WASHINGTON COUNTY
OREGON

September 12, 2014

To: Citizen Participation Organizations and Interested Parties

From: Andy Back, Manager
Planning and Development Services

Subject: **PROPOSED A-ENGROSSED ORDINANCE NO. 783**

On May 23, 2014 you were notified about initial public hearings for proposed Ordinance No. 783 before the Planning Commission on July 2, 2014, and the Board of County Commissioners (Board) on August 5, 2014. On August 5, 2014, the Board ordered substantive amendments to this ordinance. These changes have been incorporated into proposed **A-Engrossed Ordinance No. 783** and are summarized below.

Ordinance Purpose and Summary
A-Engrossed Ordinance No. 783 proposes to amend and update the Transportation System Plan. Changes in the ordinance include amending and clarifying the text and amending several maps. These changes are mostly minor and/or technical in nature.

Who Is Affected
A-Engrossed Ordinance No. 783 affects residents and businesses within Washington County, as well as those who use and depend upon the transportation system in Washington County.

What Land is Affected
This ordinance affects all lands in the county, in that all land uses are dependent upon the existence and operation of a transportation system for travel and access. This includes lands within the cities to the extent that they are served or affected by the transportation system under county jurisdiction.

Originally-filed Ordinance No. 783 Provisions
As originally filed, **Ordinance No. 783** proposed to amend and update the Washington County Transportation System Plan (TSP) to:

- Update all Transportation System Elements based on the policy framework adopted in 2013 by Ordinance No. 768.
- Make minor revisions and clarifications to the transportation policy framework adopted in 2013.
- Make minor changes to the Community Development Code (CDC) to reference the correct name and terminology of the proposed TSP. There are no substantive changes to the CDC.
- Remove Transportation Functional Classification maps from all community plans; these have been superseded by the Functional Classification map in the TSP.
- Incorporates map and system plan amendments identified through countywide system evaluation, including recent planning efforts and public outreach.
- Updates the Roadway Element and amends the Functional Classification map, the Lane Numbers map, makes minor revisions to the Special Area Streets maps, incorporates the Long Term Roadway Jurisdiction map and Rural Road Enhancement Study Corridors map and identifies a number of refinement areas with maps and descriptive language.

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- Updates the Freight Element with new descriptive language and an updated Roadway Freight map.
- Updates the Active Transportation Elements; including revised Pedestrian, Bicycle and Transit Elements, and provides new maps and descriptive language for each of these system elements.
- Updates the System Management and Funding Elements.

Proposed A-Engrossed Ordinance No. 783 Provisions
Proposed **A-Engrossed Ordinance No. 783** retains all the provisions described above. Engrossment changes include:

- Amending and clarifying language that reflects community input.
- Makes several map amendments including:
  - Add as Proposed Collector: Kinsman Road in Wilsonville from Day Road to Ridder Road (The alignment is already shown on Lane Numbers map and the City of Wilsonville's TSP).
  - Change lane number designation on Grabhorn Road from Farmington Road to Urban Growth Boundary (UGB) to 2/3 lanes.
  - Change the lane number designation on Tile Flat Road from UGB to Scholls Ferry Road to 2/3 lanes.

Public Hearings - Time and Place

Board of County Commissioners

September 23, 2013	**October 7, 2013**
6:30 pm	**10:00 am**

Hearings will be held in the Shirley Huffman Auditorium in the Charles D. Cameron Public Services Building, 155 N. First Avenue, Hillsboro, Oregon.

On October 7, 2014 the Board may choose to adopt the ordinance, make changes to it, continue the hearing to a future date, or reject the ordinance. If it is adopted on October 7, the ordinance would become effective on December 1, 2014.

Transportation System Plan Elements and Goals Amended	➢ All System Elements ➢ Goal 1 Safety ➢ Goal 2 Economic Vitality ➢ Goal 5 Mobility ➢ Goal 7 Connectivity ➢ Goal 8 Active Transportation ➢ Glossary
Community Development Code Standards Amended	➢ 300 Introduction - Land Use Districts ➢ 385 Private Use Airport Overlay District ➢ 390 North Bethany Subarea Overlay District ➢ 401 Introduction - Development Standards ➢ 430 Special Use Standards ➢ 431 Transit Oriented Design Principles, Standards and Guidelines ➢ 501 Public Facility and Service Requirements ➢ 601 Land Division and Property Line Adjustments ➢ 712 Pedestrian, Bicycle and Transit Facilities ➢ 714 Additional Standards for Category A, B and C Projects

Urban Community Plans Amended

- Aloha-Reedville-Cooper Mountain
- Bethany
- Bull Mountain
- Cedar Hills-Cedar Mill
- East Hillsboro
- Metzger-Progress
- Raleigh Hills-Garden Home
- Sherwood
- Sunset West
- West Union

How to Submit Comments

Submit oral or written testimony to the Board at one of the public hearings. Written testimony may be mailed or faxed to the Board in advance of the public hearings in care of Long Range Planning. **We are unable to accept e-mail as public testimony.**

Washington County, Department of Land Use & Transportation
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Proposed Ordinance is available at the following locations:

- Washington County, Department of Land Use & Transportation
  Planning and Development Services, Long Range Planning
  155 N. First Ave., Hillsboro, OR 97124-3072
  Telephone: 503-846-3519
- **www.co.washington.or.us/LUT/Divisions/LongRangePlanning/2014-land-use-ordinances.cfm**
- Cedar Mill Community Library and Tigard Public Library
- Citizen Participation Organizations (CPOs) Call 503-821-1128 for a directory of CPOs.

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BEFORE THE BOARD OF COUNTY COMMISSIONERS

FOR WASHINGTON COUNTY, OREGON

A-ENGROSSED ORDINANCE 783

An Ordinance Amending the Transportation Plan Element of the Comprehensive Plan, the Community Development Code, the Aloha-Reedville-Cooper Mountain Community Plan, Bethany Community Plan, Bull Mountain Community Plan, Cedar Hills-Cedar Mill Community Plan, East Hillsboro Community Plan, Metzger-Progress Community Plan, Raleigh Hills-Garden Home Community Plan, Sherwood Community Plan, Sunset West Community Plan, and the West Union Community Plan

The Board of County Commissioners of Washington County, Oregon ("Board") ordains as follows:

SECTION 1

A. The Board recognizes that the Transportation Plan Element of the Comprehensive Plan (Volume XV) was adopted on October 25, 1988, by way of Ordinance Nos. 332 and 333, and subsequently amended by Ordinance Nos. 343, 382, 409, 419, 426, 432, 450, 463, 470, 471, 473, 474, 480, 483-485, 493, 494, 503, 515, 526, 537, 542, 546, 552, 556, 588, 601, 609, 611, 626, 627, 631, 642, 649, 663, 674, 683, 712, 713, 717, 718, 730, 739, 744, 749, 750, 760, and768.

B. The Board of County Commissioners of Washington County, Oregon, recognizes that the Community Development Code Element of the Comprehensive Plan (Volume IV) was readopted with amendments on September 9, 1986, by way of Ordinance No. 308, and subsequently amended by Ordinance Nos. 321, 326, 336-341, 356-363, 372-378, 380, 381, 384-

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386, 392, 393, 397, 399-403, 407, 412, 413, 415, 417, 421-423, 428-434, 436, 437, 439, 441-443, 449, 451-454, 456, 457, 462-464, 467-469, 471, 478-481, 486-489, 504, 506-512, 517-523, 525, 526, 528, 529, 538, 540, 545, 551-555, 558-561, 573, 575-577, 581, 583, 588, 589, 591-595, 603-605, 607-610, 612, 615, 617, 618, 623, 624, 628, 631, 634, 635, 638, 642, 644, 645, 648, 649, 654, 659-662, 667, 669, 670, 674, 676, 677, 682-686, 692, 694-698, 703, 704, 708, 709, 711, 712, 718-720, 722, 725, 730, 732, 735, 739, 742-745, 754-758, 760, 762, 763, 765, 766, and 769 – 776.

C. The Board of County Commissioners of Washington County, Oregon, recognizes that the Aloha-Reedville-Cooper Mountain Community Plan was adopted by Ordinance Nos. 263 and 265 and subsequently amended by Ordinance Nos. 292, 294, 344, 367, 418, 420, 471, 480, 551, 588, 610, 615, 620, 649, 653, 674, 683, and 776.

D. The Board of County Commissioners of Washington County, Oregon, recognizes that the Bethany Community Plan was adopted by Ordinance Nos. 263 and 265 and subsequently amended by Ordinance Nos. 345, 420, 471, 480, 551, 588, 610, 615, 620, 649, 702, 712, 730, 739, 744, 745, 758, and 771.

E. The Board of County Commissioners of Washington County, Oregon, recognizes that the Bull Mountain Community Plan was adopted by Ordinance Nos. 263 and 265 and subsequently amended by Ordinance Nos. 368, 420, 480, 487, 547, 551, 552, 588, 610, 615, 659, and 666.

F. The Board of County Commissioners of Washington County, Oregon, recognizes that the Cedar Hills-Cedar Mill Community Plan was adopted by Ordinance Nos. 263 and 265 and subsequently amended by Ordinance Nos. 346, 369, 396, 418, 420, 450, 471, 480, 484, 526, 551, 553, 588, 609, 610, 620, 631, and 732.

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G. The Board of County Commissioners of Washington County, Oregon, recognizes that the East Hillsboro Community Plan was adopted by Ordinances Nos. 278 and 280 and subsequently amended by Ordinances Nos. 349, 420, 480, 532, 551, 588, 610, 615, and 686.

H. The Board of County Commissioners of Washington County, Oregon, recognizes that the Metzger-Progress Community Plan was adopted by Ordinance No. 236 and subsequently amended by Ordinance Nos. 278, 280, 350, 364, 420, 471, 480, 551, 588, 608, and 610.

I. The Board of County Commissioners of Washington County, Oregon, recognizes that the Raleigh Hills-Garden Home Community Plan was adopted by Ordinance No. 215 and subsequently amended by Ordinance Nos. 278, 280, 292, 347, 365, 408, 420, 471, 480, 551, 588, 608, 610, 683, and 758.

J. The Board of County Commissioners of Washington County, Oregon, recognizes that the Sherwood Community Plan was adopted by Ordinances Nos. 263 and 265 and subsequently amended by Ordinances Nos. 370, 420, 480, 551, 588, 610, 615, and 649.

K. The Board of County Commissioners of Washington County, Oregon, recognizes that the Sunset West Community Plan was adopted by Ordinance No. 242 and subsequently amended by Ordinance Nos. 278, 280, 292, 294, 348, 366, 418, 420, 485, 503, 526, 531, 532, 551-553, 588, 610, 620, 717, 760, and 780.

L. The Board of County Commissioners of Washington County, Oregon, recognizes that the West Union Community Plan was adopted by Ordinance Nos. 263 and 265 and subsequently amended by Ordinance Nos. 420, 480, 551, 588, 610, 671, and 694.

M. As part of its ongoing planning efforts including review of current policy and plan, existing conditions, and possible future expansions, Washington County has determined there is a

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need to update the Transportation Plan to provide direction, identify needs, and address transportation-related issues. The Board takes note that such changes are for the health, welfare, and benefit of the residents of Washington County, Oregon.

N. Under the provisions of Washington County Charter Chapter X, the Department of Land Use and Transportation has carried out its responsibilities, including preparation of notices, and the County Planning Commission has conducted one or more public hearings on the proposed amendments and has submitted its recommendations to the Board. The Board finds that this Ordinance is based on those recommendations and any modifications made by the Board are a result of the public hearings process;

O. The Board finds and takes public notice that it is in receipt of all matters and information necessary to consider this Ordinance in an adequate manner, and finds that this Ordinance complies with the Statewide Planning Goals, the standards for legislative plan adoption as set forth in Chapters 197 and 215 of the Oregon Revised Statutes, the Washington County Charter, the Washington County Community Development Code, and the Washington County Comprehensive Plan.

SECTION 2

The following Exhibits, attached and incorporated herein by reference, are hereby adopted as amendments to the following documents:

Exhibit 1 (2 pages) – Adding Introduction "About the Modal Elements" to the Transportation System Plan;

Exhibit 2 (39 pages) – Amending Roadway Element of the Transportation System Plan and maps:

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a. The Functional Classification map, Transportation System Plan, is amended;

b. The Lane Numbers map, Transportation System Plan, is amended;

c. The Special Area Street Overlay Sunset Station Area Plan, is amended;

d. The Special Area Street Overlay Cedar Mill Town Area, is amended;

e. The Long Term Roadway Jurisdiction map is incorporated into the Transportation System Plan;

f. The Rural Enhancement Study Corridors map is incorporated into the Transportation System Plan;

g. The SW 124th Avenue Extension Refinement Area map is incorporated into the Transportation System Plan;

h. The NW 185th Avenue and OR Highway 26 Interchange Refinement Area map is incorporated into the Transportation System Plan;

i. The North Bethany Neighborhood Route Refinement Area map is incorporated into the Transportation System Plan;

j. The SW Day Road Overcrossing Refinement Area map is incorporated into the Transportation System Plan;

k. The I-5 to Highway 99W Refinement Area map is incorporated into the Transportation System Plan;

l. The NW Schaff Road Extension Refinement Area map is incorporated into the Transportation System Plan;

m. The NW Springville Road Extension Refinement Area map is incorporated into the Transportation System Plan;

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n. The Tualatin Valley Highway Refinement Area map is incorporated into the Transportation System Plan; and

o. The NW Wilkins Road Extension Refinement Area map is incorporated into the Transportation System Plan.

Exhibit 3 (7 pages) – Amending Freight Element of the Transportation System Plan and maps:

a. Deleting Countywide Through-Truck Routes map;

b. The Roadway Freight System map is incorporated into the Transportation System Plan; and

c. Title of the "Air, Rail, Pipeline & Water Elements" map is amended

Exhibit 4 (40 pages) – Amending Active Transportation Elements of the Transportation System Plan and maps:

a. The Pedestrian System map is incorporated into the Transportation System Plan;

b. The Bicycle System map is deleted;

c. The Bicycle System map is incorporated into the Transportation System Plan;

d. The Transit System map is deleted; and

e. The Transit System map is incorporated into the Transportation System Plan

Exhibit 5 (5 pages) – Amending Transportation System Management & Operations Element of the Transportation System Plan;

Exhibit 6 (5 pages) – Amending Funding Element of the Transportation System Plan;

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Exhibit 7 (18 pages) – Amending Ordinance 768 and maps:

a. The 2040 Growth Concept Design Types map is deleted;

b. The Deficiency Areas map is deleted;

c. The Regional Street Design Overly map is deleted;

d. The Washington County Study Areas map is deleted; and

e. The Countywide Road System map is deleted

Exhibit 8 (5 pages) – Amending Community Development Code; and

Exhibit 9 (10 pages) – Amending Community Plan maps:

a. The Transportation Functional Classification map, Aloha, Reedville, Cooper Mountain Community Plan, is deleted;

b. The Transportation Functional Classification map, Chapters 1 and 2, Bethany Community Plan, are deleted;

c. The Transportation Functional Classification map, Bull Mountain Community Plan, is deleted;

d. The Transportation Functional Classification map, Cedar Hills-Cedar Mill Community Plan, is deleted;

e. The Transportation Functional Classification map, East Hillsboro Community Plan, is deleted;

f. The Transportation Functional Classification map, Metzger-Progress Community Plan, is deleted;

g. The Transportation Functional Classification map, Raleigh Hills-Garden Home Community Plan, is deleted;

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h. The Transportation Functional Classification map, Sherwood Community Plan, is deleted;

i. The Transportation Functional Classification map, Sunset West Community Plan, is deleted; and

j. The Transportation Functional Classification map, West Union Community Plan, is deleted

SECTION 3

All other Comprehensive Plan provisions that have been adopted by prior ordinance, which are not expressly amended or repealed herein, shall remain in full force and effect.

SECTION 4

All applications received prior to the effective date shall be processed in accordance with ORS 215.427.

SECTION 5

If any portion of this Ordinance, including the exhibits, shall for any reason be held invalid or unconstitutional by a body of competent jurisdiction, the remainder shall not be affected thereby and shall remain in full force and effect.

SECTION 6

The Office of County Counsel and Department of Land Use and Transportation are authorized to prepare planning documents to reflect the changes adopted under Section 2 of this Ordinance, including deleting and adding textual material and maps, renumbering pages or sections,

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and making any technical changes not affecting the substance of these amendments as necessary to conform to the Washington County Comprehensive Plan format.

SECTION 7

This Ordinance shall take effect on December 1, 2014.

ENACTED this _____ day of _____, 2014, being the _____ reading and _____ public hearing before the Board of County Commissioners of Washington County, Oregon.

BOARD OF COUNTY COMMISSIONERS
FOR WASHINGTON COUNTY, OREGON

_____
CHAIRMAN

_____
RECORDING SECRETARY

READING		PUBLIC HEARING	
First	_____	First	_____
Second	_____	Second	_____
Third	_____	Third	_____
Fourth	_____	Fourth	_____
Fifth	_____	Fifth	_____
VOTE: *Aye:*	_____	*Nay:*	_____
Recording Secretary:	_____	Date:	_____

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About the Modal Elements

The Washington County Transportation System Plan (TSP) describes an integrated multi-modal transportation network to meet the needs of Washington County residents, workers, businesses and visitors over the next 20 years. The Modal Elements each illustrate and describe a component of the whole transportation system envisioned for Washington County. Each Modal Element includes a system map or maps and accompanying text. The word "modal" refers to the different modes of travel that are intended to be accommodated by the transportation system. These modes include automobile, freight, pedestrian, bicycle and transit. Also included in the Modal Elements are the system management and funding components necessary to illustrate and describe the complete system.

The Modal Elements implement the TSP Goals, Objectives and Strategies that were initially adopted by Ordinance 768 in October 2013. Each Modal Element describes transportation system components in terms of three characteristics:

- **Classification**: The intended character and function each component of the system is intended to serve.
- **General location**: The property or land that will be required to accommodate each component of the system.
- **General size and scope**: The amount and configuration of land necessary to accommodate each component of the system in the long term.

Together, the Modal Elements establish the framework of an integrated multi-modal transportation network. The backbone of this network is a system of arterial and collector complete streets, high capacity transit lines, freeways, freight railroads, multi-use trails, airports and pipelines that collectively provide for travel needs within Washington County.

abcdef Proposed additions
~~abcdef~~ Proposed deletions

While the Modal Elements identify specific attributes related to the individual modes, readers and users of this plan are encouraged to consider that each mode serves as a component of a system that combines and interacts with the other modes to create a complete, integrated transportation network.

Per state and regional policy, the TSP Modal Elements address all modes of travel for people and goods. The Modal Elements and maps are organized as follows:

Roadway Element
- Functional Classification Map
- Lane Numbers Map
- Special Area Streets Overlay Maps
- Long-Term Roadway Jurisdiction Map
- Rural Enhancement Study Corridors Map
- Refinement Areas Maps

Freight Element
- Roadway Freight System Map
- Aviation, Railroad and Pipeline System Map

Active Transportation Elements

1. **Pedestrian Element**
   - Pedestrian System Map

2. **Bicycle Element**
   - Bicycle System Map

3. **Transit Element**
   - Transit System Map

- **Transportation System Management & Operations Element**

- **Funding Element**

abcdef Proposed additions
~~abcdef~~ Proposed deletions

Roadway Element

Washington County's transportation system includes over 1,300 miles of county roads, as well as nearly 1,000 miles of state or city roads, shared by motor vehicles, bicycles, pedestrians, trucks and public transit. The County's roadway system includes a wide variety of roadways – from major urban boulevards to gravel rural roads. The Roadway Element identifies an integrated multi-modal network of complete streets that provide an interconnected transportation system for all modes and users.

Functional Classification

The Functional Classification map identifies the classification for all County roadways. Each roadway's role in providing access to individual properties and mobility for travel on the network is defined by the Functional Classification designation. The Functional Classification system describes a hierarchy of road designations, which includes Principal Arterials, Arterials, Collectors, Commercial/Industrial Streets, Neighborhood Routes and Local Streets.

Interim functional classification designations:

Some roadways in Washington County have an interim Functional Classification designation. These are roadways where the designation is expected to change once planned elements of the system have been completed. These roadways / locations are described below.

- Joss Avenue - NW Joss Avenue is designated as an Interim Collector on the Functional Classification Map. It is anticipated that NW Joss Avenue ultimately will be reclassified to its expected function as a Neighborhood Route after the construction of Shackelford Road to NW 185th Avenue. See the Bethany Community Plan (Chapter 2: North Bethany Subarea Plan) for additional details.

- Saltzman Road – The segment of NW Saltzman Road between NW Laidlaw Road and NW Bayonne Lane is anticipated to be realigned west of the current alignment, to the intersection of NW Laidlaw Road at NW 130th Avenue. The realigned segment of Saltzman Road is designated on the Functional Classification Map as a Proposed Collector. Interim improvements to the existing alignment may be implemented to enhance the operation of the facility until the realignment has been completed. After the realignment of Saltzman Road is in place, it is anticipated that the current alignment of Saltzman will be reclassified consistent with its new function as either a Neighborhood Route or a Local Street. The appropriate classification will be determined based upon observed traffic operations and needs after the realignment is complete.

Lane Numbers & Right-of-Way Protection

The maximum number of lanes that can be built on individual roads without a plan amendment is identified on the Lane Numbers map. Intersections along Arterial and Collector roads shall be planned to include right-of-way for turn lanes within 1,000 feet of the intersections. Specific needs for turn lanes are determined through traffic analysis conducted at the time of development and/or during the transportation project development process (as described in Table 3: Functional Classification Design Parameters Goal 5: Mobility).

Special right-of-way needs:
Several roadways in Washington County have special designations, where performance monitoring over time is necessary or where additional right-of-way may be needed.

- Kaiser Road – Springville Road to Bethany Boulevard: The intersections of Kaiser Road at Bethany Blvd and Springville Road control the operations of this segment of Kaiser Road. As development occurs in North Bethany and throughout the region, this section of Kaiser Road may require additional turn lanes and/or travel lanes beyond the three lane configuration identified on the TSP map.

- Saltzman Road / 130th Avenue – Laidlaw to County line: This segment of Saltzman Road / 130th Avenue represents a future opportunity for a north/south connection between Laidlaw Road and Springville Road. This connection is classified as a two-lane neighborhood route until such time that a reclassification is warranted. Additional travel lanes, turn lanes, bicycle facilities and right-of-way may be required to complete the transportation grid necessary to meet the future system needs of the traveling public.

- Tualatin Valley Highway – Maple Street to Cedar Hills Boulevard: As discussed in the refinement area section later in this document, a long-term transit solution for Tualatin Valley Highway has yet to be identified. In advance of this transit study involved jurisdictions should consider the preservation of land for Business Access Transit (BAT) / High Capacity Transit (HCT) uses. This land area is not intended to be used for general purpose through lanes.

Major Intersections
To a large degree, the motor-vehicle system functions only as well as its intersections. Intersections that are expected to serve very high motor-vehicle traffic volumes pose additional challenges. Intersection design, and the analysis necessary to support it, ordinarily is undertaken as part of an improvement project or land development process. The locations identified as major intersections are potential candidates for grade separation, additional at-grade turn lanes and/or other intersection design solutions. Additional right-of-way in the vicinity of major intersections may be needed to preserve options for long-term system needs. Major intersections should be evaluated with regard to the land use context and all the goals of the TSP. Particular attention should be given to multi-modal system accessibility and local connectivity within the vicinity of these intersections. The solution(s) identified should consider impacts on safety, economic vitality, livability and the natural environment.

Major Intersections are identified at the following locations:
- 170th Avenue @ Tualatin Valley Highway**
- 185th Avenue @ Baseline Road
- 185th Avenue @ Cornell Road
- 185th Avenue @ Evergreen Boulevard
- 185th Avenue @ Tualatin Valley Highway*
- 185th Avenue @ Walker Road

- Brookwood Parkway @ Evergreen Parkway
- Cornelius Pass Road @ Cornell Road
- Cornelius Pass Road @ Tualatin Valley Highway*
- Murray Boulevard @ Tualatin Valley Highway*

* Included in the TVCP
** Improvements recommended for beyond the time frame of the TVCP

Major Intersections may serve as significant conflict points for all modes. Such intersections can easily become chokepoints or bottlenecks for motor-vehicle travel, and hazardous and/or intimidating for users of non-motorized modes. Depending on the severity of the problems, the impacts to all modes can affect a large area beyond the intersection, and may cause problems that ripple throughout the transportation system, causing vehicle delay and/or intimidating barriers for bicycle and pedestrian travel. Impacts may be particularly problematic in areas where community design and land use goals could be compromised by the presence of a Major Intersection. This plan does not identify solutions to traffic problems at the Major Intersection locations. Those solutions can be studied through coordinated interagency planning efforts, which will determine the ultimate intersection design and define any associated right-of-way needs.

For intersections studied as part of the 2013 Tualatin Valley Highway Corridor Plan (TVCP), near-term improvements such as signal timing, transit prioritization, traffic operations monitoring and specific turn lane configurations have been identified. The TVCP intersection improvements (and/or other reasonable replacement improvements) are to be implemented and prioritized as funding allows. If, after the lifespan of the TVCP and/or the improvements consistent with the TVCP have been implemented, motor vehicle traffic congestion becomes unacceptable then these Tualatin Valley Highway intersections should be considered as candidates for grade separation and/or other intersection improvements to meet travel needs.

Roadway System Adequacy

The roadway system identified in this plan is a component of an integrated multi-modal network of complete streets. The Arterial and Collector roadway system identified by the lane numbers map constitutes an adequate system for meeting anticipated travel needs. In general, the planned roadway component of the network is anticipated to meet Oregon Highway Plan mobility targets and standards, as well as the Regional Transportation Functional Plan interim mobility deficiency thresholds and operating standards, except for the segments identified in the technical appendix. These standards are further identified by interim Washington County Motor Vehicle Performance Standards within Goal 5 (Mobility) of this TSP.

The technical appendix to this plan includes a list of project candidates, which may be implemented within reasonably achievable funding constraints. The technical appendix also identifies various locations that are forecast to exceed the motor vehicle performance standards after the implementation of planning improvements. These potential deficiency locations will require additional monitoring and system performance evaluation over time. For such locations, the ultimate decisions regarding the modes, functions, general locations of solutions and potential development of alternative mobility measures and standards, are deferred to future refinement planning to be incorporated into the next TSP update.

Special Area Streets

Special Area Streets are identified on the Special Area Street Overlay Maps as well as in the Community Plans. Special Area Street design standards are included in the Washington County Uniform Road Improvement Design and Construction Standards.

Long Term Roadway Jurisdiction

The Long Term Roadway Jurisdiction map identifies roadways that are considered to be appropriately under County jurisdiction in the long term, with remaining roadways either staying under state jurisdiction or becoming city roadways as currently unincorporated areas are annexed.

Rural Road Enhancement Study Corridors

The Rural Road Enhancement Study Corridors identify corridors where conflicting travel needs of different users must be considered and monitored. Many of these rural roadways were originally designed and built to accommodate only local and agricultural-related traffic. Now they may host urban traffic, farm equipment and commercial freight traffic. The identified corridors may be accommodating travel beyond the scope or intensity intended or envisioned during their design. The travel needs for different users must be considered and monitored. Such users may include urban motor vehicle travelers using these routes as regional connections for cross-county or cross-region travel, farm equipment and commercial freight traffic as well as bicyclists using them for both recreational and commuting travel. Minor enhancements (consistent with OAR 660-012-0065) may be appropriate to consider along these corridors as resources allow.

Enhancement considerations should not be limited to motor vehicle traffic. The rural roadways of Washington County continue to be popular bicycle routes for both recreational and commuting travel. In addition, farm-machinery and farm related travel, as well as commercial freight travel, need to be considered.

A variety of agricultural resources and communities are located along these rural routes. The owners and operators of these resources and residences in these communities are likely to be most affected by any enhancement of these facilities. Furthermore, these parties may have considerable insight into how such enhancements could be most effective. Ongoing dialog and coordination with the affected parties should be conducted as part of the assessment of rural enhancement solutions.

Identification and evaluation of enhancement improvements should be considered as available funding is identified. Specific improvements are to be identified at the time of the evaluation. Some sample considerations may include:

- Sight distance improvements
- Pavement markings
- Advance curve warning signs
- Larger signs and/or reflective sign posts
- Intersection illumination
- Flashing beacon in advance of intersections
- Vegetation control
- Shoulder widening
- Other intersection improvements

Refinement Areas

abcdef Proposed additions
~~abcdef~~ Proposed deletions

Refinement Areas are locations that have been identified where further study is needed to determine the mode, function and/or general location of a future solution or transportation improvement. Further study of a Refinement Area may occur through a transportation planning process, capital project development or the land development process. Before development may occur on land within a Refinement Area, in addition to other requirements, the development application must demonstrate how potential solutions to the transportation need will (at a minimum) not be precluded by the proposed development.

SW 124th Avenue Refinement Area:
There is a potential future need for a north-south Arterial roadway and freight route in the vicinity of the 124th Avenue extension as shown on the Washington County Refinement Area Map. The County anticipates undertaking a broader planning process to address the needs in the area as part of an evaluation and concept planning of the potential future urban reserve lands within the area. A possible realignment of 124th Avenue and/or Tonquin Road may need to be considered in the future.

NW 185th Avenue and OR Highway 26 Interchange Refinement Area:
The need for improvements to the 185th Avenue and Highway 26 Interchange has been identified as a potential future need. The design and other attributes of the interchange improvements require additional refinement.

North Bethany Neighborhood Route Refinement Area Map:
Refer to Area of Special Concern (ASC) 6B in the Bethany Community Plan, Chapter 2, North Bethany Subarea Plan – as amended.

Day Road Overcrossing Refinement Area:
The Basalt Creek Transportation Refinement Plan identified a potential need for a future Arterial corridor extending from the intersection of Boones Ferry Road and Day Road over Interstate 5 and connecting to Elligsen Road. The proposed Arterial is not intended to provide access to or from Interstate 5. This refinement area is intended to identify that a roadway alignment shall be evaluated prior to development or redevelopment occurring. The final alignment will be determined through concept planning after the refinement area has been brought into the Urban Growth Boundary.

I-5 to Highway 99W Refinement Area:
In 2009 the I-5 to 99W Connector study was completed and resulted in a recommendation that included a variety of transportation investments to improve the area's road, transit, bicycle, pedestrian and trail networks. The result of the project acknowledged a desire to distribute traffic across the network and established eight conditions that need to be addressed before the Southern Arterial can proceed to construction. These eight conditions are listed in the technical appendix to this plan. Issues that need to be examined in greater detail include:

- Evaluate alignment options and their environmental impact;
- Integrate the proposal with the concept plan and transportation system plan for the UGB area and any Urban Reserves designated in the area;
- Address any requirements that may result from adoption of an exception to Goal 14 (if needed) for an urban facility outside the UGB;

- Integrate the proposal with the regional mobility corridor between Tigard to Wilsonville to ensure these east-west arterials and I-5 itself could effectively function together; and
- Determine the most appropriate approach to connecting the Southern Arterial to I-5, including options for improvements to the I-5/North Wilsonville interchange, or consideration of extending the Southern Arterial east across I-5 to Stafford Road, thereby providing better access to I-205.

Many of the regional conditions can be met within the land use planning for the UGB expansion areas and/or Urban Reserves areas. Land use planning processes within the area may require additional transportation system refinement planning to integrate the plan with the I-5 to Highway 99W corridor strategy.

Since the completion of the I-5/99W Connector Study, Washington County led the Basalt Creek Transportation Refinement Plan along with Metro, ODOT and the Cities of Tualatin and Wilsonville. The purpose of this refinement plan was to determine the major transportation system to serve the Basalt Creek Planning Area. The plan sets the stage for land use concept planning and comprehensive plan development for the Basalt Creek area. The need to plan for the future transportation system was driven by future growth in the Basalt Creek area itself as well as almost 1,000 acres of future industrial development targeted for surrounding areas. This plan refined the recommendations from the I-5/99W Connector Study and the Regional Transportation Plan, generally for the area between 124th Avenue on the west, and I-5 on the east. As a result of this planning effort, agreement was reached regarding a set of roadway improvements including the extension of SW 124th Avenue, a new east-west roadway between that extension and Boones Ferry Road, a new overcrossing of I-5 to Stafford, a new overcrossing of I-5 at Day Road and several upgrades to the existing roadway network between Tualatin and Wilsonville. The results of the Basalt Creek Transportation Refinement Plan have been incorporated into the multi-modal network of complete streets depicted on the various transportation maps in this TSP.

West of 124th Avenue and through the Brookman Addition Concept Plan area additional refinement effort is still needed. There continue to be concerns related to potential urban development, and the intersection of the Southern Arterial with Highway 99W. During the development of the Brookman Addition Concept Plan the ultimate location of the Southern Arterial was not known. The coordination of the two processes resulted in the recommendation of the Brookman Addition Concept Plan that the existing intersection of Brookman Road and Highway 99W be realigned to the north to avoid conflicts with a potential Southern Arterial alignment further south. The Brookman Addition Concept Plan indicated that Brookman Road would serve as a Collector roadway, to provide access to future development within the area. No identified location for the Southern Arterial has been established since the adoption of the Brookman Addition Concept Plan, the I-5 to 99W Connector Study and designation of Urban Reserves south of Brookman Road. Therefore, this area remains as a refinement area.

In the interim, consistent with conditions for strategic protection of right-of-way for the Southern Arterial in the I-5 to 99W connector study, Brookman Road has been designated as an Arterial with 5-lanes of right-of-way. It is recognized that changing the role and function of Brookman Road would require modifications to the Brookman

Addition Concept Plan to determine how future development would occur. During the interim, while refinement planning has not yet been completed, access spacing and other requirements will need to be evaluated on a case by case basis at the time of any development application. The long-term intent is to reevaluate the Brookman Addition Concept Plan in the context of the Urban Reserve designation to the south. The evaluation would consider the refinement of both the location Southern Arterial, and a local Collector level roadway(s) to serve to the area. As the issues for the Southern Arterial are resolved (including the long-term alignment) appropriate changes to these interim designations should be considered.

Short-term regional strategy

- Identify transit improvements, specifically east-west connections between Tualatin and Sherwood though TriMet's Service Enhancement Plan.
- Upgrade existing streets to two lanes with turn lanes, traffic signal timing, bicycle lanes and sidewalks, including Herman Road, Tualatin-Sherwood Road and 95th Avenue.
- Add a lane to the southbound I-205 to southbound I-5 interchange ramp, extend the acceleration lane and add an auxiliary lane on southbound I-5 to Elligsen Road.
- Conduct more detailed project planning and begin construction of a two-lane extension of SW 124th Avenue from Tualatin-Sherwood Road to Grahams Ferry Road.
- Improve the intersection of Tonquin Road and Grahams Ferry Road.
- Continue Intelligent Transportation System improvements along Tualatin-Sherwood Road.
- Conduct more detailed planning to meet all the conditions placed in the proposed Southern Arterial, including:
  1. Conduct the I-5 to South Corridor Refinement Plan (includes I-5 from Portland to Tigard, I-5 from Tigard to Wilsonville and OR99W from I-5 through Tigard and Sherwood). Local jurisdictions will develop land use plans for areas added to the urban growth boundary. These planning efforts will include opportunities for further public participation and input.
  2. Conduct a more detailed planning study on a potential Southern Arterial. This study will include impacts on existing development and the natural environment to refine the design and alignment location. These detailed planning studies will consider impact mitigation and coordinate with land use and transportation plans for the area. The studies will also include integration with land use plans for UGB expansion areas and Urban Reserves. The studies will consider access between I-5 and a Southern Arterial and the potential for the preferred alignment to address any conditions associated with land use goal exception appropriately for the Southern Arterial. These planning efforts will include opportunities for further public participation and input.

     In the recommended alternative, Tualatin-Sherwood Road is sized based upon the expectation there will be the Southern Arterial. Due to insufficient capacity, it is expected that Tualatin-Sherwood Road cannot meet regional mobility goals without the Southern Arterial. Further expansion of Tualatin-Sherwood Road is incompatible with the plans for

both the Tualatin and Sherwood Town Centers. If the Southern Arterial is removed through future studies, there will be a significant unresolved mobility issue addressing east-west travel through this area – with resulting impacts on employment and economic vitality.

Medium-term regional strategy

- Widen existing streets to urban standards including turn lanes, traffic signal timing, bike lanes and sidewalks, including Tualatin-Sherwood Road, Roy Rogers Road, Boones Ferry Road and Herman Road.
- Widen and improve sidewalks and bike lanes on Day Road between Grahams Ferry Road and Boones Ferry Road.
- Widen Boones Ferry Road between Lower Boones Ferry Road and Martinazzi Avenue to add capacity for vehicles as well as bikes and pedestrians across the Tualatin River.
- Improve the roadway network in north Tualatin, including improvements to Cipole and Teton.
- Realign and widen Tonquin Road between Grahams Ferry Road and Oregon Street.
- Widen 124th Avenue to ultimate urban standard as a Complete Street with bicycle and pedestrian facilities between Tualatin-Sherwood Road and Grahams Ferry Road.
- Construct a new 5-lane Arterial with bike lanes and sidewalks between Grahams Ferry Road and Boones Ferry Road.
- Construct I-5 ramp improvements at the Boones Ferry / Elligsen Road Interchange.

Long-term regional strategy

- Conduct additional refinement planning and adopt land use plans for the designated urban reserves in the areas and program right-of-way acquisition for the Southern Arterial.
- Extend new Day Road overcrossing over I-5 from Boones Ferry Road to Elligsen Road (alignment to be determined through future concept planning).
- Extend new 4-lane overcrossing from Boones Ferry Road over I-5 into Urban Reserve areas east of I-5 (alignment to be determined through future concept planning).
- Construct the Southern Arterial between Highway 99W and 124th Avenue once the project conditions have been met and funding becomes available.

NW Schaaf Road Extension Refinement Area:

There is an identified potential future need for an extension of Schaaf Road connecting from Helvetia Road to West Union Road. The extension would help relieve traffic congestion and flow along West Union Road and at the intersection of Helvetia Road and West Union Road. The refinement area is expected to be evaluated in conjunction with planning for the urban lands in the vicinity.

NW Springville Road Extension Refinement Area:

There is a potential future need for an extension of Springville Road westward from 185th Avenue to West Union Road. The extension could help to relieve traffic at the intersection of 185th Avenue and West Union Road. The refinement area is expected to be evaluated in conjunction with the planning for the urban reserves in the area, and include an assessment of potential environmental issues.

Tualatin Valley Highway Refinement Area:
A refinement plan for Tualatin Valley Highway (Maple Street to Cedar Hills Boulevard) and surrounding areas called the TV Highway Corridor Plan (TVCP) was completed in 2013. The TVCP was a joint effort between ODOT, Metro, the City of Hillsboro, the City of Beaverton and Washington County that focused an examination of the transportation system to identify needs and recommend improvements for all modes of transportation. There are still two outstanding sections of the corridor left to be studied: within Beaverton (OR 217 to SW Cedar Hills Blvd) and from Hillsboro (west of SE 10th Avenue/Maple Street) to Forest Grove. A number of improvements have been identified in this corridor to address existing deficiencies and safety concerns and serve increased travel demand.

A long-term transit solution for Tualatin Valley Highway has yet to be identified. In advance of this transit study, development along Tualatin Valley Highway shall consider opportunities for the preservation of land so as to not preclude a future Business Access and Transit lane in the westbound direction, and to not preclude Bus pullouts in the eastbound direction. This land area is not intended to be used for general purpose through lanes.

The TVCP recommendations fall into 3 categories: 1) Near Term Actions, 2) Opportunistic Actions and 3) Longer Term Refinement Planning Needs.

1. Near Term Actions

The proposed improvements described below will address existing needs, including multimodal system completeness and safety, and can reasonably be expected to be completed within the next 15 years with a strong commitment from one or more of the partner agencies that have jurisdiction over subject transportation facilities.

- Complete detailed multi-agency study to determine future potential for high-capacity transit solutions within the Tualatin Valley Highway corridor
- Improve bus stops along Tualatin Valley Highway
- More frequent bus service
- Add street lighting on Tualatin Valley Highway
- Improve Tualatin Valley Highway pedestrian crossings
- Complete Planning and Conceptual design for a multi-use path
- Fill gaps in sidewalks and add landscape buffers along Tualatin Valley Highway
- Add directional wayfinding signs
- Complete the (currently discontinuous and narrow) bike lanes on Tualatin Valley Highway
- Improve bike crossings of Tualatin Valley Highway
- Develop continuous east-west parallel bike routes north and south of Tualatin Valley Highway

- Public community rail safety education
- Support and promote employer incentive programs to reduce driving
- Improve signal timing, transit prioritization and traffic operations monitoring
- Signal prioritization for transit
- Adaptive signal control ("smart signals" that adjust timing to congestion levels)
- Improve operations at signalized intersections along Tualatin Valley Highway
- Intersection modification to address safety and mobility
- Left-turn signal improvements

2. Opportunistic Actions

Understanding that funding opportunities (whether public funding or public funding in combination with private sources), may arise to pay for transportation improvements within the TVCP Project Area, this section includes projects that are important but whose implementation will be dependent on what funding is leveraged in the future. The recommendations discussed below include projects for partner agencies in the TVCP Project Area to work towards to meet the goals and objectives of the TVCP, while attempting to:

- Encourage private contributions by developers to implement the near term improvements, including reserving right-of-way for future transportation improvements *(City of Hillsboro, City of Beaverton, Washington County).*
- Consider the acquisition of land for the development of a westbound business access transit (BAT) lane as redevelopment opportunities arise on Tualatin Valley Highway. The City of Hillsboro may also require all half-street improvements be constructed to include the set-back curb, planter strip and sidewalk improvement to create an amenable environment for future transit solutions on Tualatin Valley Highway. This redevelopment should be consistent with ODOT standards.
- As projects arise from appropriate categories examine whether opportunities are available to use other funds to leverage this funding (e.g., safety) *(ODOT, consulting with partners).*
- As land use and transportation system conditions change and near term improvements are completed, consider the opportunity to update this adaptive corridor management strategy *(all partners).*
- Improve existing north-south routes for all modes to reduce travel demand on Tualatin Valley Highway and congestion at intersections. Improvements to roadways such as Brookwood Avenue, Century Boulevard, Cornelius Pass Road, 209th Avenue, 198th Avenue, 185th Avenue and 170th Avenue would provide the greatest benefit to the overall transportation system. Improvements on 198th Avenue south of Tualatin Valley Highway are scheduled in the next five years through Washington County's Major Streets Transportation Improvement Program. The other three corridors will require a more opportunistic approach, including working with developers of South Hillsboro to help improve 209th Avenue *(City of Hillsboro, City of Beaverton, Washington County).*

3. Long Term Refinement Planning Needs

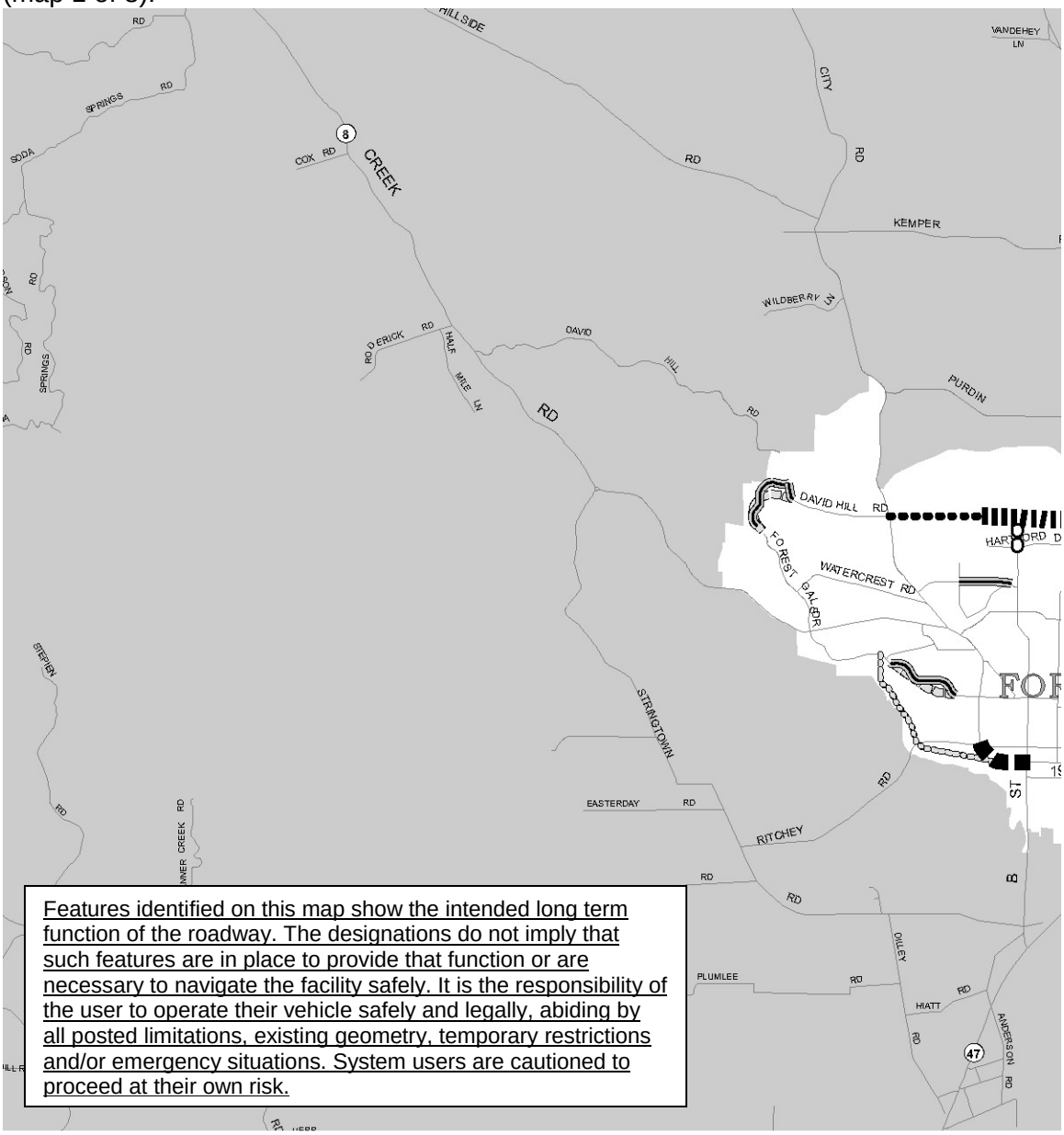
The refinement plan was unable to adequately address some longer term planning aspirations for the corridor. The following should be addressed as part of a future corridor refinement plan:

- If HCT is determined to be the preferred option, the location (e.g. on or adjacent to Tualatin Valley Highway) transit mode (e.g., bus rapid transit, express bus service, light rail, streetcar or commuter rail) and amount of right-of-way needed should be identified. This transit alternative analysis study may explore enhanced signal operations for transit and/or the viability of a Business Access Transit (BAT) lane in appropriate locations.
- The location of a multi-use pathway parallel to Tualatin Valley Highway.
- The location of new local street connections, in concert with access management along Tualatin Valley Highway.
- While grade separated intersections are not included in the plan, it is recognized that in the long term, all tools should be considered to maintain acceptable intersection performance to serve future transportation and community needs.

NW Wilkins Road Extension Refinement Area:

The Amberglen Community plan determined an extension of Wilkins Road, including a new bridge crossing Bronson Creek, from NW Stucki Avenue to NW 185th Avenue to be a potential future need. However, due to the unique uncertainty of the timing and level of future development in this area it is impractical to designate specific road alignment at this time.

The Functional Classification map of the Transportation System Plan is amended as follows (map 1 of 8):



Add as Proposed Arterial
Add as Collector
Remove Proposed Collector
Change Proposed Collector to Arterial
Add as Proposed Collector
Change Proposed Collector to Proposed Arterial
Add as Proposed Neighborhood Route

Amendments to the map are shown in bold solid, dashed or patterned lines; as displayed in the legend. Other features shown are for reference only, and are not affected by this exhibit.

abcdef Proposed additions
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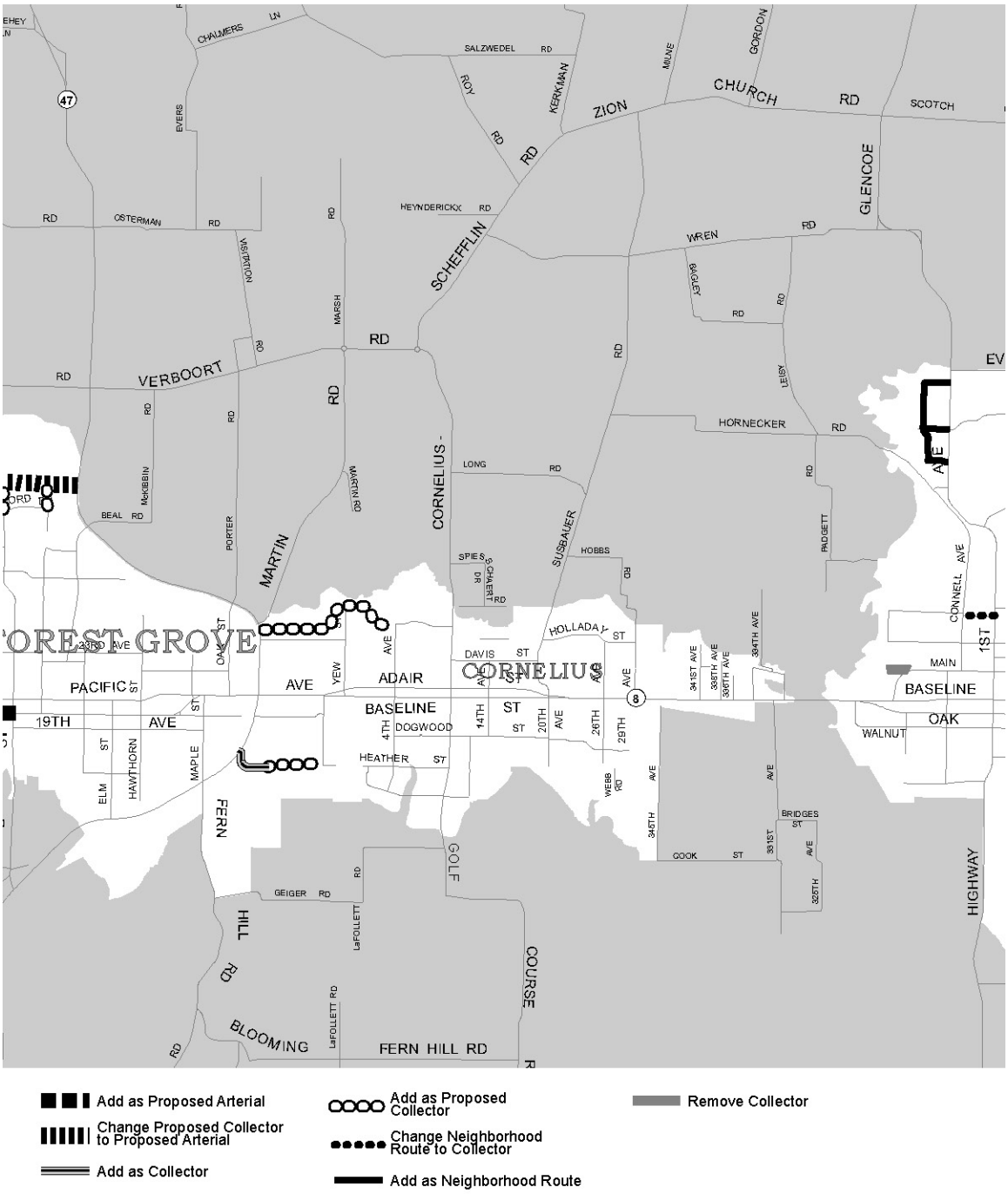
The Functional Classification map of the Transportation System Plan is amended as follows (map 2 of 8):



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abcdef Proposed additions
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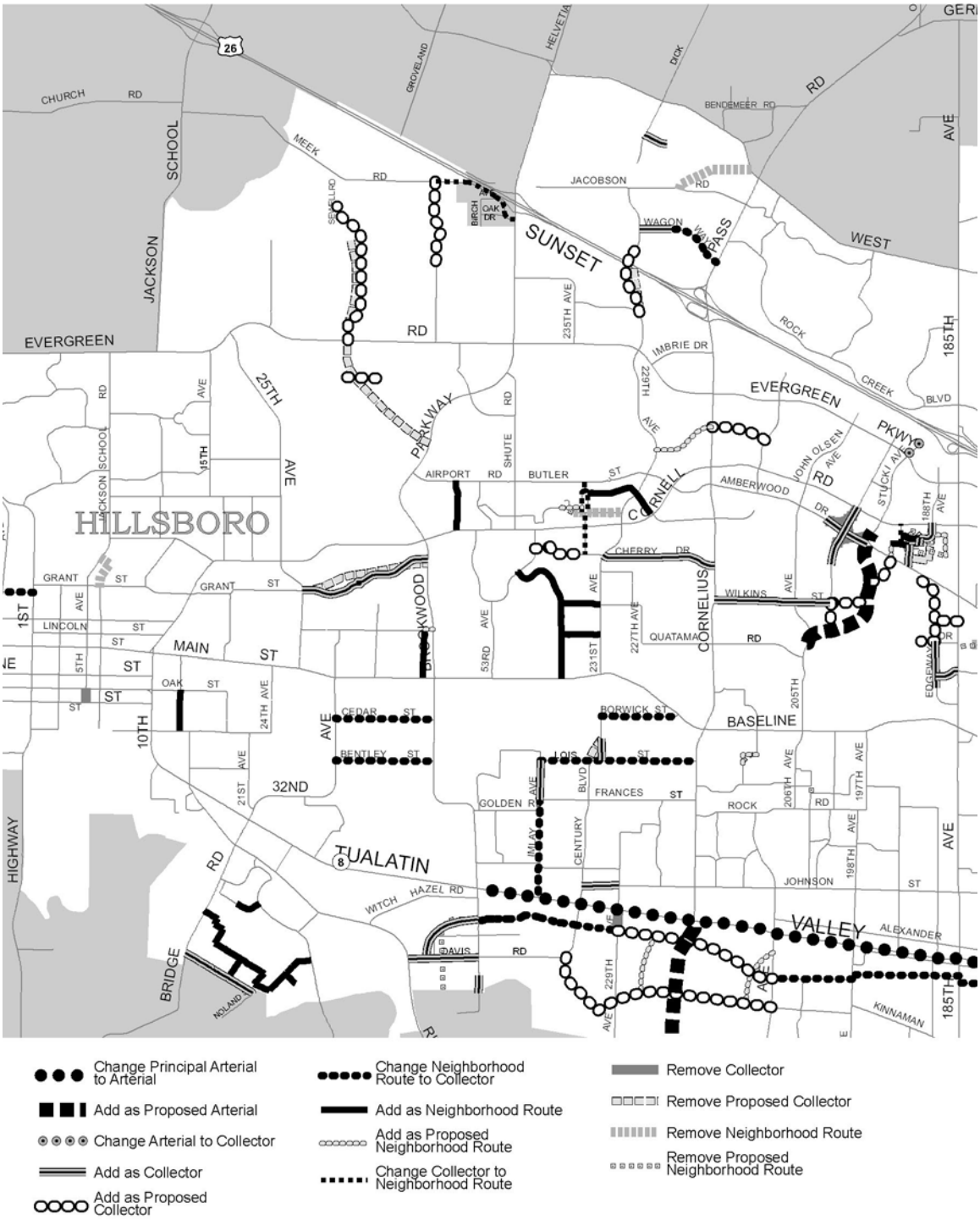

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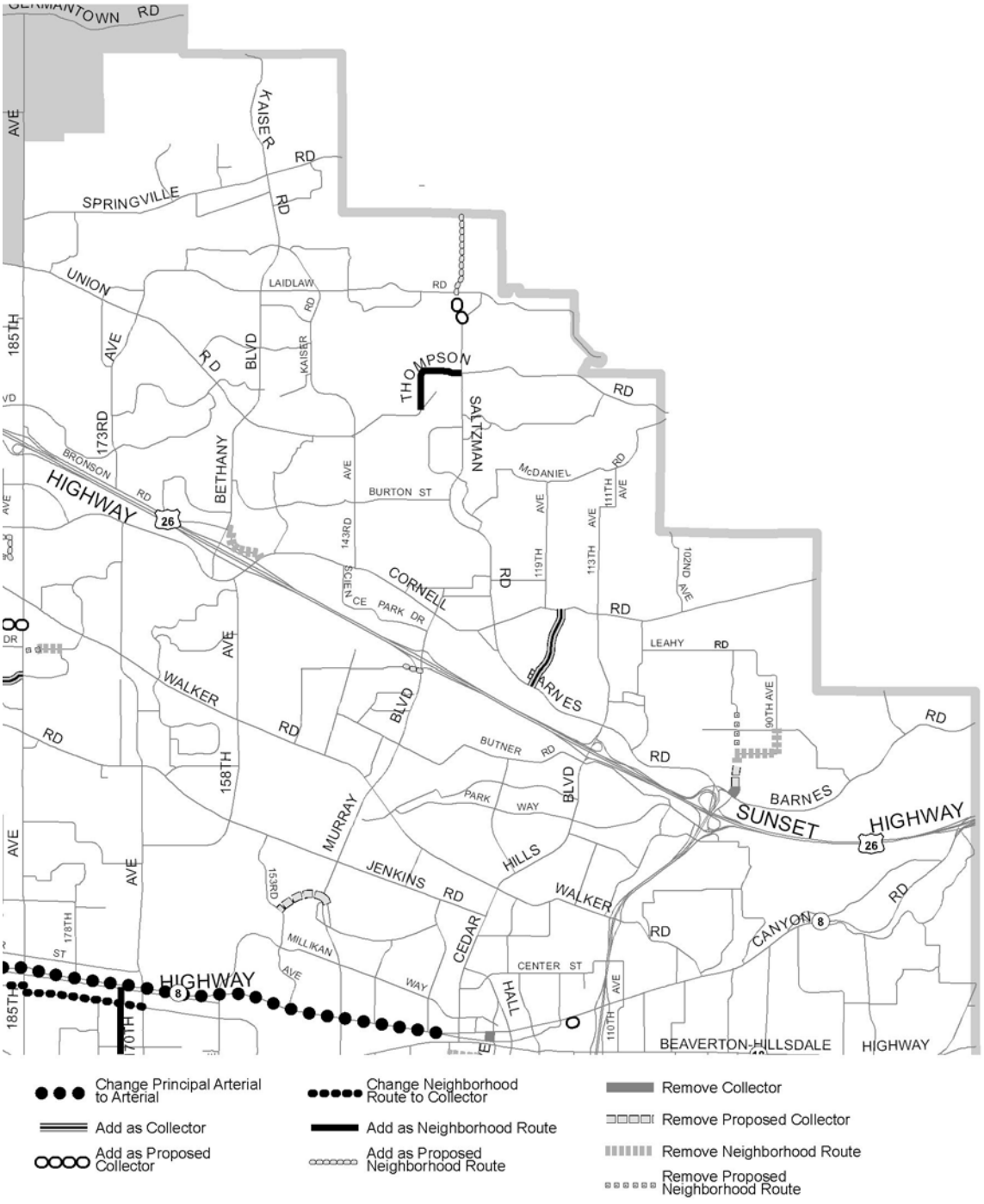

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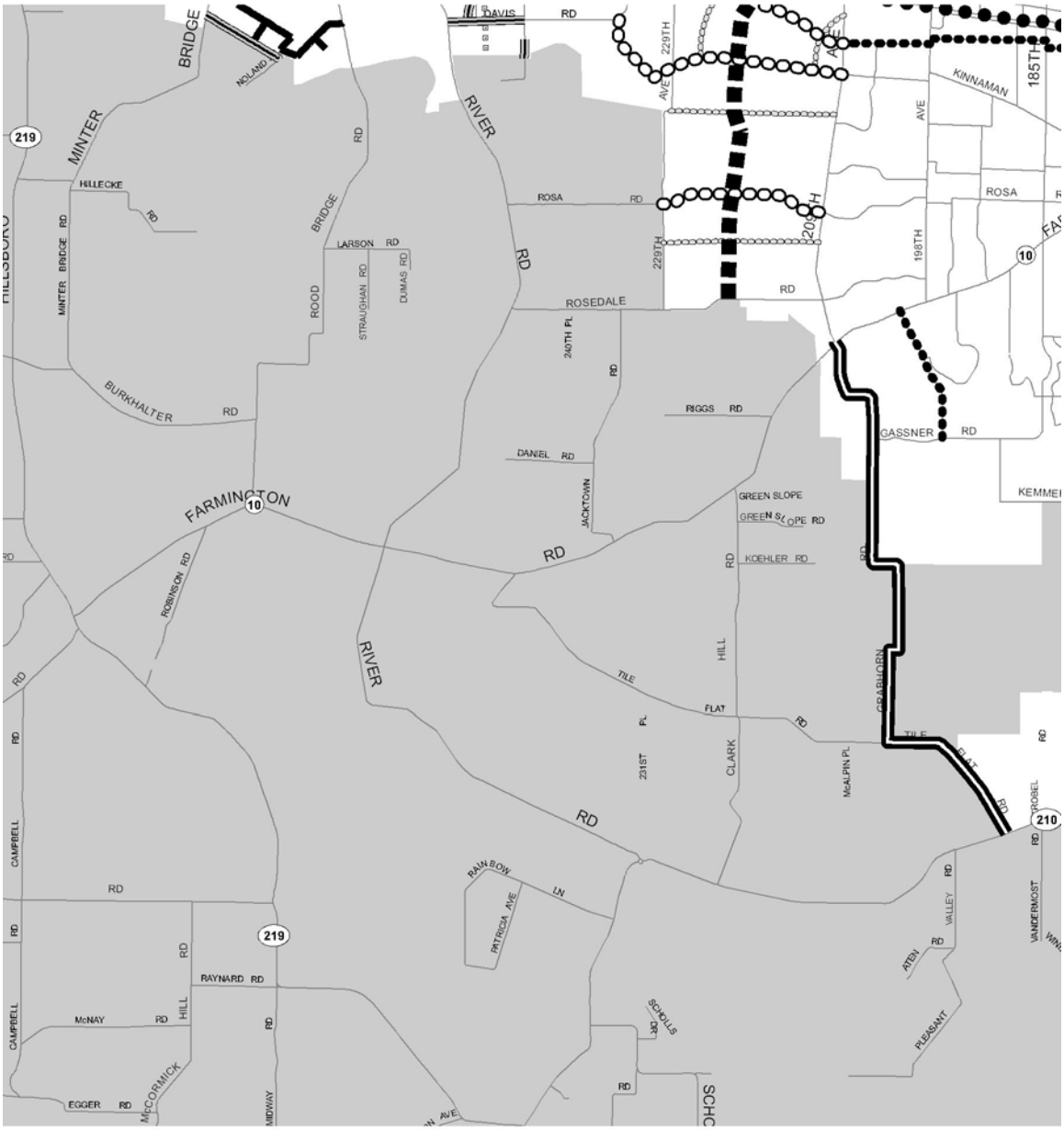
The Functional Classification map of the Transportation System Plan is amended as follows (map 5 of 8):



Change Principal Arterial to Arterial
Add as Arterial
Add as Proposed Arterial
Add as Collector
Add as Proposed Collector
Change Neighborhood Route to Collector
Add as Neighborhood Route
Add as Proposed Neighborhood Route
Remove Proposed Neighborhood Route

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abcdef Proposed additions
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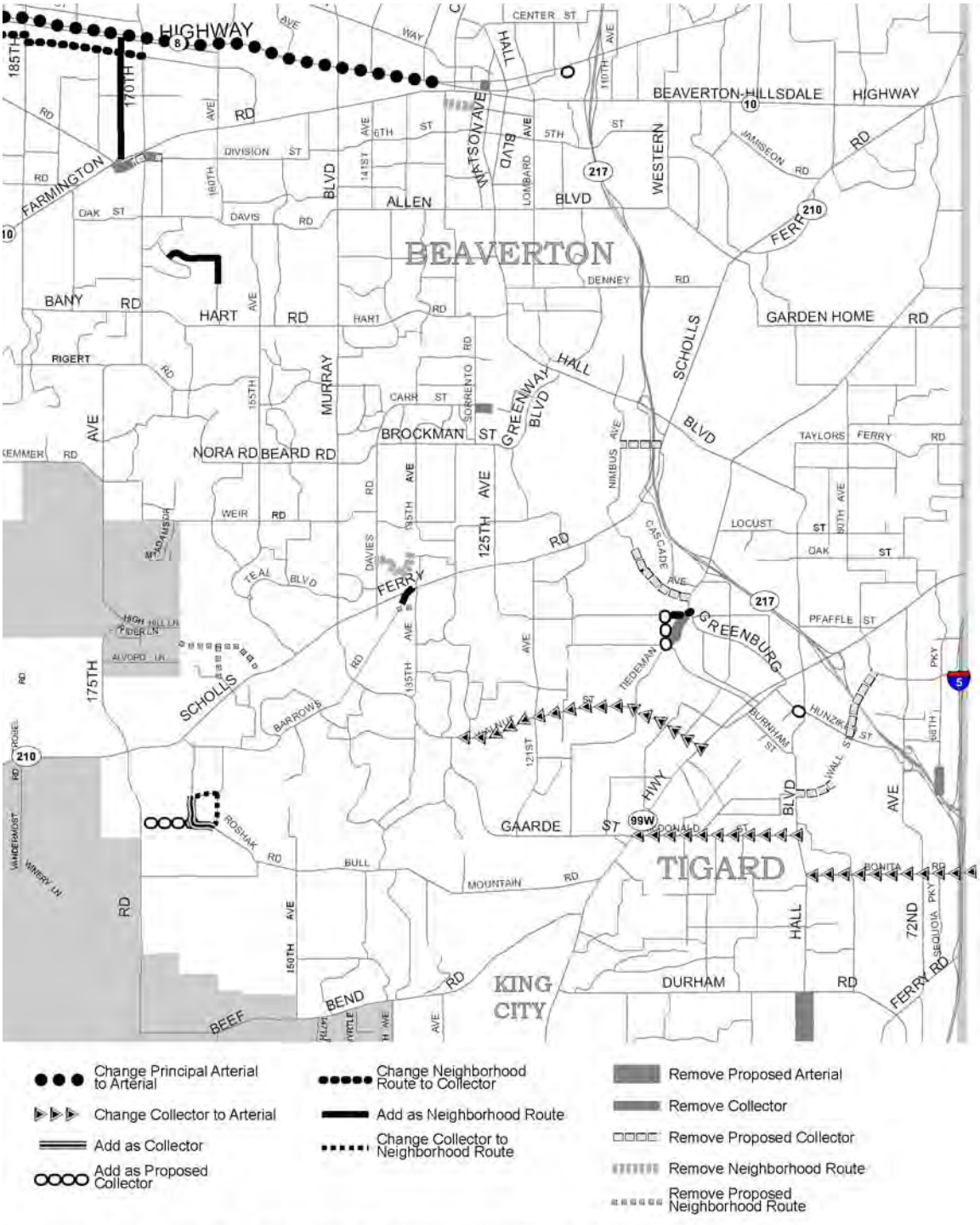
The Functional Classification map of the Transportation System Plan is amended as follows (map 6 of 8):



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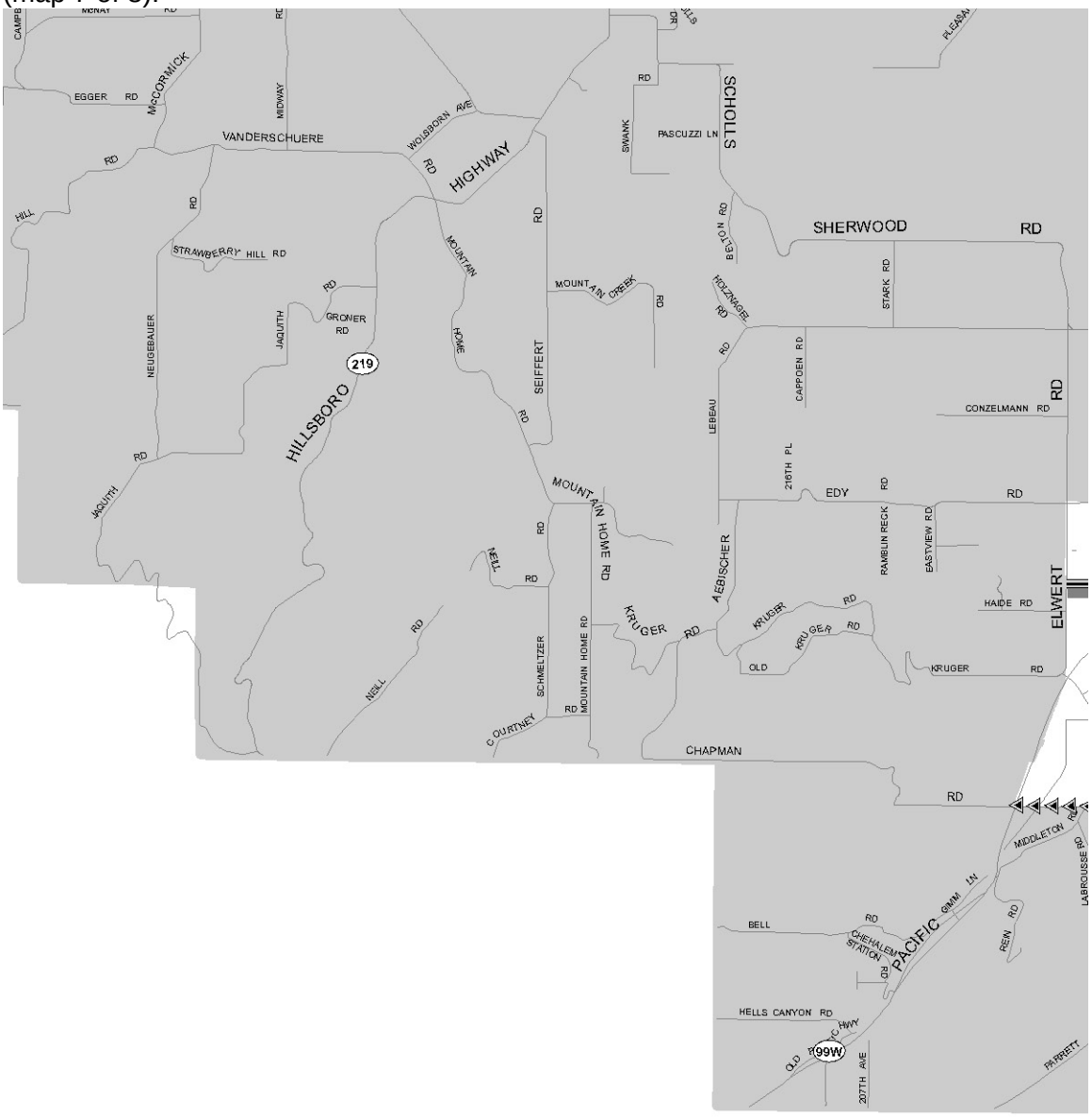
The Functional Classification map of the Transportation System Plan is amended as follows (map 7 of 8):



▶▶▶ Change Collector to Arterial ═══ Add as Collector ▬▬ Remove Collector

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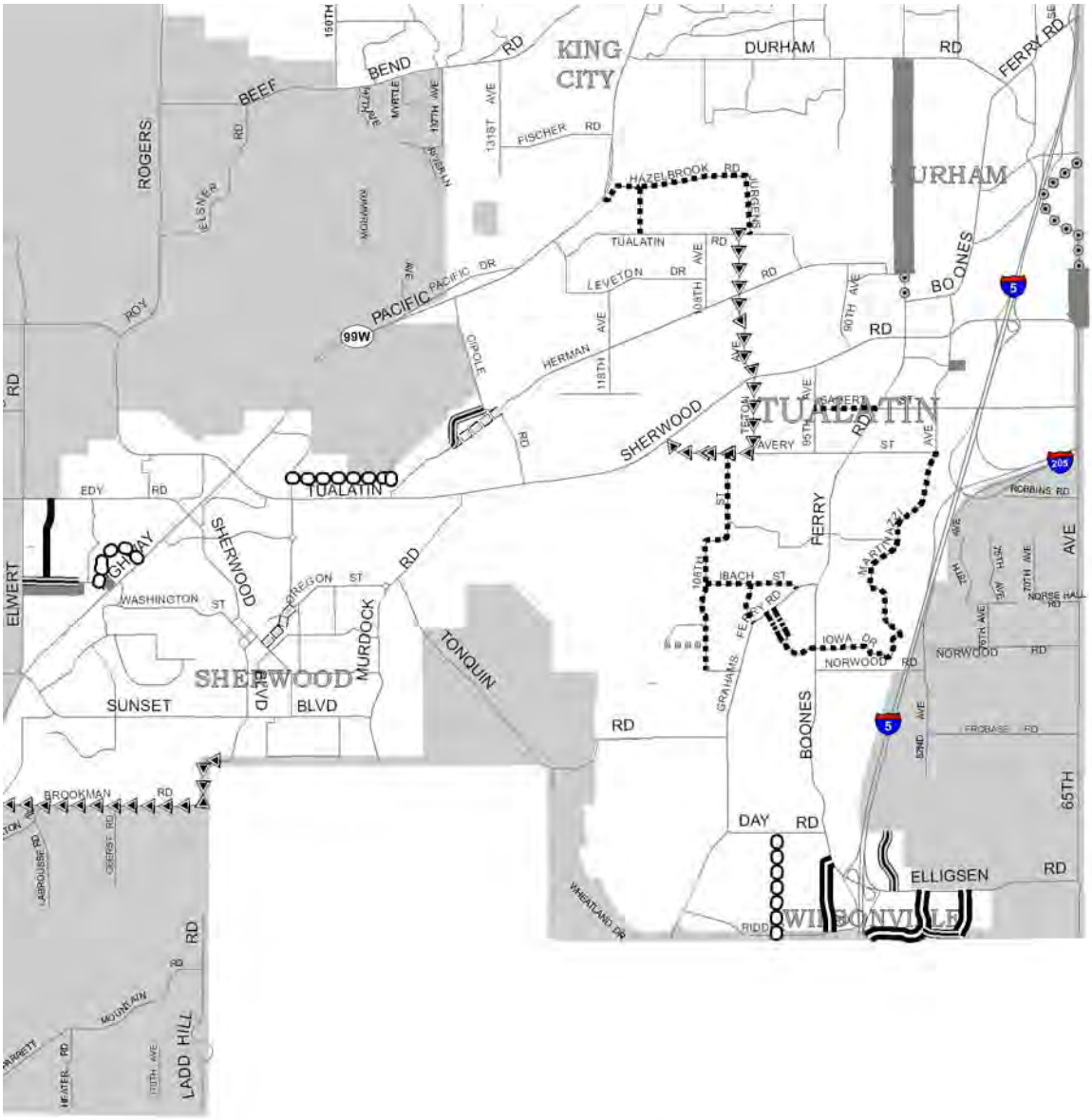
The Functional Classification map of the Transportation System Plan is amended as follows (map 8 of 8):



Add as Arterial
Change Collector to Arterial
Change Arterial to Collector
Add as Collector
Add as Proposed Collector
Change Proposed Collector to Proposed Neighborhood Route
Add as Neighborhood Route
Change Collector to Neighborhood Route
Remove Proposed Arterial
Remove Collector
Remove Proposed Collector
Remove Proposed Neighborhood Route

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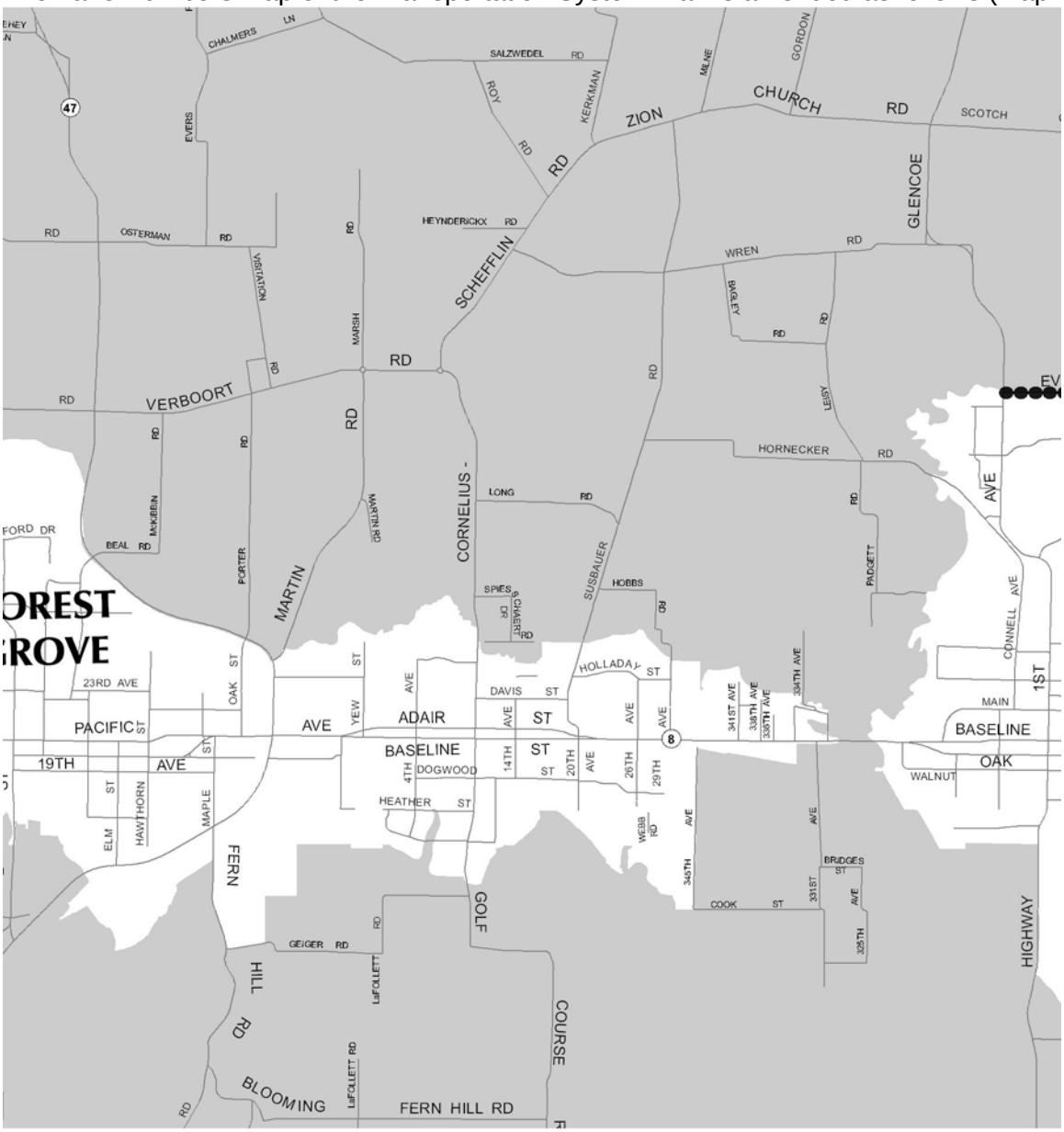
The Lane Numbers map of the Transportation System Plan is amended as follows (map 1 of 7):



●●●● Change from 2/3 to 4/5

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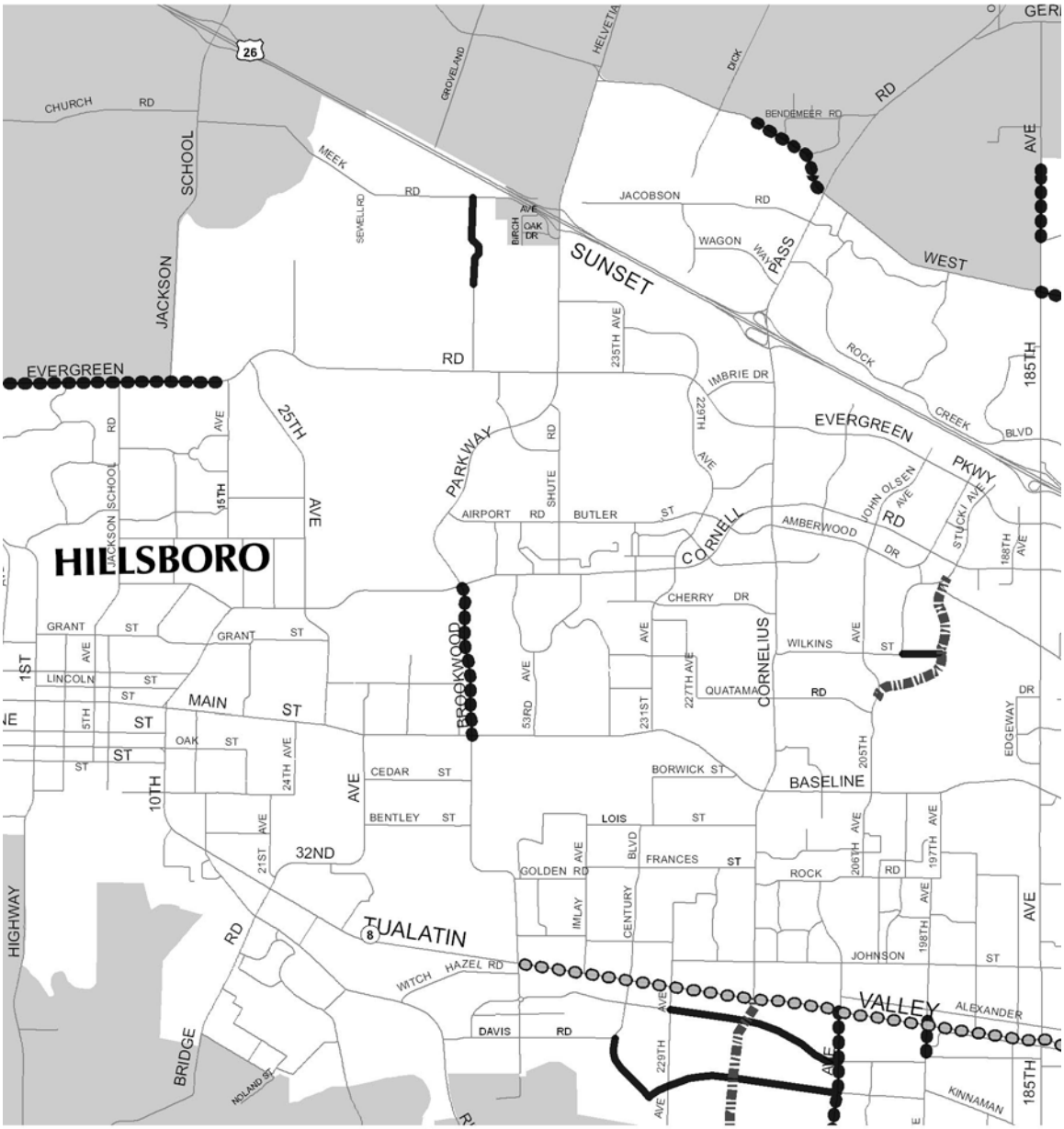
The Lane Numbers map of the Transportation System Plan is amended as follows (map 2 of 7):



Change from 2/3 to 4/5 — Add as 2/3 lanes

Change from 6/7 to 4/5 — Add as 4/5 lanes

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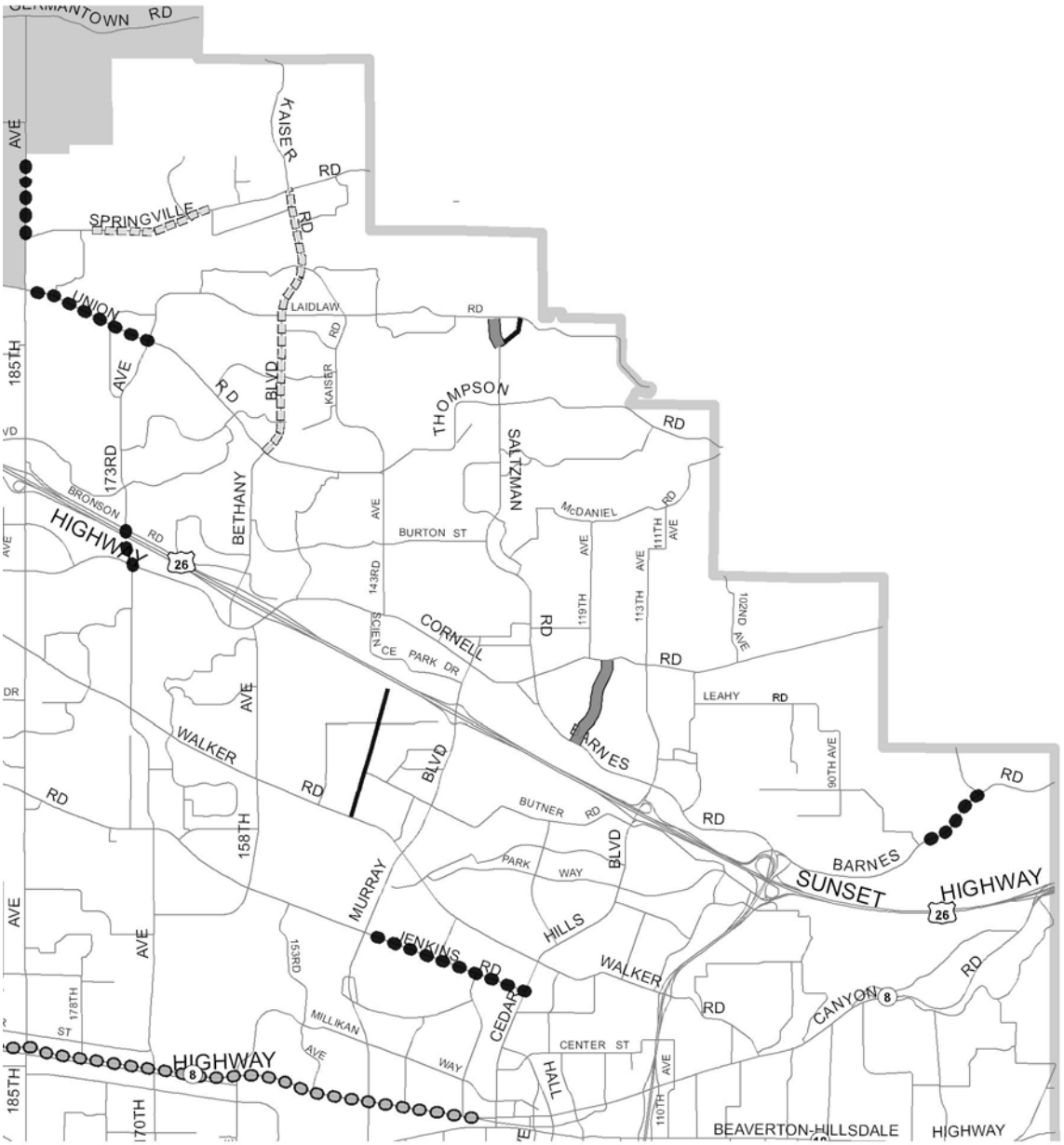
The Lane Numbers map of the Transportation System Plan is amended as follows (map 3 of 7):



Change from 2/3 to 2
Change from 6/7 to 4/5
Change from 2/3 to 4/5
Add as 2/3 lanes
Change from 4/5 to 2/3

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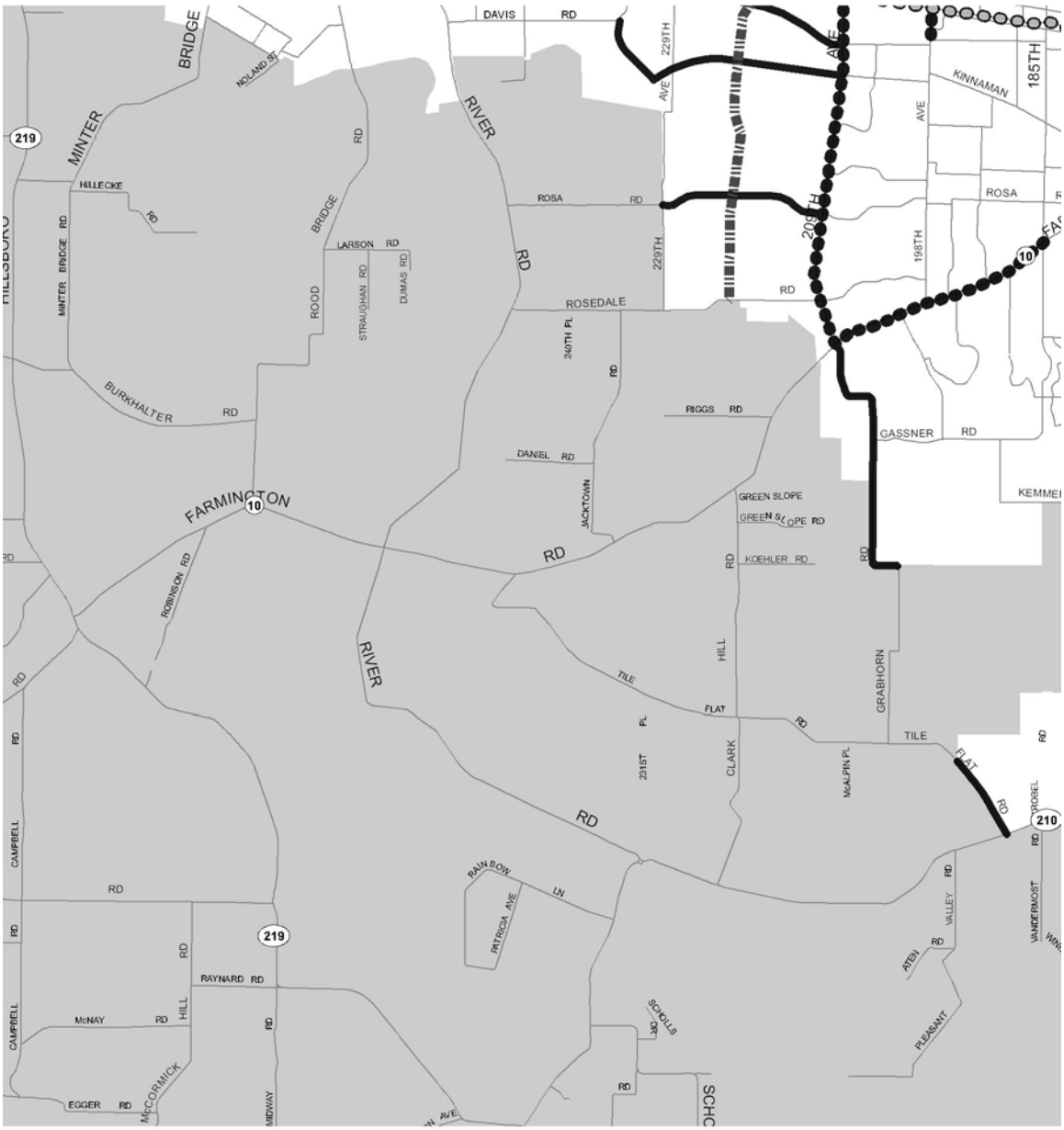
The Lane Numbers map of the Transportation System Plan is amended as follows (map 4 of 7):



Change from 2/3 to 4/5 — Add as 2/3 lanes

Change from 6/7 to 4/5 — Add as 4/5 lanes

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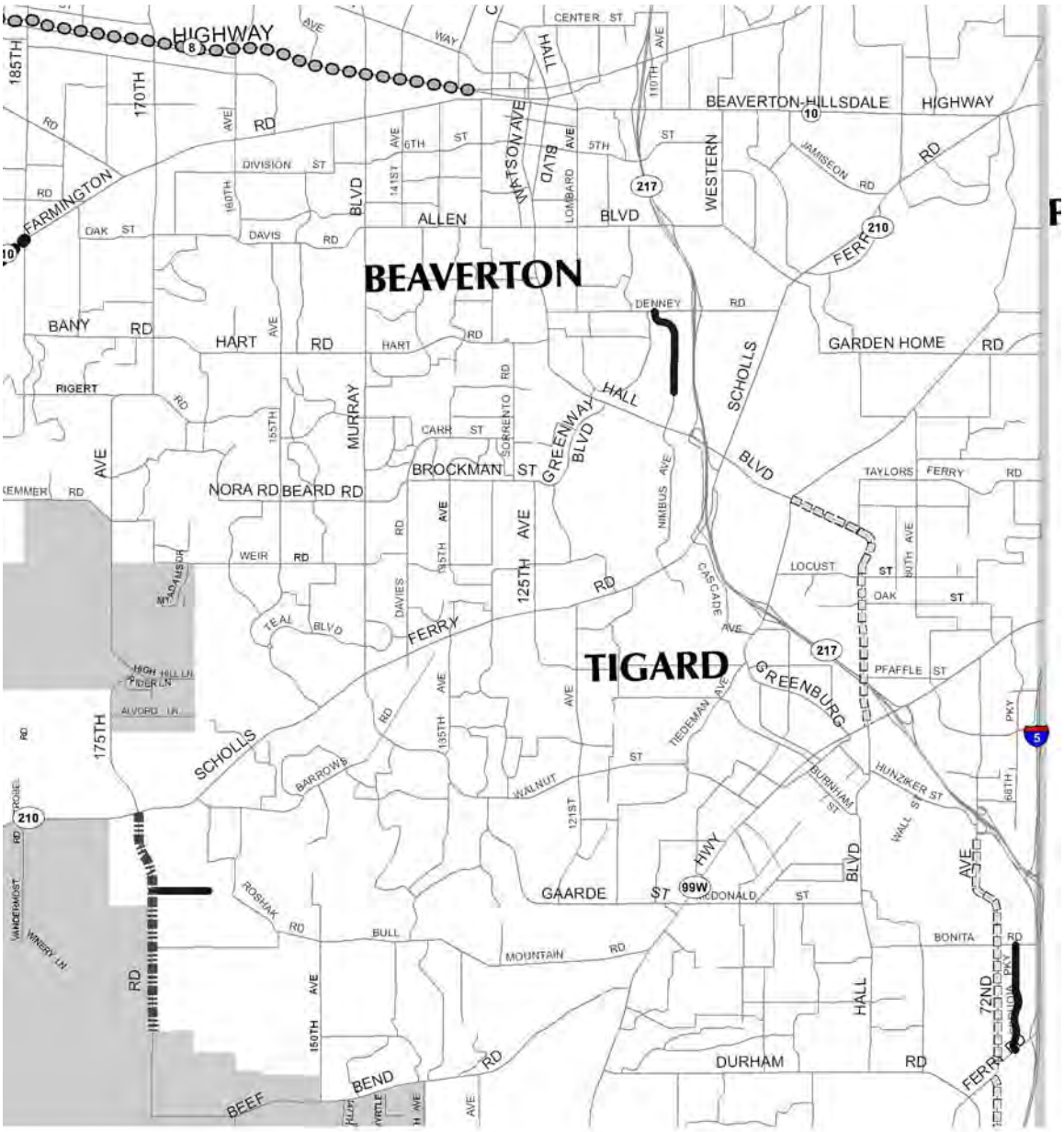
The Lane Numbers map of the Transportation System Plan is amended as follows (map 5 of 7):



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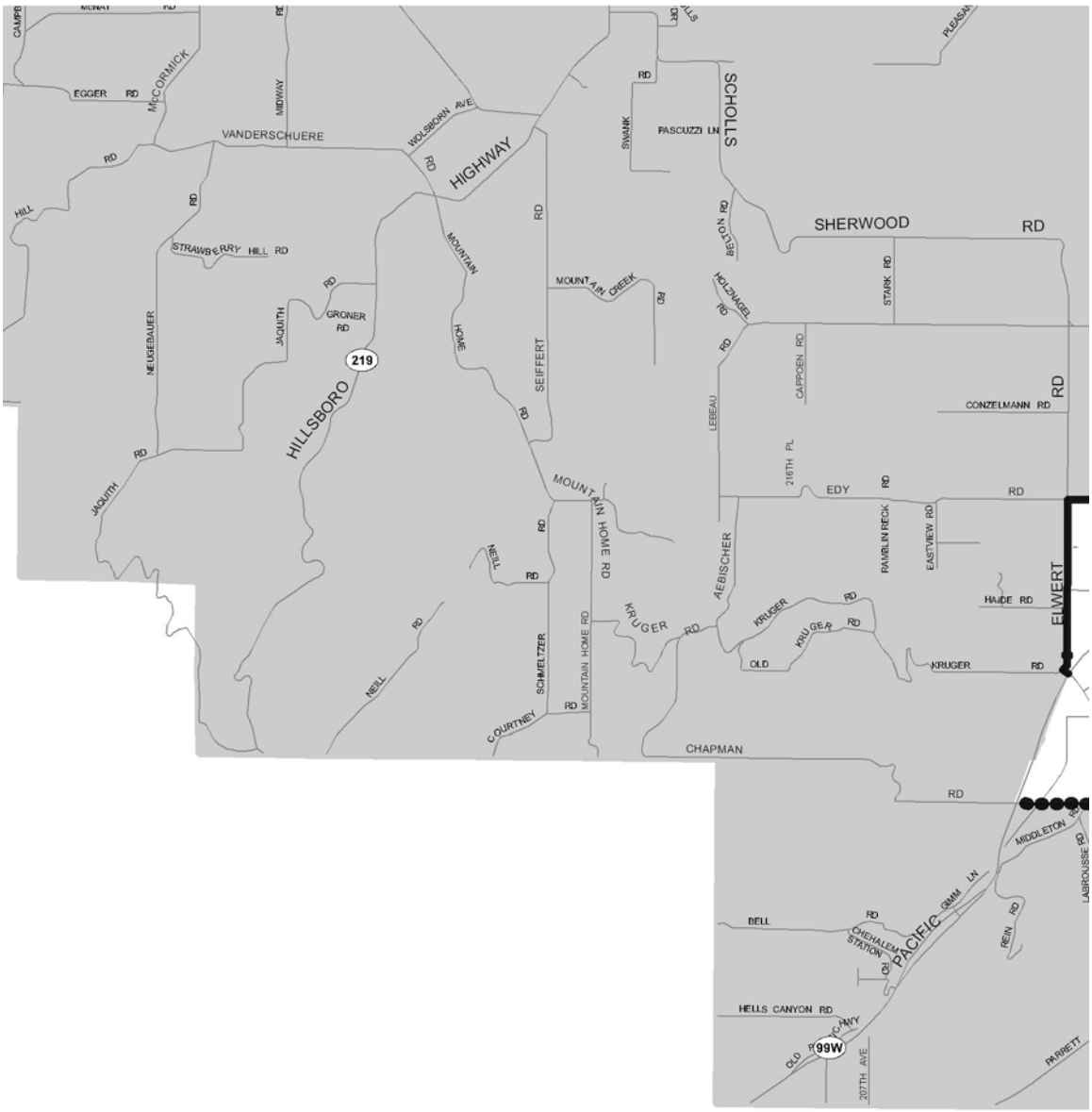
The Lane Numbers map of the Transportation System Plan is amended as follows (map 6 of 7):



Change from 2/3 to 4/5 — Add as 2/3 lanes

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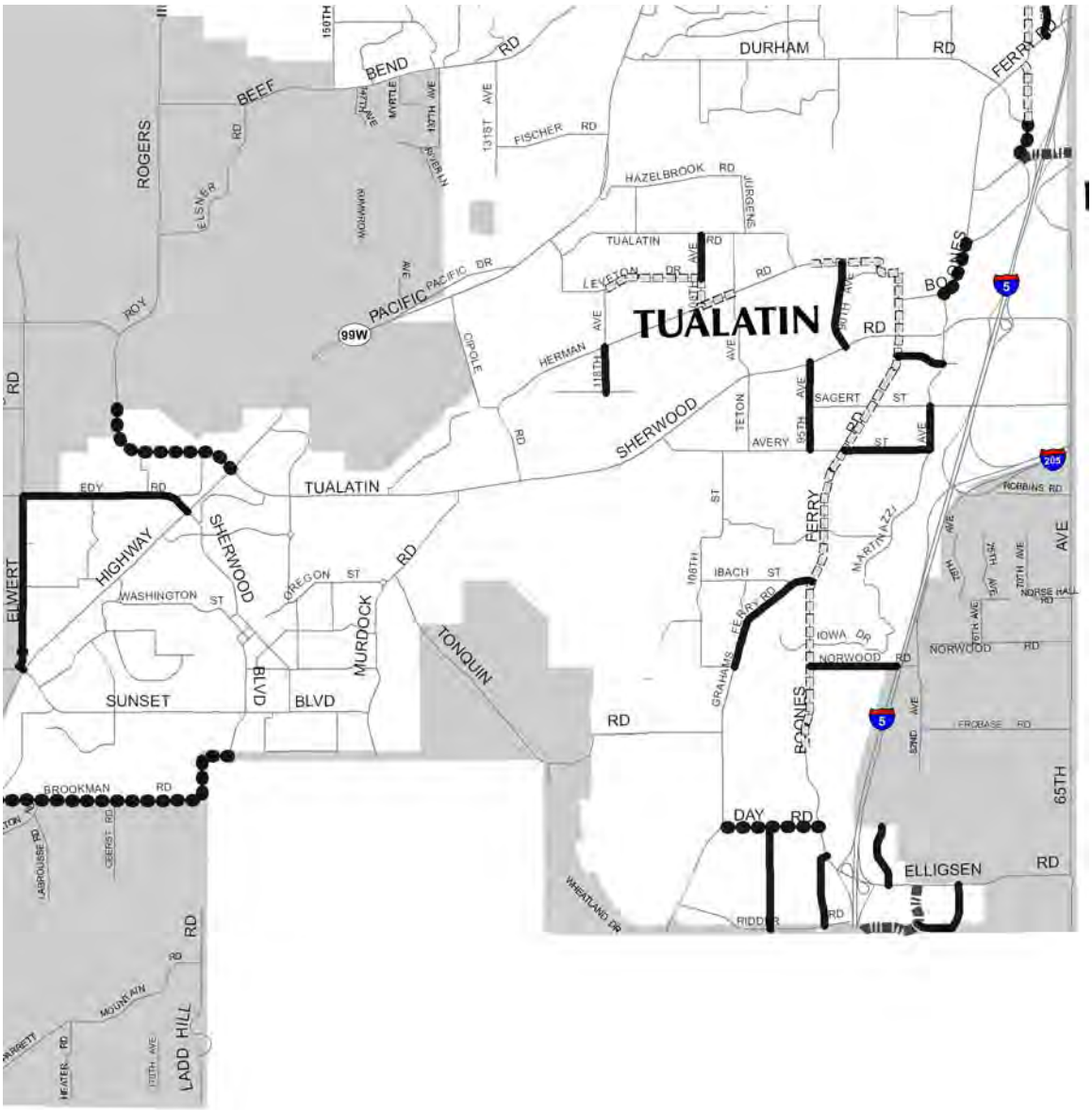
The Lane Numbers map of the Transportation System Plan is amended as follows (map 7 of 7):



Change from 2/3 to 4/5 — Add as 2/3 lanes

Change from 4/5 to 2/3 — Add as 4/5 lanes

Amendments to the map are shown in bold solid, dashed or patterned lines; as displayed in the legend. Other features shown are for reference only, and are not affected by this exhibit.

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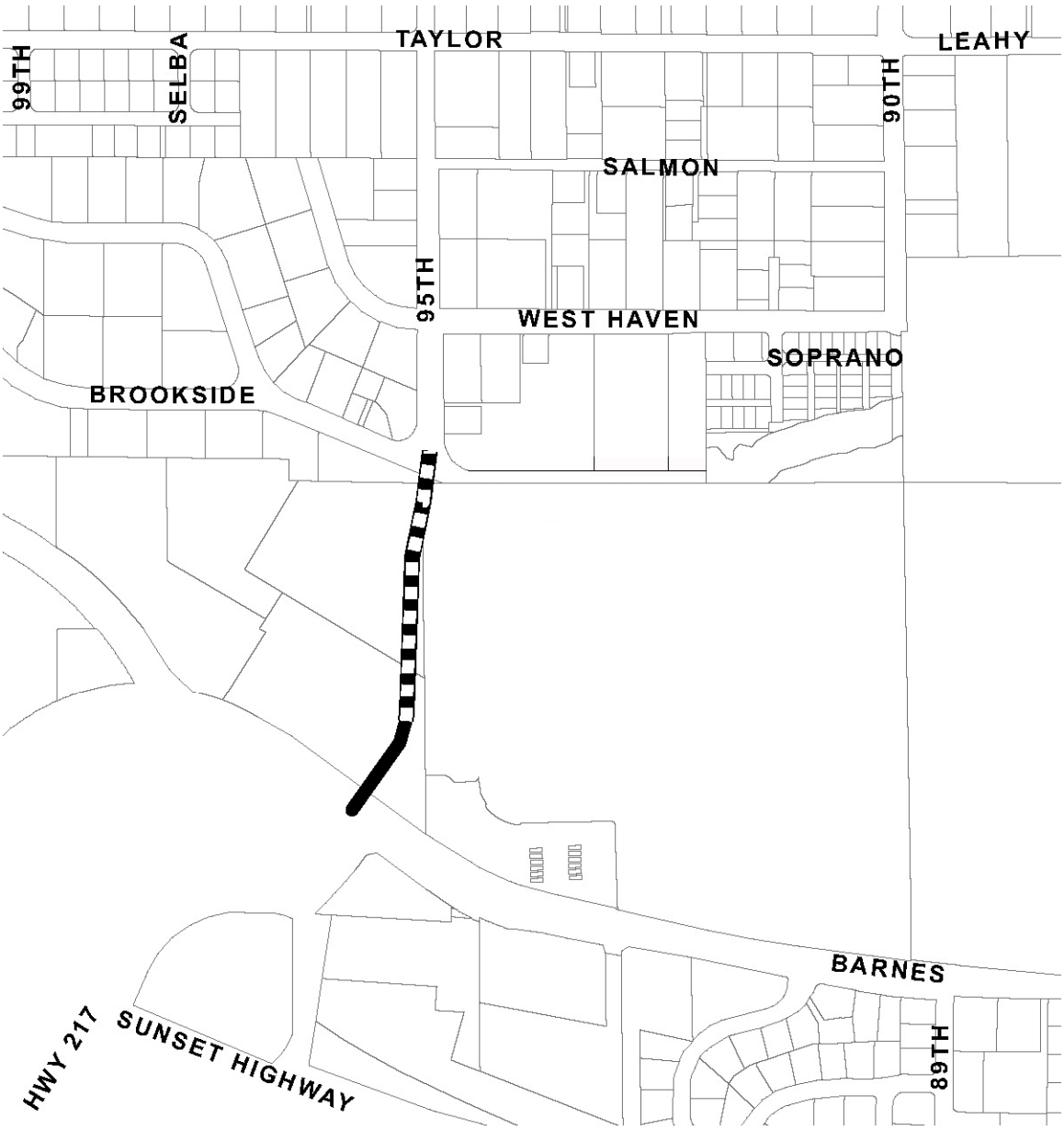
The Special Area Street Overlay Sunset Station Area Plan is amended as follows:



Amendments to the map are shown in bold solid, dashed or patterned lines; as displayed in the legend. Other features shown are for reference only, and are not affected by this exhibit.

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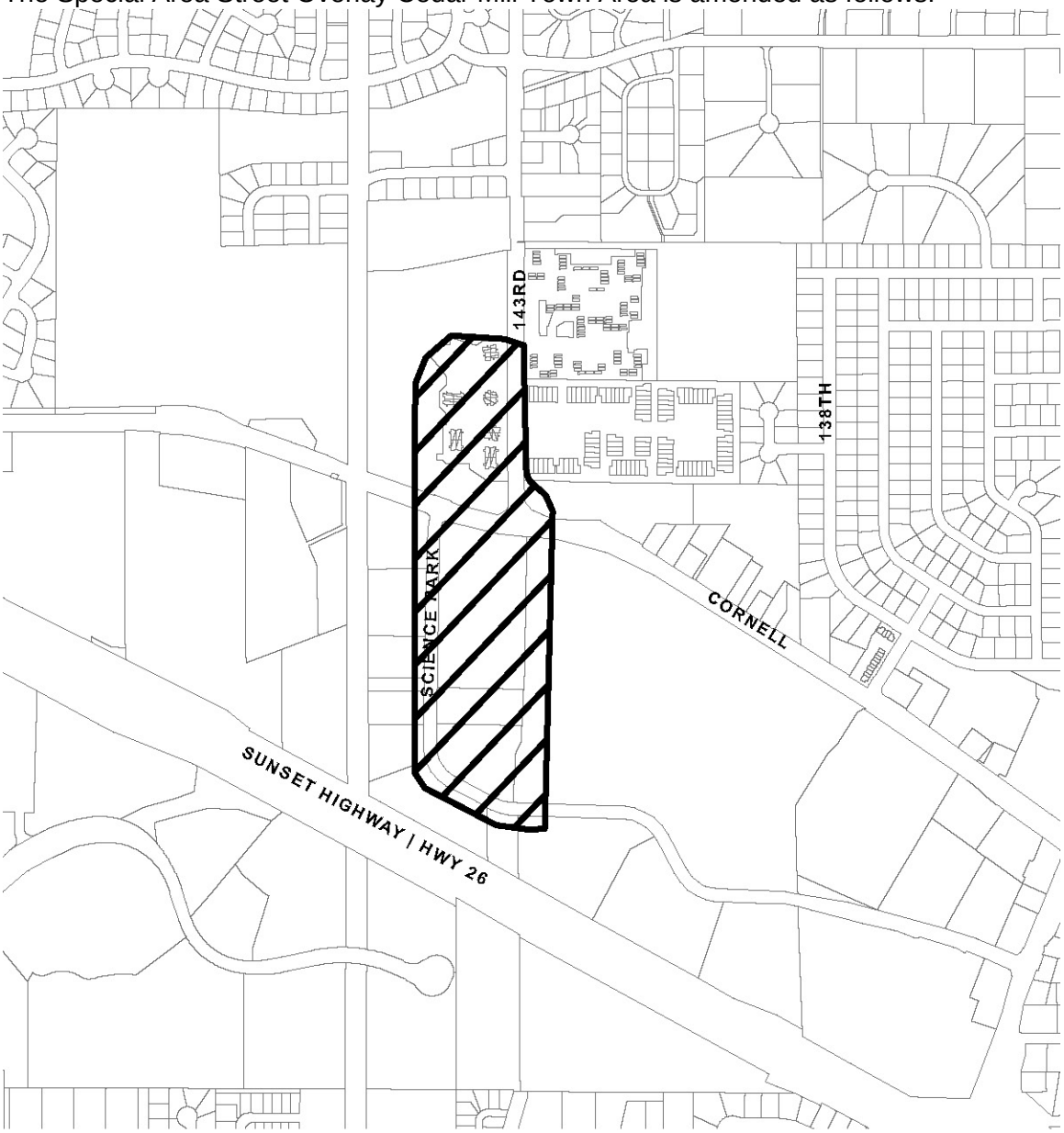
The Special Area Street Overlay Cedar Mill Town Area is amended as follows:



Delete Special Area Collector Corridor

Amendments to the map are shown in bold solid, dashed or patterned lines; as displayed in the legend. Other features shown are for reference only, and are not affected by this exhibit.

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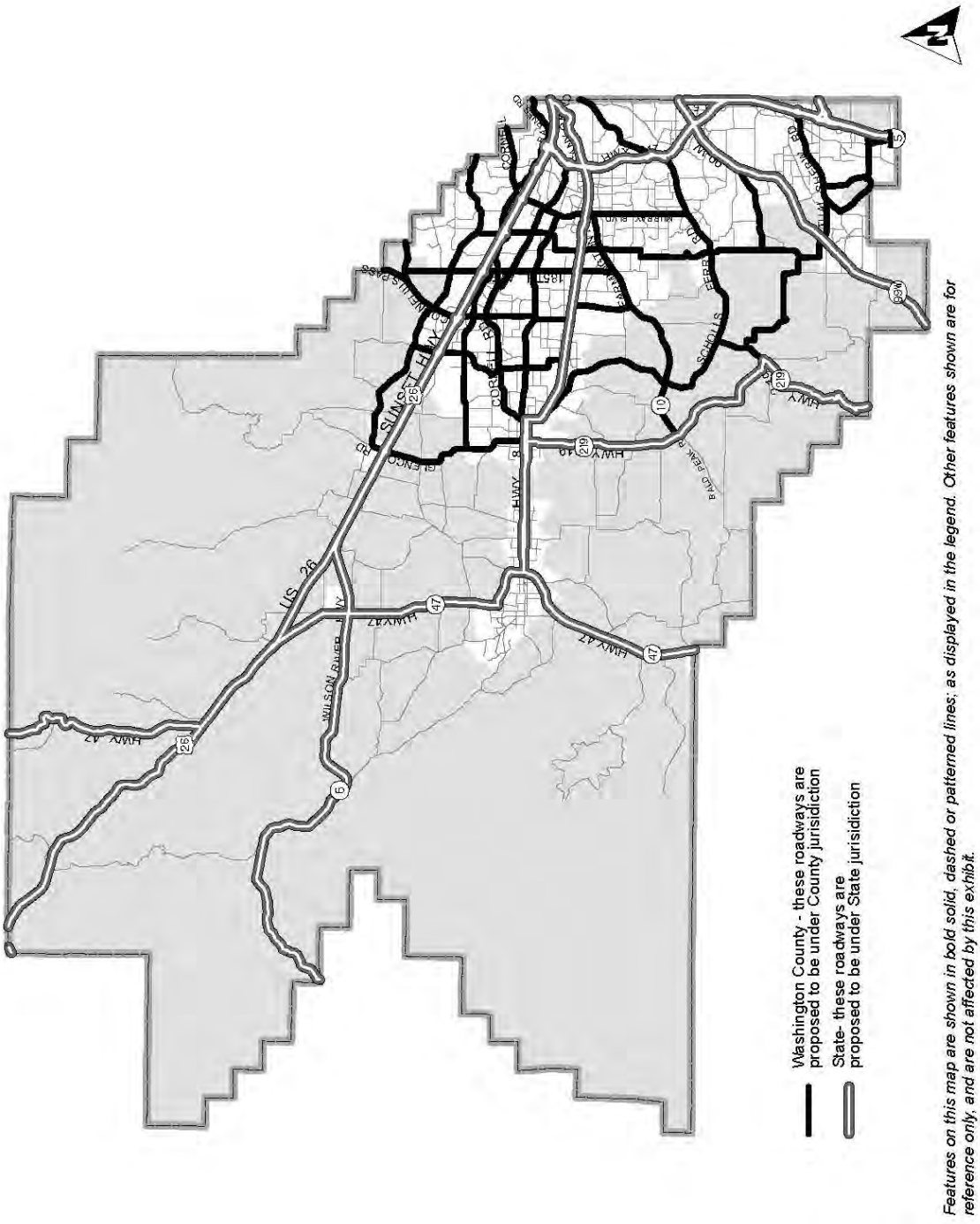
The Long Term Roadway Jurisdiction map is incorporated into the Washington County Transportation System Plan:



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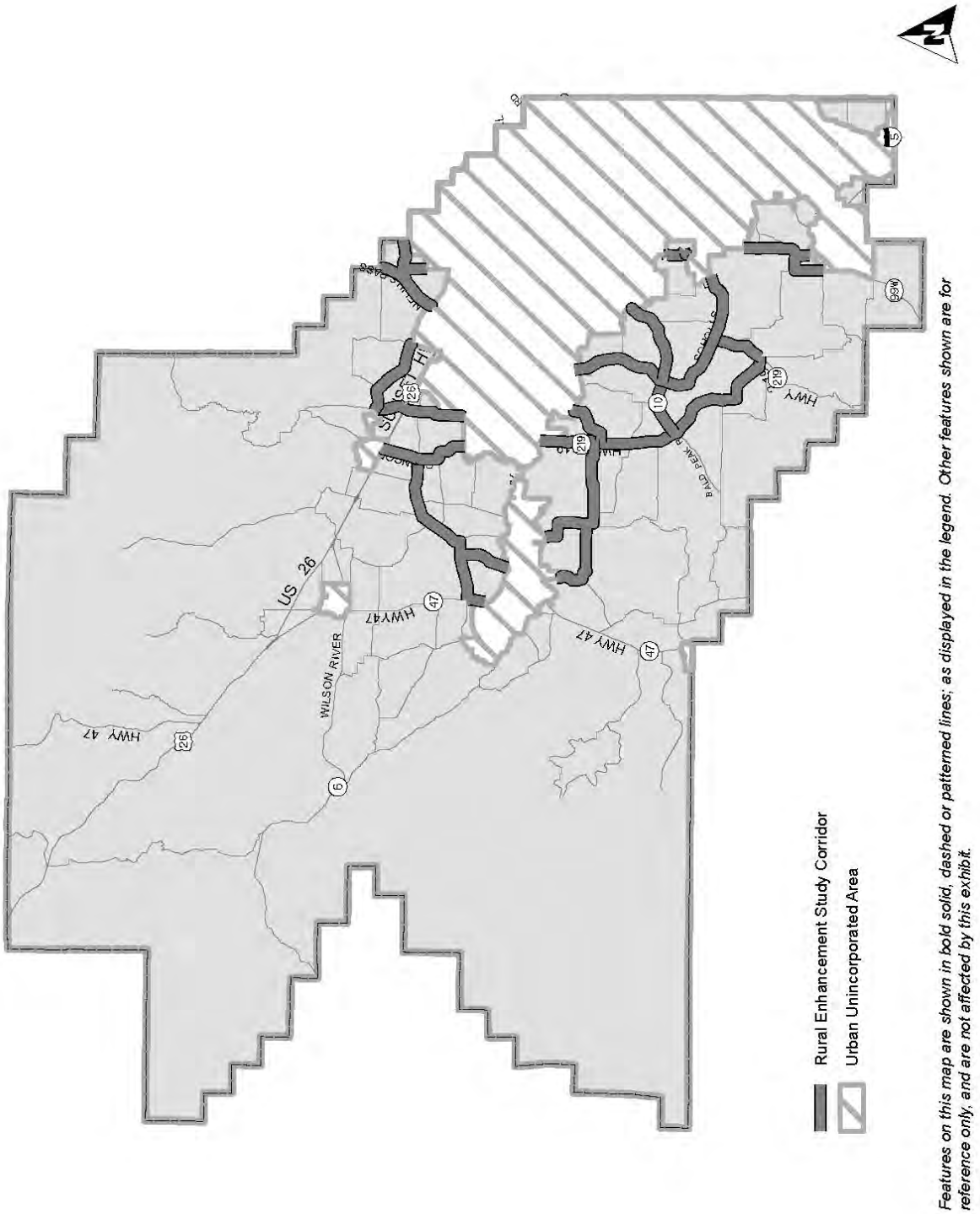
The Rural Enhancement Study Corridors map is incorporated into the Washington County Transportation System Plan:



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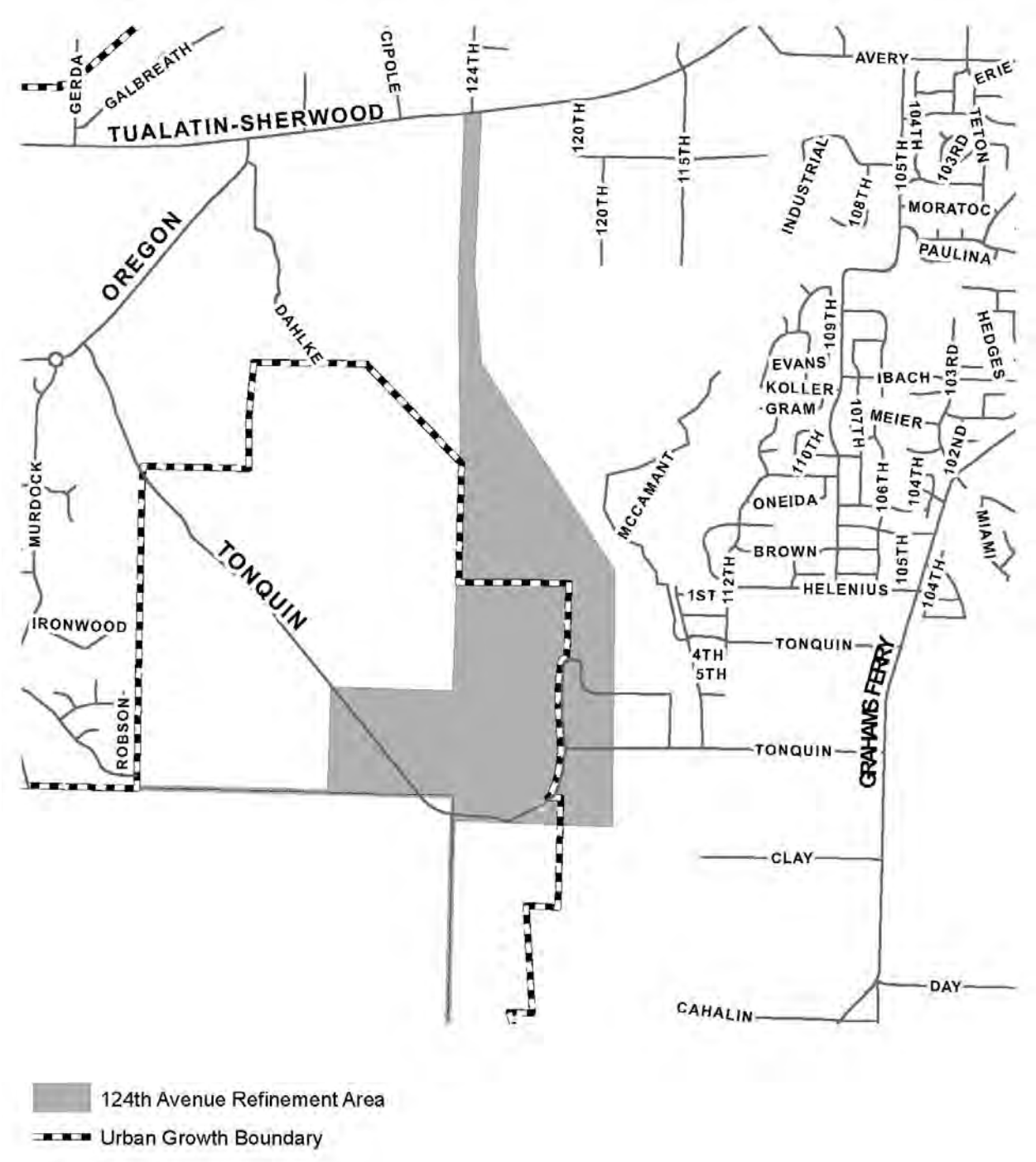
The SW 124th Avenue Extension Refinement Area map is incorporated into the Washington County Transportation System Plan:



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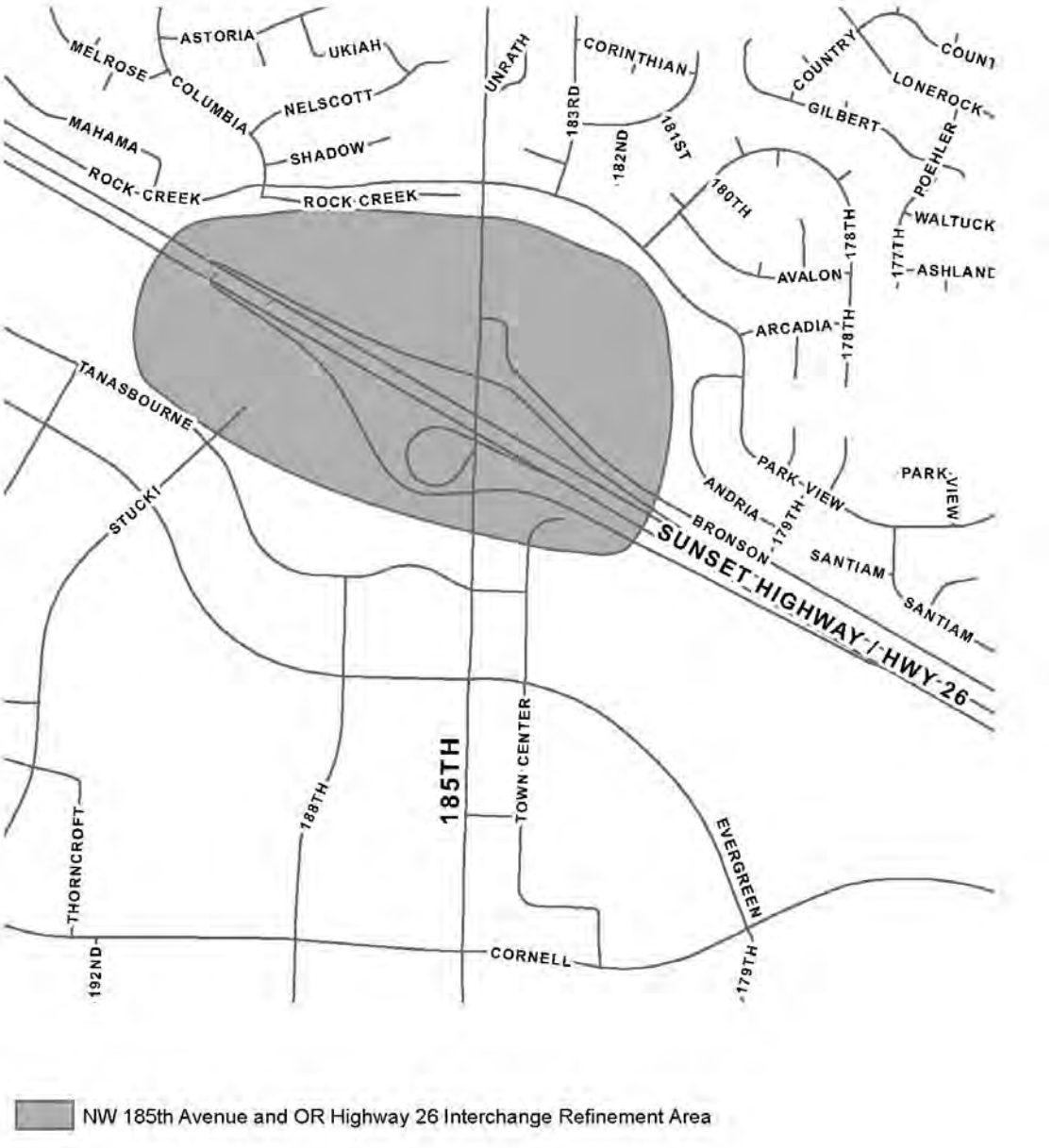
The NW 185th Avenue and OR Highway 26 Interchange Refinement Area map is incorporated into the Washington County Transportation System Plan:



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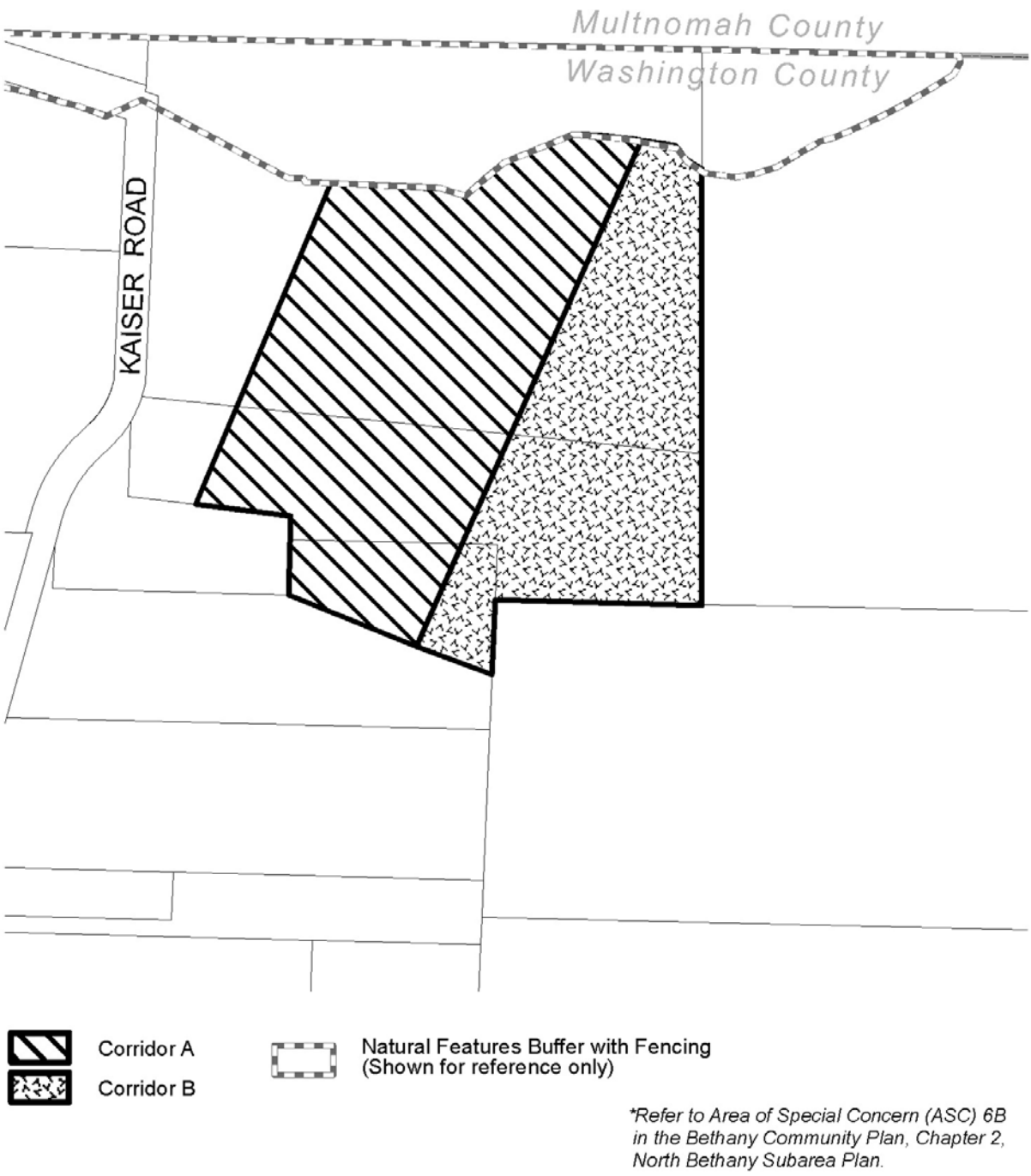
North Bethany Neighborhood Route* Refinement Area map is incorporated into the Washington County Transportation System Plan



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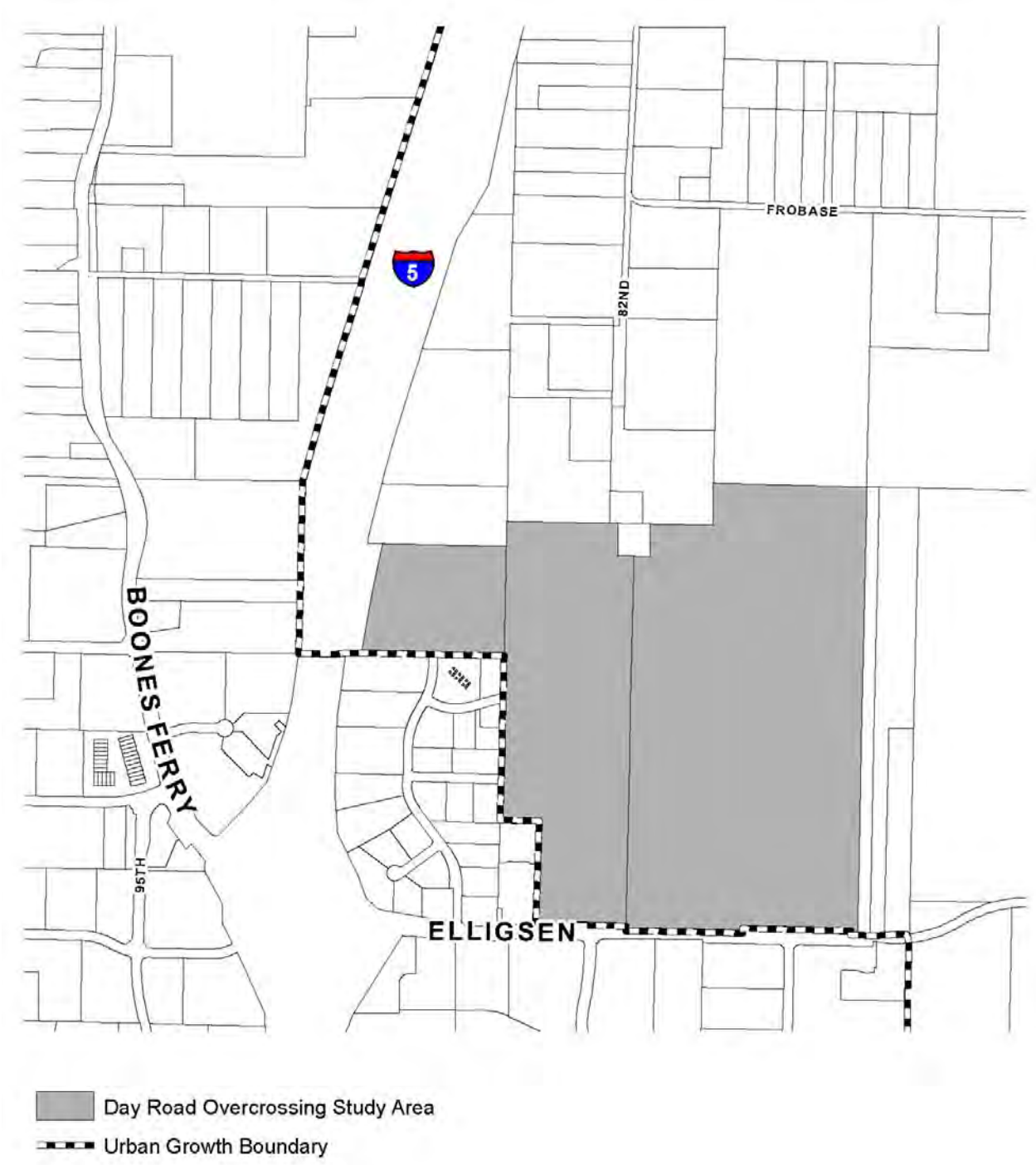
The SW Day Road Overcrossing Refinement Area map is incorporated into the Washington County Transportation System Plan:



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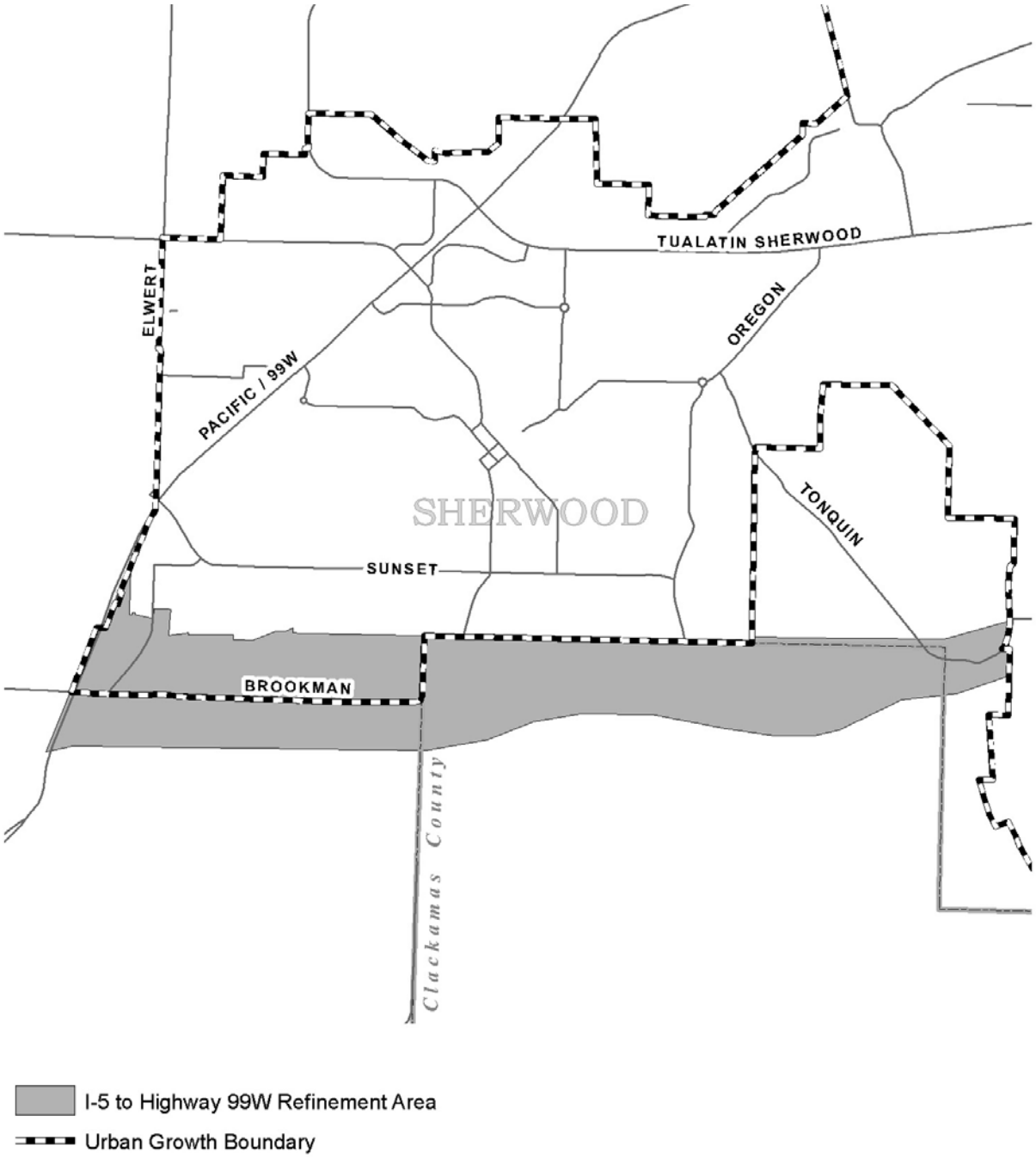
The I-5 to Highway 99W Refinement Area map is incorporated into the Washington County Transportation System Plan:



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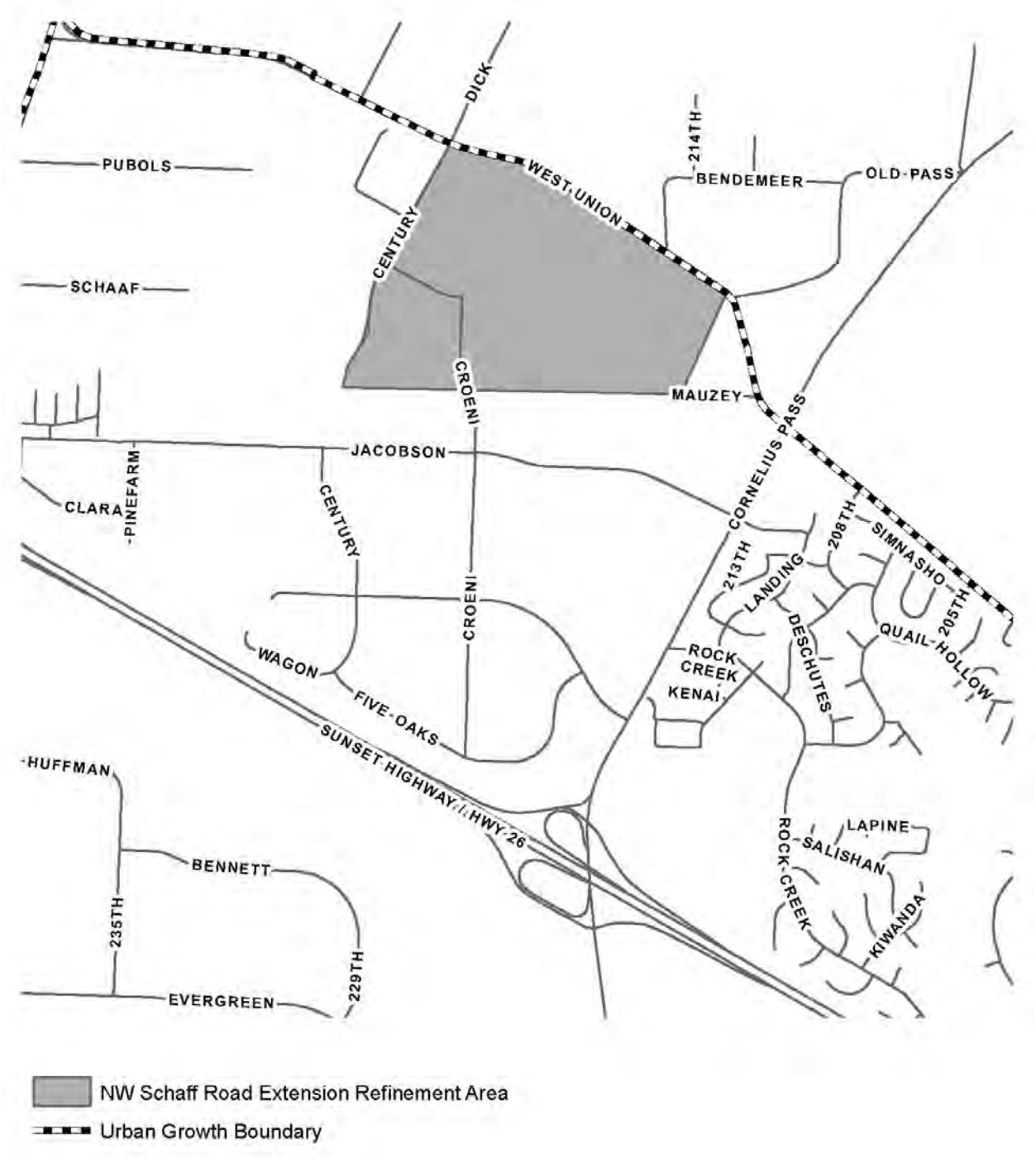
The NW Schaff Road Extension Refinement Area map is incorporated into the Washington County Transportation System Plan:



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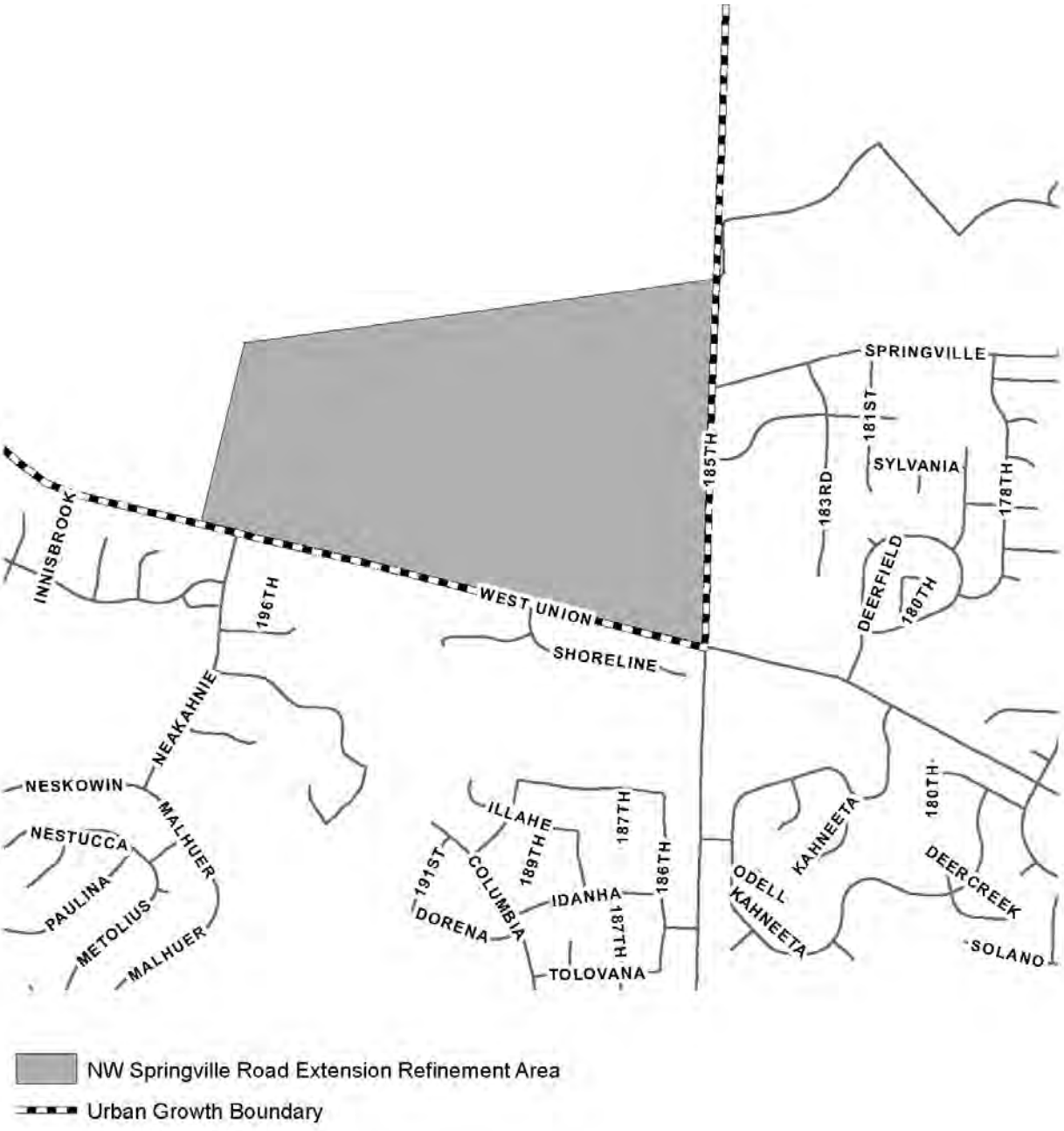
The NW Springville Road Extension Refinement Area map is incorporated into the Washington County Transportation System Plan:



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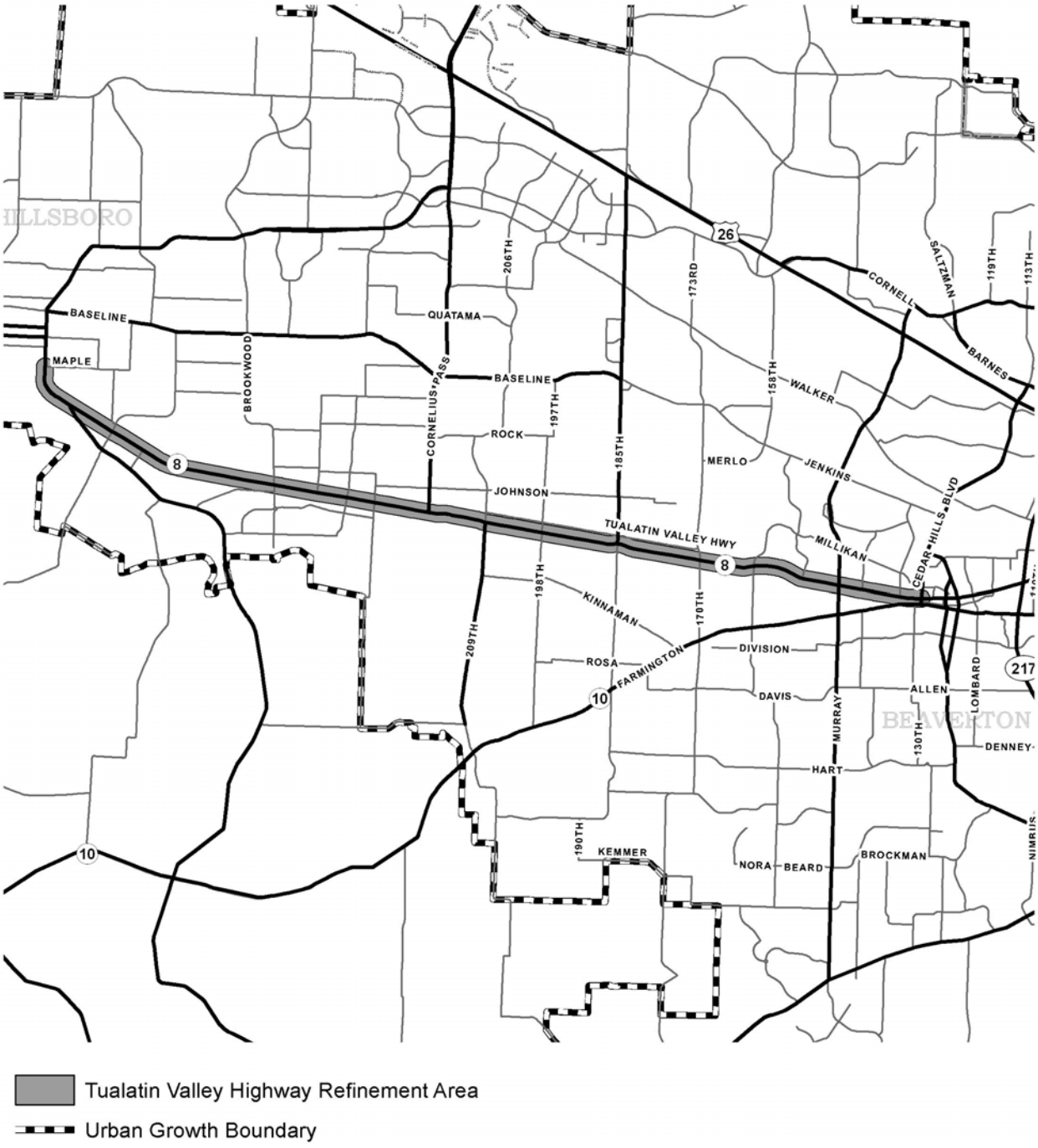
The Tualatin Valley Highway Refinement Area map is incorporated into the Washington County Transportation System Plan:



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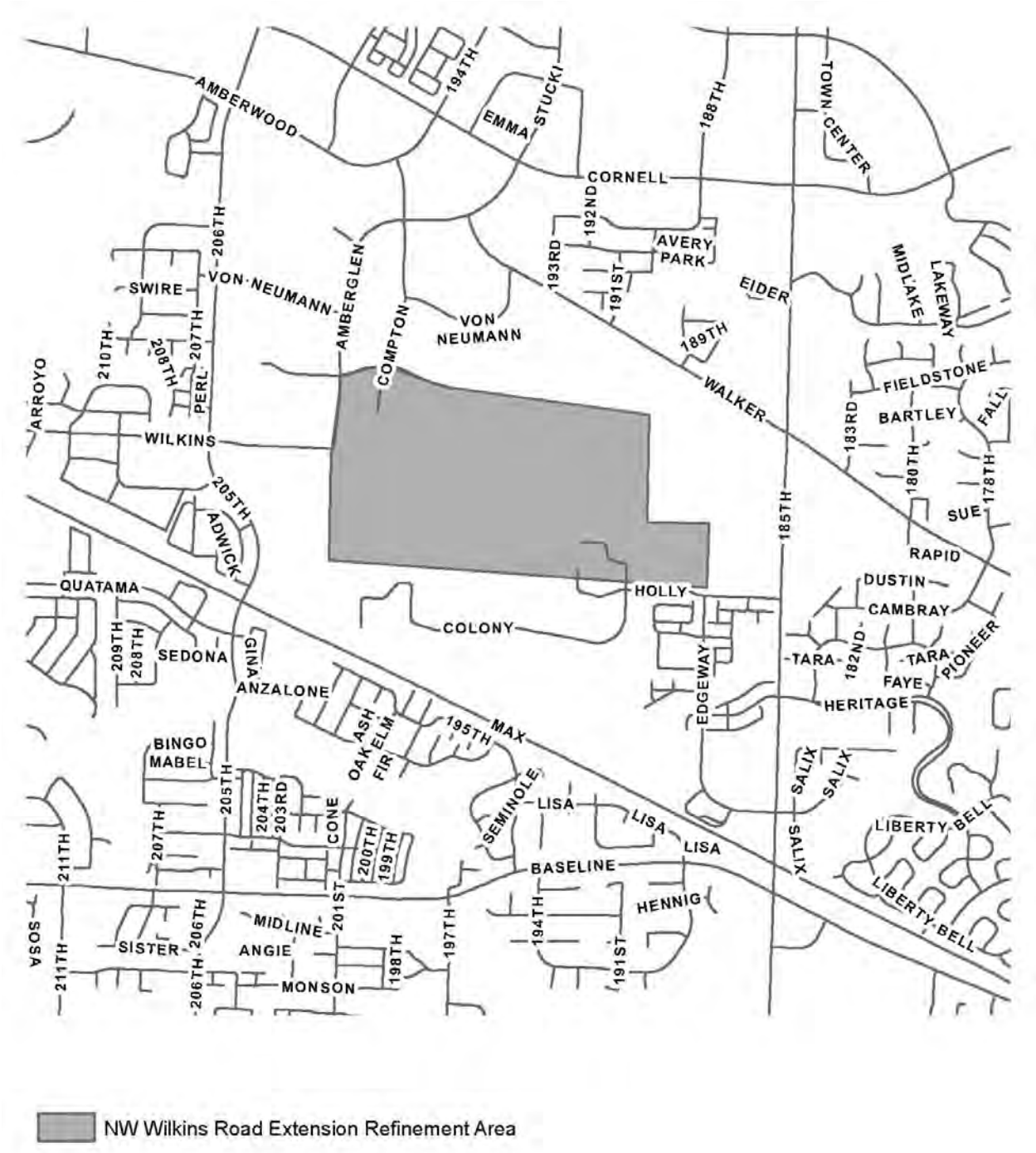
The NW Wilkins Road Extension Refinement Area map is incorporated into the Washington County Transportation System Plan:



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Freight Element

Given the close connection between freight movement and economic vitality, it is critically important for Washington County's transportation network to provide an efficient and reliable system for the transport of goods. The Freight Element describes the transportation facilities needed for the safe, efficient movement of goods and services throughout Washington County. The freight element is divided into two sections:

1. Roadway Freight System
2. Aviation, Railroad and Pipeline Systems

1. Roadway Freight System

The Roadway Freight System includes all roadways within Washington County and is necessary to provide both mobility and access for commerce throughout Washington County. The Roadway Freight System is intended to provide for efficient truck travel, while minimizing truck travel through residential neighborhoods. The primary purpose of designating truck routes in this TSP is to ensure that any future improvements on these roads provide for the safe and efficient movement of trucks. Truck route designations encourage the use of these routes for truck travel, but do not restrict trucks to these routes.

Roadway Freight System Map

The Roadway Freight System Map identifies truck routes and over-dimensional truck routes. These routes are on roadways where high volumes of freight traffic are anticipated, and where roadway system improvements should consider the needs of these vehicles as well as other modes using the facility.

Truck Routes

Truck Route designations are for planning purposes only and used to guide the design of road and bridge improvements to handle a greater frequency of truck and other heavy vehicle traffic. Truck routes are identified roadways where a high percentage of vehicles larger than personal vehicles are expected. These routes may connect freight corridors and/or serve industrial areas.

The design of improvements or changes to truck routes should consider the needs of large vehicles such as broader turn radii, wider lanes, acceleration/deceleration characteristics, longer turn pockets, longer start up and stopping time built into signal timing and high overhead clearance. It should be noted that all County roads are open to vehicles that do not exceed statutory or permitted weights and dimensions. It is the responsibility of the vehicle's driver to operate the motor vehicle safely and legally, abiding by all posted limitations, temporary restrictions and/or emergency situations. Additionally, it is also the driver's responsibility to navigate the County's road network taking into consideration the geometry of the road.

Over-Dimensional Truck Routes

Certain truck routes routinely carry or have the ability to carry vehicles that exceed the statutory limits for weights and dimensions. These Over-Dimensional Truck Routes should be given special consideration for the operation of larger-than-standard vehicles.

When considering improvements or other actions within or adjacent to the right-of-way along Over-Dimensional Truck Routes, the design should not preclude the operation of larger vehicles. The design of improvements within or along these routes should consider (but is not limited to):

- Large turn radii;
- Mountable curbs and/or medians;
- Placement and/or type of street trees, street furniture and street lighting;
- Placement of sidewalks and design of pedestrian crossing treatments;
- Placement of signal poles, utilities and signage;
- Placement of planting strip, median design and vegetation treatments; and
- Building placement and setbacks.

Any new fixed object placed within the right-of-way should be evaluated for its effect on larger-than-standard vehicle operations.

The identification of these routes in this plan does not relieve a motor carrier from obtaining a trip permit. The route identification is solely intended for use in planning and design of roads and bridges.

2. Aviation, Railroad and Pipeline Systems

The Aviation, Railroad and Pipeline systems provide for the conveyance of good and services by air, rail and pipeline. These systems work in conjunction with the roadways system and deal with the movement of people, goods or services by these modes.

Aviation

The State Transportation Planning Rule (OAR 660-0012-020(2)(e)) requires the identification of existing and planned public use airports. There are currently three public use airports within Washington County:

1. Hillsboro Airport (HIO) is located northeast of downtown Hillsboro and operated by the Port of Portland. HIO is defined by the Federal Aviation Administration as a reliever airport for Portland International Airport (PDX). In this role, HIO's function is to preserve capacity at PDX by offering an alternative facility for general aviation aircraft, separate from commercial airline and air cargo activities. At the state level, the Oregon Aviation Plan defines HIO as a Category 2 airport that accommodates "corporate aviation activities, including business jets, helicopters, and other general aviation activities." HIO receives corporate air traffic associated with Intel and other large Washington County companies, while also accommodating personal aircraft. HIO features two runways, one 6,600 feet in length, the other 4,050 feet. In 2012, HIO had 277 "based aircraft" – meaning aircraft that are typically stored and flown from the airport – down from the upper 300s ten years prior. In 2008, HIO averaged 695 operations (takeoffs and landings) daily.
2. Twin Oaks Airpark is located approximately six miles south of Hillsboro, between the Tualatin River and River Road, and is privately owned and operated. Aircraft at this general aviation facility are limited to helicopters and small engine airplanes. The Twin Oaks Airpark has one runway, approximately 2,500 feet in length.
3. Skyport is the smallest public use airport in Washington County. This privately owned and operated facility is located approximately three miles north of Cornelius. Aircraft at this general aviation facility are limited to small engine airplanes. Skyport has one runway, approximately 2,000 feet in length.

In addition to these facilities, Washington County has 23 other private air facilities. These include small airstrips as well as helipad facilities at hospitals. No change to the operation of these airports is planned, and no additional public use airports are currently planned within Washington County.

Railroad Freight

Washington County hosts over 90 miles of active "short line" freight railroads and does not contain any Class I railroads, intermodal facilities or major rail yards. Commodities transported include aggregates, brick and cement, chemicals, construction and demolition debris, food and feed products, forest products, metallic ores and minerals, and steel and scrap. WES commuter rail service, as described in transit modal element, also operates on Railroad Freight facilities between Beaverton and Wilsonville.

Railroad Crossing Considerations

The majority of roadway rail crossings in Washington County are at grade, posing potential conflicts and hazards. The Oregon Department of Transportation Rail Division authorizes any new rail crossing, or any modification to an existing rail crossing. All authorized crossings are required to be marked with a passive stop sign and railroad crossing sign. Alternatively, an activated crossing guard arm may be implemented if the expected traffic at the crossing warrants this treatment.

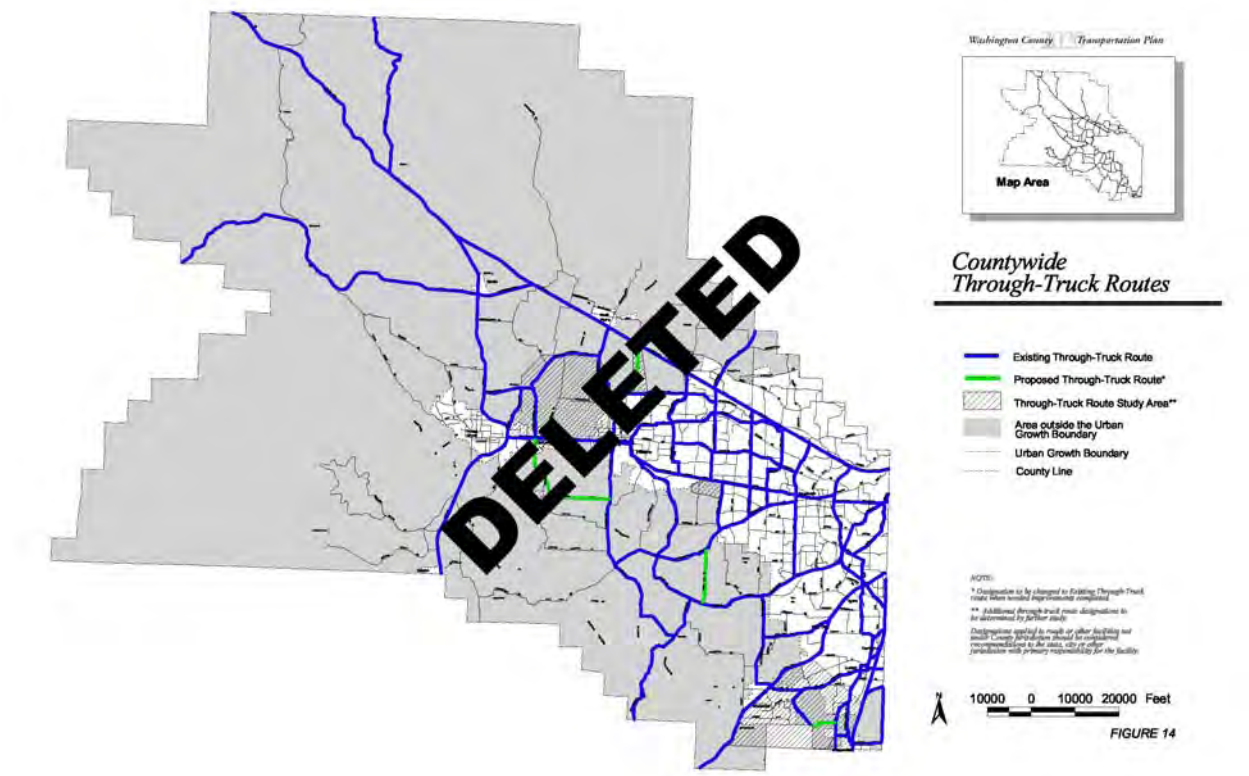
Pipeline

Major pipelines that traverse Washington County are identified on the Non-Roadway Freight Map. The most significant pipeline within Washington County is the Kinder-Morgan gas pipeline that transports pressurized, refined petroleum products from a facility on the Willamette River in Northwest Portland to Eugene and points between. The pipeline generally follows a north-south BPA electric transmission line corridor through Bethany, Beaverton, Bull Mountain and Sherwood, portions of which also accommodate the Westside Regional Trail. Several natural gas pipelines also cross the county, including a north-south corridor from the Dairy Creek Valley to Sherwood, and several east-west routes.

For Washington County Department of Land Use and Transportation, the primary concerns with major pipelines are:

- Protecting the functionality of these pipelines as a mode of transporting products;
- Accounting for pipeline buffer corridors within planned development;
- Avoiding the high cost of relocating pipelines for transportation projects;
- Minimizing the community impacts of any future proposed pipelines, including liquefied natural gas (LNG) pipelines that have become more relevant in today's booming natural gas market;
- Minimizing impacts any future new pipelines would have on the community; and
- Minimizing impacts of new development on major pipeline corridors.

The following map is deleted from the Washington County Transportation Plan:



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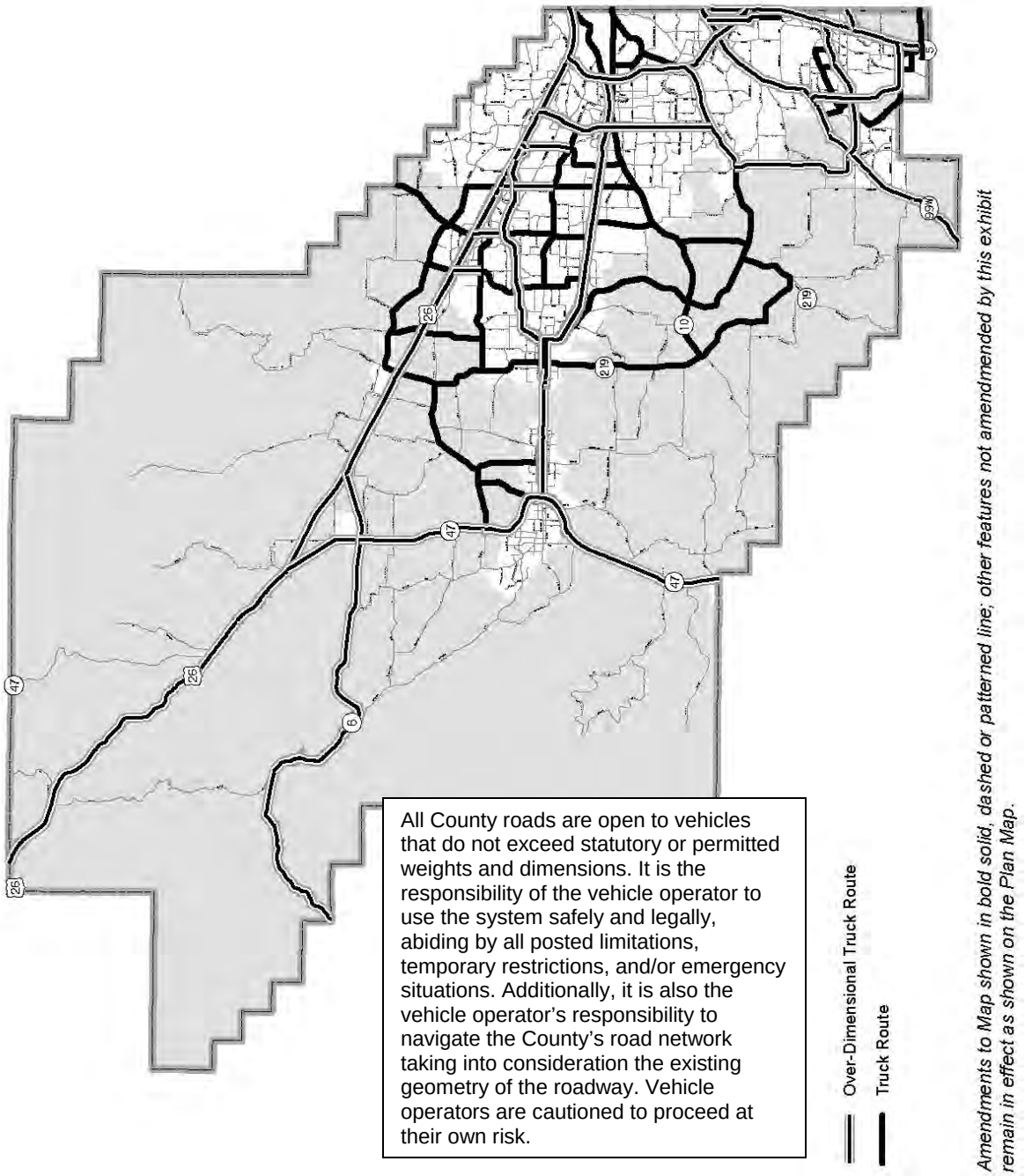
The Roadway Freight System Map is incorporated into the Washington County Transportation System Plan:



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The title of the “Air, Rail, Pipeline & Water Elements” map is amended to now be known as the “Aviation, Railroad and Pipeline System” map.

Active Transportation Elements

The Washington County Transportation System Plan (TSP) Active Transportation Elements consist of a Pedestrian Element, Bicycle Element and Transit Element. These elements collectively describe and illustrate the desired future network of routes and facilities that will help people safely, comfortably and conveniently walk, bike and take transit in Washington County over the next 20 years.

The Active Transportation Elements were informed by several recent or concurrent planning efforts, including Metro's 2014 Regional Transportation Plan and Regional Active Transportation Plan, TriMet's Westside Service Enhancement Plan and Southwest Service Enhancement Plan, the County's Bicycle and Pedestrian Improvement Prioritization Project and Bicycle Facility Design Toolkit and several trail planning efforts undertaken throughout the county. The Active Transportation Elements are largely consistent with the concepts in these plans, often using the same functional classifications and routes. Any inconsistencies between this TSP and other relevant plans are typically the result of using different terminology or definitions, adding some network elements in response to identified needs or omitting some elements due to legal or jurisdictional concerns. These differences are further described in the individual modal elements.

Like the other TSP elements, the three Active Transportation Elements indicate the function, mode and general location of an ultimate network. Projects are not prioritized in this plan; however, particular needs have been identified in the TSP Existing Conditions and Future Needs Report and project candidates are addressed in the Capital Project List.

For areas within unincorporated Washington County, the Community Plans, Community Development Code, Rural/Natural Resources Plan and Road Design and Construction Standards shall be referenced to determine the manner in which the designations shown in the Active Transportations Elements are to be implemented. Some Active Transportation designations are shown on city and ODOT facilities; in these cases the administrating jurisdictions' adopted codes and plans supersede the designations shown. In situations where County or state roads pass through cities, implementation of the Active Transportation designations requires coordination among all affected jurisdictions. All trail alignments shown are general in nature; the exact location of the trails shall be determined by the public entity or entities that will build and maintain the trail.

Schools with grades Kindergarten through 12 are important considerations within the Active Transportation Elements because they are prominent attractors of pedestrian and bicycle trips. As resources allow, school districts are encouraged to develop and/or expand Safe Routes to School programs in partnership with Washington County and the cities. These programs identify engineering, enforcement, education, encouragement and evaluation initiatives to promote safe walking and biking to school. As part of the engineering component, the county, cities and school districts are encouraged to work together to identify and prioritize network deficiencies and seek funding for solutions.

Pedestrian Element

Washington County's urban pedestrian system consists of sidewalks, walkways and crossings along and across streets, as well as off-street trails and connections between streets. All roadways in the urban area, with the exception of freeways, are pedestrian routes. With few exceptions, within the urban area sidewalk installation is required by development when roadways are reconstructed for a development or capital project. Meanwhile, in the rural area, the pedestrian system consists of roadway shoulders and paved or unpaved off-street trails. Sidewalks are not required in the rural area.

Pedestrian System Map

The Pedestrian System Map identifies the future off-street trail network intended for utilitarian and recreational walking trips, indicates areas of above-average pedestrian activity in the urban unincorporated and rural areas and delineates particular roadways and roadway segments where enhanced pedestrian features are desired because of land use context and/or transit service.

Pedestrian System Classifications

Pedestrian/Bicycle District

Within the urban unincorporated area, a Pedestrian/Bicycle District identifies an area where high use by pedestrians and cyclists is either observed or intended. This activity may be due to a combination of existing and/or proposed land uses, density, land use mix, community design, availability of transit service and/or provision of pedestrian and bicycle facilities. Pedestrian-oriented design of streets, public spaces and land uses are generally required in these areas to provide a safe, direct, efficient, comfortable and attractive walking environment. Secure short-term and long-term bicycle parking is generally required and supporting facilities such as lockers and showers are recommended at places of employment. Appropriate features and dimensions will vary by context and shall be determined through the project development and/or land development review process with consideration of other classifications and in reference to the Community Plans and Community Development Code. Pedestrian/Bicycle Districts cover the same geographic areas as Metro 2040 Growth Concept Regional Centers, Town Centers and Station Communities as adopted in the Washington County Comprehensive Framework Plan for the Urban Area.[1]

Rural Pedestrian Activity Area

A Rural Pedestrian Activity Area is a location outside the urban growth boundary with a concentration of pedestrian activity related to a village, crossroads, school, religious institution, community center, farmstand, recreation area, trail or other cultural feature. Treatments such as marked crosswalks, mid-block crossings, wide shoulders and warning signage may be appropriate in these locations, subject to engineering and policy review.

[1] Metro's Regional Active Transportation Plan (RATP) and Regional Transportation Plan (RTP) show Pedestrian Districts and Bicycle Districts on separate maps, though they cover the same geography. The TSP does not show Pedestrian/Bicycle Districts within cities.

Pedestrian Parkway

A Pedestrian Parkway is a major urban thoroughfare (typically an arterial) that has the potential for significant pedestrian activity. This activity may be due to the provision of transit service, a relatively high intensity and mix of land uses and/or the continuous nature of the route as it passes through one or more communities. Enhanced pedestrian facilities are encouraged to facilitate a safe, direct, efficient, comfortable walking environment along and across these roadways. Enhanced pedestrian crossings are recommended to help people reach transit stops and other destinations from the opposite side of the street. Site-specific study is needed to determine the locations and design features for such crossings. Consideration of sidewalk widths greater than those shown in adopted road standards is recommended on a context-sensitive basis, particularly on Pedestrian Parkway segments that overlap with Streetscape Overlays. In all cases, appropriate features and dimensions will vary by context and shall be determined through the project development and/or land development review process with consideration of other classifications in this TSP and in reference to the Community Plans, Community Development Code as well as adopted city plans and codes. Pedestrian Parkways in the Washington County TSP are equivalent to on-street Pedestrian Parkways shown in the Metro Regional Transportation Plan.[2]

Streetscape Overlay

A Streetscape Overlay is a segment of urban roadway in which enhanced pedestrian features, expanded pedestrian facility dimensions and place-making amenities are encouraged to facilitate a comfortable and attractive walking environment and to leverage community and economic development. Streetscape Overlays include all Regional Boulevards and Community Boulevards shown on the Regional Design Classifications map in Metro's 2014 Regional Transportation Plan (RTP) within Washington County.[3] These segments are typically located within Metro 2040 Growth Concept Regional Centers, Town Centers, Station Communities and Main Streets. Several additional Streetscape Overlay segments are shown in the urban unincorporated area based on Washington County community planning projects such as the Aloha-Reedville Study and Livable Community Plan and the North Bethany Subarea Plan.

On roadways with Streetscape Overlays, appropriate features and dimensions will vary by context and shall be determined through the project development and/or land development review process. These determinations shall consider the other modal classifications within this plan – particularly freight and transit – and refer to the Community Plans, Community Development Code and adopted city plans and codes. Features may include (but are not limited

[2] Unlike Metro's RATP/RTP Pedestrian Parkways, Washington County TSP Pedestrian Parkways do not include off-street trails. Trails and roadways are classified separately in the TSP due to the distinct differences in design, operation, maintenance and jurisdiction management between the two facility types. Off-street Pedestrian Parkways in Metro's RATP/RTP are included as Regional Trails in the TSP. On-street Regional Pedestrian Corridors – the second tier of pedestrian routes in Metro's RATP/RTP – are not included in the Washington County TSP because the county's Road Design & Construction Standards are mostly consistent with Metro's RATP design guidance for these routes, including provisions for planter strips.

[3] Other street design classifications in Metro's 2014 RTP Regional Design Classifications map include Throughways, Regional Streets and Community Streets. Washington County design standards for Principal Arterials, Arterials and Collectors are consistent with the intent of these regional design classifications and are included in the Mobility section of the Washington County TSP Goals, Objectives and Strategies (Ordinance 768).

to): sidewalks with widths greater than those shown in the Washington County Road Design and Construction Standards, medians, narrower travel lanes and/or narrower pavement widths, curb extensions, on-street parking, pedestrian-scale lighting, enhanced pedestrian crossings, traffic calming, street trees, landscaping, street furniture and public art.

Regional Trail

Regional Trails are included in both the Pedestrian Element and the Bicycle Element. A Regional Trail is a multi-use pathway that accommodates regional and local utilitarian pedestrian and bicycle trips. Regional Trails include off-street Pedestrian Parkways and Bicycle Parkways as identified in Metro's RTP, along with several existing or proposed multi-use trails in the rural area and a limited number of short pedestrian/bicycle connections that facilitate access to the regional transportation network. Regional Trails serve a transportation function and are encouraged to be designed and constructed in ways that facilitate comfortable, convenient travel, including:

- Using surface and sub-grade materials and following grading and storm water management practices that result in a durable, slip-resistant, watershed-friendly surface throughout the year.
- Avoiding flood-prone areas and/or managing storm water to allow year-around operation.
- Providing adequate width, as context and circumstances allow, accommodating different trail users including people walking, running, cycling, skating, walking dogs and pushing strollers.
- Minimizing sharp curves and out-of-direction travel.
- In higher-density areas, installing pedestrian-scale trail lighting sensitive to surrounding land uses and wildlife habitat.
- Keeping trails legally open at all hours.
- Regular maintenance, surface repairs and debris clearing by the responsible jurisdiction.

Regional Trails in the urban area are intended to have paved surfaces; Regional Trails in the rural area are encouraged to have paved surfaces, but may have unpaved surfaces. Regional Trails that are routed along roadways may require further determination as to whether the trail will be separated from the roadway or employ a shared roadway design. When the location of a proposed Regional Trail is being determined in concert with a development proposal or transportation project, the County shall confer with the jurisdiction or special district that is responsible for maintaining that trail to ensure that the most up-to-date assumptions of that trail's location and design features are being considered.

Regional Trail Refinement Area

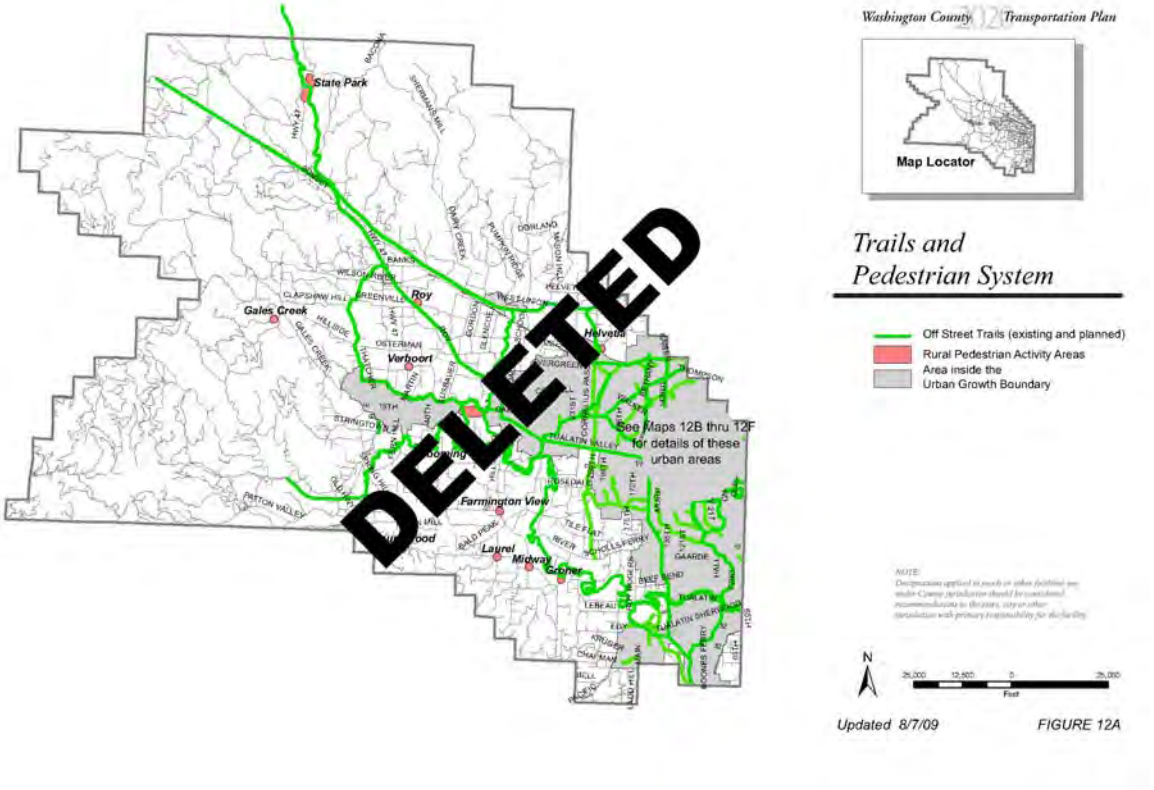
A Regional Trail Refinement Area is an area where a Regional Trail is planned conceptually but the specific alignment has not yet been determined. A feasibility study or master plan is necessary to determine the specific alignment. Before development may occur on land within a Regional Trail Refinement Area, in addition to other requirements, the development application must demonstrate how the Regional Trail will (at a minimum) not be precluded by the proposed development. Regional Trail Refinement Areas include:

- Turf-to-Surf Trail between Banks and Beaverton
- Council Creek Trail between Banks and Forest Grove and between Forest Grove and Hillsboro
- Cooper Mountain Trail

- River Terrace Trail
- Fanno Creek Greenway Trail between Bonita Road and the Tualatin River

Community Trail
A Community Trail is a pathway that accommodates shorter-distance utilitarian walking trips and may or may not accommodate bicycle trips. Community Trails serve as convenient walking connections between local destinations or as accesses to Regional Trails. Community Trails are not necessarily designed for 24-hour, all-weather use and may be constructed to different standards than Regional Trails. Community Trails include off-street Regional Pedestrian Corridors as indicated in Metro's RTP, in addition to selected community, local and other trails shown on trail maps by jurisdictions in Washington County. Community Trails that are routed along roadways require further determination as to whether the trail will be separated from the roadway or employ a shared roadway design. When the location of a proposed Community Trail is being determined in concert with a development proposal or transportation project, the County shall confer with the jurisdiction or special district that is responsible for maintaining that trail to ensure that the most up-to-date assumptions of that trail's location and design features are being considered. Community Trails appear only in the Pedestrian Element.

The following map is deleted from the Washington County Transportation System Plan:



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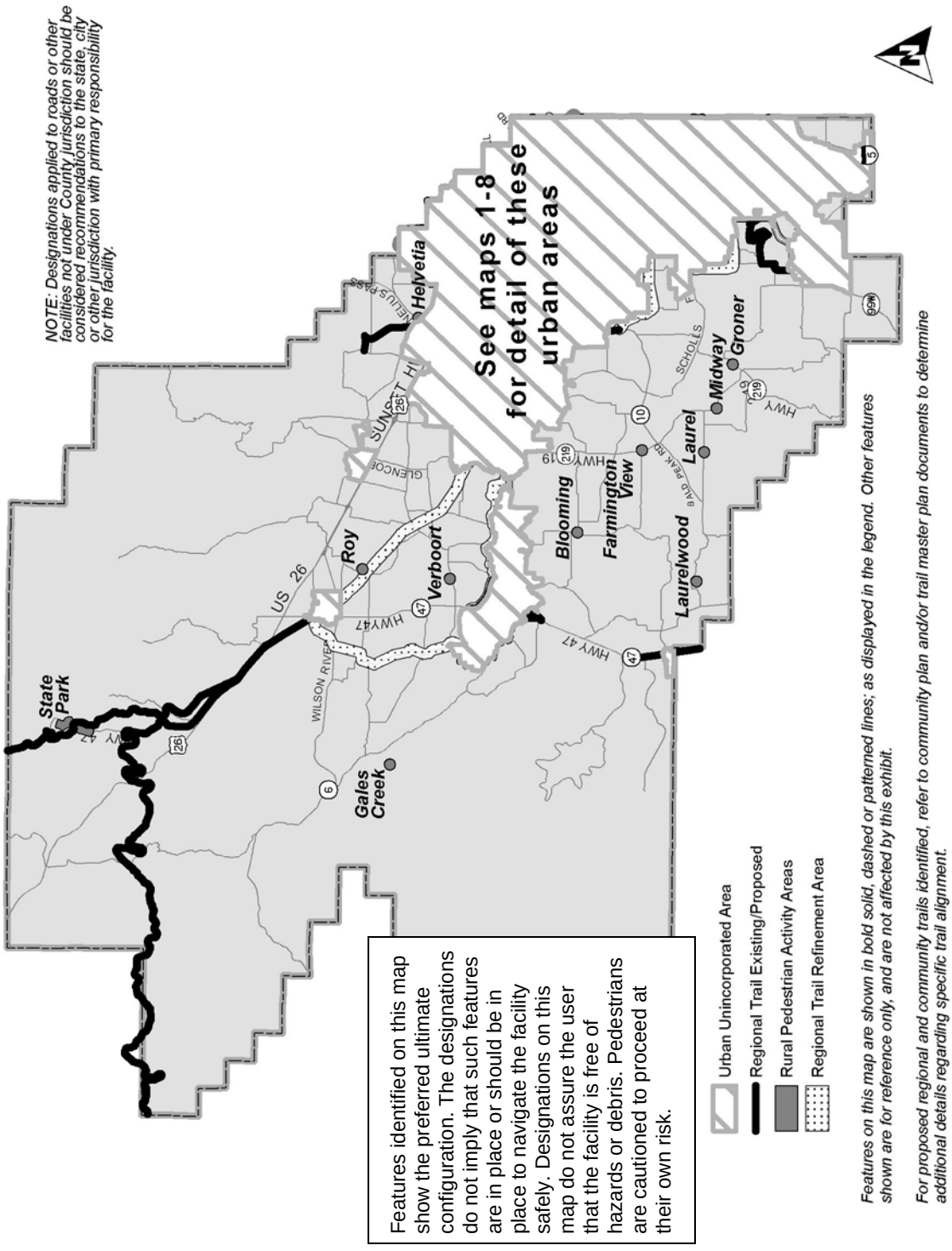
The Pedestrian System Map is incorporated into the Washington County Transportation System Plan:



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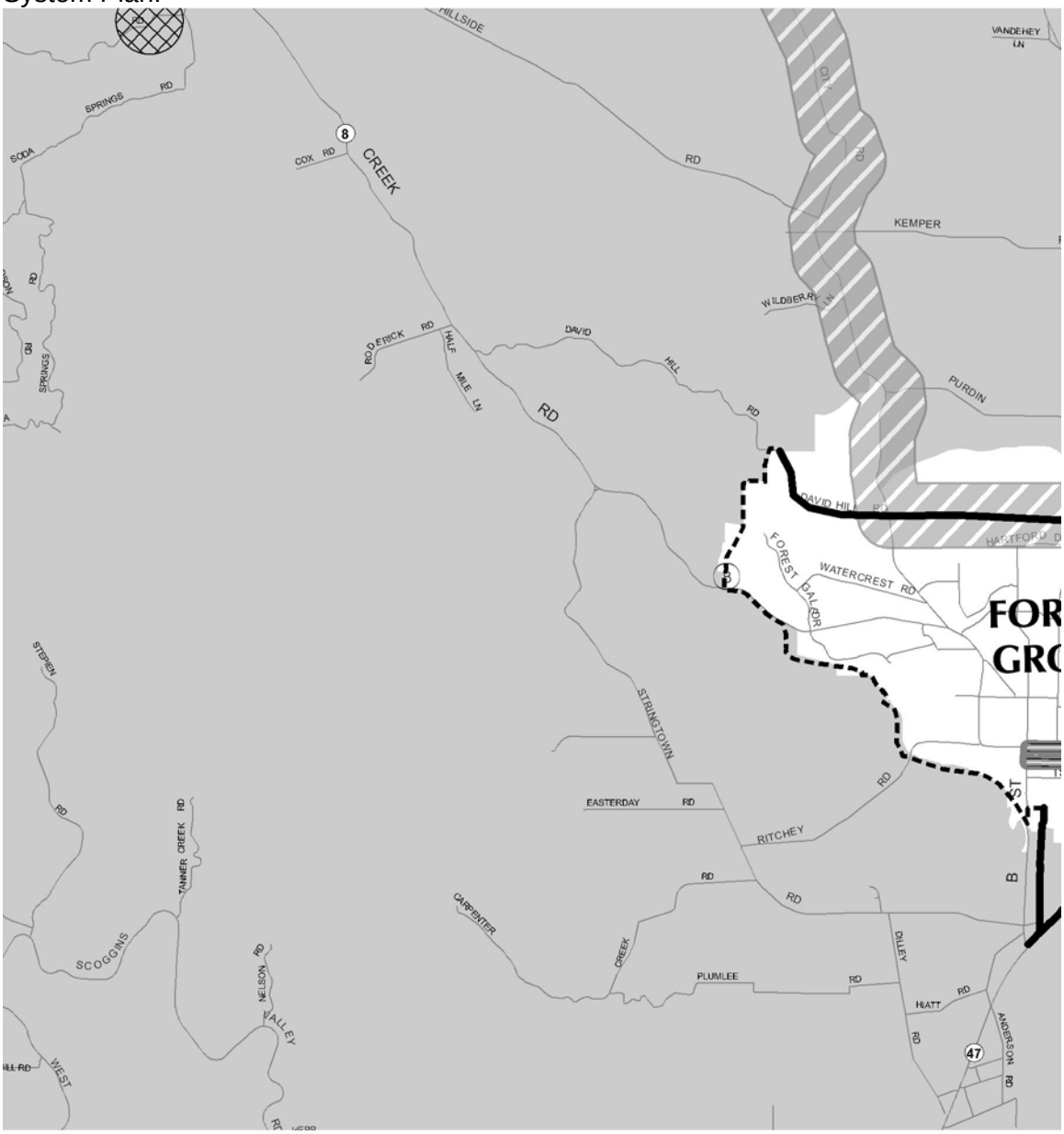
The Pedestrian System Map 1 of 8 is incorporated into the Washington County Transportation System Plan:



Features on this map are shown in bold solid, dashed or patterned lines; as displayed in the legend. Other features shown are for reference only, and are not affected by this exhibit.

For proposed regional and community trails identified, refer to community plan and/or trail master plan documents to determine additional details regarding specific trail alignment.

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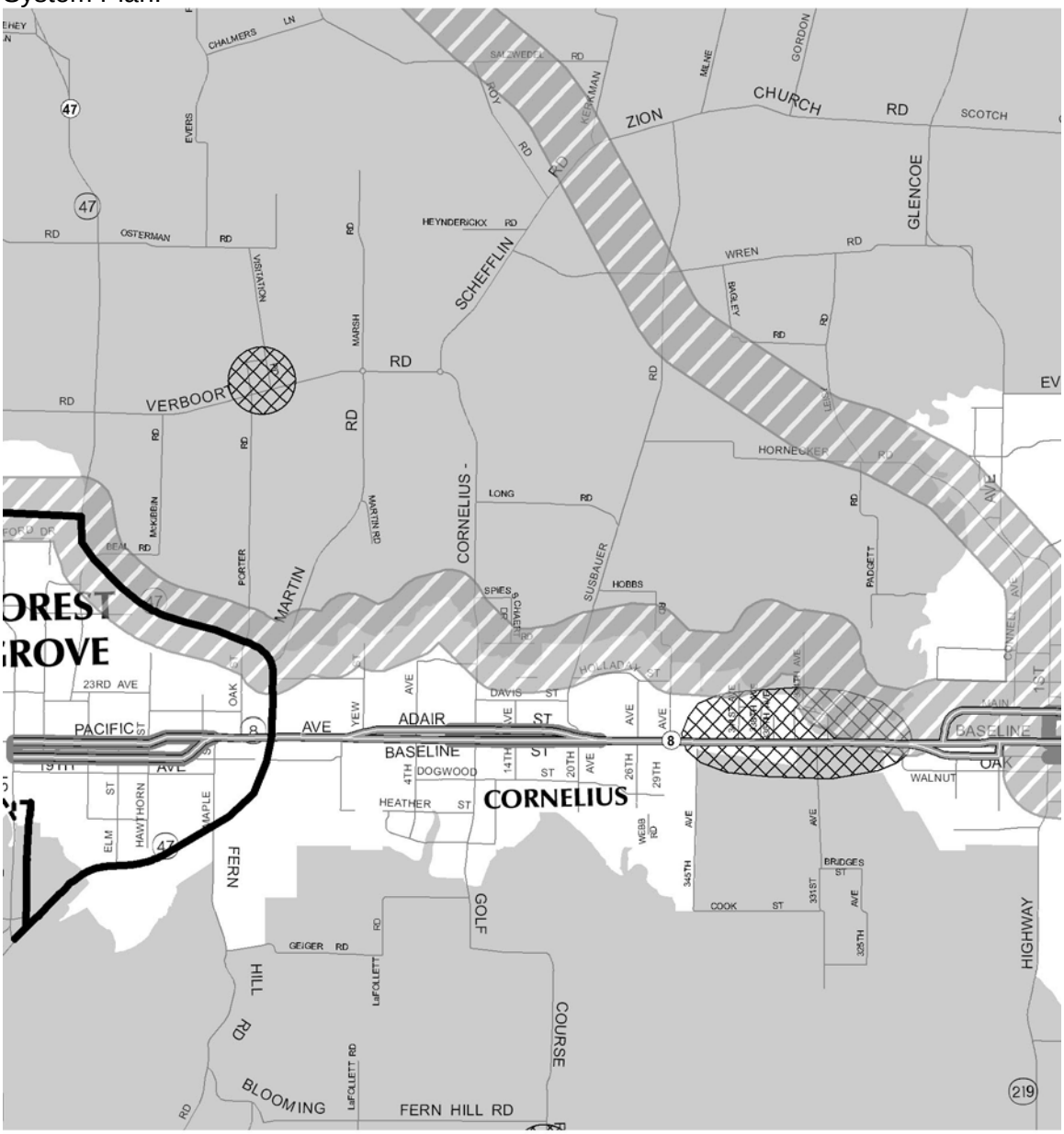
The Pedestrian System Map 2 of 8 is incorporated into the Washington County Transportation System Plan:



Regional Trail Existing/Proposed
Community Trail Existing/Proposed
Pedestrian Parkway
Streetscape Overlay
Regional Trail Refinement Area
Rural Pedestrian Activity Areas

Features on this map are shown in bold solid, dashed or patterned lines; as displayed in the legend. Other features shown are for reference only, and are not affected by this exhibit.

For proposed regional and community trails identified, refer to community plan and/or trail master plan documents to determine additional details regarding specific trail alignment.

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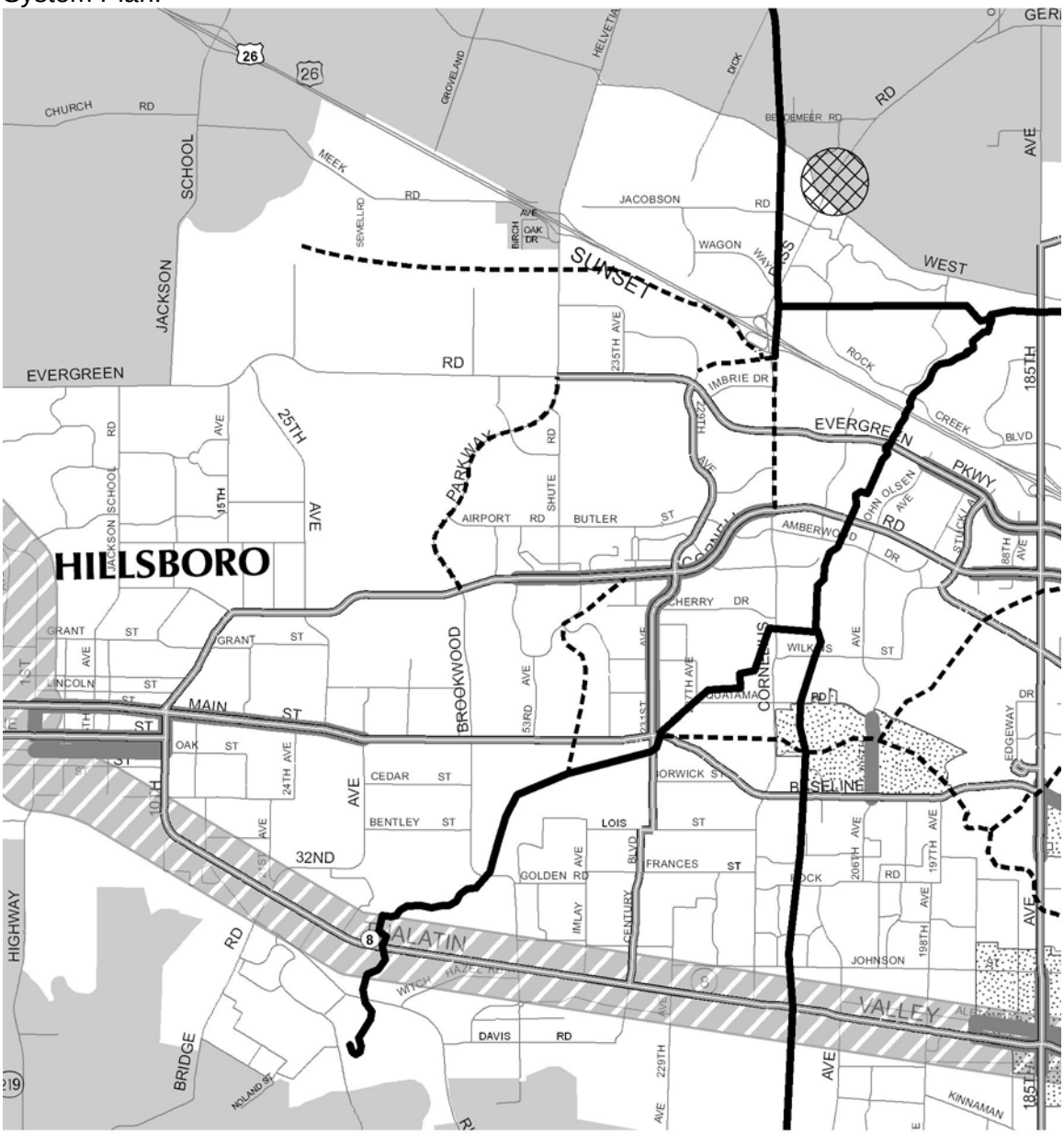
The Pedestrian System Map 3 of 8 is incorporated into the Washington County Transportation System Plan:



Features on this map are shown in bold solid, dashed or patterned lines; as displayed in the legend. Other features shown are for reference only, and are not affected by this exhibit.

For proposed regional and community trails identified, refer to community plan and/or trail master plan documents to determine additional details regarding specific trail alignment.

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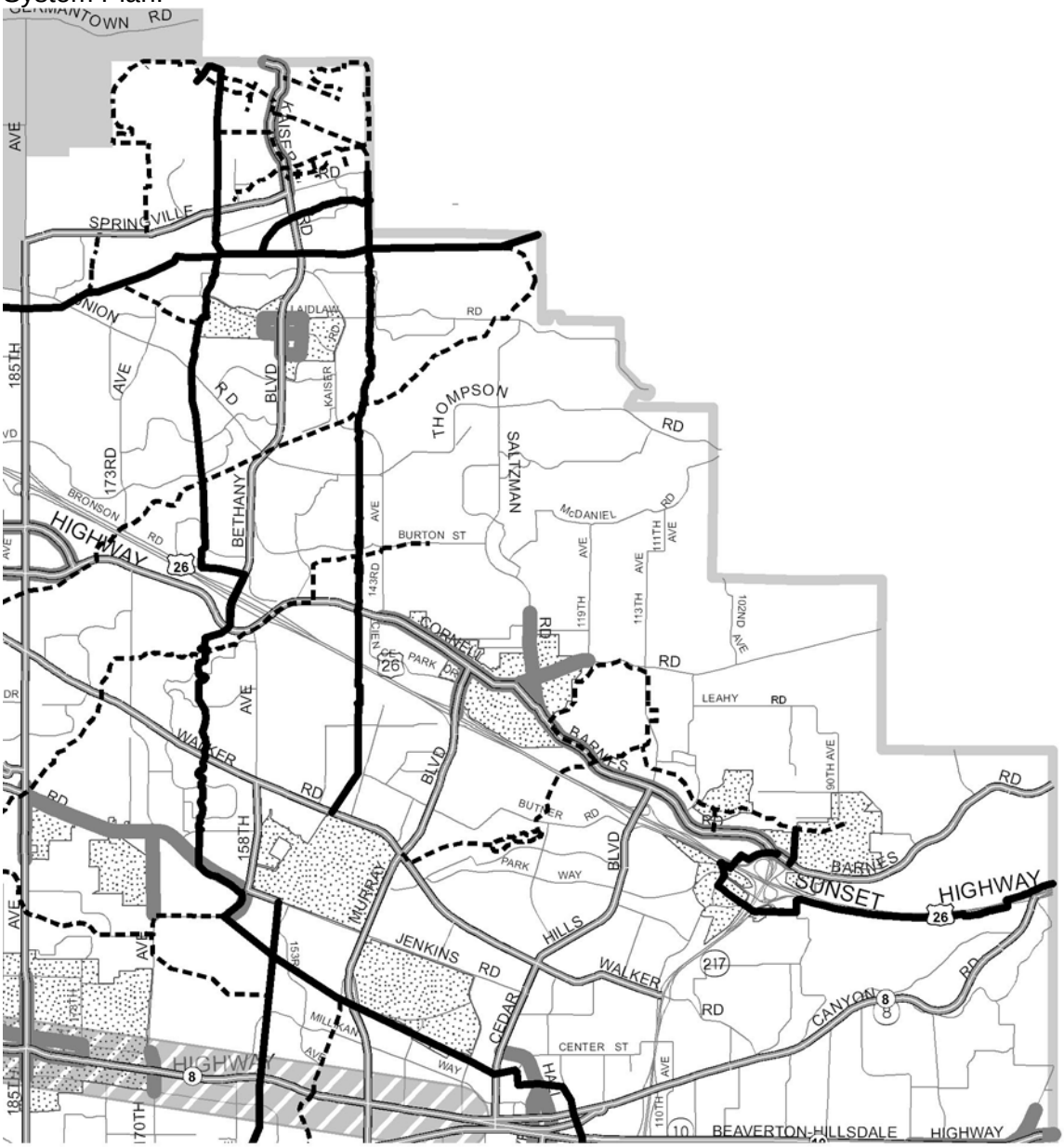
The Pedestrian System Map 4 of 8 is incorporated into the Washington County Transportation System Plan:



Regional Trail Existing/Proposed
Community Trail Existing/Proposed
Pedestrian Parkway
Streetscape Overlay
Pedestrian/Bicycle District
Regional Trail Refinement Area

Features on this map are shown in bold solid, dashed or patterned lines; as displayed in the legend. Other features shown are for reference only, and are not affected by this exhibit.

For proposed regional and community trails identified, refer to community plan and/or trail master plan documents to determine additional details regarding specific trail alignment.

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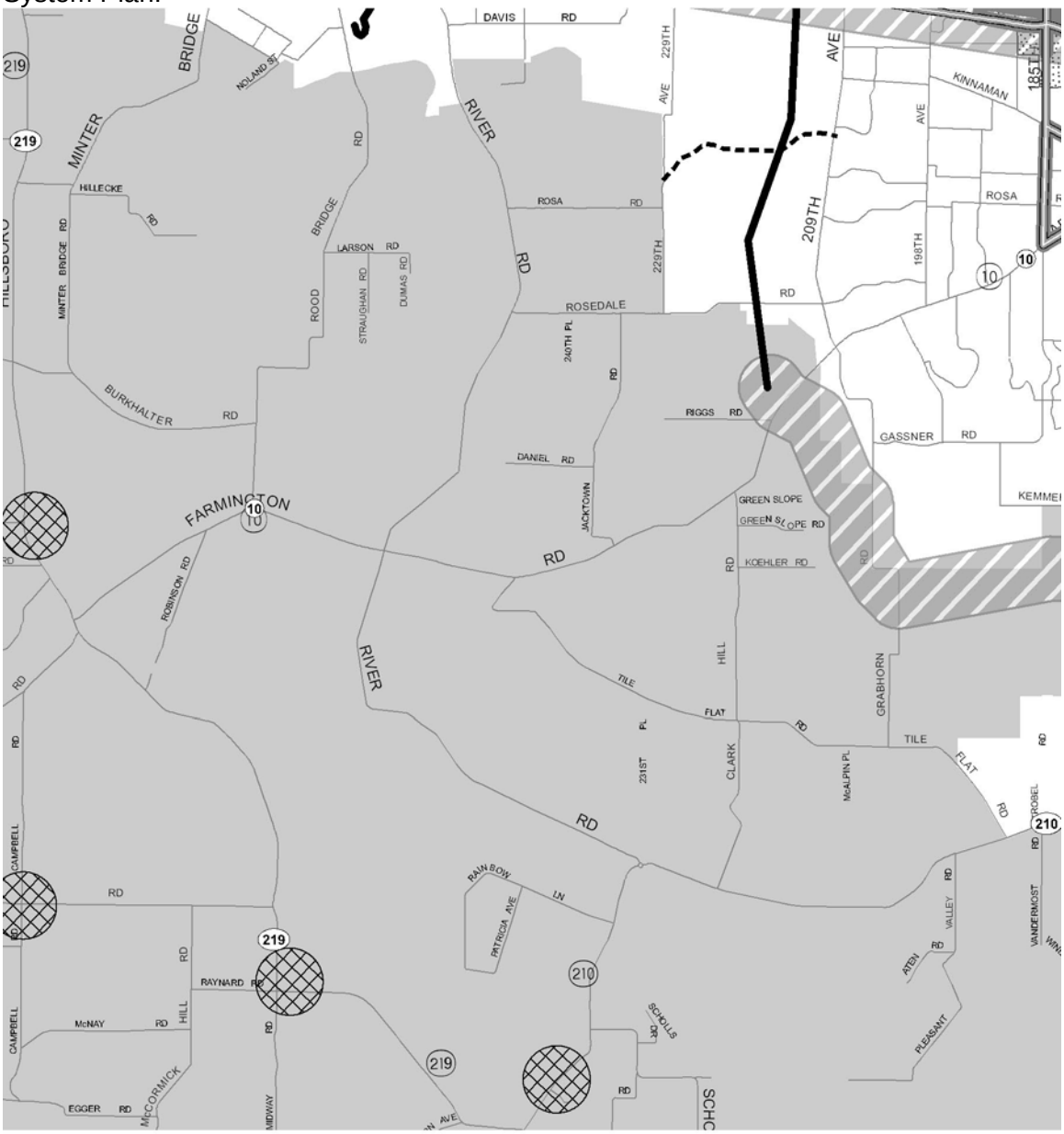
The Pedestrian System Map 5 of 8 is incorporated into the Washington County Transportation System Plan:



Features on this map are shown in bold solid, dashed or patterned lines; as displayed in the legend. Other features shown are for reference only, and are not affected by this exhibit.

For proposed regional and community trails identified, refer to community plan and/or trail master plan documents to determine additional details regarding specific trail alignment.

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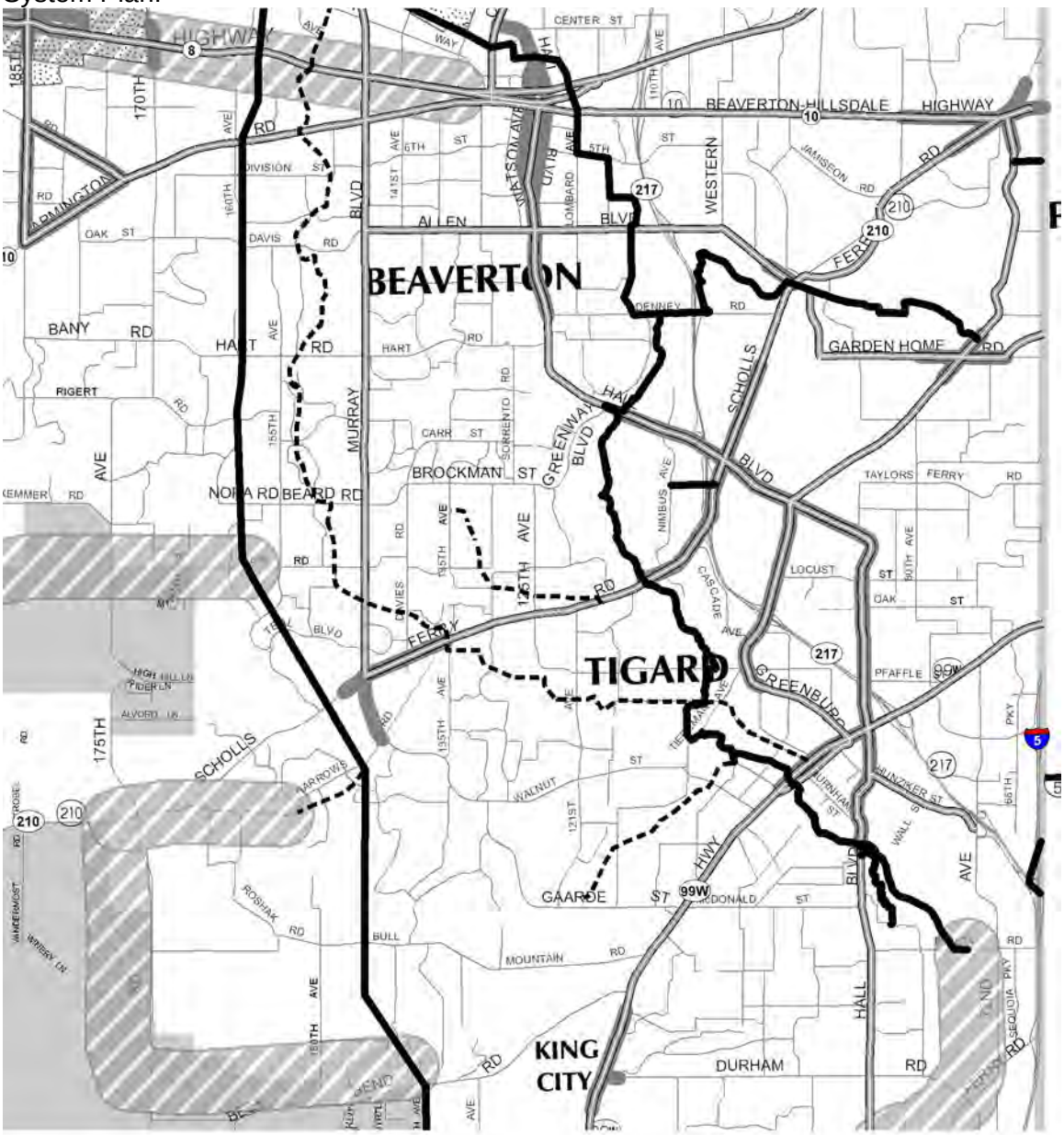
The Pedestrian System Map 6 of 8 is incorporated into the Washington County Transportation System Plan:



Features on this map are shown in bold solid, dashed or patterned lines; as displayed in the legend. Other features shown are for reference only, and are not affected by this exhibit.

For proposed regional and community trails identified, refer to community plan and/or trail master plan documents to determine additional details regarding specific trail alignment.

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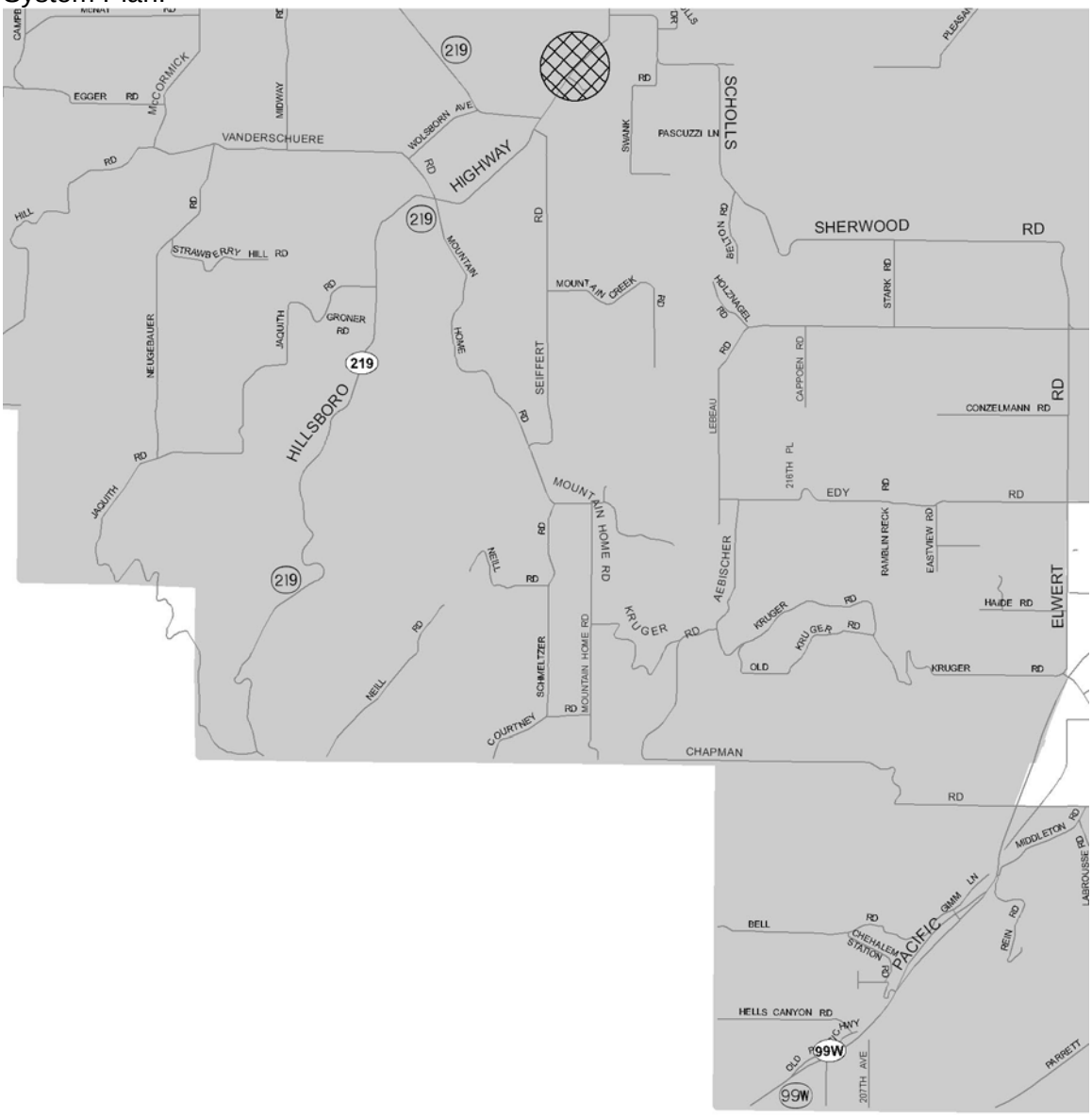

Rural Pedestrian Activity Areas

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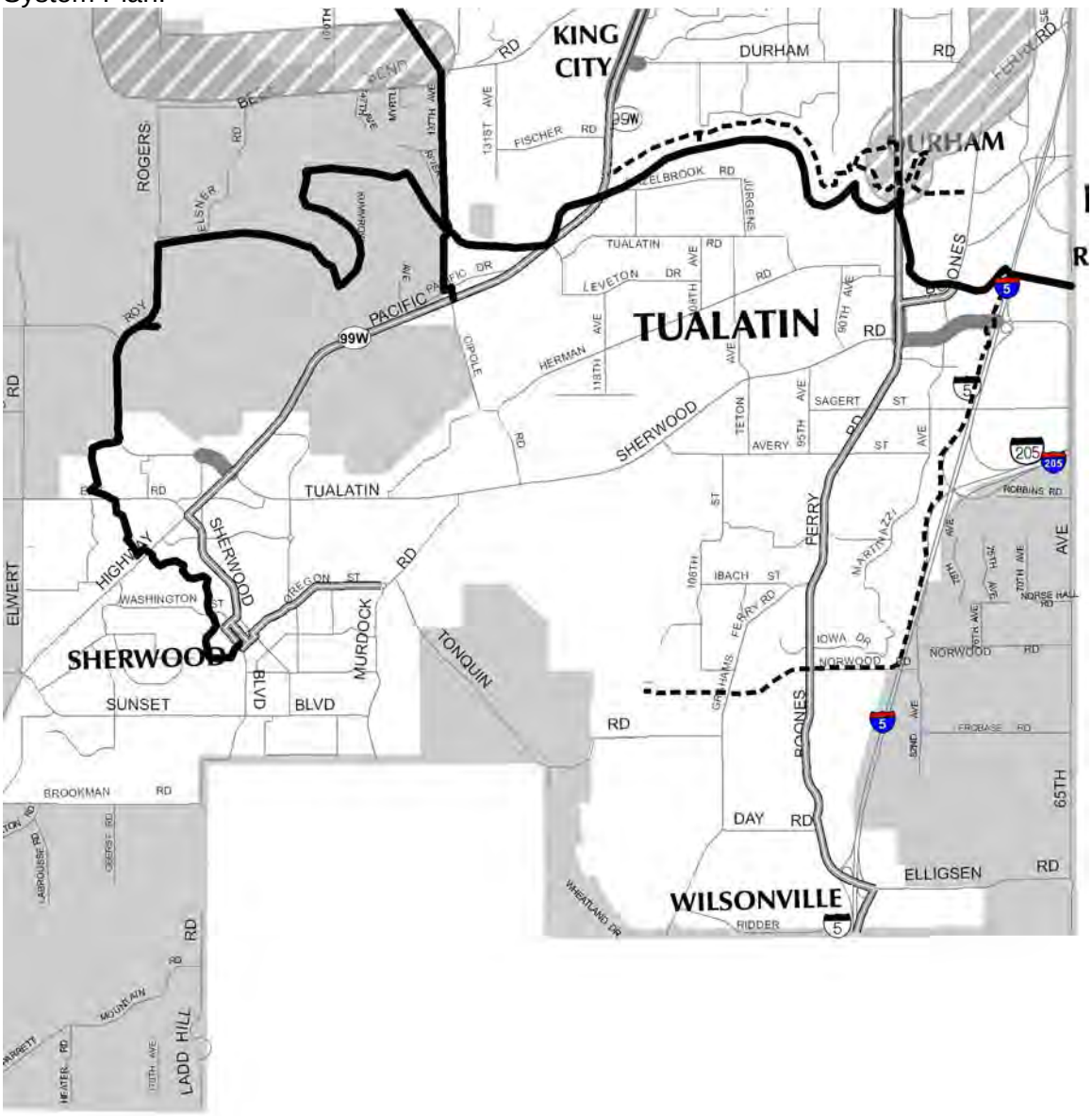

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Bicycle Element

The Bicycle Element is intended to guide continued development of a system of on-street and off-street bikeways for everyday travel, and seeks to ensure that direct, comfortable and safe bicycle routes are planned.

Bicycle System Map

The Bicycle System Map identifies the planned bicycle network. All roadways in Washington County, with the exception of freeways, are on-street bikeways. State policy requires "bikeways" along urban Arterials and Collectors.[4] The Bicycle System Classifications provides guidance on the function of the future bicycle network. Inside the UGB on-street bikeways may consist of bike lanes, buffered bike lanes, cycle tracks and interim shared roadways along Arterials and Collectors, and shared roadways along Neighborhood Routes and Local Streets. Regional Trails are considered off-street bikeways as they are intended to serve a transportation function and are encouraged to be designed and constructed in ways that facilitate comfortable, convenient and utilitarian bicycle travel.

In the rural area, on-street bikeways may consist of wide shoulders or shared roadways. The Tualatin Valley Scenic Bikeway is also recognized in the Bicycle Element.

Bicycle System Classifications

Major Street Bikeway

All Arterials and Collectors in the urban area, both inside and outside cities, are designated as Major Street Bikeways unless they are further designated as Enhanced Major Street Bikeways. On Major Street Bikeways, a six-foot bike lane or buffered bike lane is generally considered sufficient to accommodate cyclists. Bicycle improvements to Major Street Bikeways should be consistent with the Washington County Road Design and Construction Standards and consider the Washington County Bicycle Facility Design Toolkit.

Urban Collectors that are currently not built to standard but have low traffic volumes and low speeds may employ an interim shared roadway design such as a neighborhood bikeway. Bikeway facility types and dimensions shall be context-sensitive and determined on a case-by-case basis through engineering review by the appropriate jurisdiction. Major Street Bikeways are not mapped in the adopted Bicycle System Map. Urban Arterial and Collector designations are adopted in the Roadway Element.

Enhanced Major Street Bikeway

An Enhanced Major Street Bikeway is an urban Arterial or Collector roadway that has, or is planned to have, buffered bike lanes or cycle tracks on one or both sides of the road as illustrated in the Washington County Bicycle Facility Design Toolkit. Enhanced Major Street Bikeways include particular roadways and roadway segments where enhanced bicycle features are desired based on land use context, access to transit service and roadway characteristics. Enhanced Major Street Bikeways may have higher traffic volumes, higher speeds and/or are designated for three or more lanes. In these circumstances users with diverse skill levels may

[4] Oregon Administrative Rule 660-112-0045 (Transportation Planning Rule)

desire additional separation between the bikeway and vehicular traffic. However, when separated facilities such as cycle tracks are pursued, particular attention to conflict points and sight distance is needed. Enhanced Major Street Bikeways are shown on County, state and city facilities. Designations applied to roads or other facilities not under county jurisdiction should be considered recommendations to the state, city or other jurisdiction with primary responsibility for the facility.

Regional Trail
Regional Trails are defined in the Pedestrian Element.

Regional Trail Refinement Area
Regional Trail Refinement Areas are defined in the Pedestrian Element.

Rural Bikeway
The rural roadways of Washington County are popular bicycle routes for both recreational and commuting travel. Rural roadways have conflicting travel needs for different users that need to be considered and monitored. Minor enhancements (consistent with OAR 660-012-0065) may be appropriate along all major rural roadways (Arterials and Collectors), considering the following:

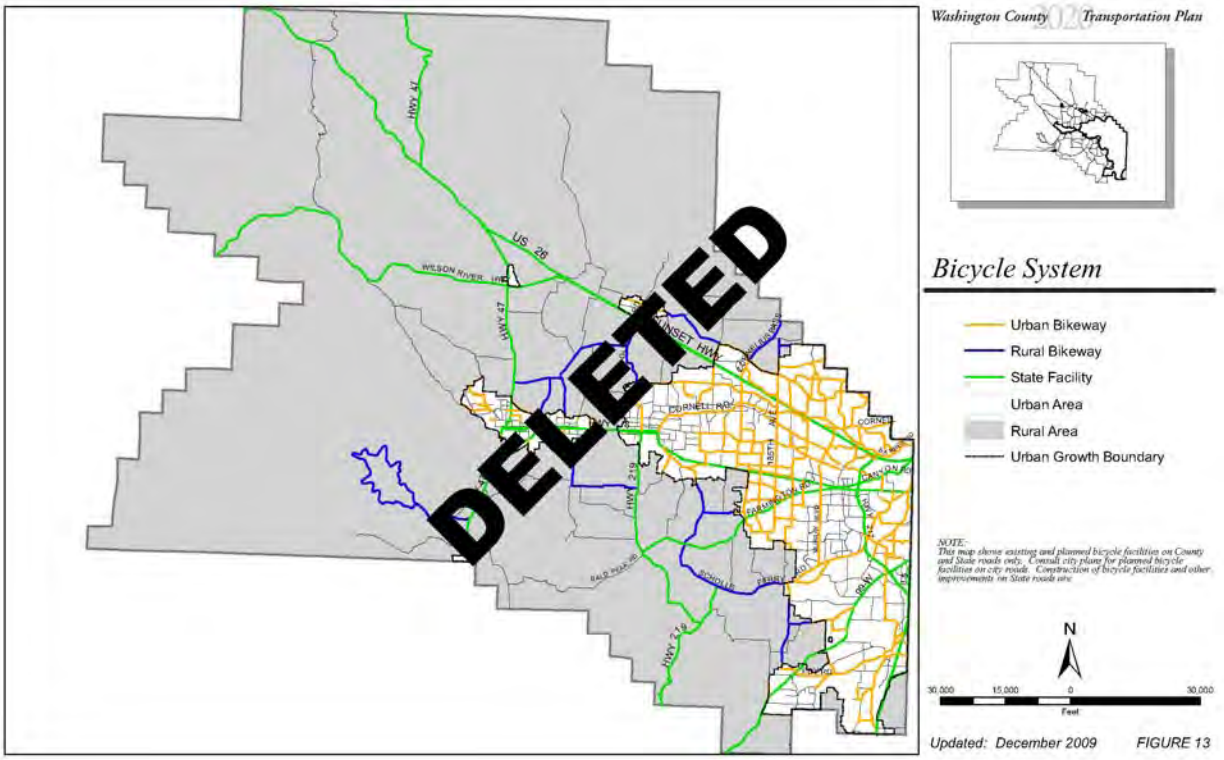
- Location of existing and committed bicycle facilities (wide shoulders and striped bike lanes);
- Location of rural cities and communities;
- Location of existing and planned recreational facilities (State, Regional or County parks);
- Existing and anticipated (year 2035) roadway volumes;
- Presence/absence of parallel routes consisting of other bicycle facilities or low traffic volume roadways;
- Known traffic and/or terrain characteristics such as the presence of significant hills and/or grades, high truck volume and or traffic speeds.

Rural Bikeways are not shown in the adopted Bicycle System Map. Rural Arterial and Collector designations are adopted in the Roadway Element.

Rural Road Enhancement Study Corridor
Certain rural roads are designated as Rural Road Enhancement Study Corridors. Rural Road Enhancement Study Corridors are defined in the Roadway Element. Rural Road Enhancement Study Corridors are considered part of the Bicycle Element as they may address conflicts between cyclists, cars, trucks and farm equipment.

Tualatin Valley Scenic Bikeway
The Tualatin Valley Scenic Bikeway (TVSB) is a 30-mile on-road bicycle route connecting Rood Bridge Park and the Banks-Vernonia Trail through rural Washington County and the City of Forest Grove. The route was designated by the Oregon Parks and Recreation Department in partnership with Washington County and the Washington County Visitors Association. The TVSB consists of a signed route along existing roadways maintained by Washington County and other jurisdictions. A majority of the TVSB is a shared roadway facility in which cyclists and motorists share the same roadway space. Enhancements such as shoulder widening and intersection safety improvements may be appropriate at some locations along the TVSB, subject to engineering review.

The following map is deleted from the Washington County Transportation System Plan:



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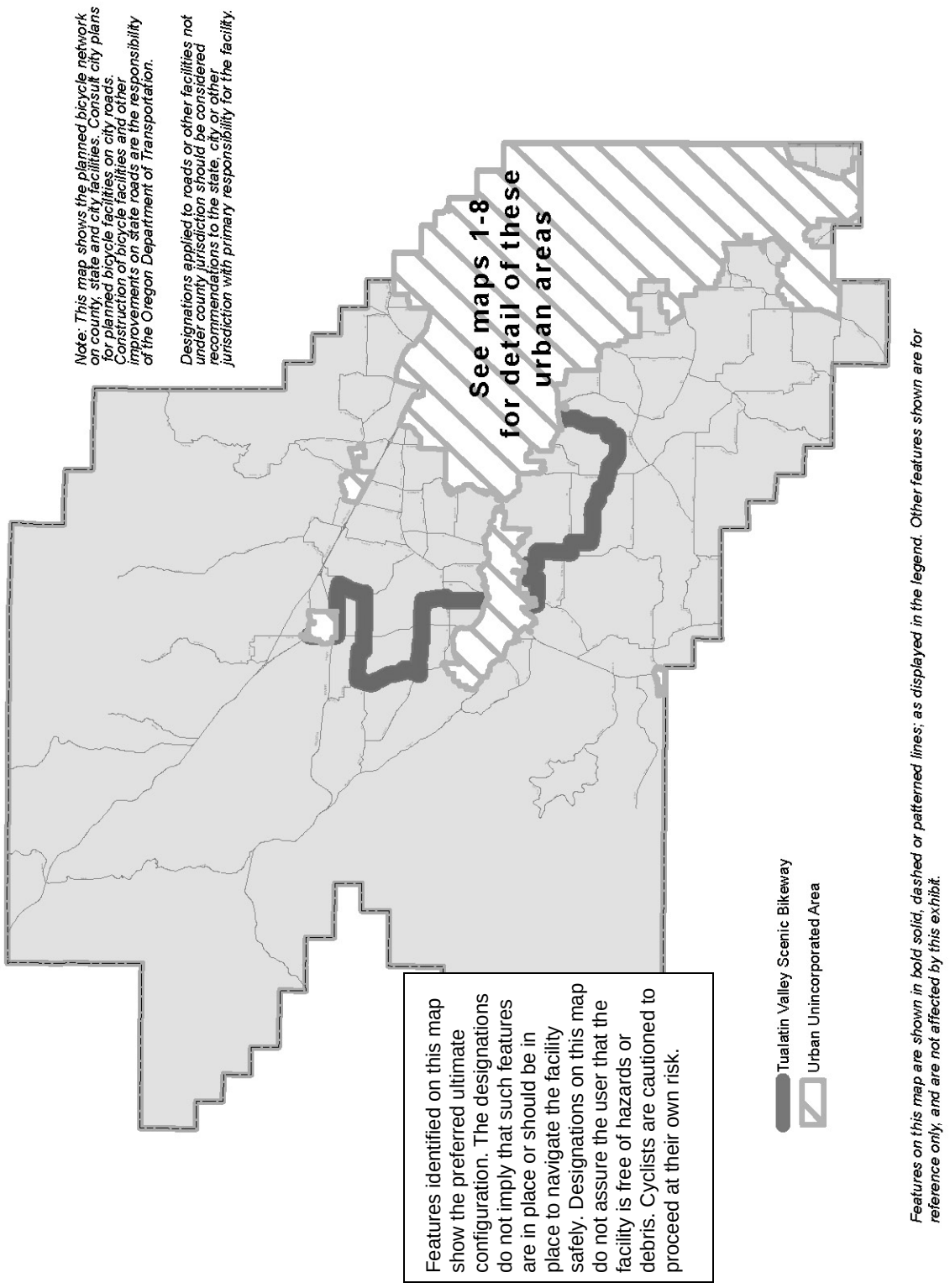

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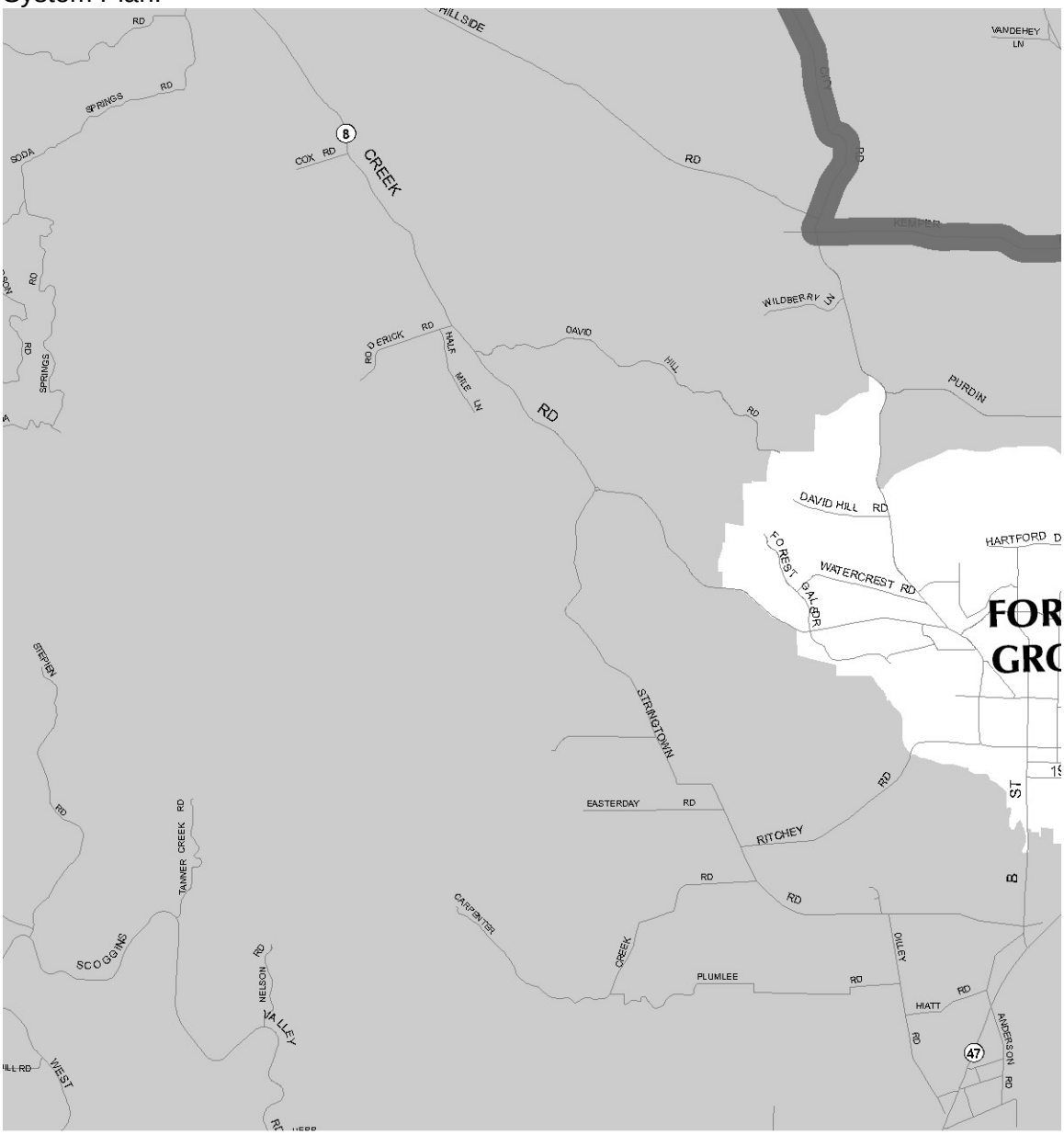

Tualatin Valley Scenic Bikeway

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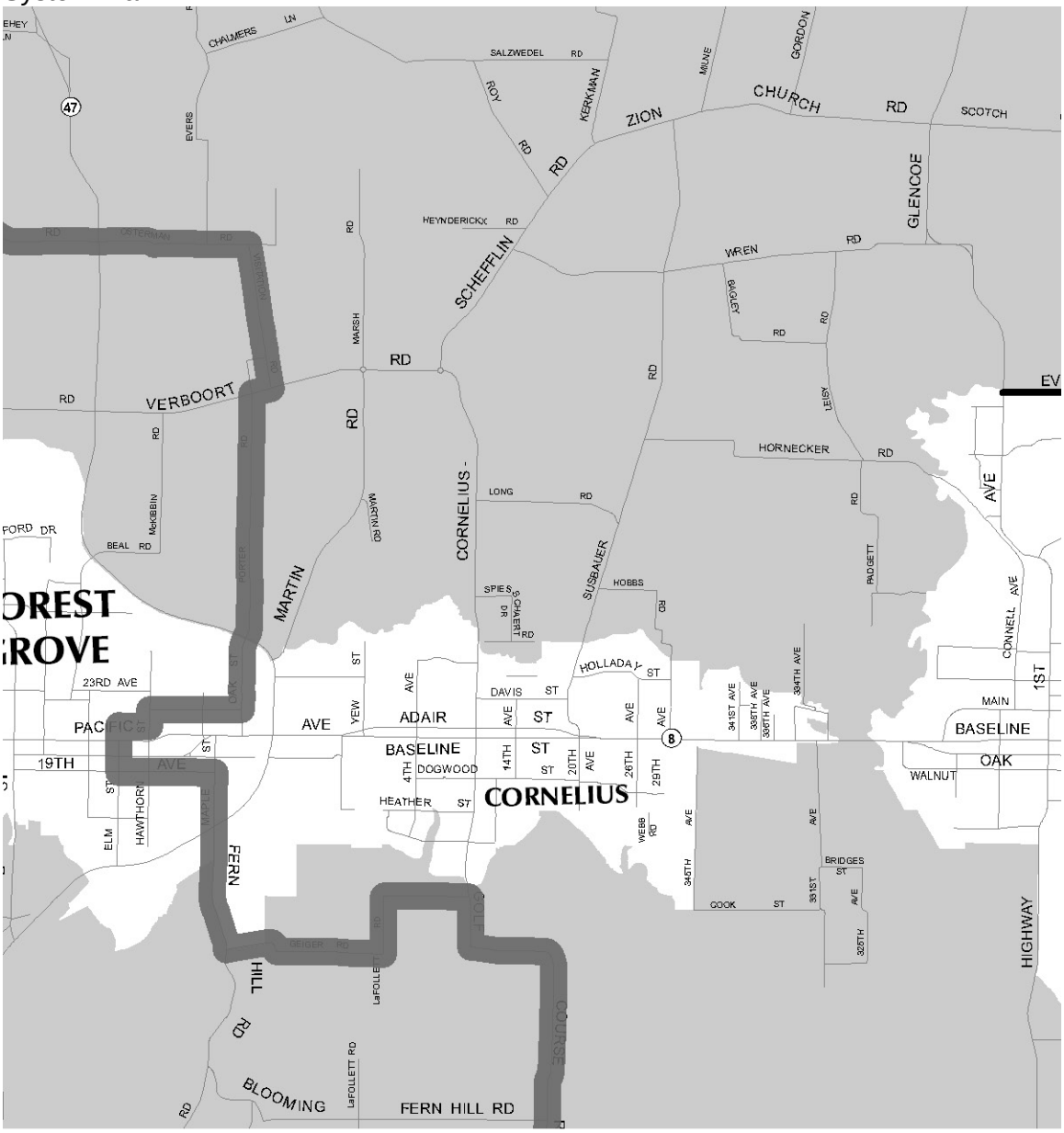

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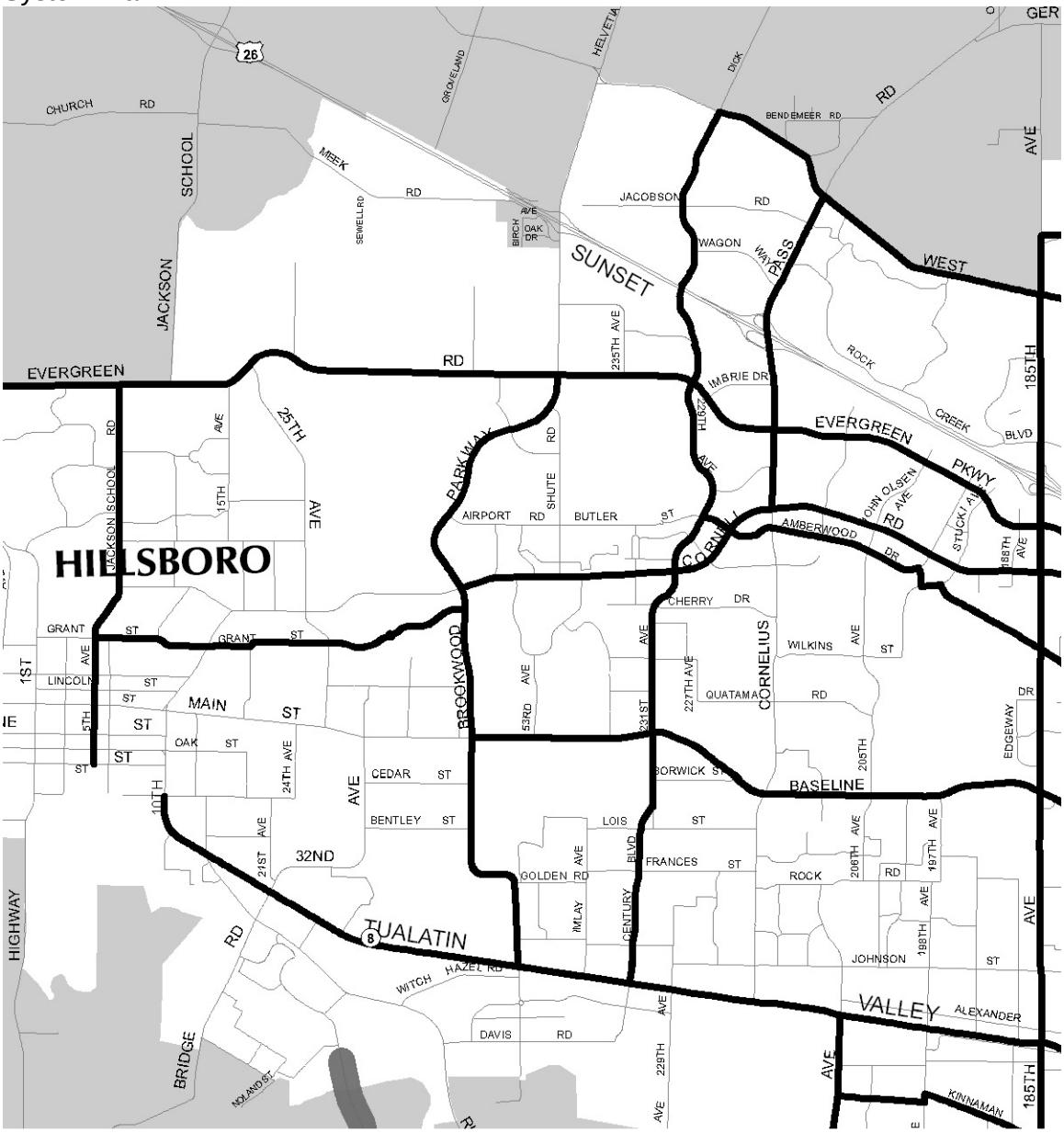

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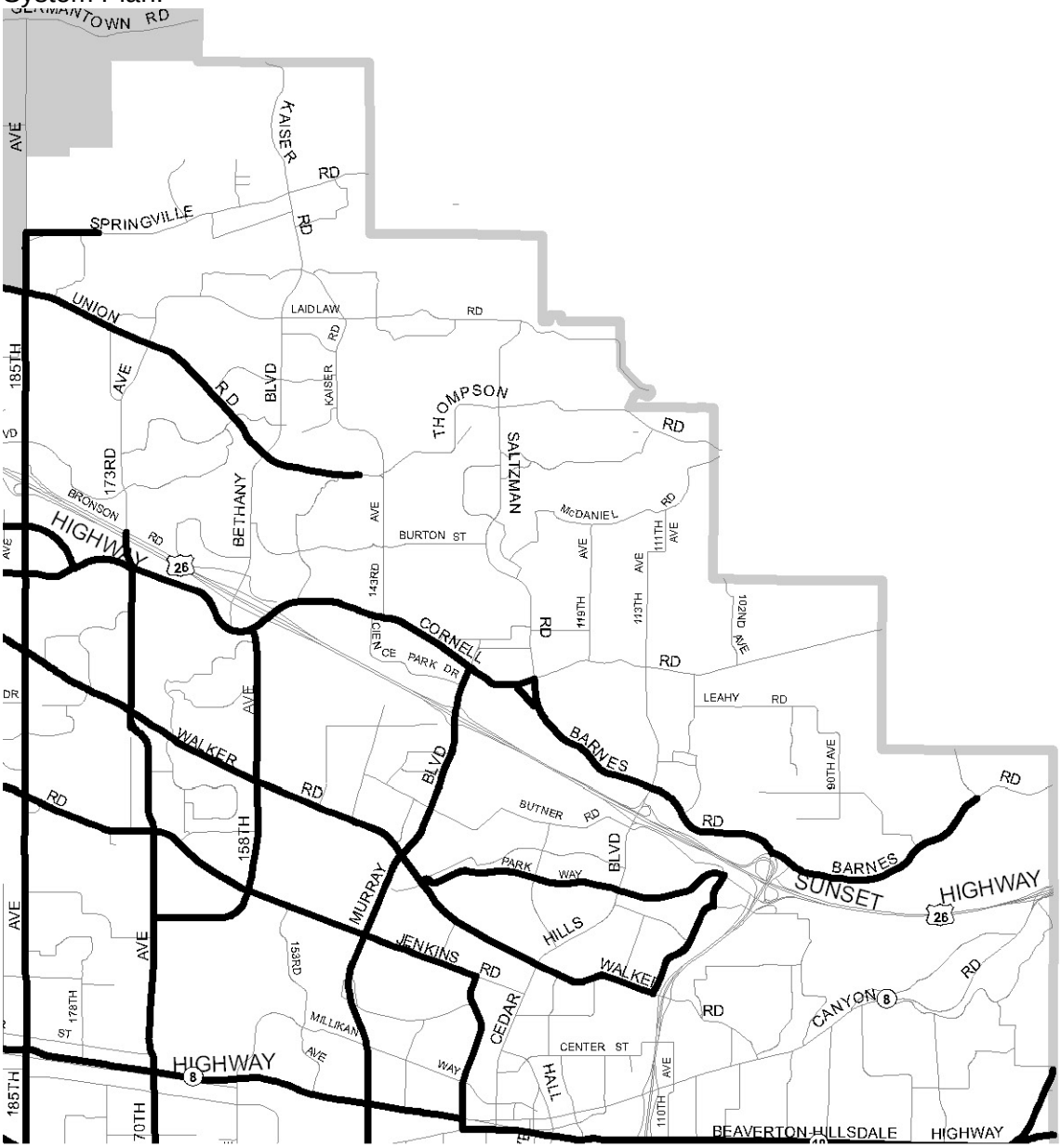

Enhanced Major Street Bikeway

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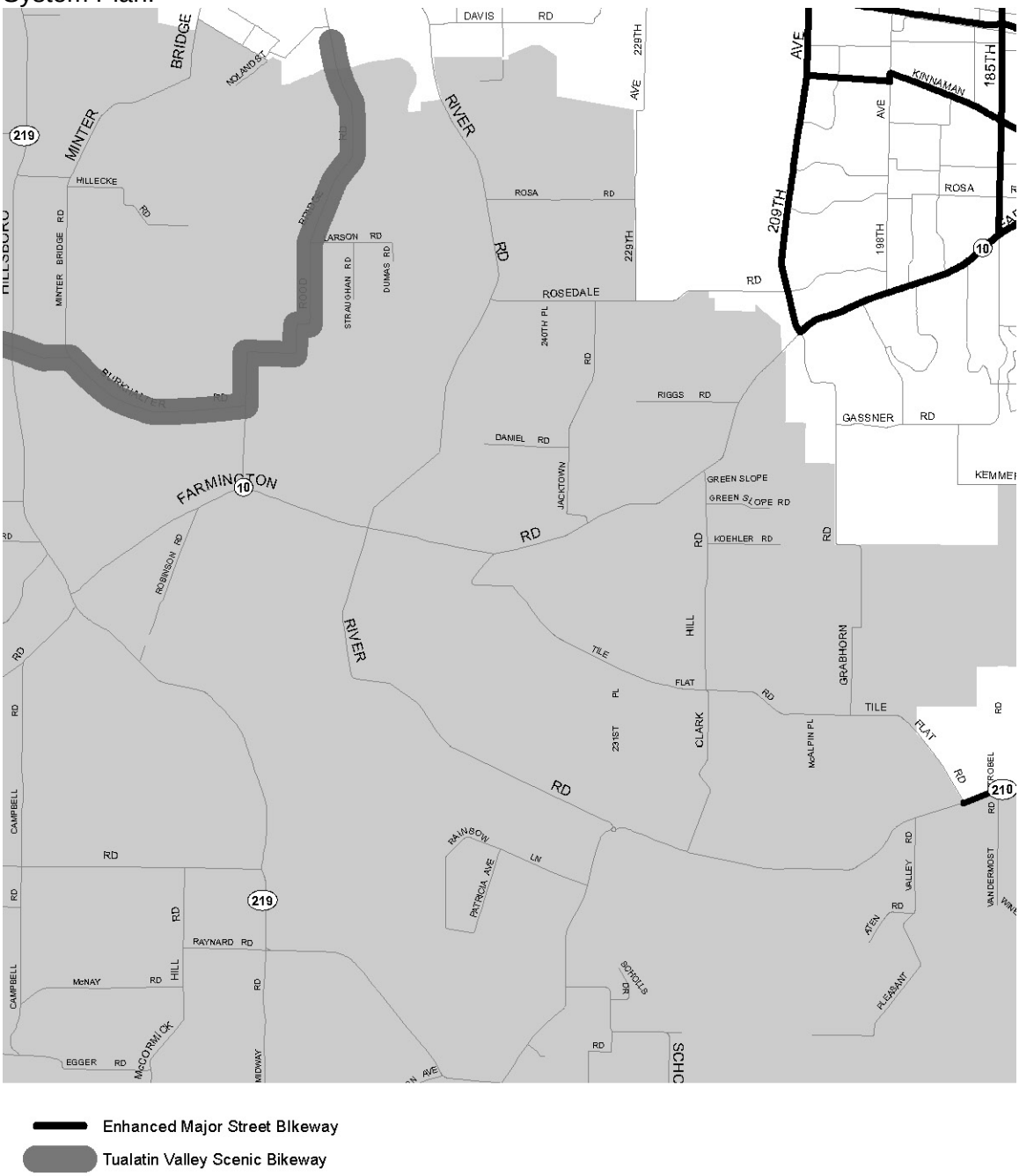

Enhanced Major Street Bikeway

Tualatin Valley Scenic Bikeway

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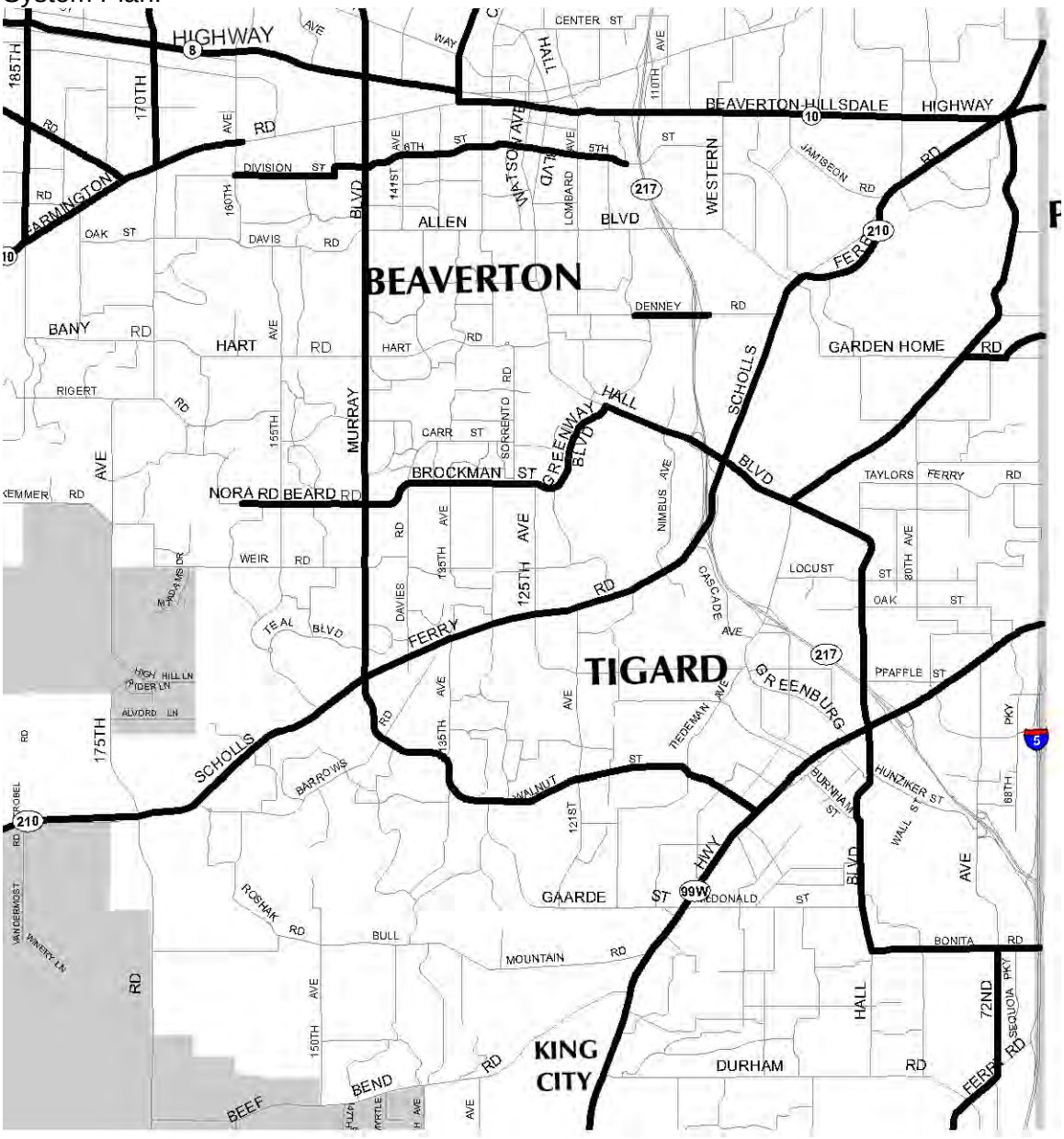

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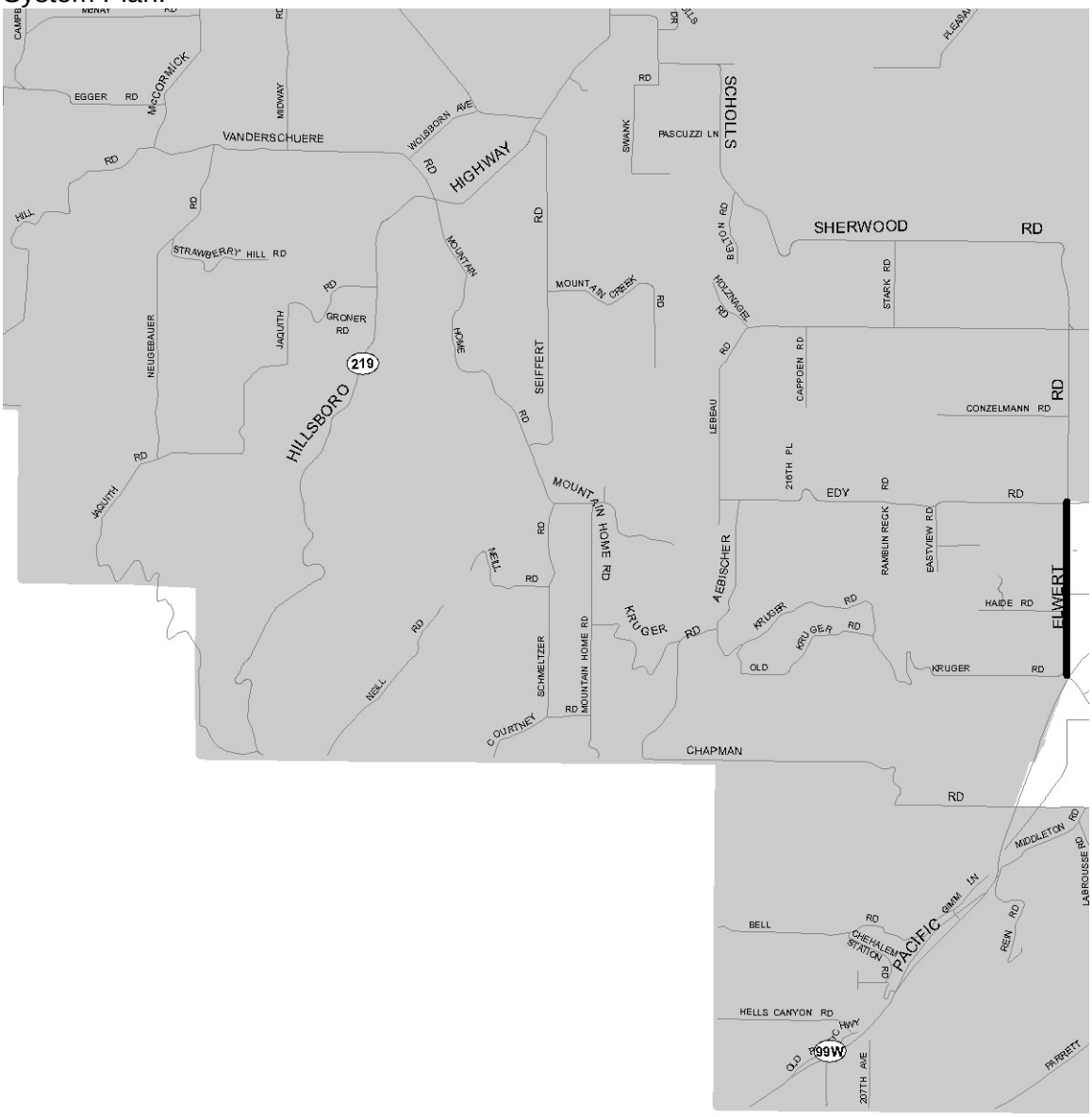

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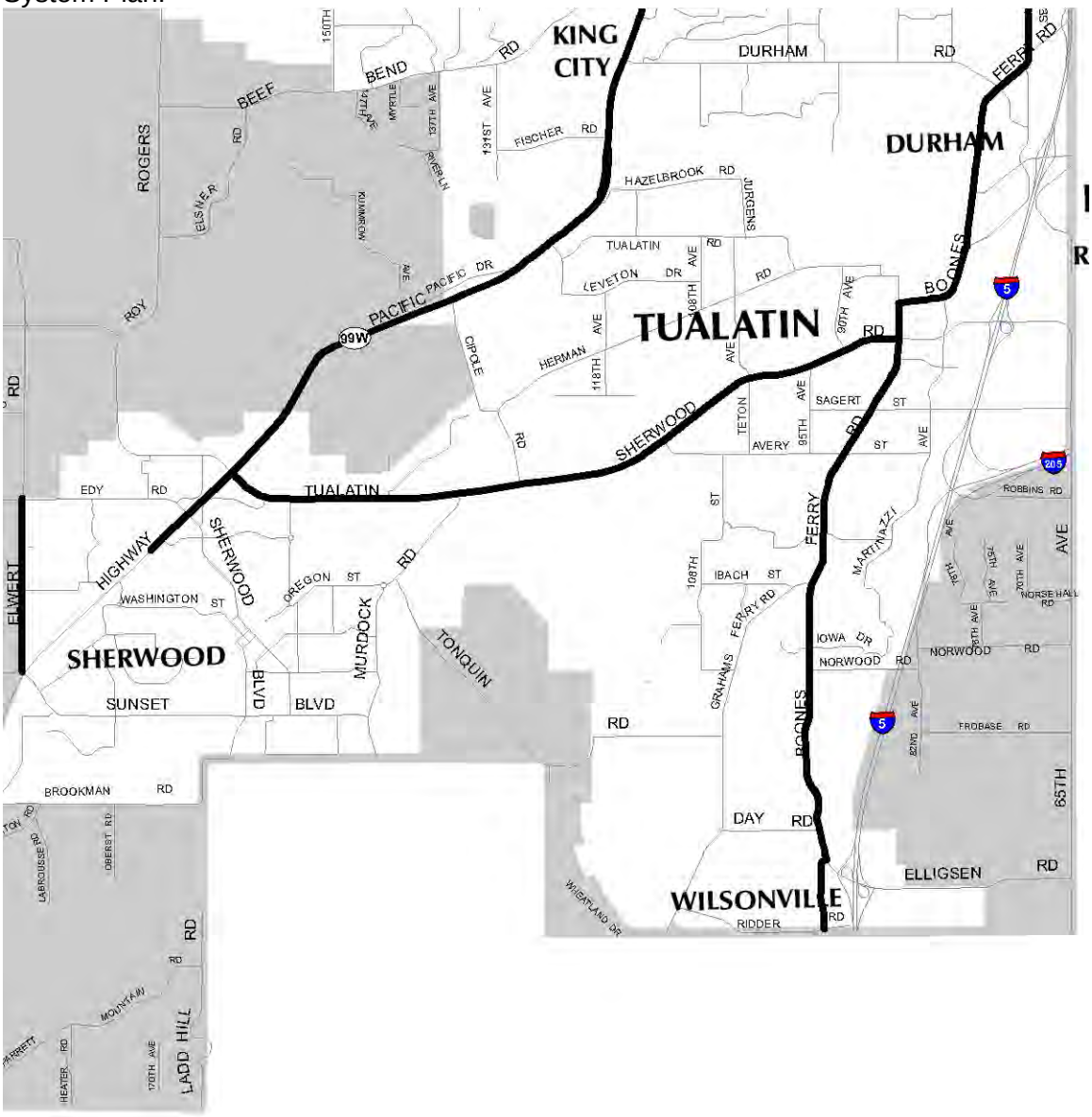

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Transit Element

Washington County's transit system, operated by several public transit agencies, consists of bus, light rail and commuter rail services as well as a number of community shuttle and paratransit services. Most transit service in Washington County is located within the urban growth boundary; however several rural and interregional routes are also available.

Transit System Map

The Transit Element identifies the future transit network as envisioned in the TriMet Westside Service Enhancement Plan, the draft TriMet Southwest Service Enhancement Plan and the Regional High Capacity Transit System Plan. It also responds to the Transit Service Needs Analysis (Figure 4-20) in the TSP Existing Conditions and Future Needs Report and assumes the continuation of existing transit services. The Transit Element also identifies a number of "point" features including Transit Centers, Park & Rides, Bicycle Transit Facilities and Major Transit Stops. The Transit Element does not identify or map paratransit services. However, it does identify potential areas for community shuttle service.

Transit System Classifications

Existing High Capacity Transit

High Capacity Transit (HCT) is a transit service that carries high volumes of passengers quickly and efficiently between locations. Defining characteristics of HCT include the ability to bypass traffic and avoid delay by operating in exclusive or semi-exclusive rights-of-way, faster overall travel speeds due to station spacing, frequent service, transit priority street and signal treatments, and premium station and passenger amenities. Transit modes most commonly associated with HCT include light rail, commuter rail, rapid rail, rapid streetcar and bus rapid transit. Existing HCT routes shown on the Transit Element include West Side MAX light rail (Blue and Red lines) and WES Commuter Rail.

High Capacity Transit Study Corridors

HCT Study Corridors represent future HCT routes as shown in Metro's Regional High Capacity Transit System Plan 2035, adopted in 2010. HCT Study Corridors require further refinement and coordination among all affected jurisdictions in order to determine the location, transit mode and right-of-way needs associated with each corridor. The Transit Element map shows HCT Study Corridors as wide lines that occasionally spread into larger areas in cases where multiple routes are possible.

Metro's Regional High Capacity Transit System Plan 2035 divides HCT corridors into four implementation tiers. Within Washington County, the tiers and proposed corridors are defined as follows[5]:

Near term regional priority corridors: Corridors currently most viable for implementation:

- Corridor 11: Portland to Sherwood in the vicinity of Highway 99W (the "Southwest Corridor").
- Corridor 34: WES commuter rail service improvements to 15-minute all-day service.

[5] Metro Regional High Capacity Transit System Plan 2035 Summary Report, 2010.

Next phase regional priority corridors: Corridors where future HCT investment may be viable if recommended planning and policy actions are implemented:

- Corridor 17: Sunset Transit Center to Hillsboro in the vicinity of Highway 26/Evergreen Parkway
- Corridor 17D: Tanasbourne/Amberglen extension
- Corridor 28: Clackamas Town Center to Washington Square in the vicinity of Portland & Western Railroad
- Corridor 29: Clackamas Town Center to Washington Square in the vicinity of I-205/Highway 217
- Corridor 32: Beaverton to Hillsboro in the vicinity of TV Highway

Developing regional priority corridors: Corridors where projected 2035 land use and commensurate ridership potential are not supportive of HCT implementation, but which have long-term potential due to political aspirations to create HCT-supportive built form:

- Corridor 12: Hillsboro to Forest Grove extension

Regional vision corridors: Corridors where projected 2035 land use and commensurate ridership potential are not supportive of HCT implementation:

- Corridor 38S: Sherwood to Tualatin

As of this writing, refinement planning is underway for the Southwest Corridor (Corridor 11). The exact location and transit mode of Southwest Corridor HCT is not yet identified. The Transit Element map shows a broad swath that includes the routes that are currently under consideration.

Refinement planning for HCT in the TV Highway Corridor between Hillsboro and Beaverton (Corridor 32) is a key recommendation of the 2013 TV Highway Corridor Plan. The Transit Element map shows the corridor as a wide line that includes TV Highway, the adjacent Portland & Western Railroad and several other potential routes. An HCT Study is needed to determine the transit mode, location and right-of-way needs for future HCT along TV Highway. This need for further study is also reflected in the Refinement Area shown in the Roadway Element.

Frequent Bus Service
Frequent Bus Service is fixed-route bus service with 15-minute or shorter headways (times between arriving buses) all day, seven days a week, with the potential exception of longer headways during early morning and late night hours.

Regular Bus Service
Regular Bus Service is fixed-route bus service with 15-minute headways during weekday peak periods and 20 to 30-minute headways at other times.

Peak Period Bus Service
Peak Period Bus Service is fixed-route bus service that operates during the weekday morning and evening peak periods only.

Community Connector Service Area
A Community Connector Service Area is an area that is currently served, or could potentially be served, by lower-cost fixed-route bus service or flexible-route shuttle service. These are areas where regular bus service may not be feasible due to lower densities and/or historically low transit ridership.

Interregional Bus and Air Service
Interregional Bus and Air Services provide for longer-distance transit service that connects Washington County with locations outside of the immediate Portland metropolitan region, such as Yamhill County, Columbia County and the Oregon Coast and beyond. Interregional bus and air services and routes are not identified on the transit system map.

Transit Center and Bus or Air Terminal
A Transit Center and/or Bus or Air Terminal is a transit hub served by several bus routes and/or air or rail transit facilities. Transit Centers and Bus or Air Terminals allow riders to transfer between different transit services and/or modes in a safe, comfortable environment. Typical features of include shelters, benches, lighting, bicycle parking, traveler information and layover facilities for transit operators. Transit Centers and/or Bus or Air Terminal may include automobile parking, drop-off zones and retail uses.

Park & Ride
A Park & Ride is a location where people are allowed to park private vehicles and access one or more transit services. A Park & Ride is typically a parking lot or parking structure adjacent to a transit stop. Most Park & Rides are on public property; however they also exist on private properties that allow parking through a lease or other agreement with the appropriate transit agency. As of 2013 there were 28 Park & Rides with more than 5,400 parking spaces combined in Washington County.

Bicycle Transit Facility
A Bicycle Transit Facility is a location at or near a transit stop that provides secure, enclosed bicycle parking accessed by a key card or other technology. The purpose of a Bicycle Transit Facility is to improve the viability and convenience of combining bicycle and transit modes for trips, and to address the "last mile" connection between a transit stop and a residence, place of employment or other location. Existing Bicycle Transit Facilities are found at Beaverton Transit Center and Sunset Transit Center. Proposed Bicycle Transit Facility locations are recommended in the TriMet Westside Service Enhancement Plan and include facilities at eight additional MAX stations, at Portland Community College Rock Creek Campus and in the proposed South Hillsboro town center.

Major Transit Stops[6]
Major transit stops include:

- Existing High Capacity Transit stations

[6] Washington County Community Development Code Section 380 – Convenient Access to Transit Overlay District – refers to Major Bus Stops. Provisions in Section 380 apply only to Major Bus Stops mapped in the Washington County Community Plans, not those mapped in the TSP. The Community Plans and/or Community Development Code may be updated in the future to include the Major Transit Stops as shown in the TSP.

- Transit Centers
- Bus stops on existing or planned Frequent Bus Service lines that are intended to provide a higher degree of passenger amenities.

Major transit stops may include traveler amenities such as shelters, lighting, seating, bicycle parking, real-time traveler information and/or other passenger amenities. Major transit stops are intended to be highly accessible and visible to adjacent building, while providing for quick and efficient transit service. The role of Washington County is to facilitate safe, comfortable access to Major Transit Stops through pedestrian enhancements and through Community Development Code provisions that promote transit-oriented building and site designs. Supportive pedestrian enhancements near Major Transit Stops may include (but are not limited to) sidewalk infill, pedestrian crossings (compliant with R&O 10-107, the Washington County Mid-Block Crossing Policy), curb cuts, street lighting, concrete pads between the sidewalk and curb and improvements that provide compliance with the federal Americans with Disabilities Act (ADA).

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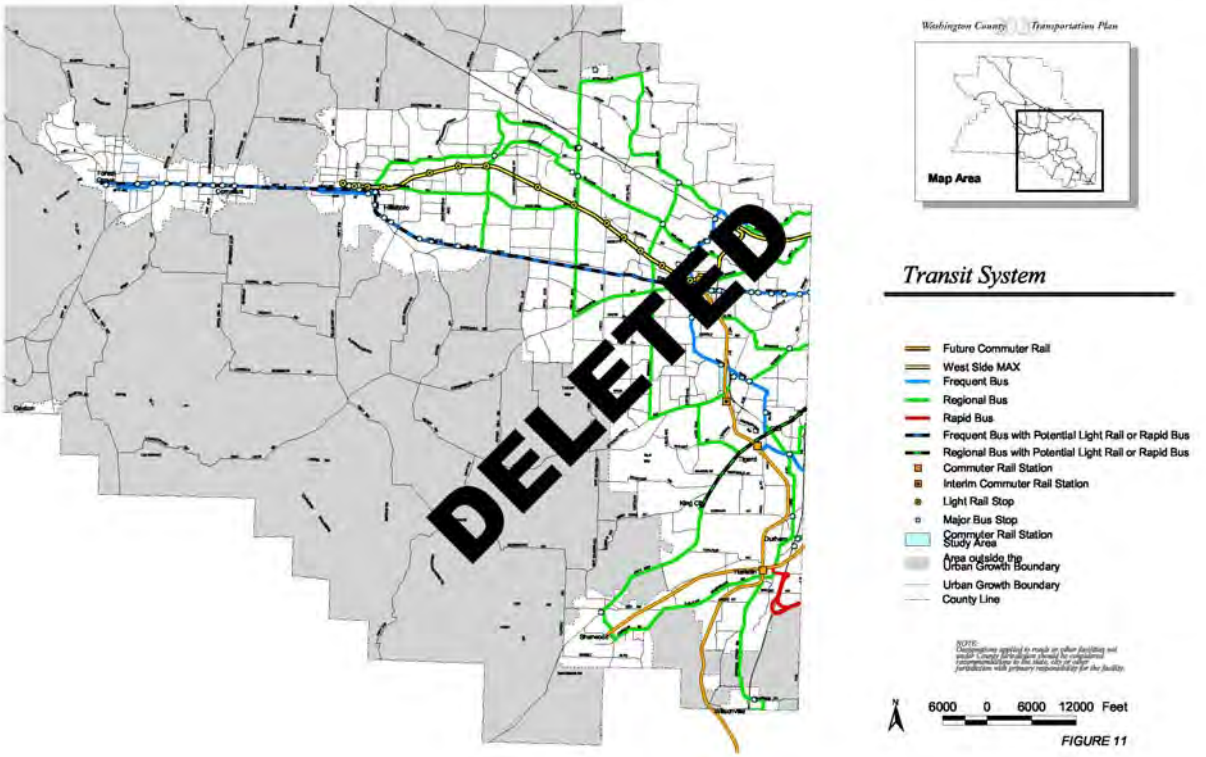

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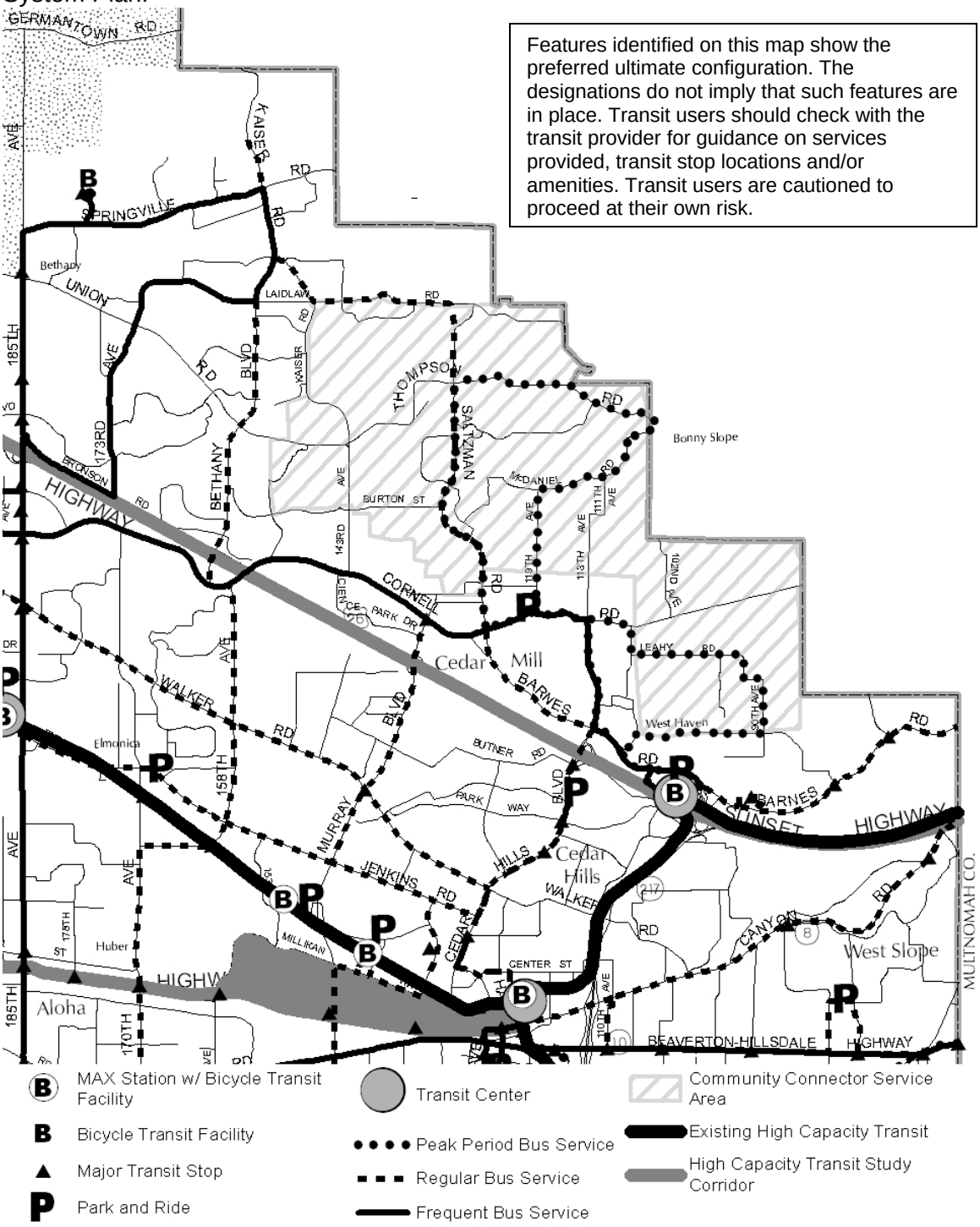

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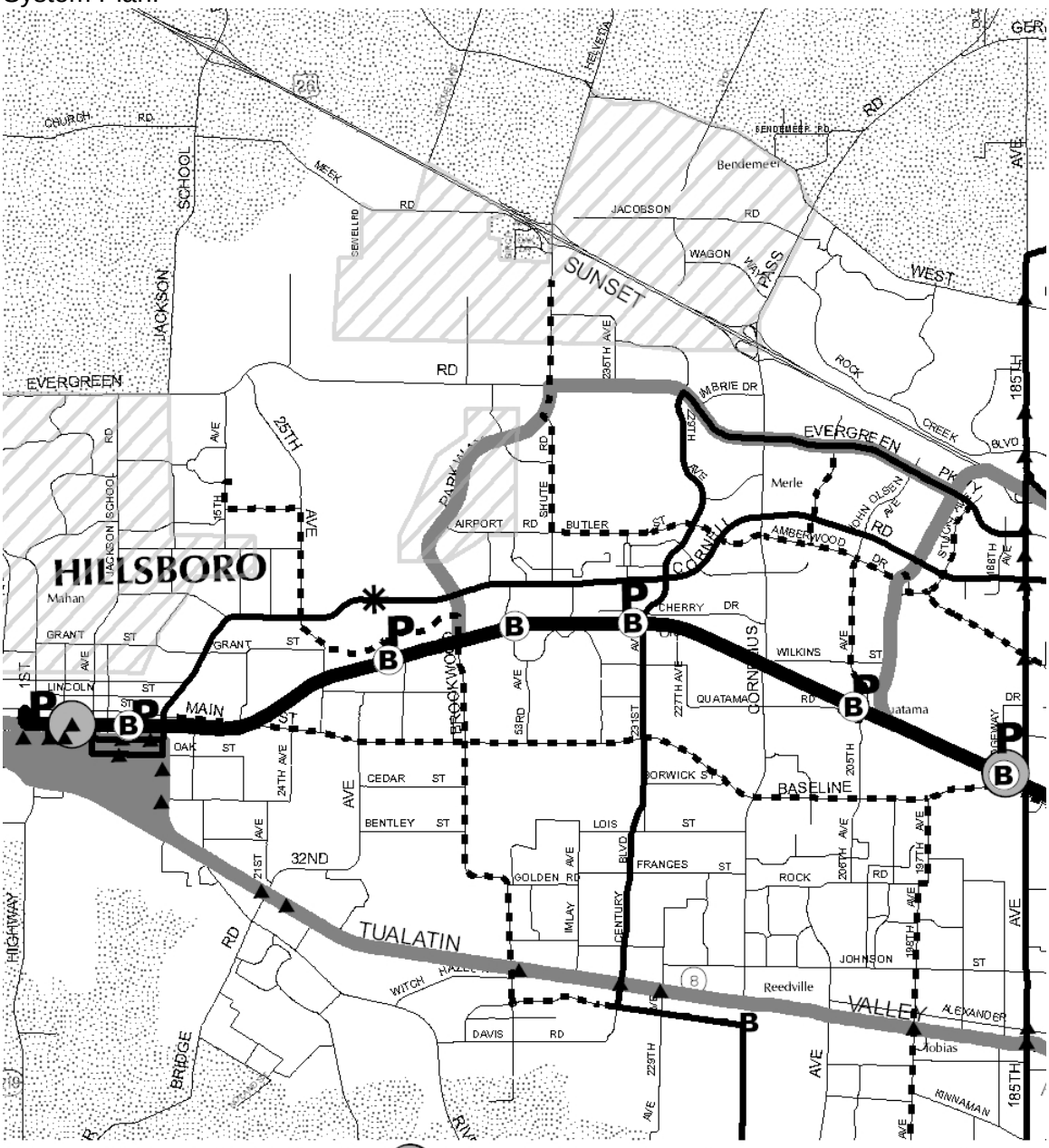

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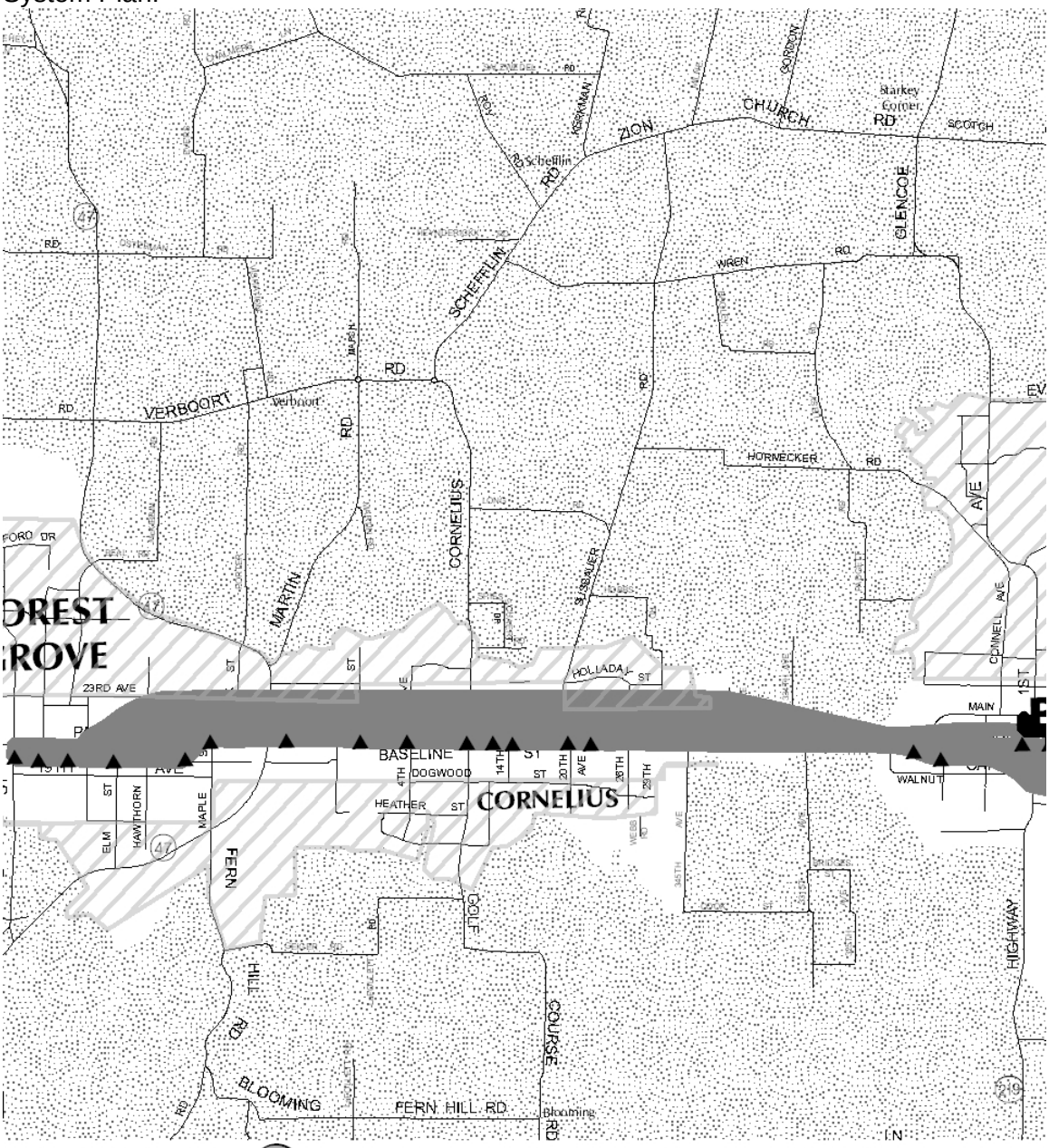

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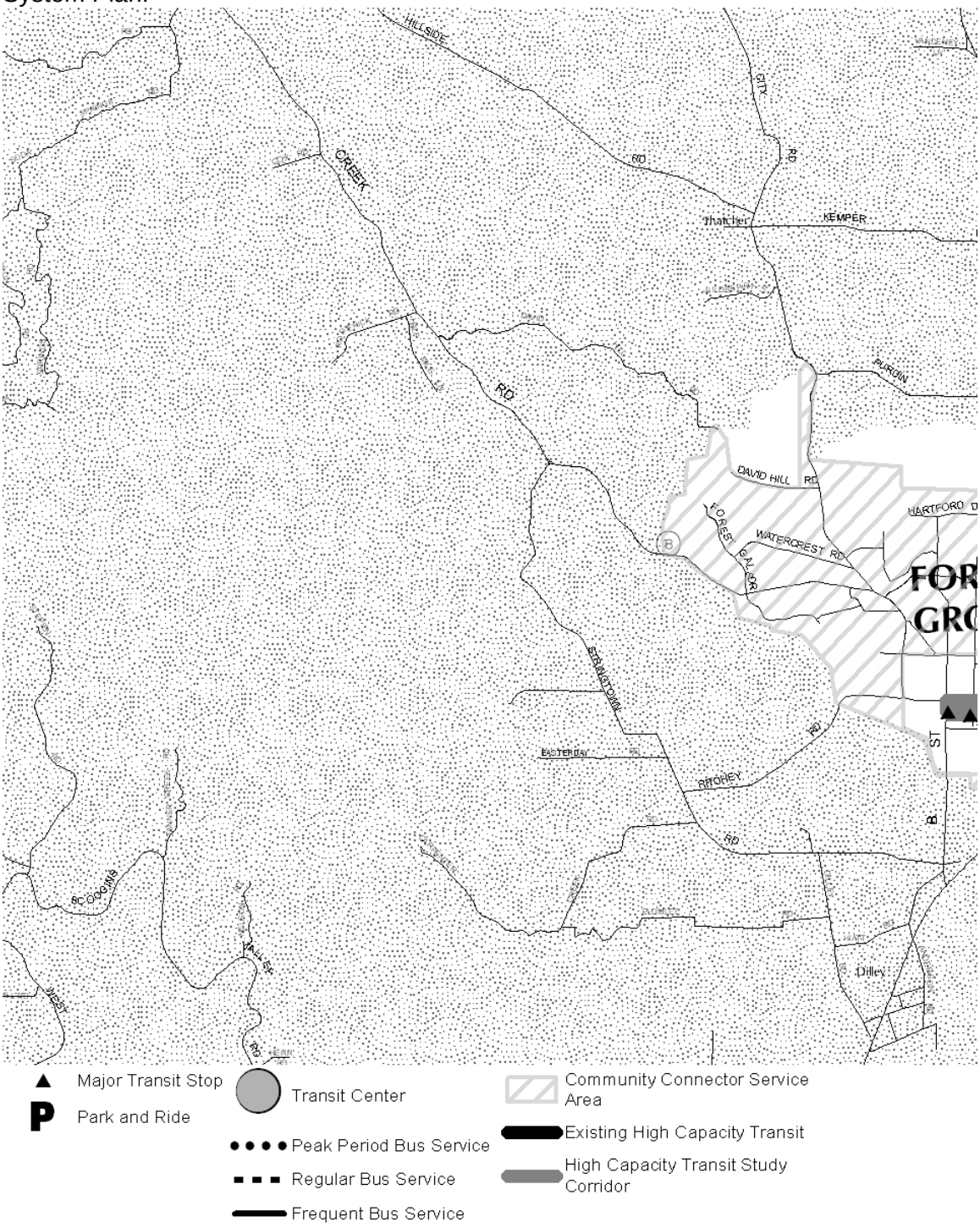

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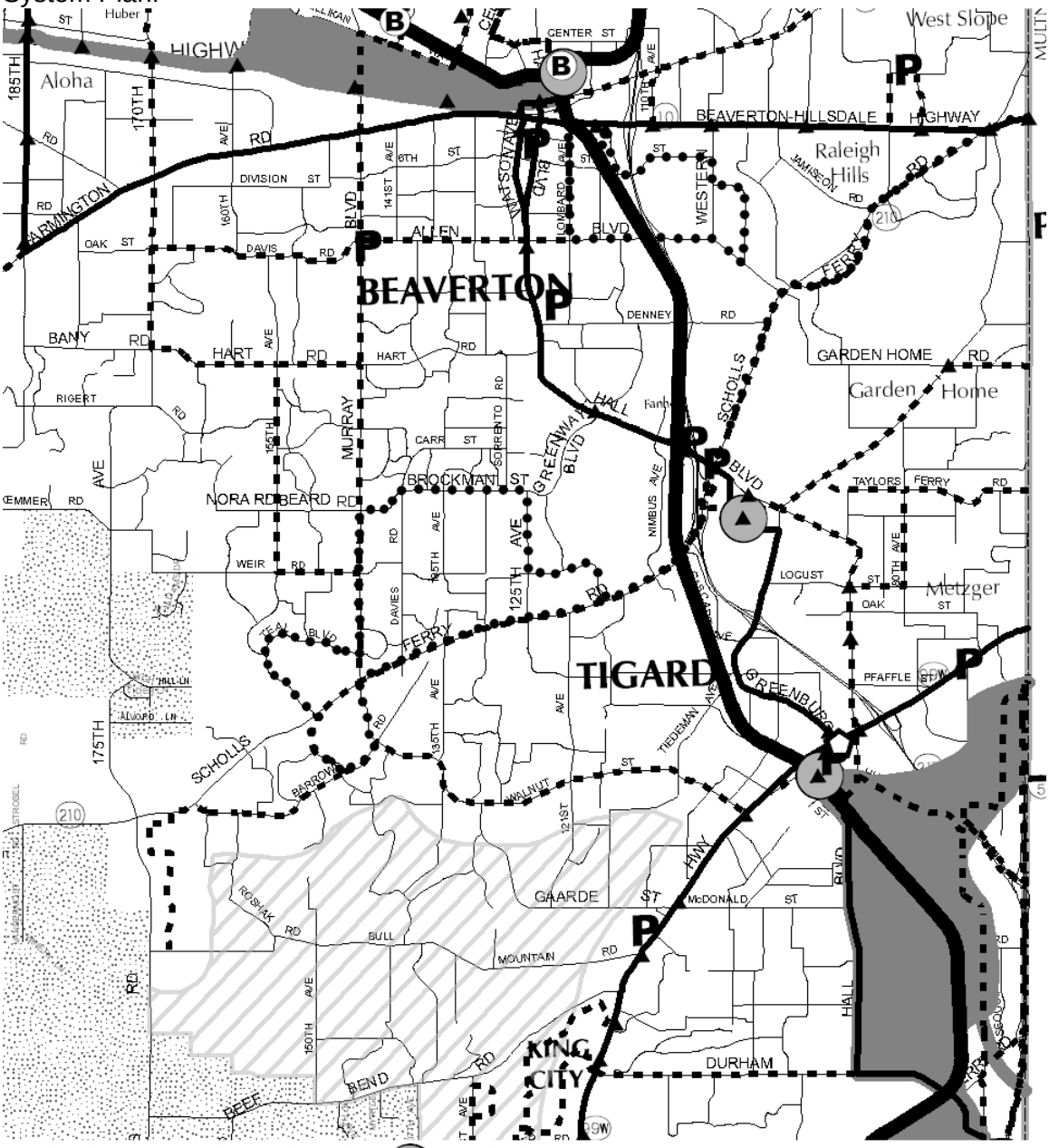

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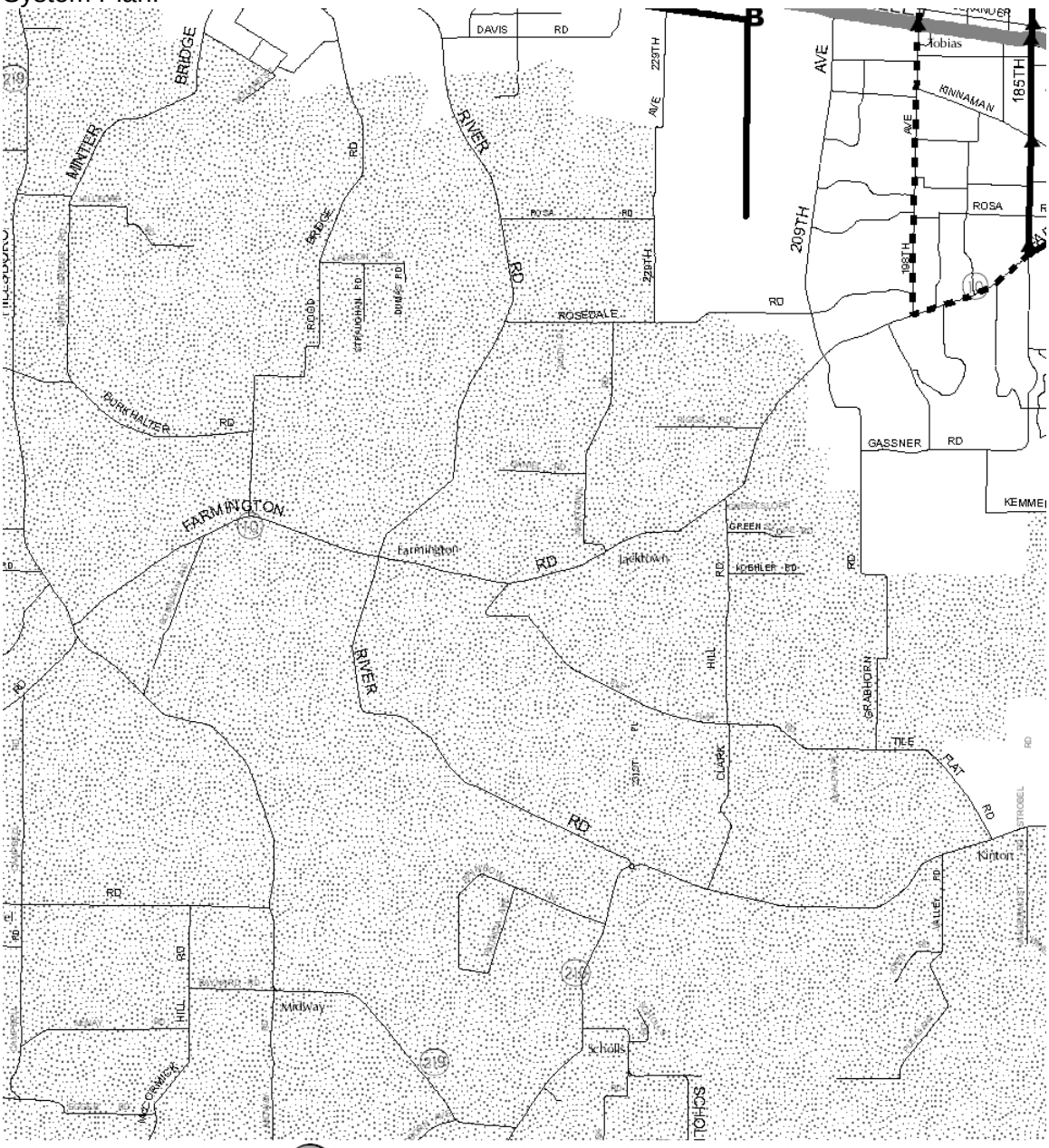

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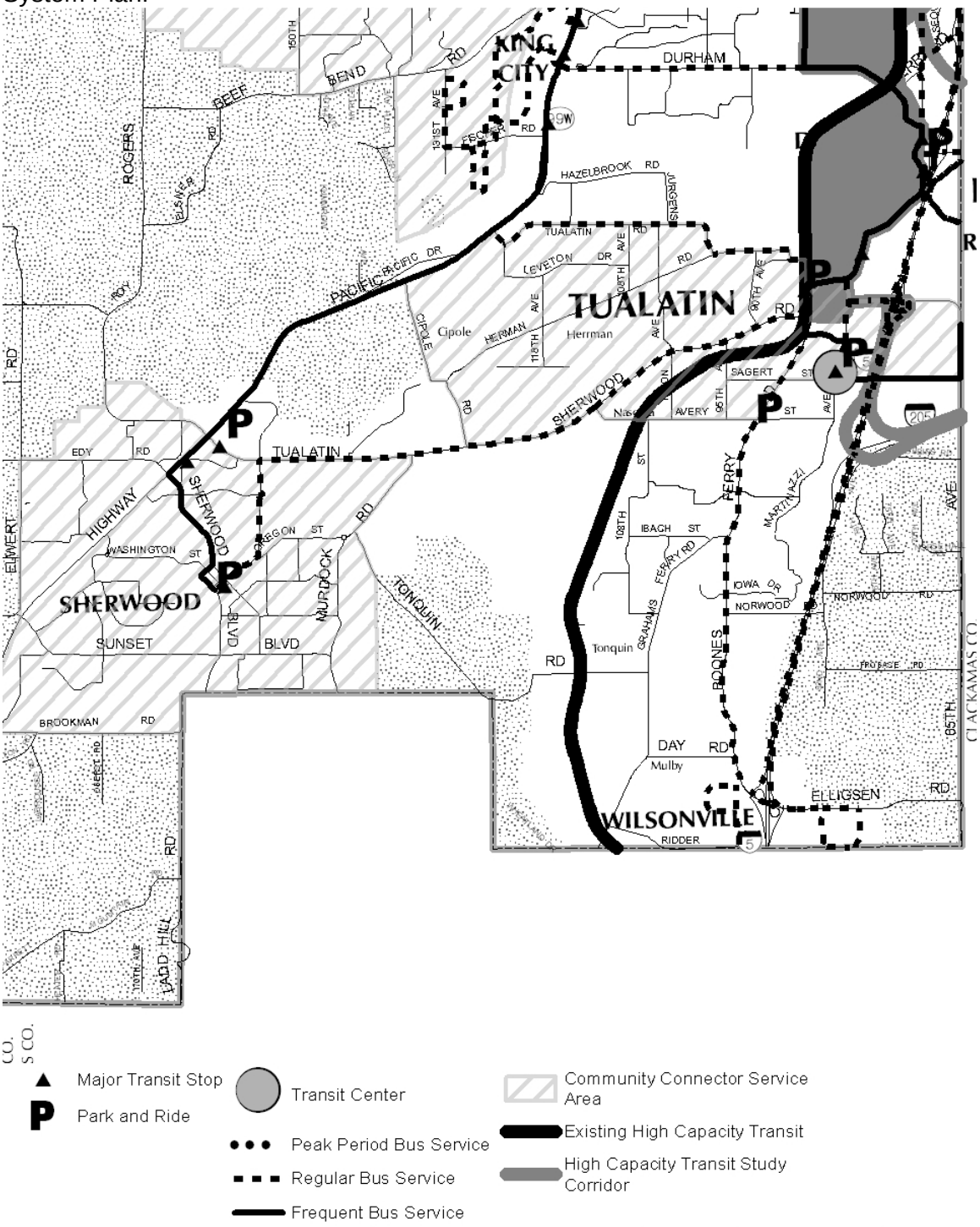

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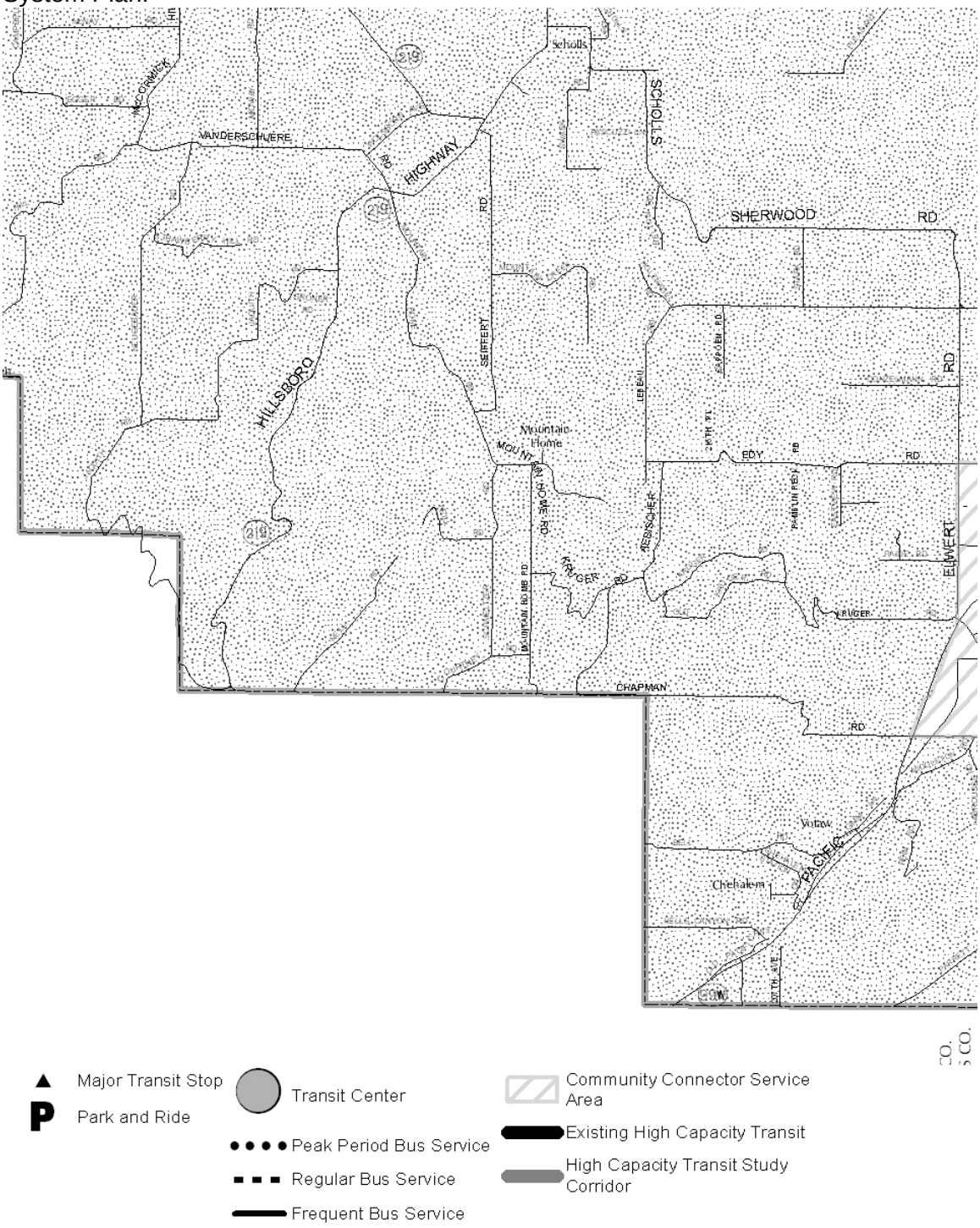

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Transportation System Management & Operations Element

The Transportation System Management and Operations element of the Transportation System Plan (TSP) identifies systems and operational strategies for Washington County to pursue over time. This section focuses on the provision of systems to improve the management and operation of the integrated multi-modal network. Transportation System Management & Operations includes four functional areas:

- Multi-Modal Traffic Management
- Traveler Information
- Traffic Incident Response
- Transportation Demand Management

I) Multi-Modal Traffic Management, Operations and Traveler Information

Washington County's Intelligent Transportation System (ITS) plan has combined Multi-Modal Traffic Management and Operations with traveler information systems into a coordinated system management architecture. This section includes discussion of Traffic Control and Traveler Information systems as well as bicycle, pedestrian and rural systems.

Washington County, in partnership with numerous stakeholders, has developed an Intelligent Transportation System (ITS) Plan for the county's roadways. The ITS plan will guide the deployment of advanced technologies and management techniques to improve the safety and efficiency of the transportation system. The goals of the ITS Plan include:

- Improve the safety and security of our transportation system
- Improve the efficiency of the transportation system
- Provide improved traveler information
- Deploy functional and cost efficient ITS infrastructure
- Integrate regional ITS projects with local and regional partners

The ITS plan provides a framework of policies, procedures and strategies for integration of Washington County's existing resources to effectively meet future regional transportation needs and expectations. Key concepts include the following:

- The region cannot build itself out of congestion
- The region endeavors to maximize the efficiencies and improve the safety of the existing infrastructure
- The County strives to deliver better information about traffic conditions
- The plan fosters multi-agency coordination for system operations
- The Federal Highway Administration requires that all ITS projects funded through the Highway Trust Fund shall be in conformance with the National ITS Architecture and applicable standards

Washington County seeks to improve the safety, security and movement of goods, people and services for all modes of the transportation network by using advanced technologies, coordinated management techniques, and by providing real-time traveler information. Building and managing a smarter, more efficient transportation system requires cooperation between Washington County, ODOT and local agencies. Improving the management and operations of the integrated multi-modal network necessitates a combined strategy of capital projects, use of technology and public transportation. Many of these strategies may be used on corridors where Washington County operates the traffic signals. Washington County will lead these efforts and coordinate with local agencies and ODOT on the implementation as applicable.

1. Traffic Control & Traveler Information

The ITS plan focus on two major categories of systems:

(a) Communication Backbone & Centers
(b) Arterial Management System and traveler information systems

(a) Communications Backbone & Control Centers

The following figure depicts the high-level network architecture for connecting the operations centers that are operated by Washington County, and connections to other regional operations centers operated by other agencies.

The four operations centers operated by Washington County are:

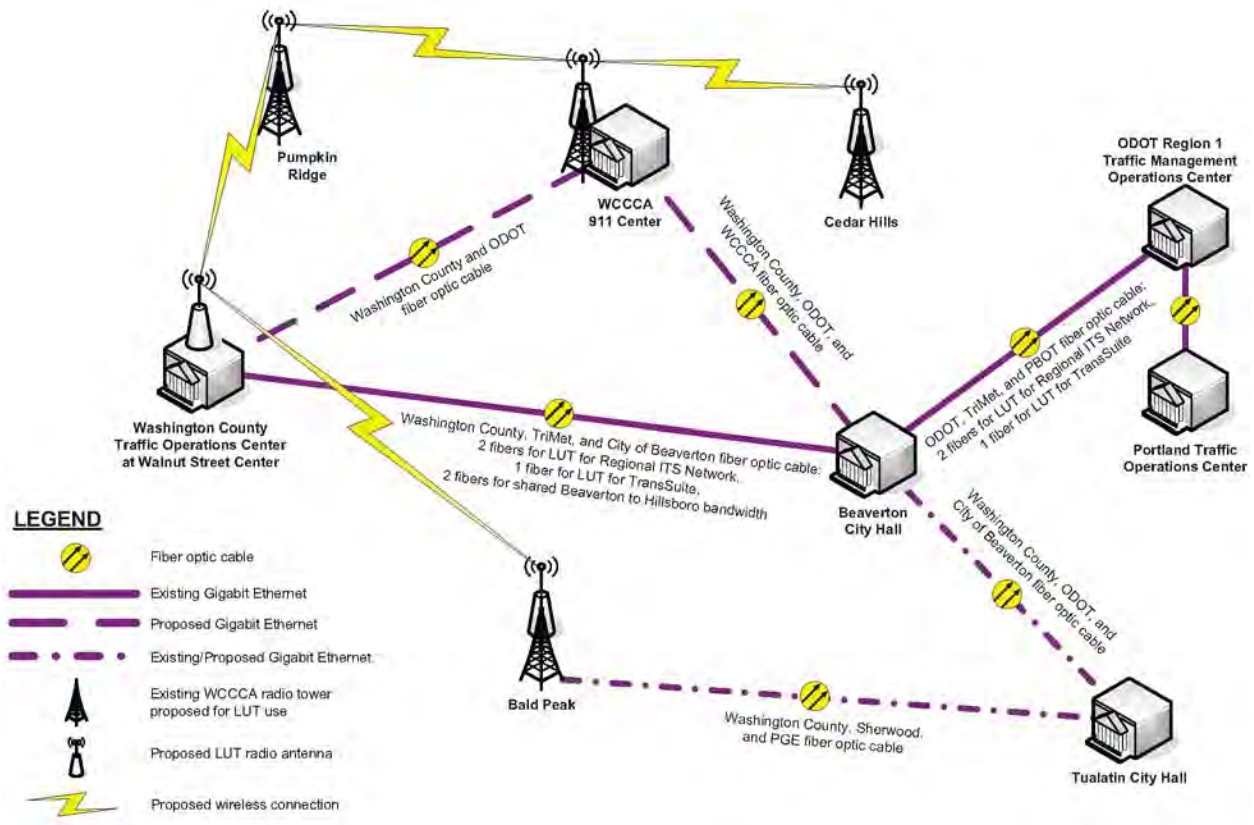
- Washington County Traffic Operations Center (TOC) at Walnut Street Center
- Washington County Consolidated Communications Agency (WCCCA) 911 Center
- Beaverton City Hall
- Tualatin City Hall

Regional operations centers operated by other agencies include:

- ODOT Region 1 Traffic Management Operations Center
- City of Portland Bureau of Transportation TOC

The backbone network uses a combination of fiber optic cable and wireless communications to connect the centers. The wireless paths shown in the following figure were identified through a planning level radio frequency analysis. In addition to center-to-center communications, several wireless paths were also identified to provide connectivity to some field devices based on line of sight analysis.

Communications Backbone



(b) Arterial Management System and traveler information systems

Washington County has identified a number of ITS strategies for improving corridor management and operations over time. These strategies include:

- Routine traffic signal maintenance/operations
- Enhanced traffic signal timing operations
- Transit signal priority
- Traffic surveillance (cameras or detection)
- Trail counters
- Event management
- Arterial performance monitoring
- Real-time traffic flow conditions
- Fiber optic cable backbone

Arterial Management System

Washington County has deployed several arterial management projects. These ITS projects are aimed at improving the safety and operational efficiency of the existing transportation infrastructure. Potential benefits for the transportation system and travelers include:

- Improved travel time reliability
- Reduced travel delay

- Reduced fuel consumption and greenhouse gas emissions
- Reduced crashes and improved safety
- Comprehensive information for travelers to make informed decisions

2. Bicycle & Pedestrian

Bicycle and Pedestrian ITS strategies include information systems to collect data about bicycle and pedestrian travelers as well as operational systems to enhance the transportation network for these travelers.

Information systems may include:

- *Bicycle Detection* – Bicycle detection at traffic signals supports the operation of the signal and collects that the signal has responded to the detection (the presence of the cyclist is counted)
- *Trail Counters* – Washington County continues to work with Parks and Recreation departments to install bicycle and pedestrian counters where trails cross arterial roadways

System enhancements may include:

- *Pedestrian Signal Countdown Timers* – Pedestrian signal countdown timers can be installed based on the requirements of the Manual of Traffic Control Devices
- *Bicycle / Pedestrian Crossing Enhancements* – Enhance visibility of bicycles and pedestrians at crossings, pushbutton-activated beacons or traffic signals
- *Bicycle / Pedestrian Based Signal Timing* – Adjust signal timing to accommodate bicyclists and/or pedestrians. Include prohibiting flashing yellow arrow when there is a pedestrian call. Reduce pedestrian and bicycle delay at locations with high pedestrian and/or bicycle demand. Bicycles may require longer minimum green times and longer clearance intervals

3. Rural

Rural systems enhance the operation and safety of the roadways. These systems are often prioritized at locations with a higher number of collisions. Rural systems may include:

- *Weather Stations* – Monitor adverse conditions and provide traveler information
- *Intersection Warning Systems* – Notify drivers of an upcoming intersection or cross-traffic with active warning systems
- *Curve Warning Systems* - Notify drivers of an upcoming curve using active warning systems
- *Queue Warning Systems* – Notify drivers that a queue exists ahead using active warning systems
- *Size & Speed Warning Systems* – Notify drivers of height, length, width or speed restrictions, typically applied on roadways with compliance issues
- *Speed Feedback Systems* – Measure and display speed of approaching vehicles in advance of locations where a slower speed is appropriate

II) Traffic Incident Response

At this time, Washington County does not envision development of a traffic incident response program. Washington County coordinates with ODOT, which provides a dedicated and efficient incident response program (formerly known as Corridor Management Teams or COMET). Beyond the ODOT incident response program, Washington County relies on emergency services departments (such as the County Sheriff Office and Tualatin Valley Fire & Rescue) to respond to incidents throughout the transportation system.

III) Transportation Demand Management

Transportation Demand Management (TDM) is the general term used to describe any activity that provides an alternative to single occupant vehicle trips. Demand management encompasses a range of strategies such as carpooling, staggered work shifts or telecommuting. Strategies may encourage ridesharing (e.g., car- or van-pooling), transit use (e.g., fare subsidies), bicycle commuting (e.g., on site showers, lockers or bike parking), walking to work or providing flexible working hours. Such strategies are viewed as relatively low-cost initiatives that can help reduce traffic congestion and air quality problems. As growth in Washington County occurs, the number of vehicle trips and travel demand in the area will also increase. The ability to provide alternatives will help accommodate this growth. Travel demand management strategies and programs have taken on increased importance and emphasis over time, particularly as interest in green-house gas reductions have increased.

Employers with more than 100 employees at a single work site are subject to the Department of Environmental Quality's Employee Commute Options (ECO) rule. Such employers are required by state regulations to have programs in place intended to reduce the percentage of employees who drive alone to work, and to regularly survey their employees about their commute patterns. An employer participating in an equivalent commute trip reduction program who does not achieve its target auto trip rate by the target compliance date must demonstrate that a good faith effort was made to achieve the target rate.

Washington County coordinates with the Westside Transportation Alliance (WTA) on a variety of employer based TDM strategies. The WTA, the primary Transportation Management Association (TMA) within Washington County, works with its partners and Washington County employers to offer workplace services and programs that help employees commute to work by transit, carpool, vanpool, bicycling and walking. These services include transportation fairs, assistance with ECO Rule compliance, surveying, events, incentive programs and participation on local and regional planning committees.

Travel Demand Management programs may include a wide variety of commute options incentives, such as:

- Free TriMet passes for all employees
- Preferential parking for carpooling vehicles
- Bike storage and showers in locker rooms
- Compressed work weeks
- Telecommuting
- Individual Marketing Programs

Funding Element

Goal 10 of the Transportation System Plan identifies the existing transportation funding framework within Washington County. The transportation plan Funding Element expands on the funding framework, goals, objectives and strategies identified in Goal 10. This transportation funding element identifies projected revenue sources and lists current transportation improvements and cost estimates necessary to implement this plan. Based on the identified projected revenue and estimated costs, the funding element also identifies the overall projected funding gap.

This document represents the funding conditions at the time this document was prepared (2014). The projected revenues and estimated costs are expected to change over time. Further, the list of transportation improvements is anticipated to evolve as development occurs and new opportunities and challenges develop.

This funding element is divided into two primary types of funding and expenditures: 1) capital and 2) maintenance. While these categories are not mutually exclusive, many funding sources are dedicated primarily toward one or the other. The Funding Element treats these categories separately.

CAPITAL FUNDING PROGRAMS:

Capital projects include improvements that expand, enhance or extend the current transportation system. The TSP identifies projects consistent with Metro's financially constrained 2014 RTP. The TSP projects financial resources over the planning horizon. The resulting revenue forecast is compared to the identified project list and used to define the gap between project needs and forecasted funding.

Major Streets Transportation Improvement Program (MSTIP)
MSTIP is a property tax measure that was passed by Washington County voters three times during the 1980s and 1990s. Each of the three ballot measures identified a specific list of improvements that would be completed if the measure passed.

In the late 1990s two statewide tax reform measures led to MSTIP being rolled into the County's general property tax rate. Those property tax revenues support the County's General Fund, which is used at the discretion of the Board of County Commissioners. Thus far, the Board of County Commissioners has invested the property tax revenue generated by MSTIP in transportation improvements. The TSP funding structure assumes that MSTIP will continue to fund transportation improvements at the same rate.

Periodically there has been discussion of a new MSTIP ballot measure. A new measure could ask voters to increase the countywide property tax for additional transportation investments. A new MSTIP ballot measure or other MSTIP increase is not included in the assumptions for the TSP financial analysis, consistent with Metro's RTP.

Transportation Development Tax (TDT)
The TDT was based on the Traffic Impact Fee (TIF). The TIF was enacted in 1986 for unincorporated Washington County. In 1990, the TIF was enacted countywide including

within cities. This was one of the first transportation related development impact fees in the nation. The TDT is imposed on all new development in Washington County. The TDT is collected prior to the issuance of a building permit; or in cases where no building permit is required (such as for golf courses or parks), prior to final approval of a development application.

North Bethany Roads

In addition to the existing funding sources, North Bethany has two additional funding programs: The North Bethany Transportation System Development Charge and the North Bethany County Service District for Roads. The funds collected under these programs are intended to provide additional revenue to fund specific capital improvements needed to serve the planned development. Together the funds collected under these programs are intended to raise over $35 million towards 14 specific transportation projects.

The timeline for the complete development of North Bethany is unknown. The funding strategy was designed to implement transportation improvements as development occurs and funding becomes available. These two funding programs are intended to sunset once the area has developed, and the specified improvements have been implemented and purchased.

New road districts are likely to be established in the future for other developing areas, and some of these may contribute financially to Washington County facilities. These districts have yet to be defined and therefore are not considered in this context.

Federal and State funding

Federal and State transportation capital improvement funds are awarded through a variety of competitive application processes. These funding programs allocate improvements to the most competitive projects based on needs, system benefits and available funding.

The MTIP includes all federally funded transportation projects in the Portland Metropolitan area, including projects planned by TriMet, the Oregon Department of Transportation and local agencies receiving federal funds allocated by Metro. Metro currently uses a process known as the Regional Flexible Fund Allocation (RFFA) to distribute funds from three federal programs: the Surface Transportation Program, the Congestion Mitigation/Air Quality Program and the Transportation Alternatives Program. The RFFA process identifies which projects in the RTP will receive funding. RFFA funds are allocated every two years. Project and program applications may be nominated by jurisdictions, transportation or transit agencies within the region. These funds can be spent on a number of different types of improvements, except local street construction.

The MTIP also incorporates the Statewide Transportation Improvement Program (STIP), which is Oregon's four-year transportation capital improvement program. The STIP includes projects on the federal, state, city and county transportation systems, multimodal projects (highway, passenger rail, freight, public transit, bicycle and pedestrian) and projects in the National Parks, National Forests and Native American tribal lands.

Capital Project Prioritization

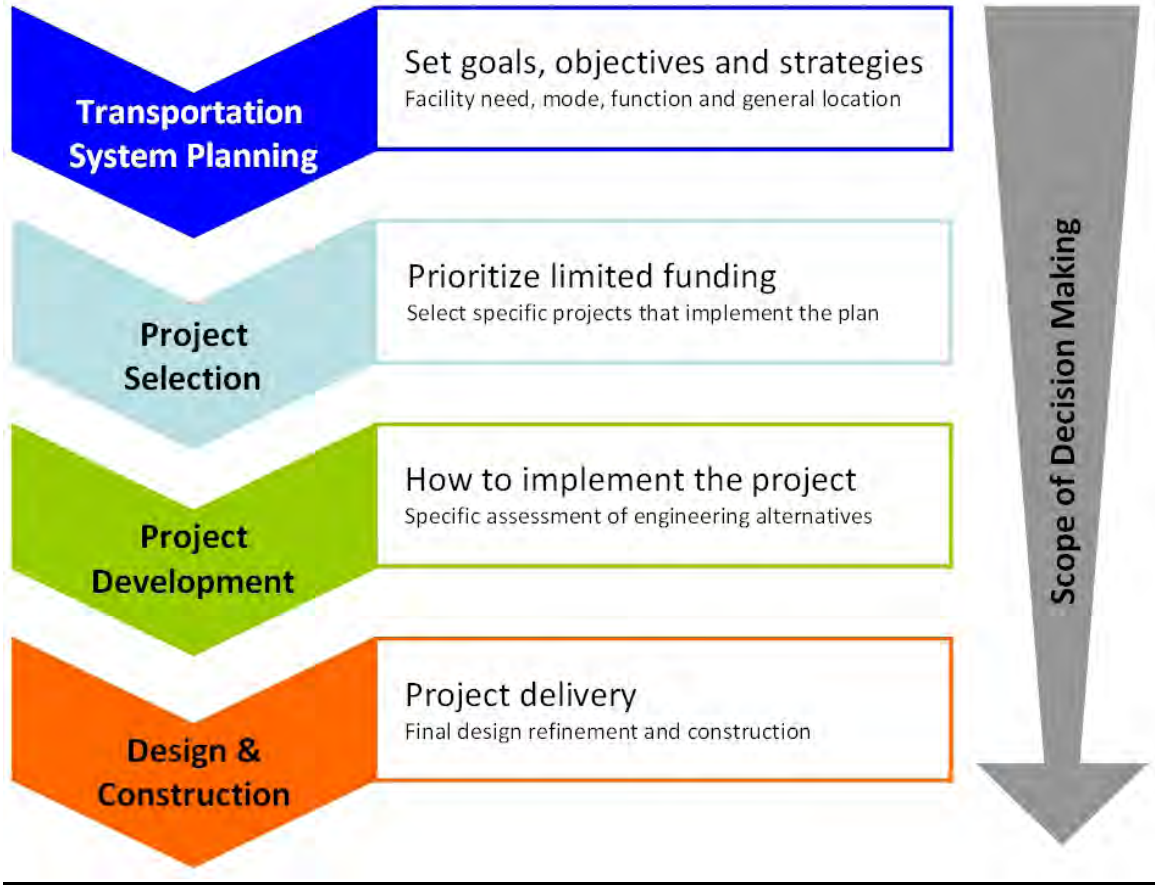
The goals, objectives and strategies of the TSP (adopted in A-Engrossed Ordinance 768) identify funding priorities. These reflect a balance of different important criteria to consider when selecting projects for funding. Each funding program has different rules, criteria and/or criteria weighting; these rules and criteria may change over time. Such changes to the funding program rules and criteria are generally established through an independent process and are not directly linked to the TSP. Balancing proposed projects to meet different goals of the TSP must be based on the specific situations being addressed.

Therefore, the TSP must be flexible enough to respond to the rules and criteria established by the various funding programs. Identifying how a particular project may score within the established funding program rules and criteria is the task of recommending and/or applying for the funding program. In many cases, it is important to demonstrate within the funding application how a particular project is consistent with the goals of the TSP, while meeting the specific requirements of the funding source.

The TSP identifies the need, mode, function and general location of transportation systems, but does not establish specific project priorities. The Oregon Transportation Planning Rule (TPR) establishes that transportation planning shall be divided into two phases: Transportation System Planning and Transportation Project Development. Transportation System Planning is a land use action and establishes a network of facilities and service to meet overall transportation needs including their function, mode and general location. Transportation Project Development implements the TSP by determining the precise location, alignment and design of improvements included in the TSP. Projects authorized in an acknowledged TSP are not subject to further justification with regard to their need, mode, function or general location.

The figure below describes the Transportation Project Development process, from establishing the need, mode, function and general location of the facility within the TSP to implementing the project on the ground.

Transportation Project Development Process



The figure depicts the four basic steps in the Transportation System Planning and project lifecycle. Each stage of the process yields key decisions that shape the transportation system. The scope of decision-making becomes more narrowly focused as projects advance through these stages. Bigger picture decisions occur during the planning and project selection stages, and more specific project-level decisions occur in the project development and the design/construction stages. DLUT staff strives to keep the public informed and involved as appropriate throughout each of the Transportation Project Development process steps.

MAINTENANCE FUNDING PROGRAMS:

In order to maximize the effectiveness of maintenance related resources, the Board has adopted target service levels for all different types of assets. The primary tool used for selecting road maintenance activities has been the *Road Maintenance Priority Matrix* as described in TSP Goal 11 maintenance.

Urban Road Maintenance District (URMD):
The Urban Road Maintenance District (URMD) was created by the voters in urban unincorporated Washington County in 1987; voters approved funding the district in 1994. URMD provides preventive road maintenance services for public roads within URMD boundaries, except roads that are designated as arterials or collectors on the Washington County Transportation Plan, for which maintenance funding comes from the Road Fund described below.

In 2011 the Board expanded the services eligible for URMD funding to include construction of safety improvements. All roads under County jurisdiction within the District are eligible for safety improvements, including Arterials and Collectors.

Road Fund:
Washington County receives a portion of state highway funds generated by Oregon's 30-cents-per-gallon tax on gasoline, truck weight-mile fees and vehicle registration fees. Anyone who buys gasoline, drives a truck that meets requirements for weight-mile fees or registers a vehicle in Oregon pays the tax. This fund has historically been distributed 50% to the state, 30% to the county and 20% to the cities. Washington County also collects a local one-cent-per-gallon tax on gasoline. Anyone who buys gas/diesel in Washington County pays the tax. These revenues are used by Washington County to maintain roads under County responsibility. For the purpose of the Funding Element, no increases or other significant changes to the Road Fund are assumed.

Sections of Ordinance 768 are amended to reflect the following:

1. Goal 1: Safety

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Some safety concerns are ~~less~~ difficult to measur~~able~~. Issues of perceived safety and pedestrian/bicycle comfort and/or avoidance may not be evident in crash statistics, even though these issues may be detracting significantly from the use of certain modes or facilities. People may avoid walking or biking along certain roads that lack appropriate facilities to do so, regardless of the facility's statistical safety record. Absence of a facility may constitute a significant safety hazard.

Safety strategies in the TSP focus on:

- Engineering and maintenance solutions.
- Completing gaps in the pedestrian and bicycle network.
- Strategic evaluation of and response to crash patterns.
- Addressing safety deficiencies through development review.
- Education and enforcement initiatives.
- Lighting.

While the TSP cannot, in and of itself, reduce crashes, it provides a framework for systematically building, maintaining, operating and monitoring a safe transportation system for all users.

Goal 1: Safety
Provide a safe transportation system for all users.

Objective 1.1 Provide a transportation system that is structurally and operationally safe for all users and all modes.

Strategy 1.1.1 Plan, engineer, design and construct the transportation system using accepted design standards that promote safety and that provide the intended multi-modal function as indicated in the TSP and the Road Design and Construction Standards.

Strategy 1.1.2 Regularly inspect the transportation system to identify and correct safety deficiencies.

Strategy 1.1.3 Use the Maintenance Priority Matrix to help prioritize maintenance and safety expenditures.

Strategy 1.1.4 Where and when practicable, separate travel modes and minimize conflicts between and within modes.

Strategy 1.1.5 Prioritize missing or incomplete facilities as safety enhancements where appropriate.

Strategy 1.1.~~5~~6 Limit sign clutter by utilizing the Manual on Uniform Traffic Control Devices or other appropriate standards for the design and placement of traffic signs.

***

2. Goal 2: Economic Vitality

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Truck Routes

Most freight in Washington County is expected to be shipped by truck in the future. To provide for the most efficient transport of freight and to minimize impacts on residential neighborhoods, ~~Through~~ Truck Routes are designated primarily on Arterial and Collector roads. The truck route designations ~~in the TSP~~ encourage, but do not require, truck drivers to use these routes. The primary purpose of designating truck routes ~~in the TSP~~ is to identify where future improvements on these roads should provide for the safe and efficient movement of trucks.

***

Economic Activity Centers
Economic Activity Centers include employment land (such as North Hillsboro and the Tualatin-Sherwood Corridor) and regional centers (including downtown Beaverton, downtown Hillsboro, Tanasbourne-Amberglen and Washington Square). ~~They are identified in the TSP because their intensity of commercial or industrial uses often~~ Such areas are critical to the economy of Washington County and demand~~s~~ a commensurate level of transportation operational and/or capital improvements.

***

Objective 2.1 Designate a ~~truck route~~roadway freight system that facilitates the efficient movement of goods, services and agricultural equipment.

Strategy 2.1.1 Coordinate planning, development, maintenance and operation of an efficient and safe ~~truck route~~ roadway freight system with the private sector, ODOT, TriMet, Metro, the Port of Portland and the cities of Washington County.

Strategy 2.1.2 Improve monitoring, analysis and management of freight needs by maintaining a truck classification count database.

Strategy 2.1.3 Develop freight reliability criteria, including percentage reduction in delay per truck trip, for purposes of project prioritization.

Strategy 2.1.4 Proactively identify and correct roadway design, safety and operational deficiencies on truck routes to meet freight reliability targets.

Strategy 2.1.5 Coordinate with federal and state agencies as necessary for compliance with federal and state regulations pertaining to the safe transport of hazardous materials within and through Washington County.

Strategy 2.1.6 Designate and map over-dimensional ~~freight~~ truck routes, and identify where roadway improvement projects should not further restrict or limit over-dimensional vehicle operations, as appropriate.

***

3. Goal 5: Mobility

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Objective 5.1 Provide a county roadway system that is cost-effective, designed to operate efficiently and serves all travel modes.

Strategy 5.1.1 Recognize that the functional classification system represents a continuum in which through traffic increases and provisions for vehicle access decrease in the higher classification categories (see figure 5). Designate a roadway Functional Classification Map utilizing some or all of the following criteria for defining or modifying the functional classification:

A) Expected amount, type and characteristics of vehicle traffic.
B) Distance between similar roadways within the system.
C) Expected needs of the community and traveling public.
D) Extent of appropriate access.
E) Length of the roadway.
F) Land use along the roadway.
G) Neighborhood and community aspirations.

Strategy 5.1.2 Determine ultimate street design requirements and street profile for development review and/or public improvement based on the Functional Classification Map designation and/or Special Area Street Map designation; and utilize ~~both~~ the Pedestrian System ~~Regional Street Design Overlay~~ Map, the Bicycle System Map and the Lane Numbers Map to determine the appropriate right-of-way dedication and design treatment applicable within the currently adopted roadway standards (see table 3).

Strategy 5.1.3 Address potential impacts of long-distance trips on neighborhoods or communities by:

A) Ensuring that the collectors and arterials of the transportation system are designed to adequately accommodate these trips.
B) Designing and managing local streets to accommodate local trips and to discourage long-distance trips.

Strategy 5.1.4* Prior to adding through travel lane capacity to the Lane Numbers Map, or elsewhere in the transportation system plan, consider the following strategies in the order listed below:

A) Transportation System Management strategies, including Travel Demand Management, safety, operational and access management improvements.
B) Bicycle and pedestrian system improvements.
C) Appropriate lane-markings, safety improvements and other operational devices to improve traffic flow.
D) Land Use strategies to reduce motor vehicle congestion and peak-period demand.
E) Parallel connections and local street connectivity improvements.

*Strategy 5.1.4 has been developed based on and in response to the Regional Transportation Functional Plan requirements in Title 2, 3.08.220.

Strategy 5.1.5 Define and maintain a ~~Countywide Roadway System~~ Long-Term Road Jurisdiction Map that is intended to serve major travel movements, and appropriate for long-term Washington County operation and maintenance. Maintain a map which identifies the Long-Term Road Jurisdiction of county and state facilities ~~on the Countywide Roadway System~~. ~~Pursue~~Negotiate jurisdiction of facilities identified for long-term county operation and maintenance.

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Functional Classification

This section elaborates on the functional classification system described by Strategy 5.1.1.

There are numerous ways in which the concept of roadway functional classification is defined and interpreted. Federal, state, regional and some city definitions within Washington County may differ from the classification scheme used here. In practice, this is not a problem because these classification systems reflect the general process described below.

> ~~Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide. Basic to this process is the recognition that individual roads and streets do not serve travel independently in any major way. Rather, most travel involves movement through a network of roads. It becomes necessary then to determine how this travel can be channelized within the network in a logical and efficient manner. Functional classification defines the nature of this channelization process by defining the part that any particular road or street should play in serving the flow of trips through a highway network.~~[~~1~~]
>
> Functional Classification introduces the two primary transportation functions of roadways, namely mobility and access, and describes where different categories of roadways fall within a continuum of mobility-access. Most travel occurs through a network of interdependent roadways, with each roadway segment moving traffic through the system towards destinations. The concept of functional classification defines the role that a particular roadway segment plays in serving this flow of traffic through the network. Roadways are assigned to one of several possible functional classifications within a hierarchy according to the character of travel service each roadway provides. Planners and engineers use this hierarchy of roadways to channel transportation movements through a highway network efficiently and cost effectively. Roadways serve two primary travel needs: access to/egress from specific locations and travel mobility. While these two functions lie at opposite ends of the continuum of roadway function, most roads provide some combination of each.[1]

Both the Washington County Functional Classification System and Metro's Regional Transportation Plan Arterial and Throughway Network map describe a hierarchy of roadway types, their relative roles in the transportation system, and provide direction with regard to appropriate classification criteria and facility design.

[~~1~~] ~~FHWA Functional Classification Guidelines, 1989~~
[1] FHWY Highway Functional Classification Concepts, Criteria and Procedures, 2013

Table 3: Functional Classification Design Parameters

Roadway Classification	Lanes[1]	Bike Lanes[2]	Max ROW[3]	Max Paved Width[3]
Principal Arterials & Arterials~~4~~,[5]	7	Yes	122 Feet	98 Feet
	5	Yes	98 Feet	74 Feet
	3	Yes	90 Feet	50 Feet
	2	Yes	90 Feet	48 Feet
Collectors~~3~~,[4]	5	Yes	98 Feet	74 Feet
	3	Yes	74 Feet	50 Feet
	2	Yes	74 Feet	50 Feet
Special Area Collectors[5]	3	Yes	52 Feet	46 Feet
	2	Yes	40 Feet	34 Feet
Neighborhood Routes	2	No	60 Feet	36 Feet
Special Area Neighborhood Routes[5]	2	No*	44 Feet	38 Feet
Commercial/Industrial	4	No	70 Feet	50 Feet
	3	Yes	64 Feet	50 Feet
	2	No	64 Feet	34 Feet
Special Area Commercial Streets[5]	4	No*	70 Feet	64 Feet
	3	No*	58 Feet	52 Feet
	2	No*	46 Feet	40 Feet
Locals	24' Travel Way	No	60 Feet	32 Feet
Special Area Local Streets[5]	16' Travel Way	No	38 Feet	32 Feet

*While these facilities do not include bike lanes, they do include wide travel lanes of 14 feet due to constrained right-of-way width – see Footnotes 2 and 5.

Footnotes:
1. The maximum number of travel lanes that can be built without a plan amendment is identified on the "Road Lane Numbers" Map except for roads allowed to be built as provided by the Community Development Code (CDC). This plan-level decision establishes the transportation system capacity necessary to adequately serve future travel demand identified in the TSP. The number of lanes required to accommodate turning movements at intersections and interchanges will be determined through traffic analysis conducted during the transportation project development process. This project-level decision identifies physical improvements necessary at or near intersections and interchanges to safely and efficiently move toward attaining the system capacity identified in the TSP. Improvements may include turn lanes and auxiliary lanes adjoining the traveled roadway to accommodate weaving, merging, speed changes or other purposes supplementary to through traffic movement. Auxiliary lanes to address spot area capacity and safety needs may extend between intersections (including interchanges) and beyond an intersection. Opportunities for public participation are available as provided by the CDC.

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2. Bikeways or bicycle lanes are required on all urban Collectors and Arterials, including Special Area Collectors. A ~~S~~six-foot wide, striped and stenciled bike lanes or other appropriate bicycle treatments shall be constructed along these facilities except where special constraints exist, as determined by the County Engineer. In those areas, five-foot wide bike lanes, 14-foot wide outside travel lanes or other appropriate facilities may be used and transitioned back to the appropriate bicycle facility when the constraint ends. The Bicycle Facility Design Toolkit should be referenced during the design of urban Collectors and Arterials. Outside of the UGB, refer to the Bicycle System M~~m~~ap and the Rural Roadway Enhancement Study Corridors Map to determine which facilities are intended to have bikeways. ~~These~~ Rural bikeways may be a minimum of six-foot wide paved shoulders.

3. Minimum right-of-way and maximum paved widths identified here are, as a rule, the maximum that can be built on roadway segments without an amendment to the TSP. However, plan amendments will not be required when it is determined by the County Engineer during the project development or development review processes that these maximums should be exceeded. The reasons to exceed the maximums may include accommodation or topography or other project-level refinements associated with safety and/or wider than standard pedestrian facilities bus pullouts; on-street parking; project impact mitigation measures; and intersection, interchange or other project features identified as necessary for safe, efficient operation of the planned transportation system. All intersections along Arterials and Collectors shall be planned to include right-of-way necessary for turn lanes within ~~500~~1,000-feet of intersections based on a 20-year analysis of intersection needs. Actual right-of-way requirements may be less than the maximums specified in the table based on roadway characteristics and surrounding land uses, as determined by the County Engineer. On two and three lane urban Collectors, right-of-way may by reduced to 60 feet and maximum paved width may be reduced to 36 feet through the land development or project development processes. Such a determination can be made when there is a finding that a turn lane is reasonably unlikely to be needed based on anticipated future development and traffic analysis, and after consideration of other related transportation facilities including storm water quality facilities. Acquiring adequate right-of-way is important to avoid unnecessary and costly future improvement impacts. In all circumstances, Arterial, Collector and Neighborhood roadway~~s~~ right-of-way shall be no less than the roadway width (curb to curb or back of shoulder to back of shoulder) plus 24 feet. In rural areas, the maximum right-of-way for Collectors shall be 60-feet. Article VII of the CDC identifies land use standards, public notice and involvement provisions and appeal opportunities that are provided in the land use permitting process.

4. On those ~~Arterials and Collectors~~roadways designated on the ~~'Regional Street Design Overlay~~Pedestrian~~'~~ System Map as ~~'Boulevards''~~Pedestrian Parkway', 'Streetscape Overlay', ~~'Boulevard Intersections' or 'Streets',~~ or located within identified 'Pedestrian Districts'~~ on the Pedestrian System map~~, sidewalks widths and other design features such as planter areas and crosswalks ~~shall~~ should be determined based on the Washington County Pedestrian Enhancements Design Guidelines and/or applicable standards in the Community Plans and/or the CDC, as determined by the County Engineer~~and based on engineering review as appropriate~~. On those ~~Arterials and Collectors~~roadways designated on the Bicycle System Map as 'Enhanced Major Street Bikeway', buffered bike lanes and other bicycle treatments shall be determined based on the ~~bicycle toolkit~~Bicycle Facility Design Toolkit and/or other applicable standards in the Community Plans and/or CDC, as determined by the County Engineer.

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5. 'Special Area' streets (Collector, Neighborhood, Commercial or Local classifications) are shown on the 'Special Area Street Overlay' maps. Special Area Local Streets may also be designated in the appropriate Community Plans and/or by the CDC. Additional Special Area Neighborhood Routes and Special Area Local Streets may be designated using the development review process. Special Area Street designs will be determined via the development review process. While Special Area Commercial Streets do not include striped bicycle lanes, they shall include wide travel lanes of 14 feet to accommodate bicycle use. For Special Area Collectors, in addition to the right-of-way, a nine-foot minimum utility/sidewalk easement shall be dedicated on each side of the right-of-way. For Special Area Local streets, in addition to the right-of-way, a ten-foot minimum utility/sidewalk easement shall be dedicated on each side of the right-of-way. For Special Area Alleys, additional right-of-way may be required as part of development review. The right-of-way determination may include special consideration of other related transportation and water quality facilities, such as (but not limited to): low impact water quality treatment, parking, intersection bump outs, mid-block crossings and/or trail extensions.

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4. Goal 7: Connectivity

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Objective 7.2 Identify as ~~Study~~ Refinement Areas ~~locations~~ where new Arterial or Collector connections or other improvements are necessary, but the specific location, mode and/or function ~~route of the connection~~ has not been determined.

Strategy 7.2.1 Within designated ~~Study~~ Refinement Areas, require that development demonstrate how the development proposal shall either accomplish or not preclude the needs identified by the Refinement Area ~~identified by the Study Area~~.

Strategy 7.2.2 Seek to identify the specific location, mode and/or function ~~of the Arterial or Collector connections~~ within ~~Study~~Refinement Areas, and amend the appropriate maps ~~and~~ to remove the ~~study~~refinement area designation as funding and resources allow.

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5. Goal 8: Active Transportation

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Active transportation refers to human-powered travel, including walking and bicycling. Public transit is also a component of active transportation because accessing transit stops usually involves walking or bicycling. Widespread use of the term began ~~in the first decade of the 21st century~~ as transportation policy placed increased emphasis on non-automobile modes and as the links between human health and transportation planning became more evident.

Active transportation modes are essential components of the overall transportation system, meeting a variety of societal, environmental and economic goals. These include:

- **Environmental stewardship and energy sustainability** Replacing gasoline-powered automobile trips with active trips reduces the emission of greenhouse gases, air toxins and particulates, helping to maintain air quality and address energy sustainability.

- **Congestion alleviation** People who walk, bike and use transit reduce the number of motor vehicles vying for space on roadways and in parking lots. The active mode share for commuting from Washington County is currently estimated to be about 11% for work-related trips.[2] Reduced congestion improves air quality, livability and economic vitality.

- **Health** "Obesity is one of the biggest public health challenges the country has ever faced."[3] The conditions in which we live explain in part why some Americans are healthier than others and why Americans are generally not as healthy as they could be. The social determinates of health include five key areas: Economic Stability, Education, Social and Community Context, Health Care and the Neighborhood and Built Environment. The TSP sets the framework for future decisions about the Neighborhood and Built Environment component. Due to the connection to public health and healthy outcomes, it is necessary that public health and active lifestyles are considered as we make these choices. The transportation system is necessary to provide access to health care and emergency services. Furthermore the transportation system provides the environment for an active lifestyle. Infrastructure that enhances pedestrian, bicycle and transit networks also enhances opportunities for physical activity within our communities. This may in turn help address obesity and other public health related issues.

- **Safety** As walking and bicycling trips increase, so does the relative safety of those modes. In Portland, for example, the bicycle crash rate (reported crashes normalized by counted bicycle trips) has shown a general downward trend in the past decade, even as daily bicycle trips have more than doubled.[4] This can be partly attributed to increased attentiveness on the part of motorists as they see more bicyclists on the road. The same trend applies to pedestrian safety.

- **Efficient travel** For many trips, active transportation choices are the most sensible and efficient mode. For very short trips, such as a quarter-mile trip to a convenience store, walking can be the best choice. Trips in the one to five mile range are often ideal for bicycling.

- **Cost savings and social equity** Some people in Washington County and ~~nationwide~~ region-wide cannot afford to or choose not to own or operate a private vehicle. For those who need or want to reduce their transportation costs, active transportation is a common solution.

[2] American Community Survey 2010 One-Year Estimates, U.S. Census Bureau, 2011.
[3] *F as in Fat: How Obesity Threatens America's Future 2010*, a report from the Trust for America's Health.
[4] 2011 Bicycle Counts Report, Portland Bureau of Transportation, 2012.

- **Attractive, efficient urban form** The popularity of neighborhoods designed around a higher density urban form with active transportation facilities shows this type of community is increasingly desirable. From the historic, tree-lined streets of Forest Grove to the rapidly growing Orenco Station neighborhood, active transportation facilities like sidewalks, bike lanes and frequent transit are drawing residents and businesses. Walkable neighborhoods tend to be compact, using urban land efficiently and helping to meet other land use policies such as agricultural preservation.

***

Objective 8.1 Provide a<u>n integrated</u> network of "complete streets" that safely and comfortably accommodate road users of all ages and abilities, including people walking, cycling, using mobility devices, taking transit and driving.

Strategy 8.1.1 Prioritize public active transportation projects that are effective at improving connectivity, filling gaps, expanding coverage of the active transportation network and positively influencing walk/bike/transit mode shares.

Strategy 8.1.2 Early in the project development process, solicit and consider input from active transportation advocates to help optimize the design of pedestrian, bicycle and access-to-transit projects.

Strategy 8.1.3 On existing substandard streets where the construction of full street improvements is not practicable within the foreseeable future, consider the construction of interim pedestrian and bicycle facilities, as available public funding allows.

Strategy 8.1.4 Require new development to provide multi-modal complete street connections as defined in the CDC.

Objective 8.2 Provide a pedestrian network that is safe, comfortable and convenient for people of all ages and abilities.

Strategy 8.2.1 Prioritize pedestrian projects that are technically and financially feasible and that also improve connectivity, fill gaps, and/or provide safe routes to schools, community facilities, commercial areas, transit stops or essential destinations.

Strategy 8.2.2 Prioritize pedestrian projects based on need; factors to consider may include: safety, density (residential and employment), access to essential destinations and transit and environmental justice factors, among others.

Strategy 8.2.3 Inside the Urban Growth Boundary, require that sidewalks are constructed along new or improved streets and along street frontages of new developments.

Strategy 8.2.4 Facilitate safe, convenient and comfortable pedestrian facilities through the provision of pedestrian scale amenities as deemed appropriate and in compliance with applicable regulations.

Strategy 8.2.5 Consider enhanced pedestrian crossings treatments at intersections and at other appropriate locations including school zones, commercial areas, major transit stops, trail crossings, Pedestrian Districts and warranted mid-block locations, using county-approved crossing treatments.

Strategy 8.2.6 In rural pedestrian activity areas, which includes recreational trail crossings, consider improvements that enhance pedestrian safety.

Strategy 8.2.7 On roadways designated on the Pedestrian System Map as 'Pedestrian Parkway' and/or 'Streetscape Overlay' and on roadways within identified Pedestrian Districts, enhanced pedestrian facility designs shall be considered based on applicable standards, land use context and physical constraints.

Objective 8.3 Expand and improve the quality of bicycling infrastructure.

Strategy 8.3.1 Refer to the guidelines set forth in the Washington County Bicycle Facility Design Toolkit when designing new or reconstructed urban and rural Principal Arterials (except for freeways), Arterials and Collectors, and implement treatments as deemed appropriate.

Strategy 8.3.2 Develop a system of neighborhood bikeways on appropriate low-volume streets (as defined in the Neighborhood Bikeways Plan) to supplement the system of bicycle lanes and paved shoulders on major streets.

Strategy 8.3.3 Designate a functional classification of bikeway travel, including a preferred bikeway network, considering the following criteria for defining or modifying the classification:

A) Expected amount, type and characteristics of bicycle use.
B) Population density of surrounding community.
C) Average daily vehicle traffic.
D) Posted travel speed.
E) Topography.
F) Road network density.
G) Land use mix.

Strategy 8.3.3 On those Arterials and Collectors designated on the Bicycle System Map as 'Enhanced Major Street Bikeway' buffered bike lanes and other bicycle treatments shall be considered based on the Bicycle Facility Design Toolkit and/or other applicable standards.

Strategy 8.3.4 Maintain and periodically revisit bicycle parking requirements in the CDC for applicable new development.

Strategy 8.3.5 Coordinate the development of the bikeway system with other local and regional agencies and integrate it with the delivery of other transportation services.

Strategy 8.3.6 Consider developing a rural road bicycle safety study that proposes solutions and strategies to increase the safety of recreational and utilitarian cycling in the rural area. Implement recommendations as appropriate.

***

Objective 8.5 Improve access to and encourage the enhancement of transit service in Washington County.

Strategy 8.5.1 Provide safe, convenient pedestrian and bicycle access to existing and proposed transit stops, including pedestrian crossings and other appropriate features near Major Transit Stops.

Strategy 8.5.2 Coordinate with TriMet and other transit providers in their efforts to provide new or improved transit service to underserved locations in the urban area where concentrations of households, jobs or transit-dependent populations may warrant better service.

Strategy 8.5.3 Work with Metro, TriMet and the cities to plan and implement new High Capacity Transit Corridors identified in the Regional High Capacity Transit System Plan.

Strategy 8.5.4 Work with employers, Westside Transportation Alliance, TriMet and other transit providers to identify creative solutions to bridge the "last mile" from transit stop to workplace.

Strategy 8.5.5 Encourage Ride Connection, Yamhill County Transit, Columbia County Transit and other transit providers to continue and potentially enhance operation of rural transit where it is cost-effective and warranted by demand.

Strategy 8.5.6 ~~Facilitate~~ Encourage TriMet LIFT service operations, and the provision of accessibility features at transit stops and on transit vehicles.

***

6. Glossary

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Intelligent Transportation System – The application of advanced technologies and proven management techniques to solve transportation problems, enhance safety, provide services to travelers and assist transportation system operators in implementing suitable management strategies. Intelligent Transportation Systems focuses on increasing the efficiency of existing transportation infrastructure.

Modal – Pertaining to the different modes of travel to be accommodated by the transportation system.

Mid-Block Crossing – A rare and necessary link for our pedestrian and bike trails, mid-block crossings provide safer crossings for pedestrians and bicyclists between road intersections.

Paratransit – A shared-ride service for those unable to use regular buses and trains.

Place-Making Amenities – Features intended to improve the quality of public spaces by creating active, unique, interesting and/or visually attractive locations. Such features may include public art, plazas, ornamental lighting, banners, seating areas, wayfinding signage, transit shelters and/or bicycle parking. These features are intended to work in tandem with building features to create locations that people care about and in which they want to live, work, learn and play.

Refinement Area – Locations that have been identified where further study is needed to determine the mode, function and/or general location of a future solution or transportation improvement. Further study of a refinement area may occur through a transportation planning process, capital project development or the land development process. Before development may occur on land within a refinement area, the development application must demonstrate how potential solutions to the transportation need will (at a minimum) not be precluded by the proposed development.

Streetscape – The cross section design and features that make up a roadway. The streetscape includes the entirety of the public right-of-way and in some cases may include the visual aspects of private land and/or building facades adjacent to the public right-of-way.

~~**Study Area** – In general, study areas relate to facilities or areas for which further study is required to determine specifically how an identified need should be met. In these cases the function, proposed alignment, or other specific solution has yet to be identified. Additional analysis will need to occur before solutions to the identified traffic problems can be addressed. The purpose of each study area is defined in the study area descriptions in the modal plans.~~

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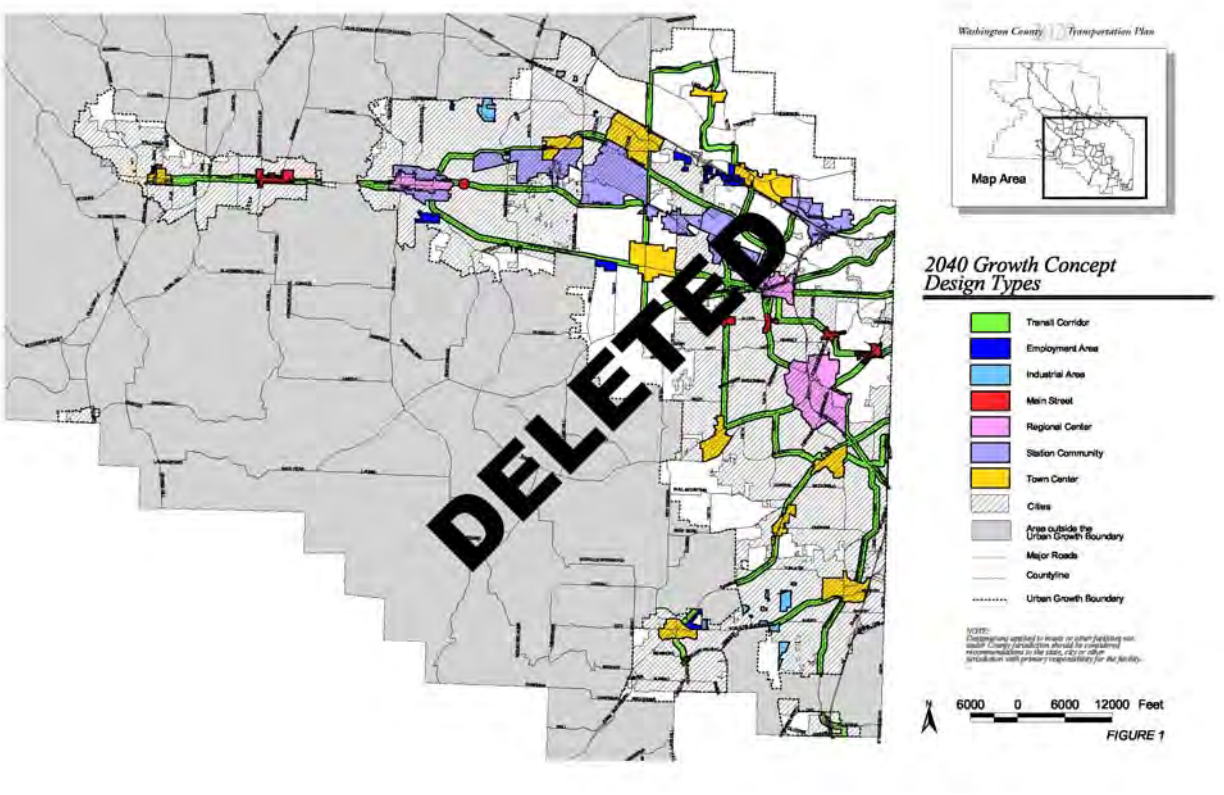

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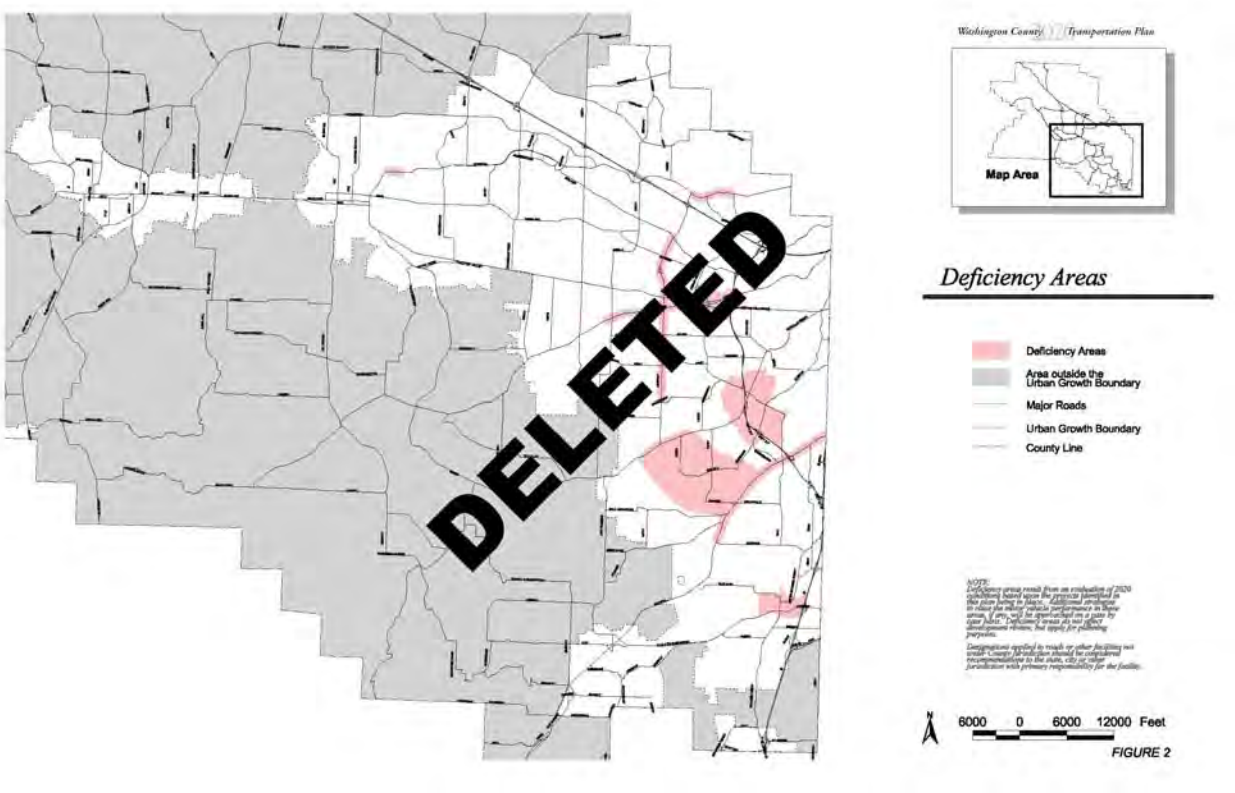

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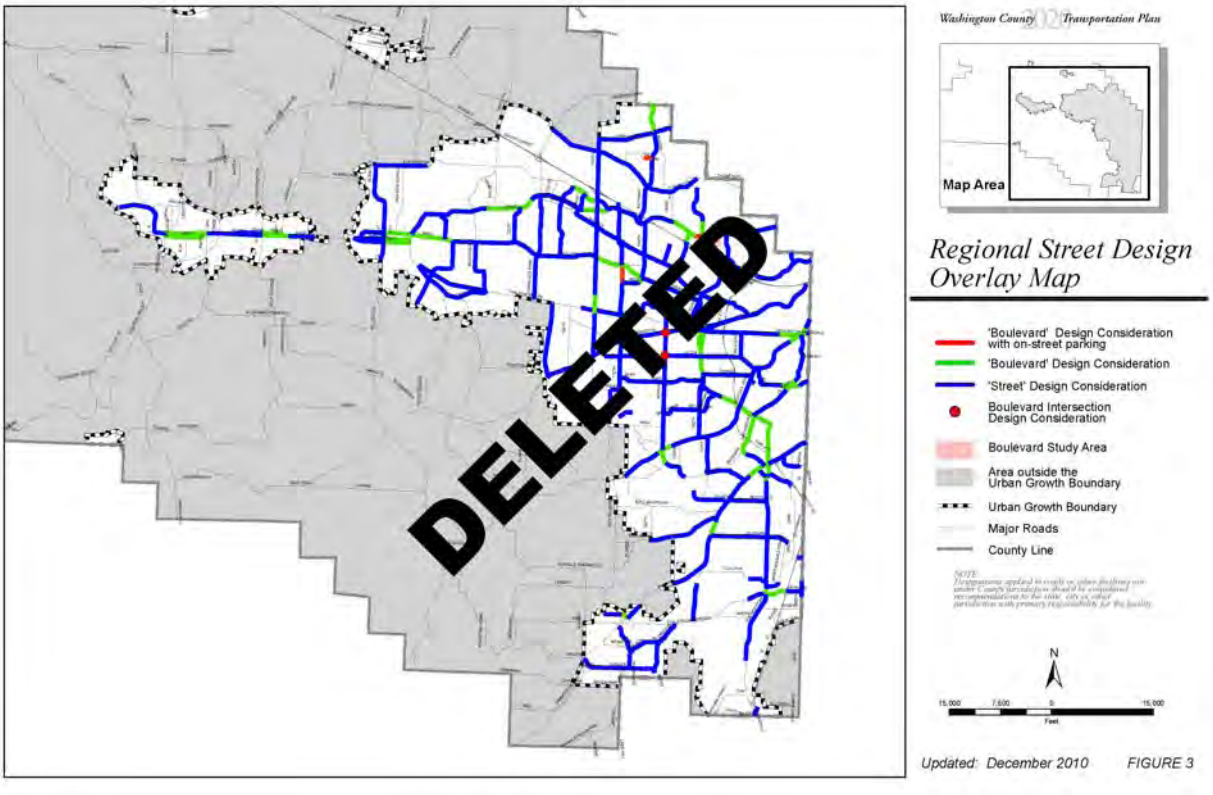

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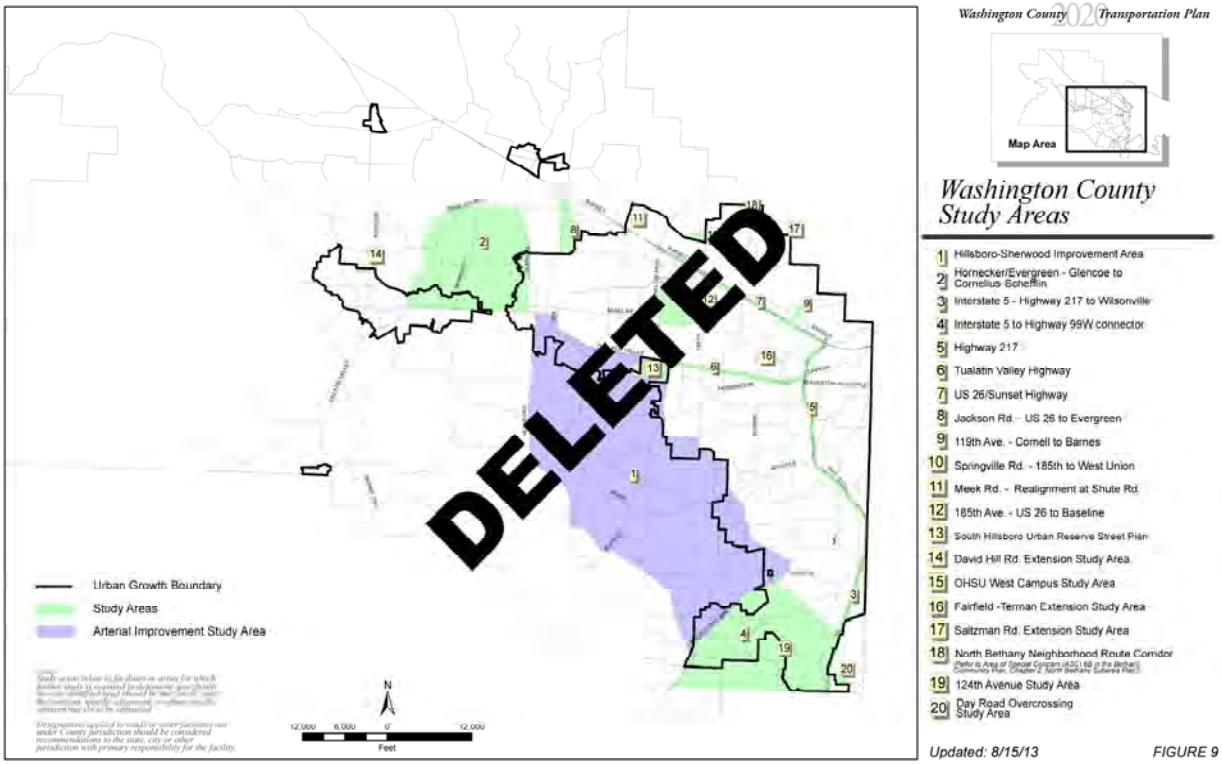

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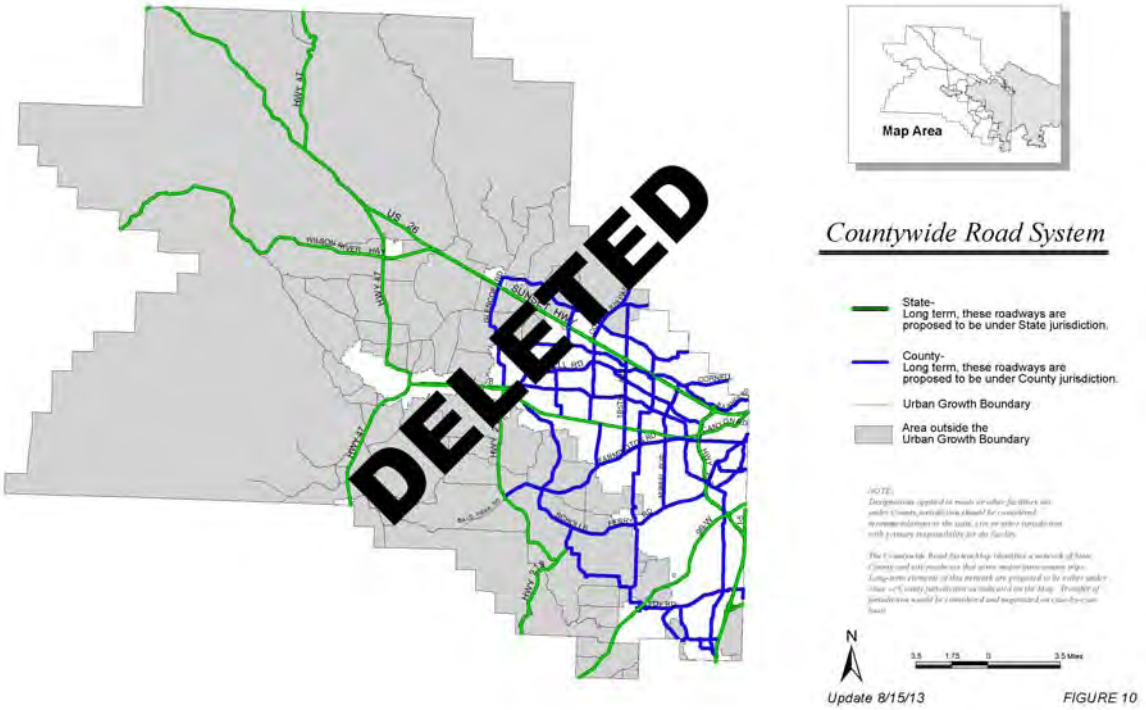

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Sections of the Community Development Code are amended to reflect the following:

1. SECTION 300 - INTRODUCTION *(Article III - Land Use Districts)*

300-1 Intent and Purpose

***

300-1.4 Transportation System Plan

A. ~~Policies 6, 7, 8, 10, 12, 14, 15, 22, and 23,~~ Goals 1 through 11 including their implementing objectives and strategies;

B. The Functional Classification System Map;

C. The Lane Numbers Map;

D. The Special Area Street~~s~~ Overlay Maps

~~E. The Regional Street Design Overlay Map~~

E~~F~~. The Transit System Map;

F~~G~~. The Pedestrian System Map~~s~~

~~H. The Off-Street Trail System Maps~~

G~~I~~. The ~~Planned~~ Bicycle System Map

***

2. SECTION 385 - PRIVATE USE AIRPORT OVERLAY DISTRICT

385-5 Uses Which May be Permitted Through a Type III Procedure

A. The use is or will be supported by adequate types and levels of facilities and services and transportation systems consistent with the County's adopted and acknowledged ~~2020~~ Transportation System Plan;

***

3. SECTION 390 - NORTH BETHANY SUBAREA OVERLAY DISTRICT

390-22 Additional North Bethany Subarea Development Standards

***

390-22.3 Neighborhood Circulation

In addition to the requirements of Section 408, the following standards apply:

A. Streets

(1) Streets shall be public and designed according to the specific street cross-section type in the North Bethany Subarea Plan (or the County's ~~2020~~ Transportation System Plan functional classification, or in both).

***

4. SECTION 401 - INTRODUCTION *(Article IV - Development Standards)*

401-4 The Transportation System Plan

401-4.1 Goals 1 through 11 ~~Policies 6, 7, 8, 10, 12, 14, 15, 22 and 23,~~ including their implementing objectives and strategies;

401-4.2 The Functional Classification System Map;

401-4.3 The Lane Numbers Map;

401-4.4 The Special Area Street~~s~~ Overlay Maps;

~~401-4.5 The Regional Street Design Overlay Map;~~

401-4.5~~6~~ The Transit System Map;

401-4.7 The ~~Planned~~ Bicycle System Map; and

401-4.8 The Pedestrian System Map~~s; and~~

~~401-4.9 The Off-Street Trail System Maps~~.

***

5. SECTION 430 - SPECIAL USE STANDARDS

430-74 Living History Museum in the EFU and AF-20 Districts

***

430-74.2 In addition to the requirements of Section 501-9, an application for a living history museum shall include a transportation/traffic impact analysis which demonstrates the following. The analysis shall be prepared and certified by a traffic or civil engineer registered in the state of Oregon.

A. Consistency with the following standards based upon existing and planned conditions (planning horizon of the applicable transportation plan or functional plan):

(1) Washington County's functional classification system as shown on the Functional Classification Map ~~policy (Policy 10)~~ of the Transportation System Plan;

(2) Washington County's level of service standard, as defined by Section 501-8.8 I.; and

(3) The Oregon Department of Transportation (ODOT) functional plans, including The Oregon Highway Plan and the Oregon Transportation Plan.

***

6. SECTION 431 - TRANSIT ORIENTED DESIGN PRINCIPLES, STANDARDS AND GUIDELINES

431-5 Streetscapes for Pedestrians

431-5.1 Streetscapes - Transit Oriented Districts

***

B. Standards:

***

(4) Minimum sidewalk widths in Transit Oriented Districts shall be the widest identified by the Washington County Road Design and Construction Standards for the adjacent Special Area Street (as shown in the ~~2020~~ Transportation System Plan~~, Figures 6 through 8~~), except for Special Area Commercial Streets. Special Area Commercial Streets shall have sidewalks that are a minimum of twelve (12) feet in width. On arterials within or adjacent to Transit Oriented Districts and which are designated as 'Streetscape Overlay' ~~'Boulevards'~~ on the Pedestrian System ~~Regional Street Design Overlay~~ Map in the ~~2020~~ Transportation System Plan, the minimum sidewalk width shall be twelve (12) feet ~~(see Technical Appendix B-8 of the 2020 Transportation Plan for typical roadway cross-sections)~~.

***

7. SECTION 501 - PUBLIC FACILITY AND SERVICE REQUIREMENTS *(Article V)*

501-8 Standards for Development

***

501-8.2 Essential Services

***

J. When a development site includes frontage on a roadway that is identified as a 'Pedestrian Parkway' ~~'Boulevard'~~ or 'Streetscape Overlay' on the Pedestrian System ~~Regional Street Design Overlay~~ Map in the Transportation System Plan, the Director shall determine if additional right-of-way, set backs, easements or right-of-way reservations are required so that implementation of Pedestrian System designations ~~Regional Street Design Guidelines~~ will not be precluded.

***

8. SECTION 601 - LAND DIVISION AND PROPERTY LINE ADJUSTMENTS *(Article VI)*

601-2 Applicability

***

601-2.3

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D. The Transportation System Plan

(1) ~~Policies 6, 7, 8, 10, 12, 14, 15, 22, and 23~~Goals 2, 3, 4, 5, 6, 7, 8, 9 and 11, including their implementing objectives and strategies;

(2) The Functional Classification System Map;

(3) The Lane Numbers Map;

(4) The Special Area Street~~s~~ Overlay Map;

~~(5) The Regional Street Design Overlay Map;~~

(~~6~~5) The Transit System Map;

(~~7~~6) The ~~Planned~~ Bicycle System Map; and

(~~8~~7) The Pedestrian System Map~~s; and~~.

~~(9) The Off-Street Trail System Maps.~~

9. SECTION 712 - PEDESTRIAN, BICYCLE AND TRANSIT FACILITIES *(Article VII - Intent and Purpose)*

712-4 For ultimate capital improvements on ~~facilities designated to accommodate bikeways~~ Arterials or Collectors as identified on the ~~Planned Bicycle~~ Functional Classification System Map in the Transportation System Plan, bikeways shall be constructed consistent with the Bicycle Element of the Transportation System Plan. Bikeways include striped and stenciled lanes, five (5) to six (6) feet in width, buffered bike lanes, cycle tracks, paved shoulders at least four (4) feet in width ~~and~~ or fourteen (14) foot wide outside travel lanes in areas where constraints limit roadway width; these fourteen (14) foot wide shared, outside travel lanes shall transition to either paved shoulders or bikeways when the constraint ends.

712-5 For those road construction or reconstruction projects located within Pedestrian Districts or along 'Pedestrian Parkways' or 'Streetscape ~~Improvement Areas~~Overlay' identified in the Pedestrian Element of the ~~2020~~ Transportation System Plan, pedestrian enhancements such as those amenities described in the County's Pedestrian Enhancements Design Guideline Booklet shall be considered as part of the project development process.

712-6 For interim capital improvements on roadways identified ~~for bikeways~~ as Arterials or Collectors on the ~~Planned Bicycle~~ Functional Classification System Map in the Transportation System Plan, a minimum of a five (5) foot paved shoulder for each outside travel lane shall be provided.

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10. SECTION 714 - ADDITIONAL STANDARDS FOR CATEGORY A, B AND C PROJECTS

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714-3 On those roadways that are designated as 'Pedestrian Parkways' ~~'Boulevard Intersections', 'Boulevards'~~ or 'Streetscape Overlay' on the ~~Regional Street Design Overlay~~ Pedestrian System Map in the Transportation System Plan, consider the street design characteristics set forth in the Regional Transportation Plan and Metro's publication entitled 'Creating Livable Streets – Street Design Guidelines for 2040' during development review and project development, when construction or reconstruction is proposed.

714-4 For those roadway construction or reconstruction projects located within Pedestrian Districts or along 'Pedestrian Parkways' or 'Streetscape Overlay'~~Improvement Areas~~ identified in the Pedestrian Element of the ~~2020~~ Transportation System Plan, pedestrian enhancements such as those described in the county's Pedestrian Enhancements Design Guideline Booklet shall be considered as part of the project development process.

The following maps are to be deleted from the following Community Plan documents of the Washington County Comprehensive Plan:

Aloha, Reedville, Cooper Mountain Community Plan

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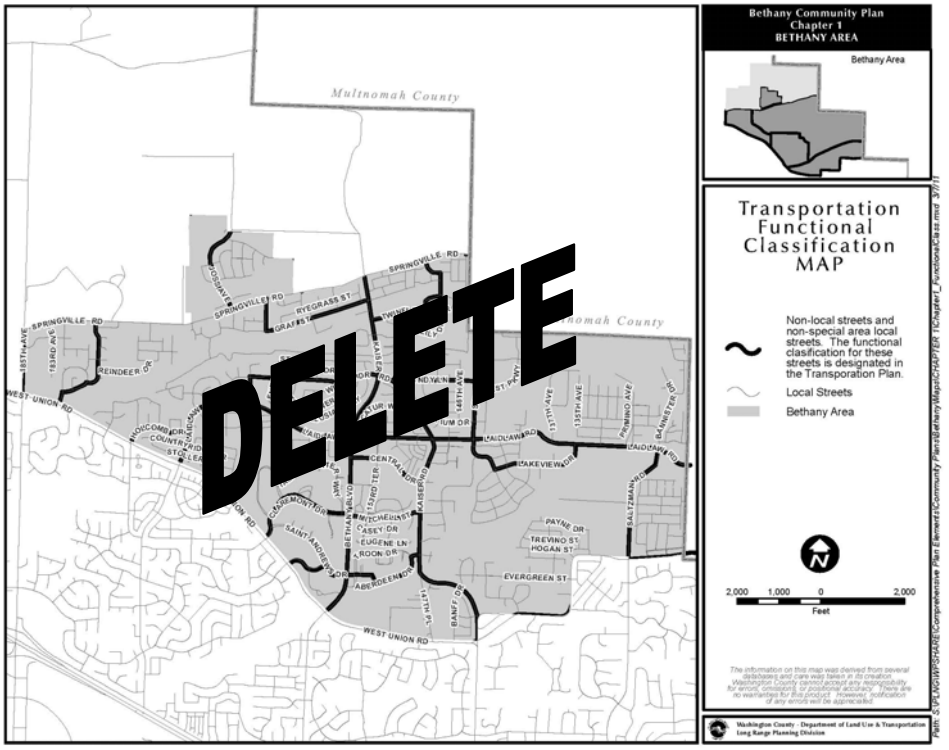
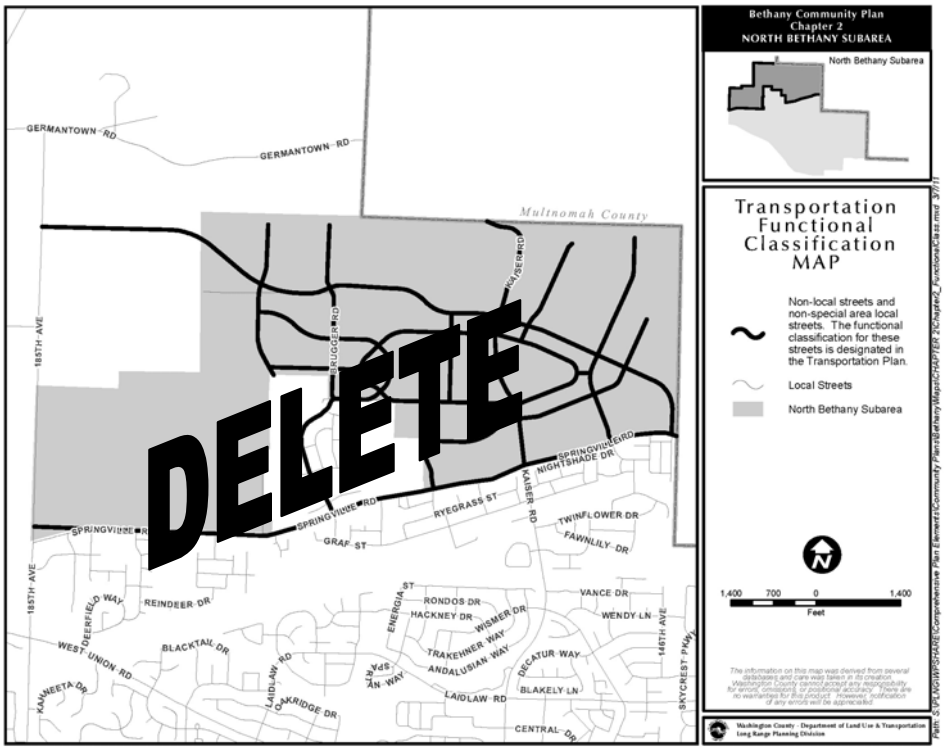
Bethany Community Plan





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Bull Mountain Community Plan

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Cedar Hills-Cedar Mill Community Plan

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East Hillsboro Community Plan

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Metzger-Progress Community Plan

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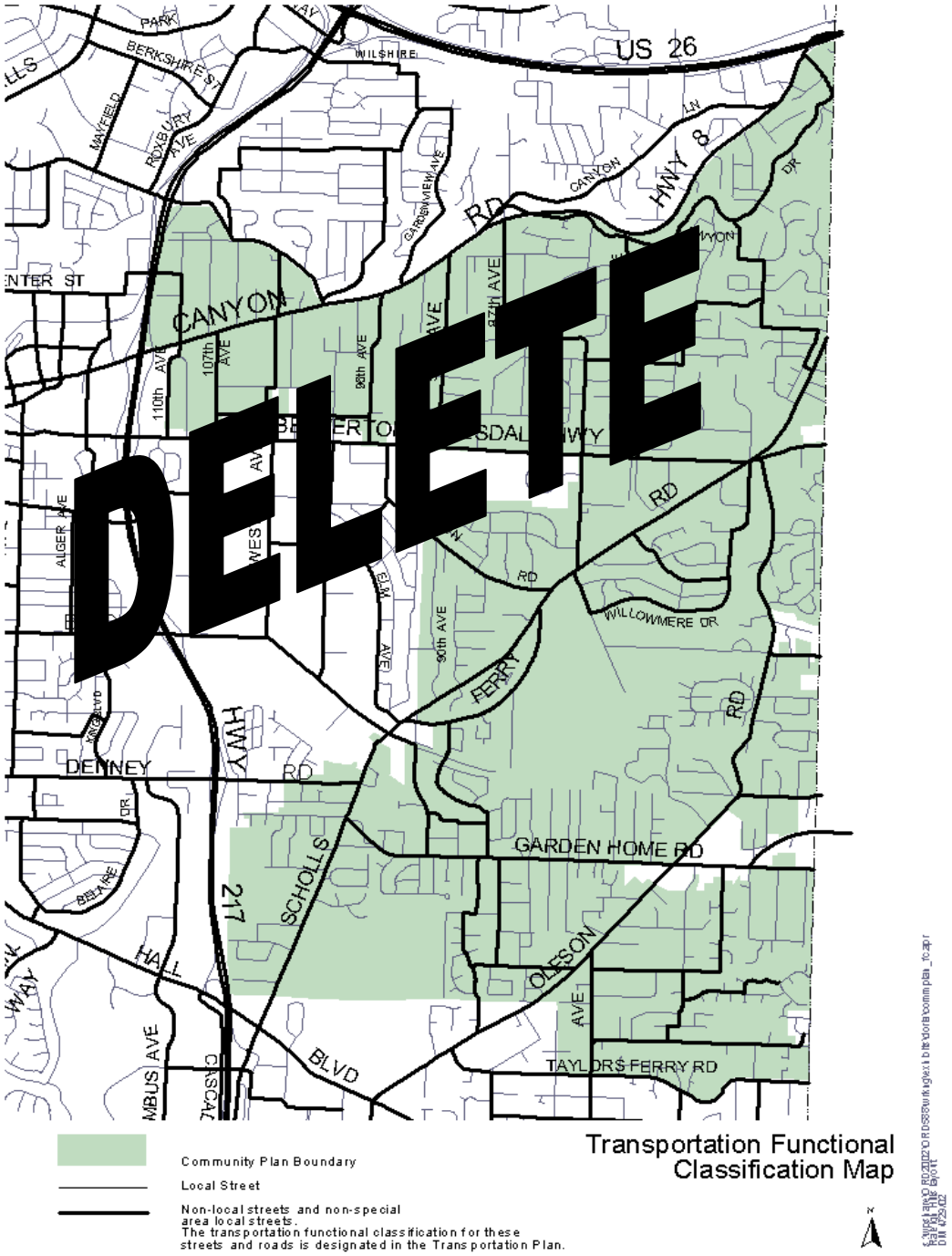
Raleigh Hills-Garden Home Community Plan



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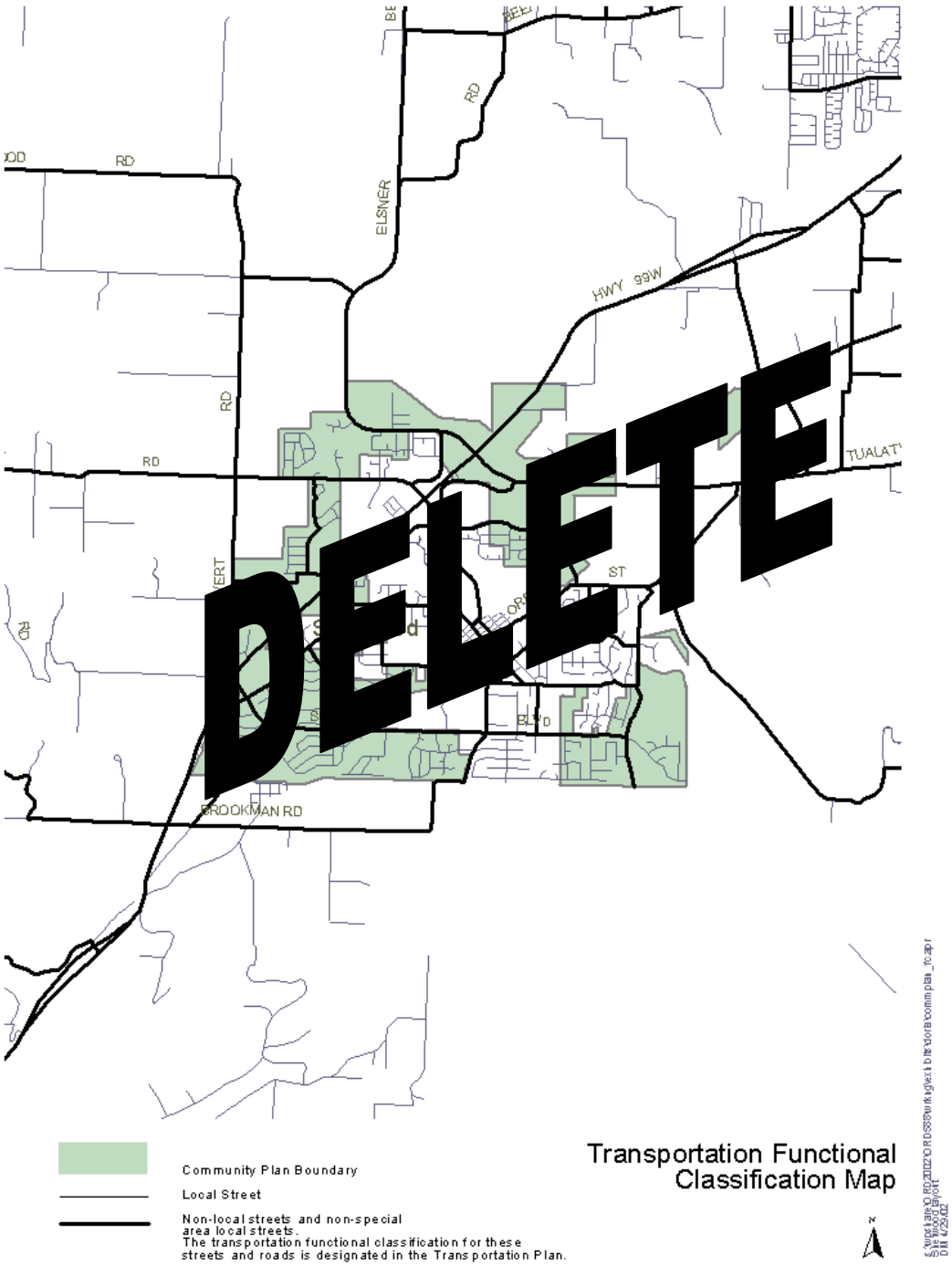
Sherwood Community Plan



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Sunset West Community Plan

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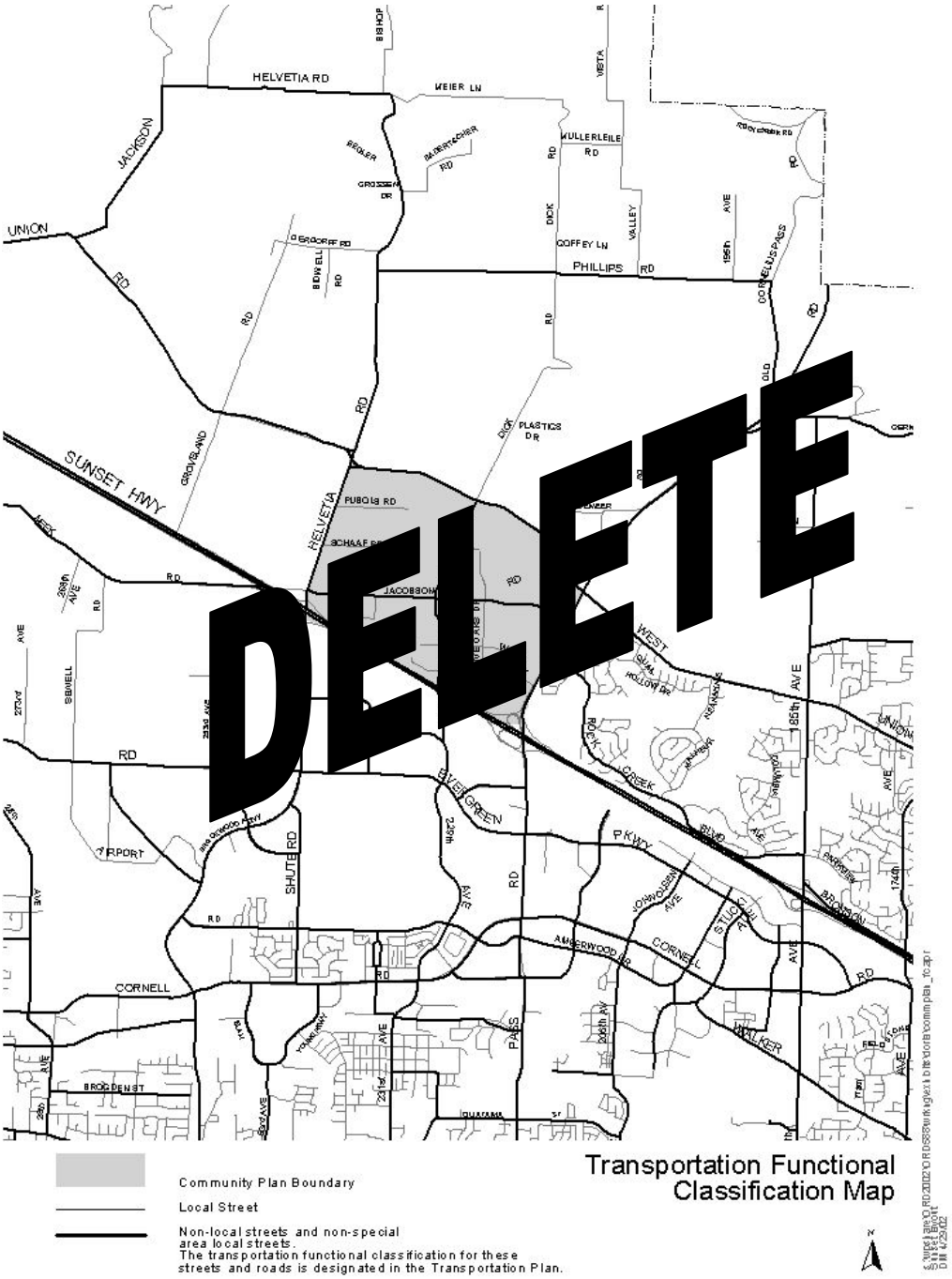
West Union Community Plan



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