



CHAPTER 6 TRANSPORTATION (T)

The City Council adopted the Transportation Capital Improvement Plan in December of 2015. The plan uses the conclusions from the 2008 Woodland Transportation Infrastructure Strategic Plan completed by Parametrix as well as the Scott Avenue Reconnection Study, conducted during 2013 – 2015 by BergerABAM. Public Works Director Bart Stepp, P.E., prepared the 20-year Transportation Capital Improvement Plan based on the information from those studies, transportation improvements completed since 2008, and the city’s growth rate since 2008.

6.1 Existing Conditions

The transportation analysis is based on an estimated population of 6,000 persons. Like many cities, transportation system improvements are needed to ensure people and freight can move efficiently. In 2008 the city completed a Transportation Infrastructure Strategic Plan (TISP). Improvements identified in the TISP that have been completed include:

- The roundabouts at Intersection 22,
- Left turn lanes at Hillshire and Gun Club, and
- A new roundabout at SR 503 and E. Scott Avenue.
- The remaining improvements still need to be completed.

The city completed the TISP prior to the start of the 2007-2010 recession. The TISP assumed traffic growth rates of 3% or greater in Woodland. Table 6-1 on the next page shows the PM peak hour traffic counts taken for 11 intersections prior to completion of the TISP and the corresponding PM peak hour traffic counts in 2012 and 2013.



Table 6-1 evaluates 2006 and 2012 PM Peak Hour traffic counts at key local intersections. The analysis shows that the north end of Woodland experienced significant growth in traffic volume, as high as a 9.2% annual growth rate during the eight year period. The increase is primarily attributable to the construction of the Wal-Mart in 2006. The central transportation system has seen only a marginal annual growth rate while the southern key intersections actually witnessed a modest decline in traffic volume.

Table 6-1. Intersection Traffic Count Comparisons from 2006–2013

Area of Town	PM Peak Hour Traffic Comparison Intersection	Year Counted	Traffic Count	Year Counted	Traffic Count	Annual Growth %
North	Dike Access Road/Schurman Way	2006	342	2012	764	9.2%
North	Dike Access Road/I-5 Southbound Ramps	2006	509	2012	829	6.4%
North	Dike Access Road/I-5 Northbound Ramps	2006	460	2012	679	5.4%
North	Dike Access Road/Robinson Road	2006	73	2012	97	4.1%
Central	W Scott Avenue/Pacific Avenue	2007	478	2013	526	1.5%
Central	E Scott Avenue/Atlantic Avenue	2007	366	2013	389	1.0%
Central	E Scott Avenue/Old Pacific Highway	2007	408	2012	426	0.8%
Central	E Scott Avenue/Lewis River Road	2005	1087	2012	1155	0.8%
South	SR 503/Pacific Ave/I-5 Southbound Ramp	2007	2115	2012	1990	-1.3%
South	SR 503/Atlantic Ave/I-5 Northbound Ramp	2007	2362	2012	2214	-1.3%
South	Lewis River Road/CC Street	2007	1876	2012	1760	-1.3%

Note: 2005 traffic count from Meriwether Subdivision TIA, 2006 traffic counts from Wal-Mart TIA, 2007 traffic counts from TISP, 2012 traffic counts from High School TIA, 2013 traffic counts from Scott Avenue Reconnection Study.

Because of this lower growth since the 2008 TISP, the city chose to use the TISP as its basis for its Transportation Capital Improvement Plan for the following reasons:

- Completing the improvements in the TISP would provide acceptable Levels of Service for the Woodland Transportation System.
- The city's 2016 Comprehensive Plan Update does not propose any expansion of the Urban Growth Boundary. This means the Urban Growth Boundary from the TISP is the same in the Comprehensive Plan Update.
- The 2016 Comprehensive Plan Update lowers the city's projected growth rate from 3.5% in the 2005 Comprehensive Plan to 2.3%. The projected population in 2036 is 9,274 people. The 2005 plan projected a 2025 population of 8,526. The additional 748 people within the city from the 2025 and 2036 populations is not enough to create the need for additional improvements beyond those identified in the TISP.
- The costs of the remaining improvements in the TISP are substantial and the city does not have the financial ability to complete additional improvements.

The TISP provides a detailed analysis of the city of Woodland Transportation System.¹ The TISP also included substantial public outreach to identify the preferred alternatives.

6.2 2015 Capital Improvement Plan (CIP)

Map 6-1, provides an overview of the major focus areas for which recommended improvements were identified in the *Woodland Transportation Infrastructure Strategic Plan (TISP)*. Projects of the magnitude identified in the TISP are typically constructed using a combination of funding and financing over several years or even decades, and they often require a combination of local, state, and federal funding participation. The major focus areas are identified as:

- A I-5/Dike Road Roundabouts – The improvements identified in this area have been completed. The 2015 CIP does not identify any needed improvements in this area.
- B Scott Avenue Reconnection Area – No improvement have been completed in this area. The city has completed an alternatives analysis and identified raising I-5 and connecting Scott Avenue underneath I-5 as the preferred project alternative.
- C I-5/SR 503 Interchange Improvements – No improvements have been completed since the completion of the TISP. The city was awarded \$1.47 in federal funds in 2014 to complete the design and ROW for shifting the CC Street traffic onto Millard. Design of this project is expected to start in the fall of 2016 when the federal funds become available.
- D SR 503 Widening – Some of the improvements identified in the TISP for this area have been completed. Left turn lanes were installed at the intersections of Hillshire and Gun Club and a roundabout was installed at the E. Scott Avenue intersection. Timing and funding of additional improvements have not been identified.

Recommended Short-Term (0 – 6 years) and Long-Term (6 – 20 years) projects that need to be completed are presented in Table 6-2 on page 4. The short-term improvements can be found in the Woodland 2016-2021 Six Year Transportation Improvement Program which was approved by City Council on 6/1/15 (Resolution 655). Cost estimates have been updated from the 2008 TISP to 2015 dollars. The names of some projects have been altered from the 2008 TISP to better reflect the projects in their current form.

The three projects identified in the 2016 – 2021 time period are:

- Scott Avenue Reconnection Project – Raise I-5 and connect west and east Scott Avenue with signals at Pacific and W. Scott and Atlantic and E. Scott.
- I-5/SR 503 Interchange Improvements Project – Shift CC Bridge traffic onto A and Millard with a new traffic signal at SR 503 and Millard. Remove the existing traffic signal near CC Street and SR 503 and close off CC Street at SR 503.
- E. Scott/Old Pacific Highway Intersection Project – Improve intersection through re-alignment, traffic signal, medians, or other improvements.

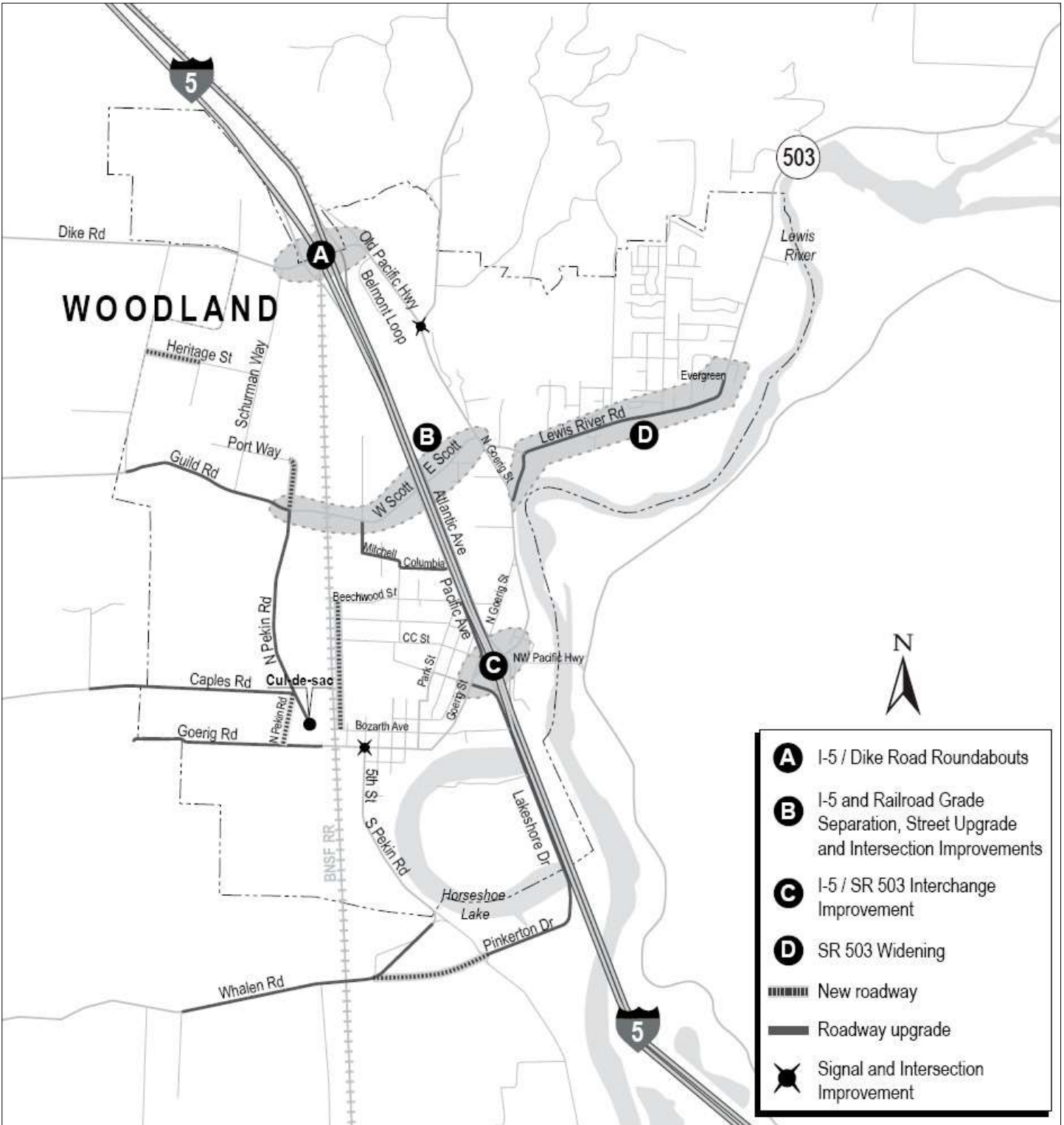
¹ For more information on the TISP see <http://www.ci.woodland.wa.us/departments/public-works/transportation.php>.

Table 6-2. Woodland Transportation Capital Improvement Program

Project Name	Location/Limits	Description	Cost Estimate (2015\$)	Project Interdependence	Primary Benefits
0 – 6 Years Capital Improvements (2016 TO 2021)					
Scott Avenue Reconnection	I-5 Undercrossing	Construct undercrossing of I-5 (raise I-5 profile) with sidewalks and bicycle lanes, signalize and provide turn lane channelization for interchange ramp termini on Scott,	\$75,000,000	Independent project	<ul style="list-style-type: none"> – Improved access to industrial area – Improved emergency response times – Congestion relief at I-5 interchanges – Provides access to westside growth, industrial and Port access, and major commercial centers – Major street connectivity
I-5/SR503 Interchange Improvements Project	SR 503 from I-5 NB Off-Ramp/Atlantic to Millard	Shift CC Bridge traffic onto A and Millard, to new traffic signal at SR 503 and Millard. Remove existing traffic signal, close off CC Street at SR 503.	\$8,000,000	Independent Project with some mitigation from Woodland Commerce Center Project	<ul style="list-style-type: none"> – Congestion relief at I-5/SR 503 Interchange – Improves Safety – Improved pedestrian and bicycle connectivity
E. Scott/Old Pac. Intersection	Scott Ave / Old Pacific Hwy Intersection	Improve intersection with realignment, signal, medians, or other combination.	\$3,300,000	Independent project	<ul style="list-style-type: none"> – Addresses future intersection failure, and sub-standard design – Improves safety – Improves access to city Police and Fire Stations
Total Short-Term Cost Estimate			\$86,300,000		
6 – 20 Years Capital Improvements (2022 TO 2036)					

Scott Avenue Railroad Crossing	RR Overcrossing	Construct two lane overcrossing of railroad with sidewalks and bicycle lanes, and at-grade intersection with Down River Drive (Option 4D)	\$22,000,000	This improvement must also include the extension of N Pekin Road to connect with Port Way as described below	<ul style="list-style-type: none"> – Provides access to businesses including industrial property, Port access, and major commercial center – Major street connectivity – Safety of high speed, mainline rail crossing – Emergency response times
Scott Avenue at Pekin Road	Relocation of existing connection	Grade-separate Scott Avenue and N Pekin, connect N Pekin to Schurman via Port Way (Option 1)	\$10,000,000	Required as part of railroad overcrossing project	<ul style="list-style-type: none"> – Replaces connectivity between Pekin Road and Scott Avenue that would be lost when RR crossing is built – Provides major northbound/south backbone transportation network for Westside of city
SR-503	Hillshire Drive to Evergreen Lane	Widen to 3-lane cross-section, install bicycle and pedestrian facilities	\$8,000,000	Independent project	<ul style="list-style-type: none"> – Addresses existing High Accident Corridor – Improves traffic operations at intersections – Provides improved bicycle and pedestrian circulation – Addresses stormwater treatment – Can enhance street appearance
I-5 at SR-503	Buckeye/Goerig to SR503/ Atlantic Street	Add turn lanes at SR503 intersections with I-5, add lane under I-5, and add eastbound through lane from Atlantic to past A Street (Option 6)	\$10,000,000	Independent project	<ul style="list-style-type: none"> – Addresses future interchange area failure including expected periodic traffic queuing onto I-5 northbound – Enhances safety – Provides improved pedestrian and bicycle connectivity
Total Long Term Cost Estimate			\$50,000,000		
TOTAL PROJECT COSTS					

Map 6-1. Overview of TISP Improvement Recommendations



6.3 Goals and Policies

Streets and Highways

Goal

- T 1 The city of Woodland shall provide a convenient, safe, and efficient multi-modal transportation system that promotes the mobility of people and goods within and through the city.

Policies

- T 1.1 Develop and improve the city's arterial and collector road system to link residential, commercial, and industrial areas of the city with each other and with the regional highway system.
- T 1.2 Establish LOS C or better as the desired standard for the I-5 mainline within the city, consistent with the regional CWCOG/SWRTPO standard. Establish a LOS standard of LOS D or better for arterial state highways (SR 503), major arterials, and minor arterials. Establish acceptable levels of traffic on collector roads and local streets through street design standards. Calculate the levels of service according to the most recent Highway Capacity Manual or approved alternative method.
- T 1.3 Review and update the city's street design standards and development requirements as needed to support cost-effective implementation of arterial, collector, and local streets and facilities for pedestrian and bicycle travel. The standards should require new developments to provide a grid of collector and local roads to serve residential and commercial areas of the city, to minimize the impact on adjacent arterials. New developments should provide fully improved streets to provide access and circulation to support their increased traffic.
- T 1.4 Consolidate access to properties along state highways and major and minor arterials whenever possible to maximize the capacity of the facilities and reduce potential safety conflicts. Restrict new accesses to state highways and major and minor arterials whenever practical. Work with WSDOT to adopt and implement standards for access permitting on state highways within the city boundaries as per Revised Code of Washington (RCW) 47.50.030.



- T 1.5 Work with WSDOT to provide signing and improvements to the arterial system to encourage use of the Dike Road interchange for travel between I-5 and SR 503.
- T 1.6 Include and fund a comprehensive maintenance and operations program for capital projects.
- T 1.7 Provide curbs, storm drainage, sidewalks, street lights, and landscaped planting/utility strips, as well as adequate roadway widths and surfaces on local and collector street system improvement projects where possible.
- T 1.8 Evaluate the opportunities, location, and cost of providing an additional safe and efficient way out of town.
- T 1.9 Evaluate other methods of route connectivity for the east side area of the city, easing the burden on Lewis River Road.

Subdivision Streets

Goal

- T 2 Review preliminary plats and consider internal traffic circulation patterns and potential impacts on nearby streets and highways to ensure adequate transportation facilities are built to serve new development.

Policies

- T 2.1 Design subdivision streets so as to plan for future connection to adjoining subdivisions when possible.
- T 2.2 Keep intersections of local and collector streets with principal and minor arterials to a minimum in the design of new subdivisions.
- T 2.3 Require access to residential lots in new subdivisions from an interior street system rather than from major and minor arterials when possible. Keep direct driveway access onto major and minor arterials to a minimum.
- T 2.4 Install sidewalks (on both sides unless impracticable), curbs, and drainage gutters along arterials, collector streets, and local streets to enhance pedestrian safety and control surface water runoff.
- T 2.5 Design and lay out streets to follow the more gradual natural contours of the land and avoid steep grades.

Truck Routes

Goal

- T 3 Enhance truck access to/from I-5 and other regional facilities to minimize the impact of trucks on residential and commercial areas of the city.

Policies

- T 3.1 Design roadways designated as truck routes to meet the capacity and safety needs of heavy vehicles.

Pedestrian and Bicycle

Goal

- T 4 Develop facilities to provide safe pedestrian and bicycle travel, to promote alternative transportation modes and to support recreational activity.

Policies

- T 4.1 Include sidewalks and bicycle lanes, where feasible, as part of identified improvements to SR 503 and other arterials within the UGA.
- T 4.2 Provide a grid of local streets to support pedestrian and bicycle travel within and between neighborhoods.
- T 4.3 Require new developments to provide adequate pedestrian access to adjacent roads and/ or trails.
- T 4.4 Develop and sign a system of bicycle routes providing for travel within the city with connections to regional and major local destinations.

Transit and Transportation Demand Management

Goal

- T 5 Enhance use of transit and carpools by providing park-and-ride facilities and coordinated regional services.

Policies

- T 5.1 Encourage ridesharing programs by working with major employers to establish transportation coordinators and ride-matching services.
- T 5.2 Support and cooperate with WSDOT on retaining and upgrading the existing park-and-ride lot at the SR 503/I-5 interchange.

Rail, Air, and Water Transportation

Goal

- T 6 Support Burlington Northern Santa Fe Railroad, Port of Woodland, and the Washington State Department of Transportation Aviation to maintain and enhance operations of rail and air transportation in the City of Woodland and connections to water transportation on the Columbia River.

Policies

- T 6.1 Coordinate regularly with providers and operators of the railroad, airport, and port facilities to ensure compatibility of improvements with city goals and implementation programs.

Work with providers to help fund safety and access/ circulation improvements to support economic development and recreation associated with rail, air, and water transportation.

T 6.2 Airport Land Use Compatibility.

Create zoning districts and development regulations that discourage the siting of incompatible uses adjacent to general aviation airports. The zoning regulations must be filed with the Aviation Division of WSDOT.

6.3 Financing and Implementation

Goal

T 7 Work with multiple agencies to secure funding to implement transportation improvements in a timely manner.

Policies

T 7.1 Identify and update costs of future transportation system improvement needs required to provide acceptable levels of service and safety as part of the six-year Transportation Improvement Program.

T 7.2 Annually update and adopt a six-year Transportation Improvement Program to support timely implementation of the Transportation Plan. Review priorities based on updated traffic conditions and development patterns. Base the program on realistic funding capabilities of the city and other agencies.

T 7.3 Use regional, state and grant funding to help fund improvements to SR 503, I-5, and arterials serving regional traffic and economic development.

T 7.4 Require developers to construct or pay a proportionate share of arterial, collectors, and local streets needed to serve new developments.

