant to this project include the following:

- SE 172nd Ave and OR212
- Existing OR212/OR224 intersection
- Future SPUI at Rock Creek interchange
- OR224/Eckert Lane intersection
- "Jughandle" intersection at approximately the location of existing OR224/Goosehollow Rd intersection
- OR212/SE 152nd intersection
- OR212/SE 142nd intersection

PLANNED PROJECTS

THE FOLLOWING DESCRIBES THE IMPROVEMENTS THAT WERE ANTICIPATED TO OTHER TRANSPORTATION FACILITIES WITHIN THE MOBILITY CORRIDOR AS WELL AS THE ALTERNATIVES FOR THE SUNRISE EXPRESSWAY AND A DESCRIPTION OF THE PREFERRED ALTERNATIVE.

PROJECT ALTERNATIVES CONSIDERED IN THE SUNRISE EXPRESSWAY SDEIS

Three alternatives and six design options were considered in the SDEIS. **Alternative 1–No Build** (Figures 3 and 4 on pages ES-11 and ES-12) is required by National Environmental Policy Act (NEPA), as well as ODOT's Federal Highway Administration (FHWA) guidelines. **Alternatives 2** and **3** (Figure 5, page ES-13) proposed the construction of a new multi-lane, limited-access highway north of and parallel to the existing OR 212/224 between I-205 and Rock Creek Junction. Within each of the build alternatives there were additional design options that provided modifications or variations on different segments of these alternatives.

Alternative 1–No Build. Alternative 1 maintained the existing roadway system including committed improvements scheduled in ODOT's four-year Statewide Transportation Improvement Program (STIP) and the Metropolitan Service District's (Metro) Financially Constrained Projects listed in the 2035 Regional Transportation Plan (RTP). The programmed projects in the project vicinity assumed to be included are as follows (planned year of operation):

- SE 82nd Drive, widen from existing three lanes to five lanes between SE Lawnfield Road and OR 212/224 (RTP #5106, 2026- 2035).
- SE 102nd Avenue, SE Clackamas Road, and SE Industrial Way, improve all to Mather

- Road for improved truck access, with better intersection/roadbed conditions for trucks turning and wider shoulders (Clackamas County project, 2008-2017. Phase 1 OR 212 to Mather Road under construction 2010-2011; Phase 2 planned for 2012).
- New arterial, construct four- and five-lane arterial, north and east from Rock Creek Junction Interchange to SE 162nd Avenue. (Clackamas County project. Phase 1 between OR 212 and Sunnyside completed in 2010.)
- Sunnybrook West Extension, construct a three-lane facility extending from SE 82nd Avenue (OR 213N) to Harmony Road near Fuller Road (Clackamas County project, 2012-2017).
- SE 172nd Avenue, widen from existing two lanes to four and five lanes between SE Foster Road and SE Sunnyside Road (RTP #7000, by 2017).
- OR 224, widen from existing two lanes to five lanes between Rock Creek Junction and Carver Bridge (2018).
- OR 212, Rock Creek to Damascus, add climbing lane (RTP#5007).
- 242nd Avenue, OR 212 to Palmquist, widen from 2 lanes to 5 lanes (future Damascus project).
- OR 212, Rock Creek to 257th Avenue, widen from 2 or 3 lanes to 5 lanes (future Damascus project).
- Sunnyside Road extension, 172nd Avenue to 242nd Avenue, widen to 5 lanes (future Damascus project).
- 232nd Avenue extension, OR 212 to Borges Road, widen from 2 lanes to 3 lanes (future Damascus project).
- 190th Avenue extension, Tillstrom Road to 172nd Avenue, 5 lanes (part of RTP project #7000 and future Damascus project).
- Projects assumed in the model to be added to RTP or local transportation system plan and built by 2030:
- Carver Bridge, widen to five lanes (2025).
- Gronlund Road, widen from 2 lanes to 5 lanes.
- Bradley Road, widen from 2 lanes to 3 lanes.
- Forsythe Road, widen from 2 lanes to 5 lanes.
- Holcomb Boulevard, widen from 2 lanes to 3 lanes.
- Clackamas River Drive, widen from 2 lanes to 3 lanes.
- A new crossing of the Clackamas River connecting the I-205/Gladstone interchange with Clackamas River Drive (5 lanes).

Transit improvements included under **Alternative 1** were limited to those identified in Metro's RTP and include primarily modest increases in service hours. Bicycle and pedestrian improvements were those already planned for the area, as shown on Figure 4, **Alternative 1–No Build** Pedestrian and Bicycle Systems.

Alternative 2–Build with Midpoint Interchange. **Alternative 2** provided a multi- lane, limited-access highway north of and parallel to the existing OR 212/224 between I-205 and Rock Creek Junction. A midpoint interchange connected the highway to the existing OR 212/224, ensuring access to businesses along that corridor. From I-205 to Rock Creek Junction (where OR 212/224 splits into OR 212 to the east and OR 224 to the south), the highway

had six lanes plus auxiliary lanes. East of Rock Creek Junction, the highway narrowed to six lanes with no auxiliary lanes until SE 172nd Avenue, where it narrowed to five lanes.

Alternative 3–Build with No Midpoint Interchange. Alternative 3 was the same design as Alternative 2, but with no midpoint interchange.

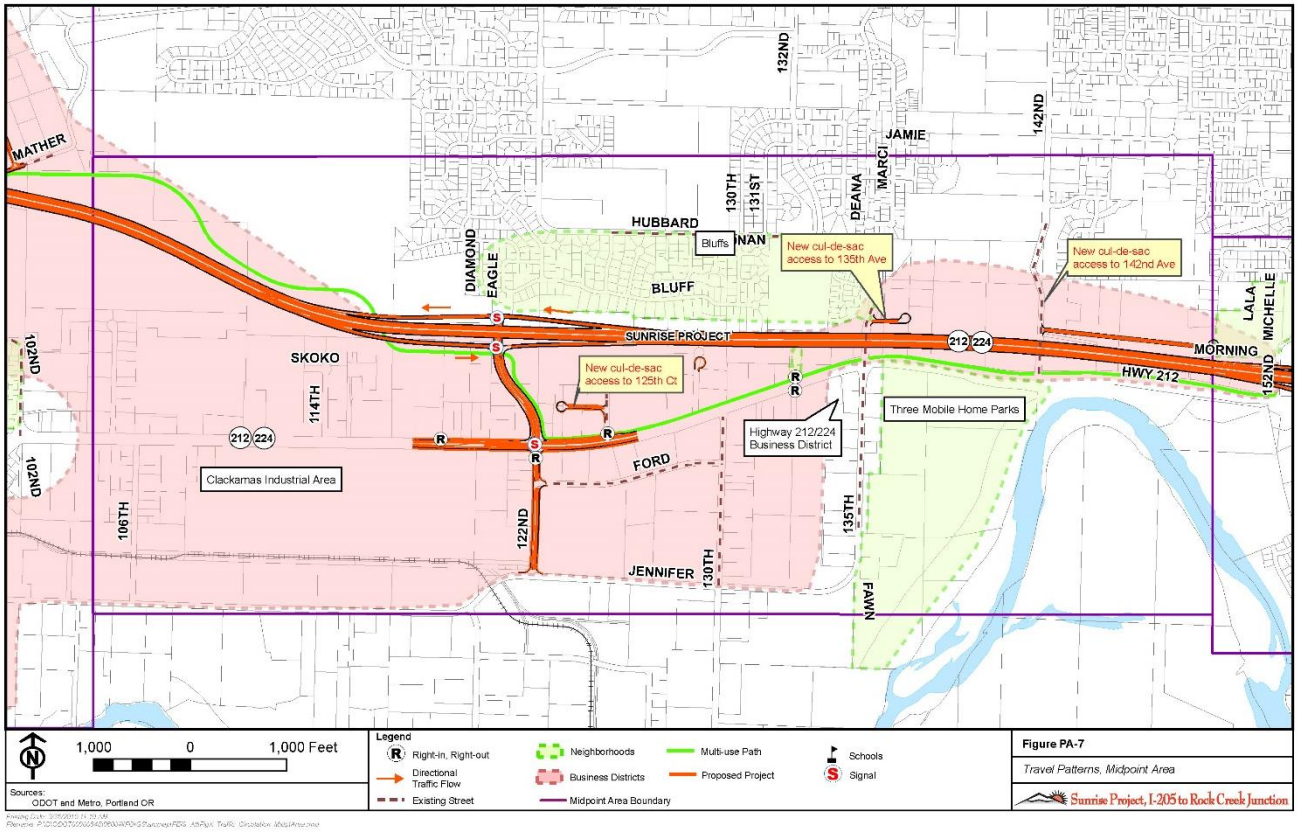
- **Design Options.** Figures 6 through 9 illustrate the design options. Each design option was developed to address different constraints, or avoid or minimize specific natural or built environmental impacts. Most of the design options could have been substituted for a comparable segment alignment (such as **Design Option C-2** or **C-3** instead of **Alternative 2** in that segment). All design options except **B-2** and **C-3** could have been incorporated into either of the build alternatives. A more detailed description of each design option in relation to each build alternative follows.
- **Design Option A-2** provides access to/from SE 82nd Drive and the Lawnfield industrial area via an overcrossing of Union Pacific Railroad (UPRR) tracks to SE Tolbert Street. It does not extend SE Lawnfield Road to the north. This design option was available under both build alternatives. It was intended to provide local access to/from the Lawnfield Road industrial area and I-205 without the adverse impacts that would result from extending SE Lawnfield Road to the north.
- **Design Option B-2** applies only to **Alternative 2** and incorporates a modified split interchange involving both SE 122nd Avenue and SE 130th Avenue. It is a substitute for the single diamond interchange included in **Alternative 2**. **Design Option B-2** could have been considered with **Design Option A-2** and/or **Design Option C-2**. However, it was not compatible with the design of the curves in **Design Option C-3**, so those two options could not be combined.
- **Design Option C-2** locates the Sunrise Project alignment farther south than the **Alternative 2** or **3** alignment and could have been substituted for the comparable segment in **Alternative 2** or **3**, and for **Design Option C-3**.
- **Design Option C-3** locates the Sunrise Project alignment farther north than the **Alternative 2** or **3** alignment and could have been substituted for the comparable segment in **Alternative 2** or **3**, and for **Design Option C-2**. However, **Design Option B-2** and **Design Option C-3** are incompatible due to the curves in **Design Option C-3**.
- **Design Option D-2** provides a different type of interchange design than under **Alternative 2** or **3** at the OR 212/224 split, reducing the interchange footprint slightly on the north side. It could have been substituted for the comparable segment in **Alternative 2** or **3**, and for **Design Option D-3**.
- **Design Option D-3** provides a different type of interchange design at the Rock Creek Junction than under **Alternative 2** or **3** and **Design Option D-2**, reducing the interchange footprint further and moving it slightly south. It could have been **Alternative 2** or **3**, and for **Design Option D-2**.

Transit, Pedestrian, and Bicycle Network. New and more frequent local transit service planned and provided by TriMet would occur under the build alternatives, along with new express bus service along the proposed Sunrise Project. Although the Sunrise Project will not be providing express bus service, the service that will be provided by TriMet would not be feasible without the new facility. The build alternatives proposed new multi-use path

improvements that connect to the existing I-205 trail system, filling in gaps in the non- motorized system. Choice of design options did not affect provision of the multi-use path improvements. Figures 5 through 7 show the planned location of the multi-use path and its connections.

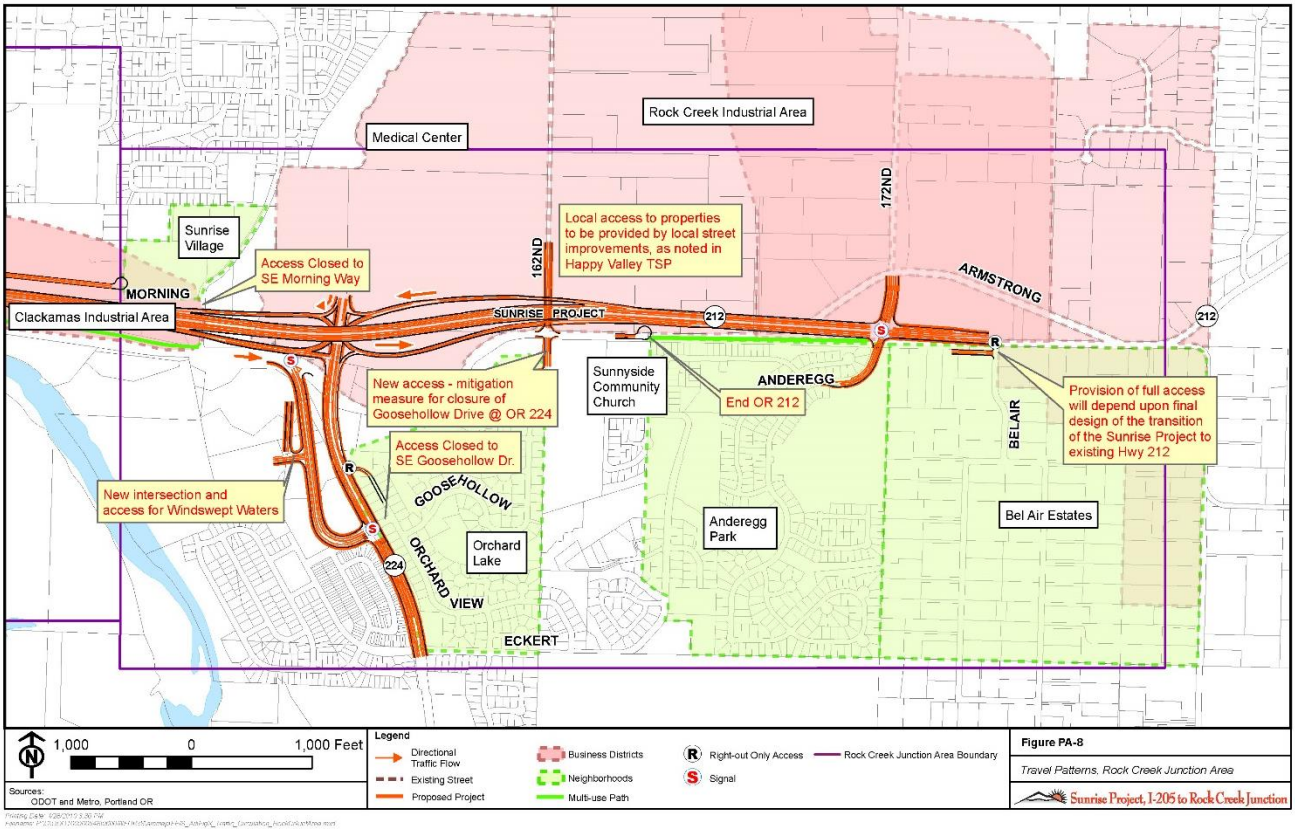
Preferred Alternative Identified in this FEIS

The **Preferred Alternative** is **Alternative 2** with the Tolbert overcrossing from **Design Option A-2,** and incorporates the alignment of **Design Option C-2** and the SPUI interchange of **Design Option D-3.** Accordingly, the **Preferred Alternative** derives from various elements discussed in the SDEIS. Additionally, the **Preferred Alternative** includes several modifications based on both stakeholder input and additional design refinement related to analysis of traffic performance and avoidance of environmental resources. Figures PA-1 through PA-5 show the **Preferred Alternative** from west to east. The **Preferred Alternative** will construct a multi-lane, limited-access highway north of and parallel to the existing OR 212/224 between I-205 and Rock Creek Junction. A midpoint interchange will connect the highway to the existing OR 212/224, ensuring access to businesses along that corridor. From I-205 to Rock Creek Junction (where OR 212/224 splits into OR 212 to the east and OR 224 to the south), the highway will have six lanes plus auxiliary lanes. East of Rock Creek Junction, the highway will narrow to six lanes with no auxiliary lanes until SE 172nd Avenue, where it will narrow to five lanes.



ADDITIONAL INFORMATION

The attached maps show Sunrise FEIS Preferred Alternative from SE 122nd Avenue to SE 172nd Avenue:


Medical Center
Rock Creek Industrial Area
Sunrise Village
Access Closed to SE Morning Way
MORNING
Clackamas Industrial Area
162ND
Local access to properties to be provided by local street improvements, as noted in Happy Valley TSP
172ND
ARMSTRONG
SUNRISE PROJECT
212
New access - mitigation measure for closure of Goosehollow Drive @ OR 224
Sunnyside Community Church
ANDEREGG
End OR 212
BELAIR
Provision of full access will depend upon final design of the transition of the Sunrise Project to existing Hwy 212
Access Closed to SE Goosehollow Dr.
New intersection and access for Windswept Waters
GOOSEHOLLOW
Orchard Lake
Anderegg Park
Bel Air Estates
224
ORCHARD VIEW
ECKERT
1,000 0 1,000 Feet
Sources:
ODOT and Metro, Portland OR
Legend
Directional Traffic Flow
Existing Street
Proposed Project
Business Districts
Neighborhoods
Multi-use Path
Right-out Only Access
Signal
Rock Creek Junction Area Boundary
Figure PA-8
Travel Patterns, Rock Creek Junction Area
Sunrise Project, I-205 to Rock Creek Junction

DAMASCUS MOBILITY PLAN

PLAN DESCRIPTION

Clackamas County is producing the Mobility Plan for a portion of the county area within the former City of Damascus (see attached map depicting the planning area). This is a limited study area that will focus only on the transportation system in the Damascus area. Little or no changes are anticipated to the Transportation System Vision, Goals, and Policies adopted in the 2013 update to the Clackamas County TSP. This Mobility Plan will focus on the implementation in the Damascus area of the adopted transportation system vision and goals. The Mobility Plan will identify a system of transportation facilities and services adequate to meet community needs in a manner consistent with the adopted Vision and Goals while achieving compliance with the State Transportation Planning Rule (OAR 660, Division 12) and Metro's 2018 Regional Transportation Plan. The Mobility Plan will supplement Chapter 5 of the adopted Clackamas County Comprehensive Plan, the Transportation System Plan.

STUDY AREA

The attached map shows the planning area for this Mobility Plan. In general it could be described as the full extent of the former City of Damascus as of July 2016, with the exception of the area that is the subject of the Pleasant Valley – North Carver Joint Land Use – Transportation Plan under development by the City of Happy Valley. Roadways and intersections that will be studied have not yet been identified.

EVALUATION CRITERIA

The Mobility Plan will use the evaluation criteria previously developed for the 2013 Clackamas County TSP update with modifications that may be necessary to fit the unique issues and concerns in the Damascus area.

BIKE/PEDESTRIAN

- Access to Schools
- Bike and Pedestrian Facilities
- Bike and Pedestrian Network on Low Volume Roads
- Gaps in Non-Motorized Network

FUNDING

- Budget Allocations
- Funding
- Public Right-of-Way
- Transportation Maintenance

ENVIRONMENT

- Alternative Energy Programs
- Construction Emissions / Best Management Practices
- Green Street Design Elements
- Sensitive Habitat
- Sensitive Uses Near Major Roadways and Freight Routes
- Transportation Emissions (in tons)
- Vehicle Energy Efficiency

CAPACITY FOR MOTORIZED VEHICLES

- Level of Service
- Volume-to Capacity Ratio
- Average Travel Time
- Travel Time Reliability
- Vehicle Miles Traveled (total and per capita)

SAFETY OF THE TRAVELING PUBLIC

- Safety Culture
- Emergency Vehicle Response Time
- Safe Routes to School Plans
- Space for Incident Management and Emergency Vehicles
- Vehicle, Pedestrian and Bicycle Crashes

SOCIAL/COMMUNITY

- Design Elements
- Employment Area Accessibility
- Land Use and Transportation Integration
- Travel Network Connectivity
- Access to Transportation for Transportation Disadvantaged Populations

TRANSIT

- Infrastructure
- Service Coverage
- Service Frequency

- Service Schedule
- Transit Stops with Access to Pedestrian / Bicycle Facilities

POLICIES AND STANDARDS

The Mobility Plan will incorporate policies and standards adopted in the 2013 Clackamas County Transportation System Plan update. However, it should be noted that these policies and standards could be revised due to the unique character and issues in the Damascus area.

POLICIES

Roadway

5.O.5 Implement traffic calming strategies, appropriate for the road functional classification, that will improve the safety and convenience of travel by all modes, particularly in areas with high crash rates or high rates of bicycle and/or pedestrian activity.

5.Q.1 Ensure safe and convenient access for bicyclists, pedestrians and transit users for land uses that are open to the public. Apply access management in a flexible manner to allow reasonable access and balance the needs for all roadway users.

5.S.2 Evaluate capacity needs for roadways within the urban area using the Regional Motor Vehicle Performance Measures shown in Table 5-2a, except as established below. All capital construction shall be designed not to exceed the maximum V/C ratio.

Table 5-2a. PERFORMANCE EVALUATION MEASURES FOR THE URBAN AREA

Weekday Mid-day and Weekday PM Peak Periods

	Maximum Volume to Capacity (V/C) Ratio		
Federal and State Principal Arterial Street Segments and Intersections	**Mid-day One-Hour Peak**	**1st Hour, PM Peak**	**2nd Hour, PM Peak**
OR 99E from OR 224 interchange north to county line	0.99	1.1	0.99
I-205 I-5 OR 212 OR 224 OR 213	0.90	0.99	0.99
County Street Segments and Intersections by Metro Urban Design Type			
Regional Centers Town Centers Main Streets Station Communities	0.99	1.1	0.99
Corridors Neighborhoods Employment Areas Industrial Areas Intermodal Facilities	0.90	0.99	0.99

Pedestrian/Bicycle

5.J.1 Coordinate the implementation of pedestrian facilities and bikeways with neighboring jurisdictions and jurisdictions within the county.

5.J.4 Support bicycle, pedestrian and transit projects that serve the needs of transportation disadvantaged populations.

5.J.5 Coordinate with pedestrian, bicycle, and trail master plans, and with special transportation plans of the County, Oregon Department of Transportation, the United States Forest Service, Metro, and parks providers to achieve safe and convenient off-road, multi-use path and trail systems connecting to on-road pedestrian facilities and the bikeway networks.

5.J.8 Identify low traffic volume streets that are appropriate for signing as bicycle routes to enhance safety and connectivity and to supplement the system of bikeways found on the major street system.

5.K.4 Identify pedestrian facilities and bikeway improvements necessary to ensure direct and continuous networks of pedestrian facilities and bikeways on the county road system.

5.K.7 Create a networked system of pedestrian facilities and bikeways connecting cities, neighborhoods, commercial areas, community centers, schools, recreational facilities, employment centers, other major destinations, regional and city bikeways and pedestrian facilities, and other transportation modes. Utilize separate accessways for pedestrian facilities and bikeways where street connections are impractical or unavailable.

Freight

5.U.1 Coordinate the planning, development, maintenance and operation of a safe and efficient freight system for all freight modes in Clackamas County with the private sector, ODOT, Metro, the Port of Portland and the cities of Clackamas County.

5.U.2 Promote an inter-modal freight transportation strategy and work to improve multi-modal connections among rail, industrial areas, airports and regional roadways to promote efficient movement of people, materials, and goods.

5.V.2 Improve and maintain the countywide Truck Freight Route System, the Regional Transportation Plan Freight Routes and Oregon Freight Plan Routes, as shown on Maps 5-9a and 5-9b.

5.V.6 Identify street improvements to reduce delays and to improve travel time reliability on roadways in the Truck Freight Route system.

Transit

Work with transit agencies to identify existing transit deficiencies in the County, needed improvements, and additional park-and-ride lots needed to increase the accessibility of transit services to all potential users.

Emphasize corridor or roadway improvements that help ensure reliable and on- time transit service in the County.

Encourage transit providers to restructure transit service to efficiently serve local as well as regional needs.

5.T.6 Require major developments and road construction projects along transit routes to include provisions for transit shelters, pedestrian access to transit and/or bus turnouts, where appropriate.

5.T.7 Promote park-and-ride lots, transit shelters and pedestrian/bikeway connections to transit. Coordinate the location of these facilities with other land uses to promote shared parking and bicycle/ pedestrian-oriented transit nodes.

Coordinate with transit providers to achieve the goal of transit service within one-quarter mile of most residences and businesses within the Portland Metropolitan UGB. Support more frequent service within Regional Centers, Town Centers, Station Communities, and Corridors and Main Streets.

Work with federal, state and regional agencies to implement high capacity transit in the regional High Capacity Transit (HCT) System Plan in order to help relieve traffic congestion, provide for transportation alternatives to the automobile, and promote the County's economy. See Map 5-8c for the HCT network in the County.

FUNCTIONAL CLASSIFICATION AND MODAL SYSTEMS

A map is attached at the end of this summary showing the study area and existing roads. The functional classifications for study area roadways, and maps depicting the planned pedestrian, bicycle and transit systems will be developed in the course of the Damascus Mobility Plan, but are not available at this time.

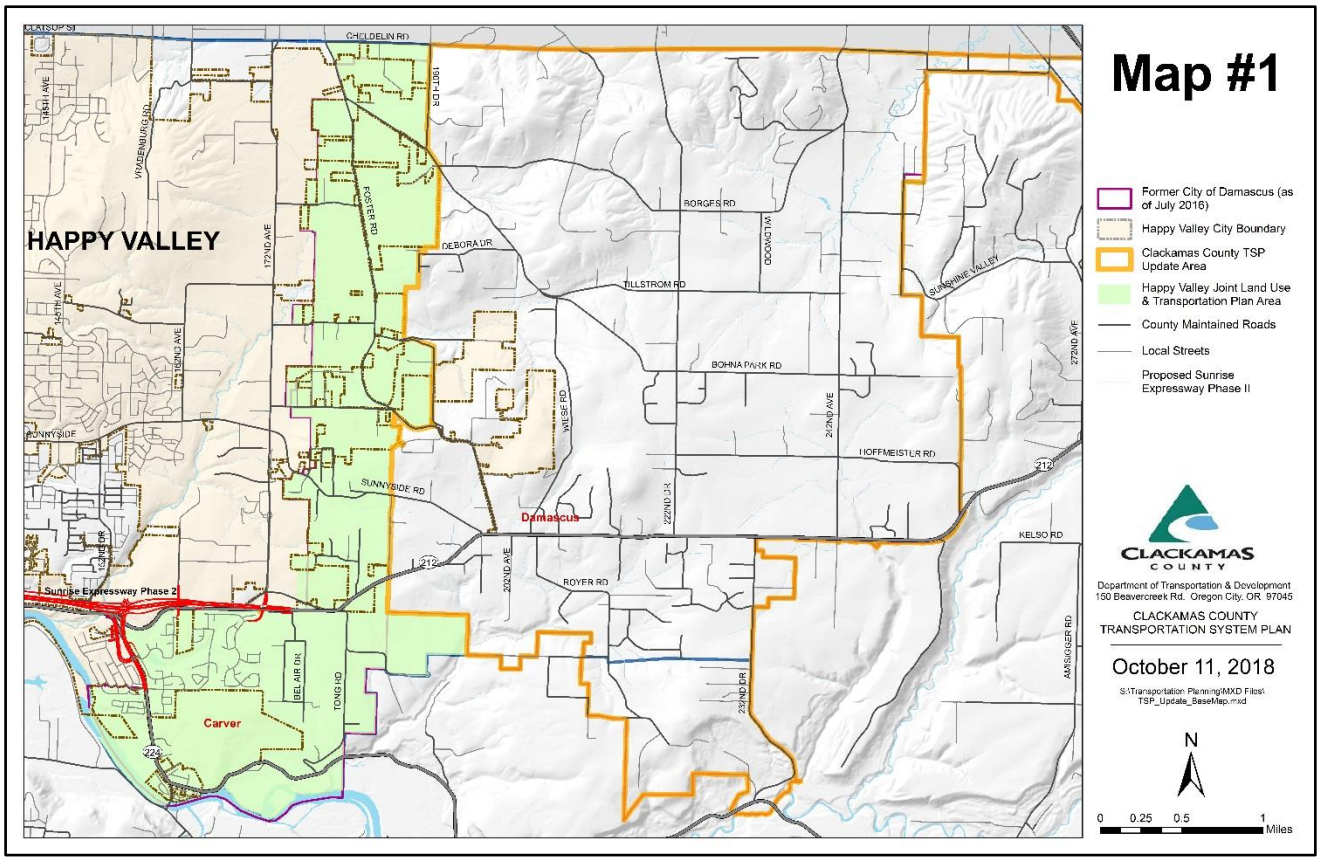
STUDY INTERSECTIONS

A map of study intersections within the C2C mobility corridor has not yet been developed for the Damascus Mobility Plan.

PLANNED PROJECTS

The list of planned projects from the Damascus Mobility Plan within the C2C mobility corridor has not yet been developed.

ADDITIONAL INFORMATION



CLACKAMAS COUNTY TSP

PLAN DESCRIPTION

Clackamas County's Transportation System Plan (TSP) was adopted by the Board of Commissioners in December 2013. An Active Transportation Plan was added to the TSP in 2015.

The TSP reflects all relevant national, state and regional transportation and planning requirements, and provides policies, guidelines and projects to meet transportation needs for residents, businesses and visitors in unincorporated Clackamas County for 20 years.

A Public Advisory Committee and a Technical Advisory Committee guided the two-year plan development process, based on extensive input from the public, the business community, planning and transportation experts, and public and private partners. The TSP includes more than 300 needed transportation projects identified by the community and transportation professionals throughout unincorporated Clackamas County over the next 20 years, though funds are likely to be available for only a small percentage of the total.

The TSP also includes updated policies to guide development of the projects that:

- Look at the transportation system through a local perspective (rural and urban);
- Specifically address safety, health, equity and sustainability;
- Integrate transportation with land use;
- Address active transportation (bicycling and walking) and accessibility needs;
- Support the movement of freight; and
- Ensure compliance with national and local regulations, including a change of intersection and roadway performance standards.

It should be noted that when the Clackamas County TSP was updated, the entire C2C corridor in Clackamas County was in the cities of Happy Valley and Damascus. As a result, the updated TSP did not incorporate specific studies, proposed policies or projects within the C2C corridor.

STUDY AREA

Provide an image of the study area, including study roadways and intersections if possible. Ideally this can be copied from the plan or a project document. If available, please provide supporting shapefiles.

The Clackamas County TSP update in 2013 updated all aspects of the TSP for the county unincorporated areas outside any incorporated city. The attached map shows the planning area for this TSP update. In general it could be described as the full extent of the former City of Damascus as of July 2016, with the exception of the area that is the subject of the Pleasant Valley – North Carver Joint Land Use – Transportation Plan under development by the City of Happy Valley. Roadways and intersections that will be studied have not yet been identified.

EVALUATION CRITERIA

The following evaluation criteria were used in the 2013 Clackamas County TSP Update to evaluate projects for inclusion in the plan.

BIKE/PEDESTRIAN

- Access to Schools
- Bike and Pedestrian Facilities
- Bike and Pedestrian Network on Low Volume Roads
- Gaps in Non-Motorized Network

FUNDING

- Budget Allocations
- Funding
- Public Right-of-Way
- Transportation Maintenance

ENVIRONMENT

- Alternative Energy Programs
- Construction Emissions / Best Management Practices
- Green Street Design Elements
- Sensitive Habitat
- Sensitive Uses Near Major Roadways and Freight Routes
- Transportation Emissions (in tons)
- Vehicle Energy Efficiency

CAPACITY FOR MOTORIZED VEHICLES

- Level of Service
- Volume-to Capacity Ratio
- Average Travel Time
- Travel Time Reliability
- Vehicle Miles Traveled (total and per capita)

SAFETY OF THE TRAVELING PUBLIC

- Safety Culture

- Emergency Vehicle Response Time
- Safe Routes to School Plans
- Space for Incident Management and Emergency Vehicles
- Vehicle, Pedestrian and Bicycle Crashes

SOCIAL/COMMUNITY

- Design Elements
- Employment Area Accessibility
- Land Use and Transportation Integration
- Travel Network Connectivity
- Access to Transportation for Transportation Disadvantaged Populations

TRANSIT

- Infrastructure
- Service Coverage
- Service Frequency
- Service Schedule
- Transit Stops with Access to Pedestrian / Bicycle Facilities

POLICIES AND STANDARDS

The following policies were adopted as part of the 2013 Clackamas County TSP Update.

POLICIES

Roadway

5.O.5 Implement traffic calming strategies, appropriate for the road functional classification, that will improve the safety and convenience of travel by all modes, particularly in areas with high crash rates or high rates of bicycle and/or pedestrian activity.

5.Q.1 Ensure safe and convenient access for bicyclists, pedestrians and transit users for land uses that are open to the public. Apply access management in a flexible manner to allow reasonable access and balance the needs for all roadway users.

5.S.2 Evaluate capacity needs for roadways within the urban area using the Regional Motor Vehicle Performance Measures shown in Table 5-2a, except as established below. All capital construction shall be designed not to exceed the maximum V/C ratio.

Table 5-2a

PERFORMANCE EVALUATION MEASURES FOR THE URBAN AREA

Weekday Mid-day and Weekday PM Peak Periods

	Maximum Volume to Capacity (V/C) Ratio		
Federal and State Principal Arterial Street Segments and Intersections	**Mid-day One-Hour Peak**	**1st Hour, PM Peak**	**2nd Hour, PM Peak**
OR 99E from OR 224 interchange north to county line	0.99	1.1	0.99
I-205 I-5 OR 212 OR 224 OR 213	0.90	0.99	0.99
County Street Segments and Intersections by Metro Urban Design Type			
Regional Centers Town Centers Main Streets Station Communities	0.99	1.1	0.99
Corridors Neighborhoods Employment Areas Industrial Areas Intermodal Facilities	0.90	0.99	0.99

Pedestrian/Bicycle

5.J.1 Coordinate the implementation of pedestrian facilities and bikeways with neighboring jurisdictions and jurisdictions within the county.

5.J.4 Support bicycle, pedestrian and transit projects that serve the needs of transportation disadvantaged populations.

5.J.5 Coordinate with pedestrian, bicycle, and trail master plans, and with special transportation plans of the County, Oregon Department of Transportation, the United States Forest Service, Metro, and parks providers to achieve safe and convenient off-road, multi-use path and trail systems connecting to on-road pedestrian facilities and the bikeway networks.

5.J.8 Identify low traffic volume streets that are appropriate for signing as bicycle routes to enhance safety and connectivity and to supplement the system of bikeways found on the major street system.

5.K.4 Identify pedestrian facilities and bikeway improvements necessary to ensure direct and continuous networks of pedestrian facilities and bikeways on the county road system.

5.K.7 Create a networked system of pedestrian facilities and bikeways connecting cities, neighborhoods, commercial areas, community centers, schools, recreational facilities, employment centers, other major destinations, regional and city bikeways and pedestrian facilities, and other transportation modes. Utilize separate accessways for pedestrian facilities and bikeways where street connections are impractical or unavailable.

Freight

5.U.1 Coordinate the planning, development, maintenance and operation of a safe and efficient freight system for all freight modes in Clackamas County with the private sector, ODOT, Metro, the Port of Portland and the cities of Clackamas County.

5.U.2 Promote an inter-modal freight transportation strategy and work to improve multi-modal connections among rail, industrial areas, airports and regional roadways to promote efficient movement of people, materials, and goods.

5.V.2 Improve and maintain the countywide Truck Freight Route System, the Regional Transportation Plan Freight Routes and Oregon Freight Plan Routes, as shown on Maps 5-9a and 5-9b.

5.V.6 Identify street improvements to reduce delays and to improve travel time reliability on roadways in the Truck Freight Route system.

Transit

5.T.1 Work with transit agencies to identify existing transit deficiencies in the County, needed improvements, and additional park-and-ride lots needed to increase the accessibility of transit services to all potential users.

5.T.2 Emphasize corridor or roadway improvements that help ensure reliable and on- time transit service in the County.

5.T.3 Encourage transit providers to restructure transit service to efficiently serve local as well as regional needs.

5.T.6 Require major developments and road construction projects along transit routes to include provisions for transit shelters, pedestrian access to transit and/or bus turnouts, where appropriate.

5.T.7 Promote park-and-ride lots, transit shelters and pedestrian/bikeway connections to transit. Coordinate the location of these facilities with other land uses to promote shared parking and bicycle/ pedestrian-oriented transit nodes.

5.T.4 Coordinate with transit providers to achieve the goal of transit service within one-quarter mile of most residences and businesses within the Portland Metropolitan UGB. Support more frequent service within Regional Centers, Town Centers, Station Communities, and Corridors and Main Streets.

5.T.5 Work with federal, state and regional agencies to implement high capacity transit in the regional High Capacity Transit (HCT) System Plan in order to help relieve traffic congestion, provide for transportation alternatives to the automobile, and promote the County's economy. See Map 5-8c for the HCT network in the County.

FUNCTIONAL CLASSIFICATION AND MODAL SYSTEMS

No roadway functional classifications, or planned pedestrian, bicycle and transit routes were prepared for the area within the C2C Corridor in the 2013 Clackamas County TSP Update.

STUDY INTERSECTIONS

No intersections were studied within the mobility corridor as described in the 2013 Clackamas County TSP Update.

PLANNED PROJECTS

No planned projects were identified in the C2C Corridor in the 2013 Clackamas County TSP Update.

ADDITIONAL INFORMATION

None.

CLACKAMAS COUNTY TRANSIT DEVELOPMENT PLAN

PLAN DESCRIPTION

The purpose of the Clackamas County Transit Development Plan (CCTDP) is to develop a plan to guide transit investments within Clackamas County. The CCTDP will focus on two specific areas:

1. In the TriMet district, and
2. In unincorporated areas of the county outside of transit service provider areas.

The CCTDP will guide future investments under HB2017 – Keep Oregon Moving's Statewide Transportation Improvement Funding (STIF) within Clackamas County by identifying needed and priority connections in areas where there currently is no transit service provider. In the TriMet district within Clackamas County (County), the CCTDP will provide more detailed analysis and level of service information, informing future STIF Plans and TriMet service implementation. It will create a single document that communicates a connected and coordinated vision for transit service access and recommendations on actions to improve transit use in the County.

The project approach is to produce a CCTDP that will:

- Improve access to home, work and essential services;
- Highlight the importance of providing public transit connections for vulnerable populations (seniors, low-income households, people with limited English proficiency, etc.);
- Underscore the need for public involvement in the planning process; and
- Reflect input from all segments of the population.

The project objectives are to develop a CCTDP that will:

- Develop a vision, goals and objectives for an integrated transit framework within Clackamas County;
- Assess the level-of-service to identify gaps in service and transit coverage;
- Assess the connection between transit and land use within Clackamas County;
- Assess transit's connection to safety, health and equity within Clackamas County;
- Assess transit's connections to vulnerable populations within Clackamas County;
- Address transit equity issues for low-income households and vulnerable populations;
- Enhance coordination between transit service providers operating in Clackamas County;
- Identify connections to provide better access to employment and housing for transit dependent populations.
- Provide strategic guidance for service improvements and integration between systems from a Clackamas County perspective;

- Address issues emerging from Metro's 2018 Regional Transit Strategy such as implementation of the enhanced transit concept, transit expansion and first/last mile connections, as well as tools to support increased use of transit in Clackamas County;
- Integrate a range of transit options, such as shuttles, express service, micro transit and Transportation Network Companies (i.e., Uber and Lyft);
- Identify priority transit service enhancements that can be integrated into future STIF plans and TriMet planning, and other planning work or funding opportunities; and
- Preserve the function of state highways by expanding regional public transit availability and reducing the number of single-occupancy vehicles on the road.

It is anticipated that the project will kick off in the Spring of 2019 and be completed by June 2020

STUDY AREA

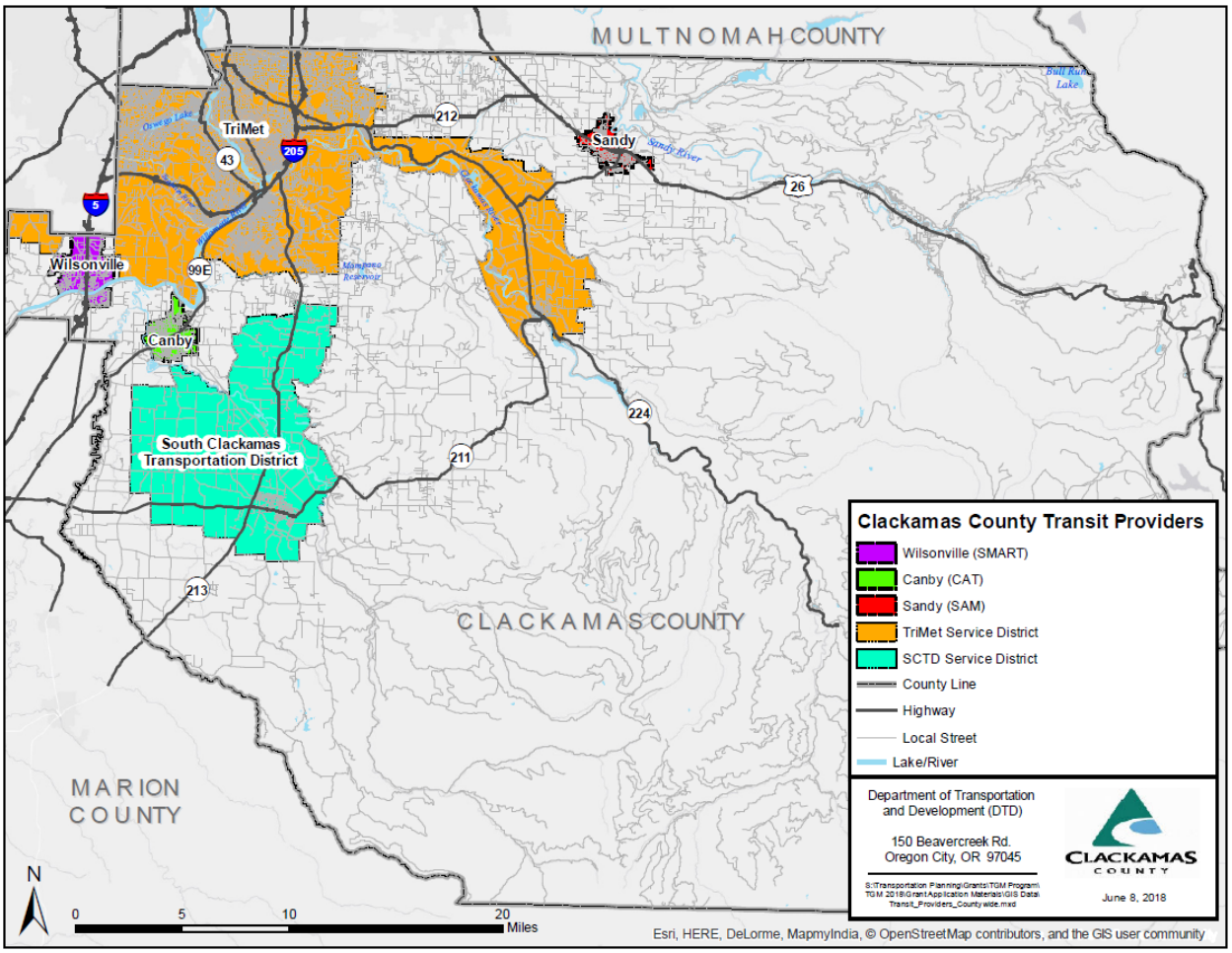
The study area consists of two primary areas shown on Figure 1:

1. The area in Clackamas County inside the TriMet service district, and
2. Areas in unincorporated Clackamas County with no current transit service provider.

The CCTDP will primarily focus on the area within the TriMet service district of the County, with a secondary focus on connections in un-serviced, unincorporated areas between the five rural transit providers in the County: South Clackamas Transportation District (SCTD), Sandy Area Metro (SAM), Canby Area Transit (CAT), South Metro Area Regional Transit (SMART), and the Mt. Hood Express administered by Clackamas County.

TriMet's service area includes most Clackamas County cities in the Portland Urban Growth Boundary (Portland UGB), and extends to Estacada and a large portion of the rural area along Stafford Road. The service area does not include significant portions of Happy Valley or the Portland UGB area east of Happy Valley. There are four other transit providers in the smaller surrounding communities of Canby, Molalla, Sandy and Wilsonville. Clackamas County administers the Mt. Hood Express that offers services along Highway 26 to Government Camp.

Figure 1 – Project Study Area



EVALUATION CRITERIA

Evaluation criteria have not been developed for this project yet. It is anticipated that the project will develop level-of-service performance measures and benchmarks linked to the goals and objectives that will be used for the evaluation of existing transit system performance, selecting preferred transportation solutions, and defining on-going performance monitoring policies and practices. There will also be a discussion of the connection between transit and land use, as well as transit's connection to safety, health and equity and the goals and objective that guide State Transportation Improvement Fund (STIF) investments.

POLICIES AND STANDARDS

Policies and standards have not been developed specifically for the project. Policies and standards guiding the TriMet Service Enhancement Plans, the TriMet STIF plan and the State STIF guidance

The overarching guidance for State STIF funds includes that STIF resources may be used for public transportation purposes that support the effective planning, deployment, operation, and administration of STIF funded public transportation programs. These uses include, but are not limited to, creating new transit systems and services,

maintaining or continuing systems and services, creating plans to improve service, and to meet match requirements for state or federal funds used to provide public transportation services. It is intended to primarily fund expanded or improved services in the first funding cycle. In future funding cycles, it may fund the maintenance of services that were expanded or improved during the first funding cycle. In 2018, the Oregon Legislature clarified that these funds also may be used for light rail expenses, except for capital improvements. (from ODOT STIF website).

Transit policies found in the Clackamas County TSP (https://dochub.clackamas.us/documents/drupal/4f347d01-968b-47c4-ae92-7eaac0776a0f)

- 5.T.1 Work with transit agencies to identify existing transit deficiencies in the County, needed improvements, and additional park-and-ride lots needed to increase the accessibility of transit services to all potential users.
- 5.T.2 Emphasize corridor or roadway improvements that help ensure reliable and on time transit service in the County.
- 5.T.3 Encourage transit providers to restructure transit service to efficiently serve local as well as regional needs.
- 5.T.4 Emphasize transit improvements that improve east-west connections; improve service between the County's industrial and commercial areas and neighborhoods; and best meet the needs of all County residents, employees and employers, regardless of race, age, ability, income level and geographic location.
- 5.T.5 Coordinate with all applicable transit agencies on all new residential, commercial and industrial developments to ensure appropriate integration of transit facilities and pedestrian access to transit facilities.
- 5.T.6 Require major developments and road construction projects along transit routes to include provisions for transit shelters, pedestrian access to transit and/or bus turnouts, where appropriate.
- 5.T.7 Promote park-and-ride lots, transit shelters and pedestrian/bikeway connections to transit. Coordinate the location of these facilities with other land uses to promote shared parking and bicycle/ pedestrian-oriented transit nodes.
- 5.T.8 Coordinate and cooperate with transit agencies to provide transportation for seniors, people with disabilities, and other transportation-disadvantaged populations. Provide continued support for paratransit services as required within a three-quarter-mile distance from fixed-route transit stops.
- 5.T.9 Coordinate transit-supportive, roadway improvements with transit providers to ensure financing and implementation of such improvements.
- 5.T.10 Urban Require pedestrian and transit-supportive features and amenities and direct access to transit for new development. Pedestrian and transit supportive amenities may include pedestrian/bikeway facilities, street trees, outdoor lighting and seating, landscaping, shelters, kiosks, strict standards for signs, and visually aesthetic shapes, textures and colors. Buildings measuring more than 100 feet along the side facing the major pedestrian/transit access should have more than one pedestrian entrance. Pedestrian access should

be provided to connect transit centers or transit stops on bus routes with centers of employment, shopping or medium-to-high density residential areas within one-quarter mile of these routes.

- 5.T.11 Urban Coordinate with transit providers to achieve the goal of transit service within one-quarter mile of most residences and businesses within the Portland Metropolitan UGB. Support more frequent service within Regional Centers, Town Centers, Station Communities, and Corridors and Main Streets.
- 5.T.12 Urban Work with federal, state and regional agencies to implement high capacity transit in the regional High Capacity Transit (HCT) System Plan in order to help relieve traffic congestion, provide for transportation alternatives to the automobile, and promote the County's economy. See Map 5-8c for the HCT network in the County.
- 5.T.13 Urban Site new commercial, institutional, and multi-family buildings at major transit stops as close as possible to transit, with a door facing the transit street or side street, and with no parking between the building and front lot lines.
- 5.T.14 Rural Focus safety improvements near existing or planned transit stops.

FUNCTIONAL CLASSIFICATION AND MODAL SYSTEMS

See above study area map for location of study area

The existing Service Enhancement Plans within the TriMet area are located

https://trimet.org/future/pdf/unified-service-enhancement-plan.pdf

Here is a link to the Sandy Area Metro (SAM) website. SAM is currently updating it Transit Service Plan

https://www.ci.sandy.or.us/transit

https://evogov.s3.amazonaws.com/media/88/media/181906.pdf

Link to Metro Regional Transit Strategy

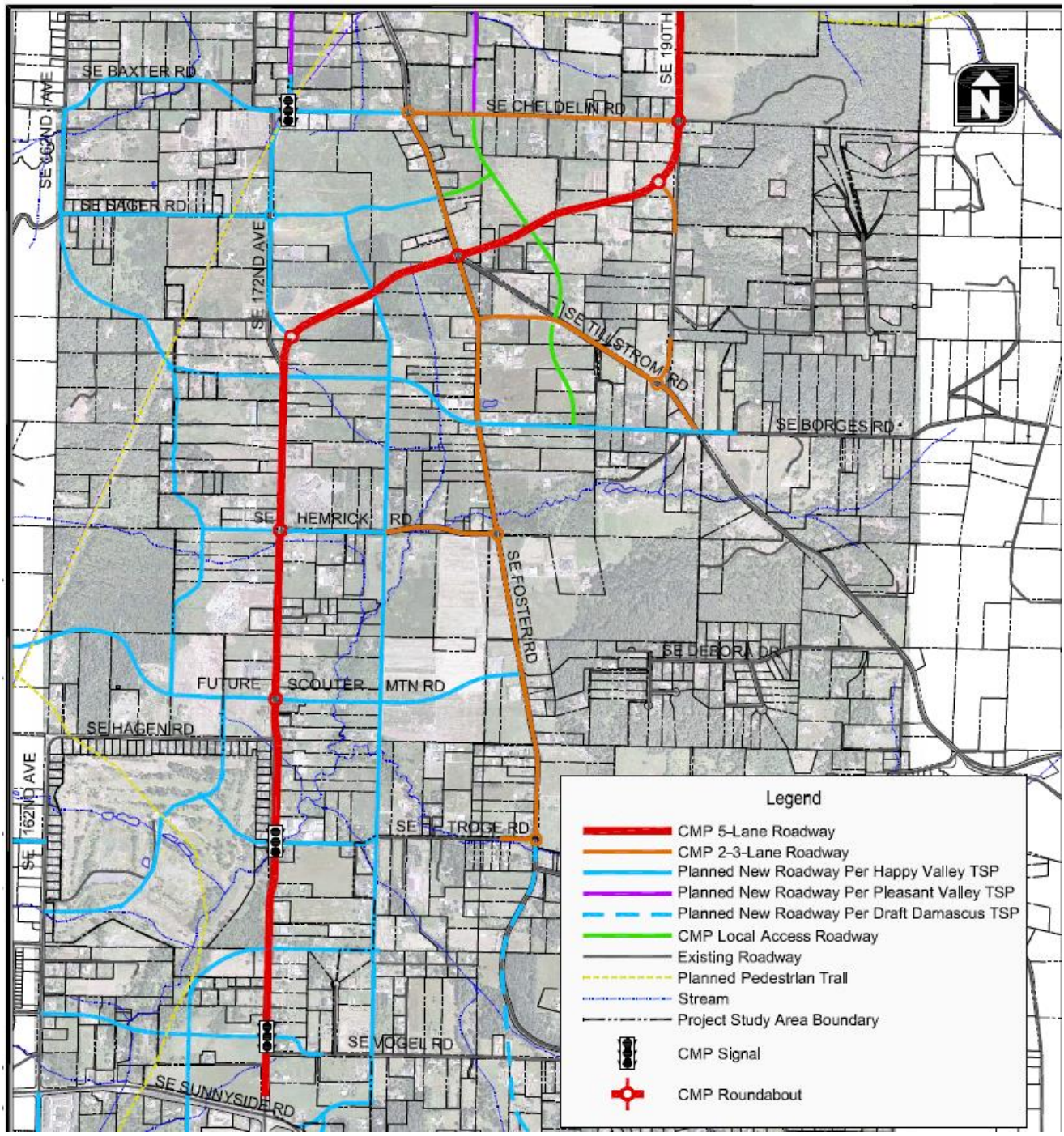
https://www.oregonmetro.gov/sites/default/files/2018/07/02/RTS-Public-Review-DRAFT.pdf

172ND – 190TH CORRIDOR MANAGEMENT PLAN

PLAN DESCRIPTION

The 172nd Ave./190th Drive Corridor Management Plan ("172nd Plan") was initially adopted by Clackamas County in 2011. Two updates have occurred, the most recent in 2018. The 2018 plan update was aimed at refining the corridor based off previously approved developments in the East Happy Valley Comprehensive Plan area and has continued to "re-brand" the 172nd Plan as a joint project of Clackamas County and the City of Happy Valley. As demonstrated below, the 172nd Plan takes the roadway planning for the 172nd Ave. and 190th "Connector" Facilities to a more advanced level of design than found within the City's TSP. Thus, it further refines the C2C Corridor objectives by providing this higher degree of technical information and roadway design for this southern section of the C2C Corridor.

STUDY AREA


SE BAXTER RD
SE 190TH
SE CHELDELIN RD
SE 162ND AVE
SE 172ND AVE
SE STILLSTROM RD
SE BORGES RD
SE HEMRICK RD
SE FOSTER RD
SE DEBORA DR
FUTURE SCOUTER MTN RD
SE HAGEN RD
SE TROGE RD
SE VOGEL RD
SE SUNNYSIDE RD
Legend
CMP 5-Lane Roadway
CMP 2-3-Lane Roadway
Planned New Roadway Per Happy Valley TSP
Planned New Roadway Per Pleasant Valley TSP
Planned New Roadway Per Draft Damascus TSP
CMP Local Access Roadway
Existing Roadway
Planned Pedestrian Trail
Stream
Project Study Area Boundary
CMP Signal
CMP Roundabout

EVALUATION CRITERIA

Table 1-1 Evaluation Criteria

CRITERIA	CONSIDERATIONS
Vehicular Mobility	Provide an efficient north-south connection Accommodate vehicles entering from the east and west
Multi-Modal Mobility	Enhance travel distance and comfort of pedestrians and bicyclists Provide connections to trails and other multi-modal facilities Minimize grade increases and decreases Provide for future transit potential
Local Access	Maintain or enhance access to neighborhoods, businesses, and public facilities Provide efficient access for future development
Multi-Modal Safety	Improve safety and comfort for all users, especially non-auto travelers Improve emergency response time Provide flat terrain and intersections without skewed angles
Impacts to Natural Environment	Minimize impacts to streams, wetlands, riparian areas, wildlife habitats, open spaces, and other natural resources Minimize stream crossings Minimize new pavement and encroachments on area buttes
Impacts to Built Environment	Minimize right-of-way impacts on existing and future development Minimize socio-economic and cultural resource impacts Minimize noise/air impacts Minimize hazardous waste sites
Land Use Compatibility	Provide consistency with plans and standards of Clackamas County, Damascus, Happy Valley, Gresham, Metro, and special districts Provide connections to proposed future retail and residential developments
Flexibility of Implementation	Accommodate phased construction Accommodate expansion concurrent with development needs
Cost	Provide positive economic benefits compared to costs Provide high overall value
Aesthetic Character	Enhance potential visual character of the corridor Provide aesthetic elements such as landscaping Preserve the rural character of the corridor
Environmental Enhancement	Minimize environmental impact of street footprint Provide green street features
Maintenance	Minimize on-going maintenance and upkeep, including drainage systems, pavement, and landscaping
Functionality	Effectively serve role as a major arterial Provide efficient movements for all travel modes

POLICIES AND STANDARDS

Policies – Not APPLICABLE TO THIS PLAN SUMMARY

FUNCTIONAL CLASSIFICATION AND MODAL SYSTEMS

See Study Area Map

STUDY INTERSECTIONS

Cheldelin /190th Dr	Foster/Hemrick	172nd/Hemrick
Tillstrom/190th Dr	Foster/Jenne	172nd/Hagen
Foster/Cheldelin	172nd/Sager	172nd/Troge
Foster/172nd	172nd/Maple Hill Ln	172nd/Vogel
Foster/Richey	182nd/Powell	172nd/Sunnyside

PLANNED PROJECTS

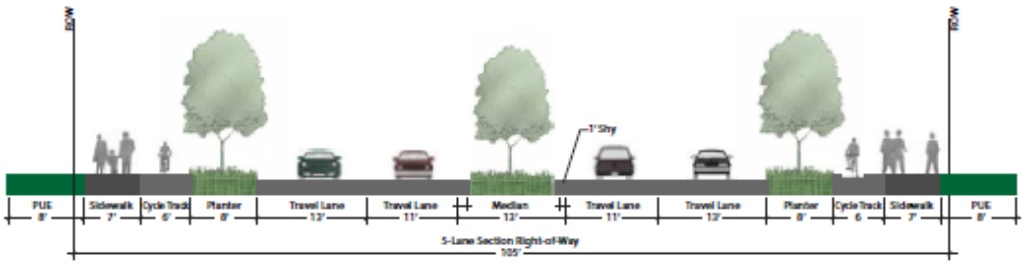
#	Roadway	Location	Description
1	SE 172nd Avenue	SE Sunnyside Road to SE 172nd-190th Connector	Widen to five lanes
2	SE 172nd Avenue	SE 172nd-190th Connector to SE Cheldelin Road	Widen to three lanes
3	SE 172nd-190th Connector	SE 172nd Avenue to SE Foster Road	Construct new five-lane roadway
4	SE 172nd-190th Connector	SE Foster Road to SE 190th Drive	Construct new five-lane roadway
5	SE Cheldelin Road (SE Clatsop Street Extension)	SE 172nd Avenue to SE Foster Road	Construct new two-lane roadway
6	SE Cheldelin Road	SE Foster Road to SE 190th Drive	Widen to two lanes
7	SE Foster Road	SE Cheldelin Road to SE Troge Road	Widen to three lanes
8	SE Tillstrom Road	SE Foster Road to SE 190th Drive	Widen to three lanes and realign at Foster Road intersection
9	SE Hemrick Road	SE 172nd Avenue to SE Foster Road	Widen to two/three lanes
10	SE Troge Road	SE 172nd Avenue to approx. 1000' east of SE 172nd Avenue	Widen to three lanes and construct new bridge

Intersection	Proposed Intersection Form
172nd Ave / Vogel Rd	Signal
172nd Ave / Troge Rd	Signal
172nd Ave / Future Scouters Mountain Rd	2-Lane Roundabout
172nd Ave / Hemrick Rd	2-Lane Roundabout
172nd Ave / 172nd-190th Connector	2-Lane Roundabout
172nd-190th Connector / Foster Rd	2-Lane Roundabout
172nd-190th Connector / 190th Ave	2-Lane Roundabout
172nd-190th Connector / Cheldelin Rd / 190th Ave	2-Lane Roundabout
172nd Ave / Sager Rd	1-Lane Roundabout
172nd Ave / Cheldelin Rd	Signal
Foster Rd / Cheldelin Rd	1-Lane Roundabout
Foster Rd / Tillstrom Rd	Stop Controlled
Foster Rd / Hemrick Rd	1-Lane Roundabout
Foster Rd / Troge Rd	1-Lane Roundabout
190th / Tillstrom Rd	1-Lane Roundabout

ADDITIONAL INFORMATION

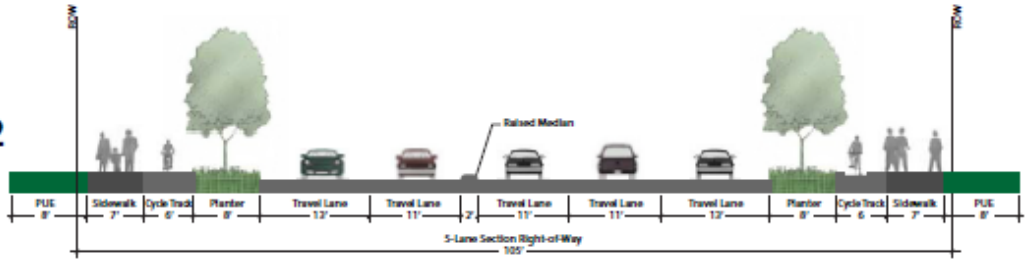
None.

5A-1



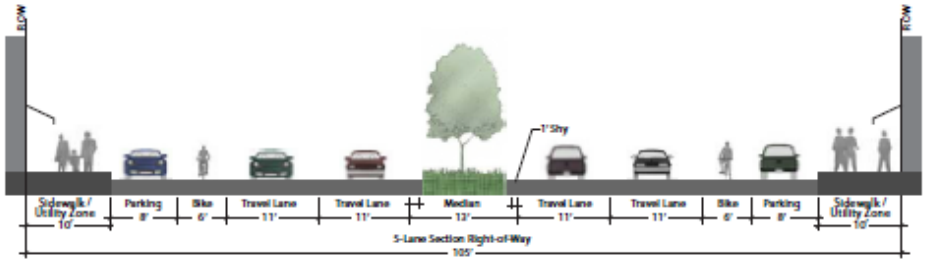
5-Lane Section with Median

5A-2



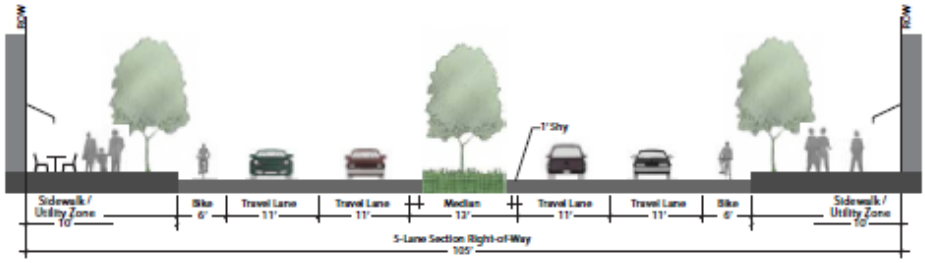
5-Lane Section with Left Turn Lane

5B



5-Lane Section with On-street Parking in Urban Center

5C



5-Lane Section In Urban Center

Corridor Management Plan
5-Lane Streetscape

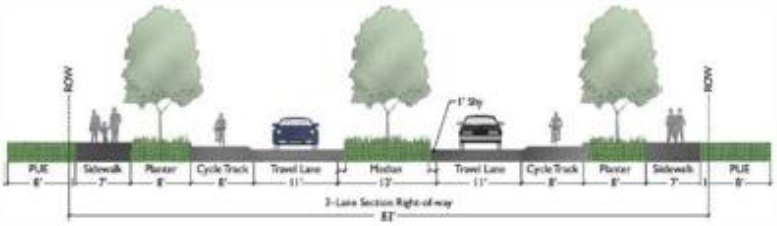
172nd / 190th Corridor Plan

CLACKAMAS COUNTY

HAPPY VALLEY, OR

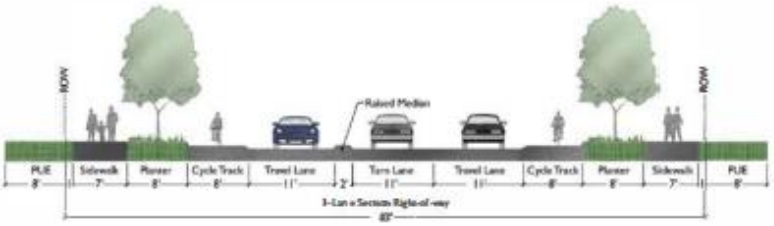
Figure 7-3A

3A-1



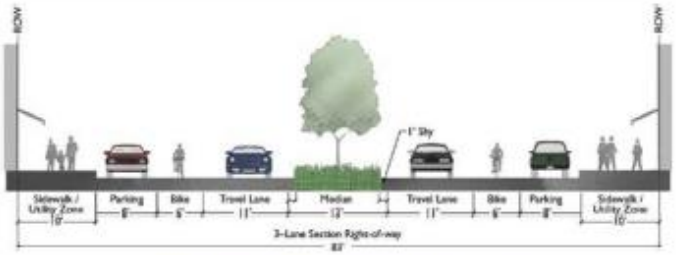
3-Lane Section with Median

3A-2



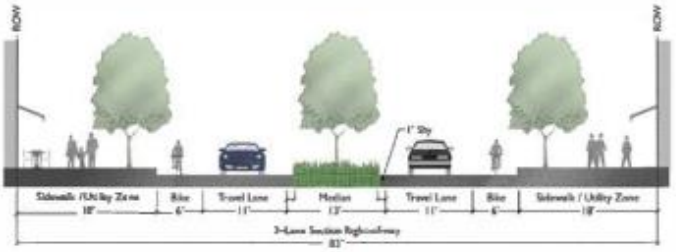
3-Lane Section with Left Turn Lane

3B



3-Lane Section with On-street Parking in Urban Center

3C



3-Lane Section in Urban Center

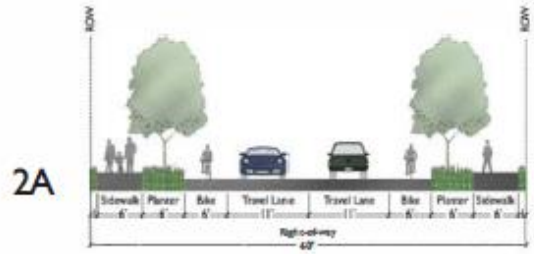
Corridor Management Plan
3-Lane Streetscape

172nd / 190th Corridor Plan

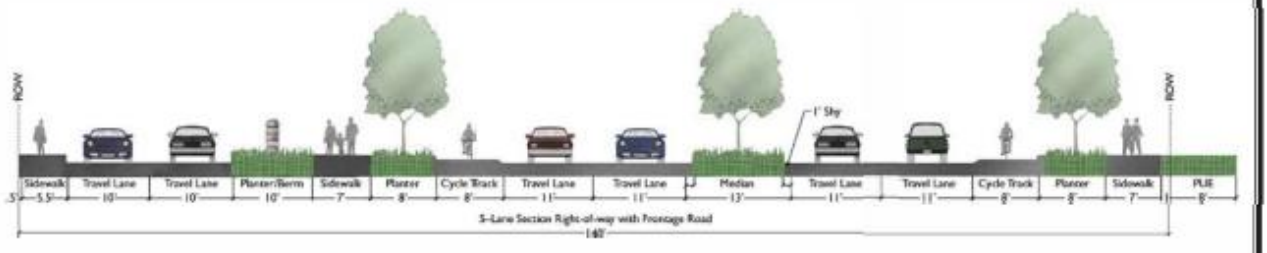
CLACKAMAS COUNTY

HAPPY VALLEY, OR

Figure 7-3B



2A 2-Lane Section



2B 5-Lane Section with Median and Frontage Road

Corridor Management Plan
2-Lane Streetscape

172nd / 190th Corridor Plan

CLACKAMAS COUNTY

HAPPY VALLEY, OR

Figure 7-3C

PORTLAND TSP

PLAN DESCRIPTION

The Transportation System Plan is the 20-year plan to guide transportation policies and investments in Portland by:

- supporting the City's commitment to Vision Zero by saving lives and reducing injuries to all people using our transportation system
- helping transit and freight vehicles to move more reliably
- reducing, carbon emissions and promoting healthy lifestyles
- keeping more money in the local economy, as we spend less on vehicles and fuel
- creating great places

STUDY AREA

City of Portland

EVALUATION CRITERIA

- Safety
- Neighborhood Access
- Economic Benefit: Opportunity Access
- Economic Benefit: Freight Access
- Economic Benefit: Freight Mobility
- Economic Benefit: Revitalization
- Health
- Equity
- Climate
- Cost Effectiveness
- Community Support or Opposition

POLICIES AND STANDARDS

Street policy classifications: Maintain and implement street policy classifications for pedestrian, bicycle, transit, freight, emergency vehicle, and automotive movement, while considering access for all modes, connectivity, adjacent planned land uses, and state and regional requirements. (COMPREHENSIVE PLAN Policy 9.2)

a: Designate district classifications that emphasize freight mobility and access in industrial and employment areas serving high levels of truck traffic and to accommodate the needs of intermodal freight movement. (COMPREHENSIVE PLAN Policy 9.2.a)

b: Designate district classifications that give priority to pedestrian access in areas where high levels of pedestrian activity exist or are planned, including the Central City, Gateway Regional Center, town centers, neighborhood centers, and transit station areas. (COMPREHENSIVE PLAN Policy 9.2.b)

c: Designate district classifications that give priority to bicycle access and mobility in areas where high levels of bicycle activity exist or are planned, including Downtown, the River District, Lloyd District, Gateway Regional Center, town centers, neighborhood centers, and transit station areas. (COMPREHENSIVE PLAN Policy 9.2.c)

Mode share goals and vehicle miles travelled (VMT) reduction: Increase the share of trips made using active and low-carbon transportation modes. Reduce VMT to achieve targets set in the most current Climate Action Plan and Transportation System Plan, and meet or exceed Metro's mode share and VMT targets. (COMPREHENSIVE PLAN Policy 9.5)

Transportation strategy for people movement: Implement a prioritization of modes for people movement by making transportation system decisions according to the following ordered list:

- Walking
- Bicycling
- Transit
- Fleets of electric, fully automated, multiple passenger vehicles
- Other shared vehicles
- Low or no occupancy vehicles, fossil-fueled non-transit vehicles

*There also policies for every mode.

STUDY INTERSECTIONS

All intersections further than ½ mile from 190th or ¼ mile from 182nd.

PLANNED PROJECTS

Constrained Projects

80032 ODOT/Portland ODOT Outer Powell Blvd Corridor Improvements, Phase 2 Powell Blvd, SE (99th - 116th; 136th - 174th) Widen street to three lanes (inclusive of a center turn lane), or four lanes from 162nd – 174th if specific traffic conditions are met, with sidewalks and buffered bike lanes or other enhanced bike facility. Add enhanced pedestrian and bike crossings. $67,000,000 – Years 11-20.

80038 Gresham Portland/Multnomah Co. SE 174th N/S Improvements 174th Ave, SE (Giese -174th/Jenne) Construction of new roadway that adds n/s capacity in vicinity of 174/Jenne. This facility will have two travel lanes in each direction (total 4 travel lanes), and a median/turn lane which will be primarily a median, with left turn pockets at the intersection of the New Road/Giese, and also New Road/McKinley. $27,498,638 Years 11 - 20

Unconstrained Projects

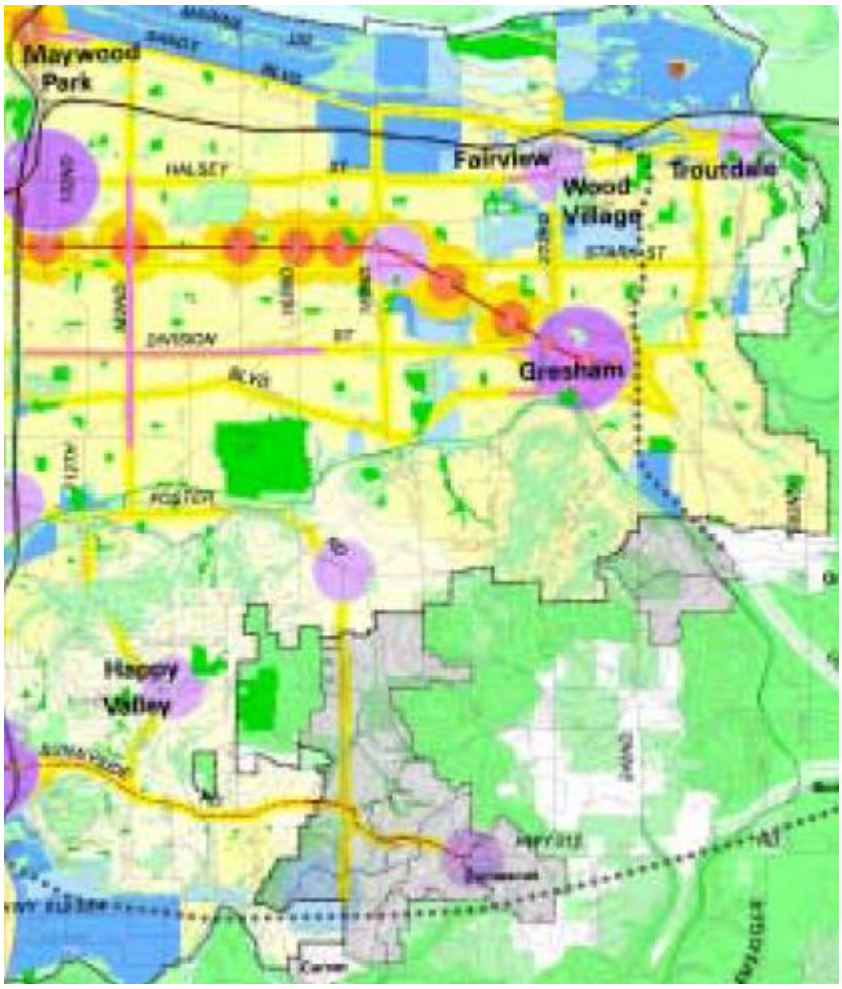
80025 Pleasant Valley - Foster Rd Extension, Foster Rd, SE (Jenne – Giese Rd) Design and implement multimodal improvements based on the Pleasant Valley Implementation Plan recommendations. $2,525,400

80026 SE 162nd Ave Corridor Improvements 162nd, SE (Foster Rd - Clatsop) Construct multimodal improvements based on the Pleasant Valley Concept and Implementation Plan recommendations. $6,421,100

METRO 2040 GROWTH CONCEPT

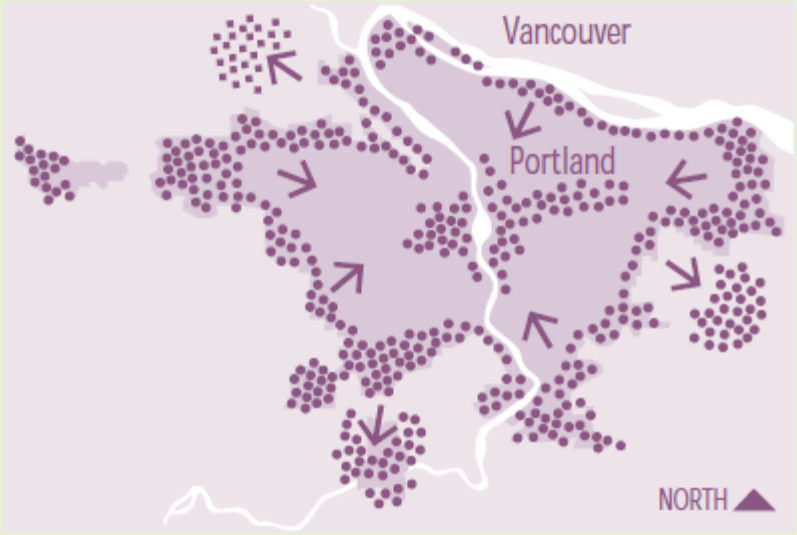
PLAN DESCRIPTION

The 2040 Growth Concept is how the Metro region plans to grow to the year 2040. Metro has the Urban Growth Management Functional Plan which establishes specific requirements and tools for local governments to help the region meet the growth management goals established in the 2040 Growth Concept. The RTP also incorporates the policies of the 2040 Growth Concept and is the transportation plan for the Urban Growth Management Functional Plan.



POLICIES AND STANDARDS

2040 recommended alternative



Growth is encouraged in centers and corridors with increased emphasis on redevelopment within the urban growth boundary.

248,000 to 252,000 acres in UGB
(15,000 to 19,000 acres added to the UGB over 50 years)

ADDITIONAL INFORMATION

There are 4 town centers in the C2C corridor project area; Rockwood, Pleasant Valley, Happy Valley, and Damascus. 3 additional centers are inside Metro's Mobility Corridor; Downtown Gresham, Fairview, Troutdale.

METRO – CLIMATE SMART STRATEGY - 2014

PLAN DESCRIPTION

The Climate Smart Strategy is a set of policies, strategies and near-term actions to guide how the region moves forward to integrate reducing greenhouse gas emissions with ongoing efforts to create the future we want for our region. The plan has high level policies that may be used to influence the projects selected in the RTP.

POLICIES AND STANDARDS

6 of 9 policies related to C2C on a regional level

- 1. Implement adopted local and regional land use plans - 5 stars
- 2. Make transit convenient, frequent, accessible and affordable – 5 stars
- 3. Make biking and walking safe and convenient – 3 stars
- 4. Make streets and highways safe, reliable and connected – 1 star
- 5. Use technology to actively manage the transportation system – 2 stars
- 6. Provide information and incentives to expand the use of travel options – 3 stars

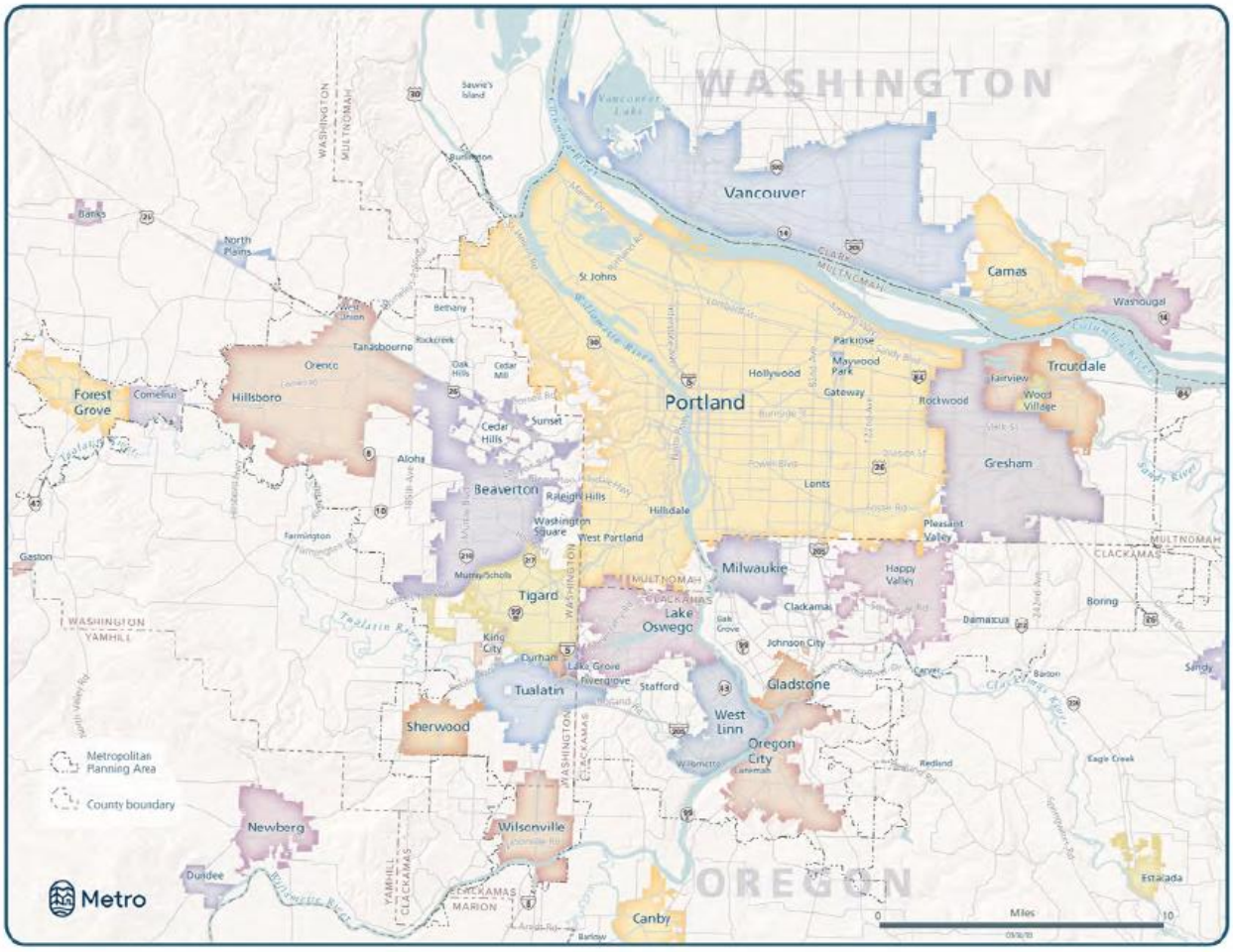
Estimated reductions assumed in climate benefit ratings	
less than 1%	★ ☆ ☆ ☆ ☆
1 – 2%	★ ★ ☆ ☆ ☆
3 – 6%	★ ★ ★ ☆ ☆
7 – 15%	★ ★ ★ ★ ☆
16 – 20%	★ ★ ★ ★ ★

METRO RTP

PLAN DESCRIPTION

The Regional Transportation Plan is a blueprint to guide investments for all forms of travel – motor vehicle, transit, bicycle and walking – and the movement of goods and freight throughout the greater Portland region. The plan identifies the region's most urgent transportation needs and priorities for investment in all parts of the system with the funds the region expects to have available over the next 25 years to make those investments a reality. It also establishes goals and policies to help meet those needs and guide priority investments.

STUDY AREA



EVALUATION CRITERIA

Metro RTP uses Performance Measures for the entire system to determine how all projects influence regional outcomes.

Table 7.1 How RTP System Evaluation Measures Support Meeting RTP Goals

RTP Performance Measures ● = measure highly correlated with achieving goal ◒ = measure somewhat correlated with achieving goal ○ = measure partially supports achieving goal		RTP Goals										
		Vibrant Communities	Shared Prosperity	Transportation Choices	Reliability and Efficiency	Safety and Security	Healthy Environment	Healthy People	Climate Protection	Equitable Transportation	Fiscal Stewardship	Transparency and Accountability
	How much do households spend on housing and transportation in our region? *(Evaluation measures under development for next RTP.)*										There are no system evaluation measures for the Ensure Fiscal Stewardship and Deliver Accountability goals.	
n/a	Affordability*	●	●	◒	◒	○	○	●	○	●		
	How safe is travel in our region? *(Evaluation measures under development for next RTP.)*											
n/a	Safety*	●	◒	●	●	●	◒	●	◒	●		
	How much do people and goods travel in our region?											
1	Multimodal Travel	●	◒	●	●	◒	●	●	●	●		
2	Active Transportation and Transit Mode Share	●	◒	●	●	◒	●	●	●	●		
	How easily, comfortably and directly can we access jobs and destinations in our region?											
3	Access to Travel Options – system completeness *	●	◒	●	●	●	●	●	●	●		
4	Access to Jobs*	●	●	●	○	○	○	◒	◒	●		
5	Access to Community Places*	●	◒	●	○	○	●	●	◒	●		
6	Access to Bicycle and Pedestrian Parkways	●	●	●	○	●	●	●	●	●		
7	Access to Transit	●	●	●	◒	○	●	◒	●	●		
8	Access to Industry and Freight Intermodal Facilities	○	●	○	○	○	○	○	○	○		
	How efficient is travel in our region?											
9	Multimodal Travel Times	●	●	●	●	○	○	○	○	○		
10	Congestion	◒	●	○	●	●	◒	◒	◒	○		
11	Transit Efficiency and Ridership	●	○	●	●	○	◒	○	○	○		
	How will transportation impact climate change, air quality, the environment and public health?											
12	Climate Change	○	●	●	○	○	●	●	●	○		
13	Clean Air	○	●	●	○	○	●	●	◒	●		
14	Potential habitat Impact	◒	○	○	○	○	●	●	◒	●		
15	Potential historical, cultural and tribal lands impact	●	◒	○	○	○	○	◒	○	○		
16	Public health	◒	◒	○	○	○	●	●	●	○		

Performance measures with an asterix (*) reflects the transportation priorities identified by historically marginalized communities and serve as the basis for the federally-required Title VI Benefits and Burdens analysis.

Metro piloted project level evaluation, but did not include it in the final RTP. The Pilot categories are listed below.

1. AIR QUALITY AND CLIMATE CHANGE
2. CONGESTION RELIEF

3. ENVIRONMENTAL PROTECTION
4. EQUITY AND ACCESS TO OPPORTUNITY
5. FREIGHT AND GOODS MOVEMENT
6. JOBS AND ECONOMIC DEVELOPMENT
7. PLACEMAKING AND 2040 CENTERS SUPPORT
8. READINESS AND COST-EFFECTIVENESS
9. TRANSPORTATION SAFETY
10. TRAVEL OPTIONS

BONUS: TRANSPORTATION RESILIENCY

POLICIES AND STANDARDS

Regional Safety Strategies

Regional Safety and Security Policies

Policy 1	Focus safety efforts on eliminating traffic deaths and severe injury crashes to achieve Vision Zero.
Policy 2	Prioritize safety investments, education and equitable enforcement on high injury and high risk corridors and intersections, with a focus on reducing speeds and speeding.
Policy 3	Prioritize investments that benefit people with higher risk of being involved in a serious crash, including people of color, people with low incomes, people with disabilities, people walking, bicycling, and using motorcycles, people working in the right-of-way, youth and older adults.
Policy 4	Prioritize safety considerations for all modes of travel and for all people in the planning, identification of gaps and deficiencies, investment decisions, design, construction, operation and maintenance of the transportation system, with a focus on reducing vehicle speeds.
Policy 5	Make safety a key consideration in all transportation projects, and avoid replicating or exacerbating a known safety problem with any project or program.
Policy 6	Employ a Safe System approach and use data and analysis tools and performance monitoring to support data-driven decision-making.
Policy 7	Utilize safety and engineering best practices to identify low-cost and effective treatments that can be implemented systematically in shorter timeframes than large capital projects.
Policy 8	Prioritize investments, education and enforcement that increase individual and public security while traveling by reducing intentional crime, such as harassment, targeting, and terrorist acts, and prioritize efforts that benefit people of color, people with low incomes, people with disabilities, women and people walking, bicycling and taking transit.
Policy 9	Make safety a key consideration when defining system adequacy (or deficiency) for the purposes of planning or traffic impact analysis.

Regional Transportation Equity Policies

Policy 1	Embed equity into the planning and implementation of transportation projects, programs, policies and strategies to comprehensively consider the benefits and impacts of transportation and eliminate disparities and barriers experienced by historically marginalized communities, particularly communities of color and people with low income.
Policy 2	Ensure investments in the transportation system anticipate and minimize the effects of displacement and other affordability impacts on historically marginalized communities, with a focus on communities of color and people with low income.
Policy 3	Prioritize transportation investments that eliminate transportation-related disparities and barriers for historically marginalized communities, with a focus on communities of color and people with low income.
Policy 4	Use inclusive decision-making processes that provide meaningful opportunities for communities of color, people with low income and other historically marginalized communities to engage and participate in the development and implementation of transportation plans, projects and programs.
Policy 5	Use engagement and other methods to collect and assess data to understand the transportation-related disparities, barriers, needs and priorities of communities of color, people with low income and other historically marginalized communities.
Policy 6	Evaluate transportation plans, policies, programs and investments to understand how they address transportation-related disparities and barriers experienced by communities of color, people with low income and other historically marginalized communities and the extent disparities are being eliminated.
Policy 7	Support family-wage job opportunities and a diverse construction workforce through inclusive hiring practices and contracting opportunities for investments in the transportation system.

Pg 112 - 3.4.1 Regional Mobility Corridor Concept

Pg 125 – Interim Regional Mobility Policy

Table 3.16 Interim Regional Mobility Policy

Deficiency Thresholds and Operating Standards

Location	Standard	Standard	
	Mid-Day One-Hour Peak [A]	PM 2-Hour Peak [A] 1st Hour	PM 2-Hour Peak [A] 2nd Hour
Central City Regional Centers Town Centers Main Streets Station Communities	.99	1.1	.99
Corridors Industrial Areas Intermodal Facilities Employment Areas Inner Neighborhoods Outer Neighborhoods	.90	.99	.99
I-84 *(from I-5 to I-205)*	.99	1.1	.99
I-5 North *(from Marquam Bridge to Interstate Bridge)*	.99	1.1	.99
OR 99E *(from Lincoln Street to OR 224 interchange)*	.99	1.1	.99
US 26 *(from I-405 to Sylvan interchange)*	.99	1.1	.99
I-405 [B] *(I-5 South to I-5 North)*	.99	1.1	.99
Other Principal Arterial Routes I-205 [B] I-84 (east of I-205) I-5 (Marquam Bridge to Wilsonville) [B] OR 217 US 26 (west of Sylvan) US 30 OR 8 (Murray Boulevard to Brookwood Avenue) [B] OR 212 OR 224 OR 47 OR 213	.90	.99	.99

A. The demand-to-capacity ratios in the table are for the highest two consecutive hours of weekday traffic volumes. The mid-day peak hour is the highest 60-minute period between the hours of 9 a.m. and 3 p.m. The 2nd hour is defined as the single 60-minute period, either before or after the peak 60-minute period, whichever is highest.

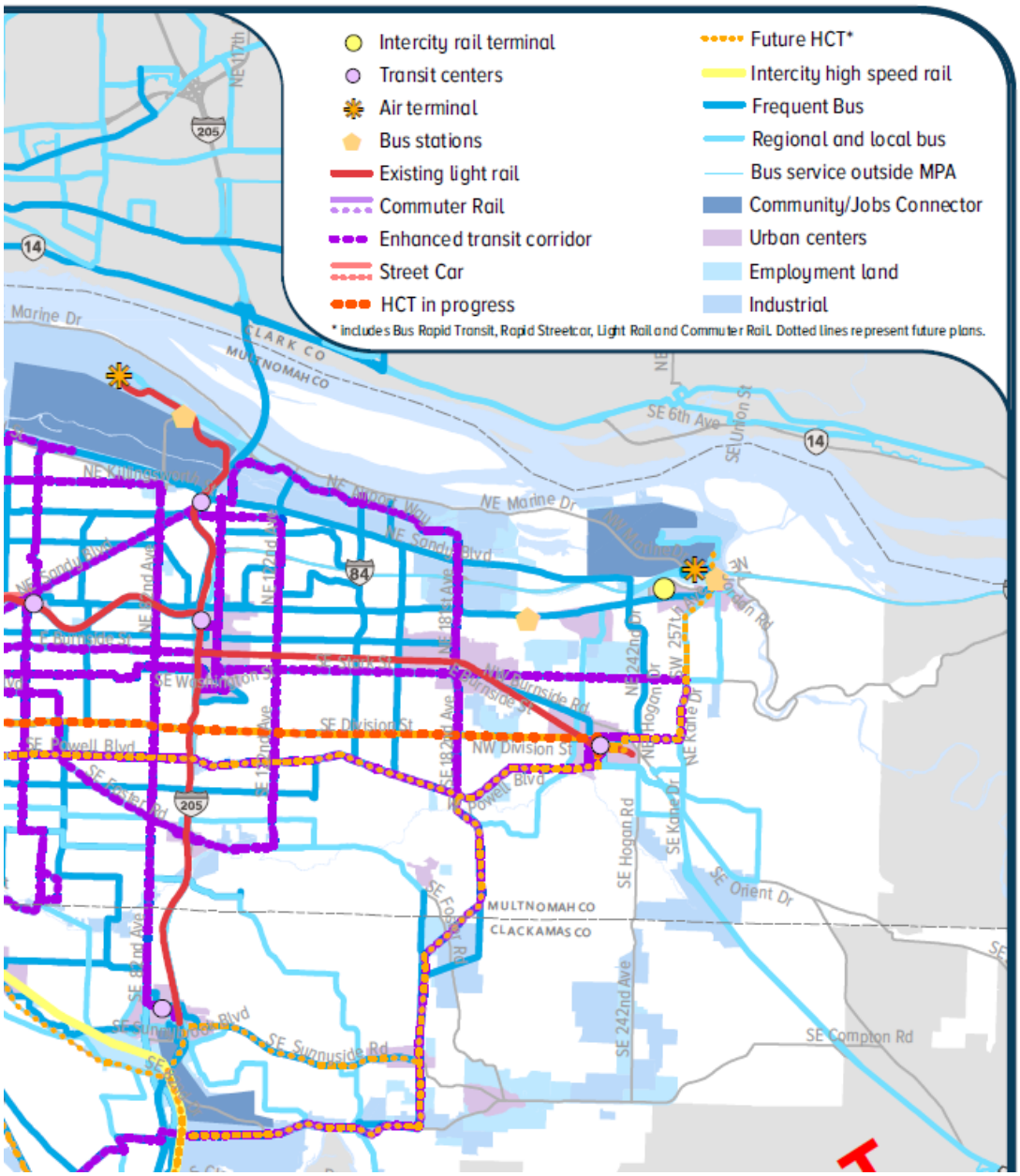
B. A corridor refinement plan is required in Chapter 8 of the RTP, and will include a recommended mobility policy for each corridor.

Regional Transit Network – look for Enhanced Transit and transit vision classification map.

The C2C corridor is an enhanced transit corridor in the plan.

4.2.1.2 Enhanced Transit Concept

The Enhanced Transit Concept (ETC) is a new concept the transit network. The purpose of ETC is to improve transit speed and reliability on our most congested existing and planned frequent service bus or streetcar lines. Potential corridors were evaluated based on reliability, dwell and ridership per mile. Corridors that had the highest reliability issues (difference in travel times between free flow and peak period conditions) in addition to areas experiencing significant dwell and have high ridership were identified as ETC corridors.



Regional Transit Network Policies	
Policy 1	Provide a seamless, integrated, affordable, safe and accessible transit network that serves people equitably, particularly communities of color and other historically marginalized communities, and people who depend on transit or lack travel options.
Policy 2	Preserve and maintain the region's transit infrastructure in a manner that improves safety, security and resiliency while minimizing life-cycle cost and impact on the environment.
Policy 3	Make transit more reliable and frequent by expanding regional and local frequent service transit and improving local service transit options.
Policy 4	Make transit more convenient by expanding high capacity transit; improving transit speed and reliability through the regional enhanced transit concept.
Policy 5	Evaluate and support expanded commuter rail and intercity transit service to neighboring communities and other destinations outside the region.
Policy 6	Make transit more accessible by improving pedestrian and bicycle access to and bicycle parking at transit stops and stations and using new mobility services to improve connections to high-frequency transit when walking, bicycling or local bus service is not an option.
Policy 7	Use emerging technology to provide better, more efficient transit service – focusing on meeting the needs of people for whom conventional transit is not an option.
Policy 8	Ensure that transit is affordable, especially for people who depend on transit.

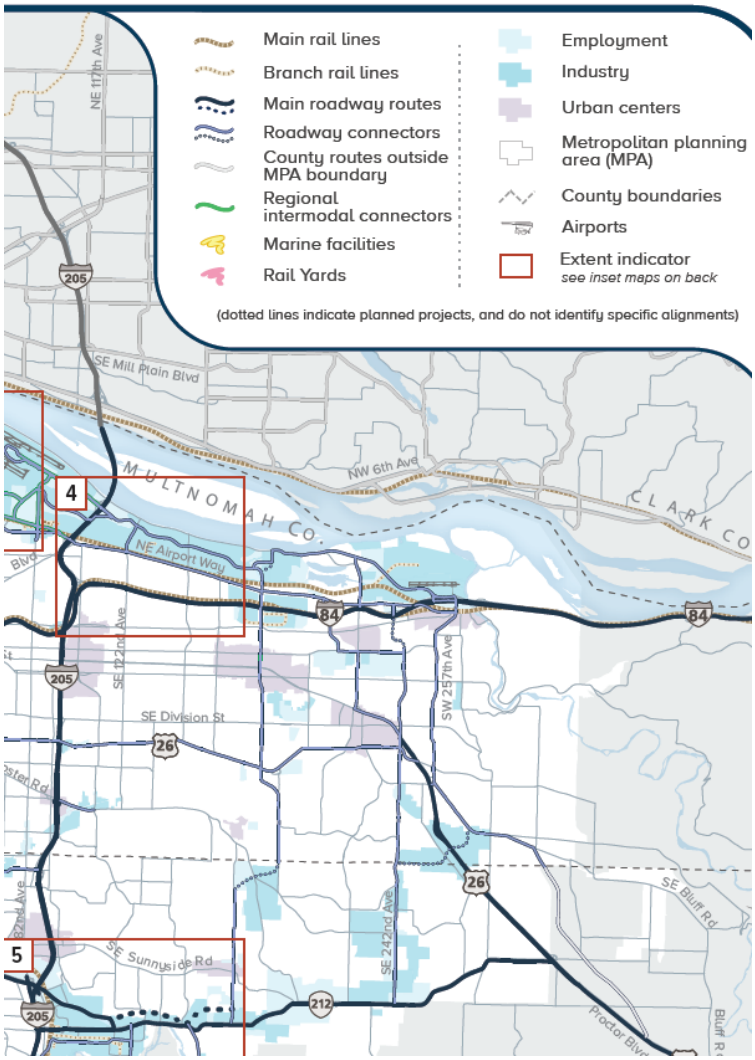
3.7.2 Regional Freight Network Policies

The Regional Freight Network Policies reflect the policy framework of the Regional Freight Strategy. Specific actions that Metro, in partnership with cities, counties, agencies and other stakeholders can take to implement the policies are identified in Chapter 8 of the Regional Freight Strategy.

Policy 1	Plan and manage our multimodal freight transportation infrastructure using a systems approach, coordinating regional and local decisions to maintain seamless freight movement and access to industrial areas and intermodal facilities.
Policy 2	Manage the region's multimodal freight network to reduce delay, increase reliability and efficiency, improve safety and provide shipping choices.
Policy 3	Better integrate freight issues in regional and local planning and communication **to** Inform the public and decision-makers on the importance of freight and goods movement issues.
Policy 4.	Pursue a sustainable multimodal freight transportation system that supports the health of the economy, communities and the environment through clean, green and smart technologies and practices.
Policy 5	Protect critical freight corridors and access to industrial lands by integrating freight mobility and access needs into land use and transportation plans and street design.
Policy 6	Invest in the region's multimodal freight transportation system, including road, air, marine and rail facilities, to ensure that the region and its businesses stay economically competitive.
Policy 7	Eliminate fatalities and serious injuries caused by freight vehicle crashes with passenger vehicles, bicycles and pedestrians, by improving roadway and freight operational safety.

C2C Corridor is a Roadway connector for freight

Roadway connectors – Roads that connect other freight facilities, industrial areas, and 2040 centers to a main roadway route.



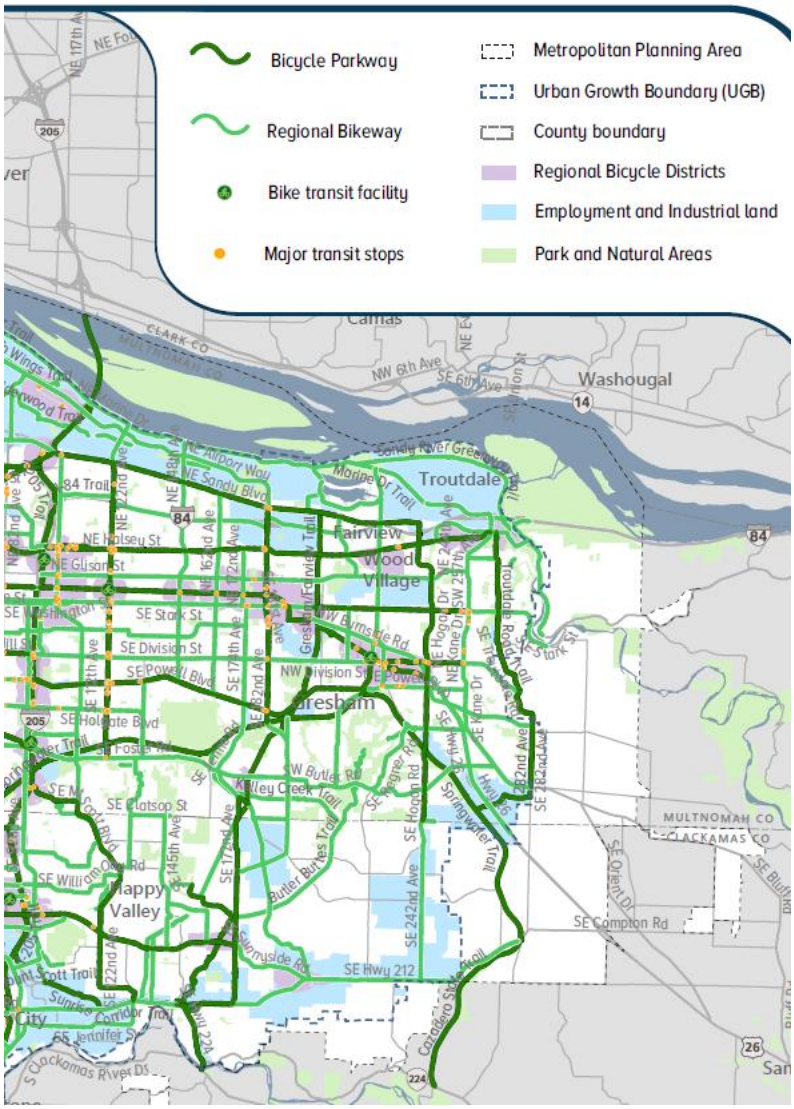
The C2C corridor has several elements of the regional bicycle network. 172nd Avenue is a bicycle parkway, connecting to the Powerline Trail and continuing up 182nd Avenue.

Regional Bicycle Parkways are spaced approximately every two miles in a spiderweb-grid pattern, and connect to and through every urban center, many regional destinations and to most employment and industrial land areas, regional parks and natural areas. Each Mobility Corridor within the urban area has an identified bicycle parkway. Bicycle parkways were identified as routes that currently serve or will serve higher volumes of bicyclists and provide important connections to destinations.

Regional Bikeways provide for travel to and within the Central City, Regional Centers, and Town Centers. Regional bikeways can be any type of facility, including off-street trails/multi-use paths, separated in-street bikeways (such as buffered bicycle lanes) and bicycle boulevards. On-street Regional Bikeways located on arterial and collector streets are designed to provide separation from traffic.

Regional Bicycle Policies

Policy 1	Make bicycling the most convenient, safe and enjoyable transportation choices for short trips of less than three miles
Policy 2	Complete an interconnected regional network of bicycle routes and districts that is integrated with transit and nature and prioritizes seamless, safe, convenient and comfortable access to urban centers and community places, including schools and jobs, for all ages and abilities.
Policy 3	Complete a green ribbon of bicycle parkways as part of the region's integrated mobility strategy.
Policy 4	Improve bike access to transit and community places for people of all ages and abilities.
Policy 5	Ensure that the regional bicycle network equitably serves all people.



Pg 181 – Regional Pedestrian Network Policies

Regional Pedestrian Network Policies

Policy 1.	Make walking the most convenient, safe and enjoyable transportation choices for short trips less than one mile.
Policy 2.	Complete a well-connected network of pedestrian routes and safe street crossings that is integrated with transit and nature that prioritize seamless, safe, convenient and comfortable access to urban centers and community places, including schools and jobs, for all ages and abilities.
Policy 3.	Create walkable downtowns, centers, main streets and station communities that prioritize safe, convenient and comfortable pedestrian access for all ages and abilities.
Policy 4.	Improve pedestrian access to transit and community places for people

Transportation System Management and Operations Policies

Policy 1	Expand use of pricing strategies to manage travel demand on the transportation system.
Policy 2	Expand use of access management, advanced technologies, and other tools to actively manage the transportation system.
Policy 3	Provide comprehensive, integrated, universally accessible and real-time travel information to people and businesses.
Policy 4	Improve incident detection and clearance times on the region's transit, motor vehicle networks to reduce the impact of crashes on the transportation system.
Policy 5	Expand commuter programs, individualized marketing efforts and other tools throughout the region to increase awareness and use of travel options.
Policy 6	Build public, non-profit and private sector capacity throughout the region to promote travel options.
Policy 7	Manage parking in mixed-use centers and corridors served by frequent transit service and good biking and walking connections to reduce the amount of land dedicated to parking, encourage parking turnover, increase shared trips, biking, walking and use of transit, reduce vehicle miles traveled and generate revenue..

FUNCTIONAL CLASSIFICATION AND MODAL SYSTEMS

Functional Classifications are noted above with each modal policy. They should be compared to local plans classifications.

STUDY INTERSECTIONS

N/A

PLANNED PROJECTS

Refer to local TSPs.

ADDITIONAL INFORMATION

Pg 465- Corridor refinement plans that have been completed since 2014:

East Metro Connections Plan (Gresham/Fairview/Wood Village/Troutdale to Damascus – Mobility Corridor #24)

Pg 475 Clackamas to Columbia (Mobility Corridor #24)

This effort will create a consistent, coordinated, multi-jurisdictional transportation plan that focuses on needed improvements for all modes along the 181st/182nd/190th/172nd corridor that connects I-84 in Multnomah County and Highway 212 in Clackamas County. The corridor crosses a wide variety of land uses, both existing and planned. The effort will use the results of the planning projects that have been initiated locally (e.g., Pleasant Valley TSP Refinement Project, Happy Valley Pleasant Valley/North Carver Comprehensive Plan, and the Clackamas County TSP Update), and evaluate packages of multimodal improvements that will improve mobility and access along the corridor to jobs, housing and key commercial and industrial areas. This effort will identify a preferred package of transportation improvements and detail how they can be phased for implementation. This effort will also provide recommendations on urban street design as well as recommend amendments to local TSPs and the Regional Transportation Plan to implement the preferred multimodal package.

Potential Solutions

This effort will recommend a shared mobility corridor investment strategy, including long-term needs and improvements for auto, bicycle, freight, pedestrian, and transit mobility and connectivity. This effort will expand on already adopted planning efforts in the corridor to create a multi-jurisdictional implementation strategy that provides a clear path from existing conditions to desired transportation improvements that support community and regional goals for equity, housing, economic development, environmental protection and access to nature. The planning process will include extensive public involvement and identify a set of potential improvements that would be subsequently advanced for further study and potential project development and funding.