

Section 7 Transportation System Plan

7 TRANSPORTATION SYSTEM PLAN

This section presents the individual elements of the St. Helens Transportation System Plan (TSP). The TSP addresses those components necessary for the development of the future transportation network including:

- Roadway System Plan
 - Functional Classification Plan
 - Street Design Standards
 - Access Management Plan
- Pedestrian Plan
- Bicycle Plan
- Transit Plan
- Rail Plan
- Marine/Air/Water/Pipeline System Plan
- Implementation Plan

The transportation elements presented in this section were developed in accordance with the requirements of Oregon's Transportation Planning Rule (TPR). These elements reflect the existing and future forecast conditions analysis findings, the options analysis, and a balance sought amongst the interests of multiple stakeholders, including citizens, business owners, and governmental agencies within the City of St. Helens. The final TSP elements were selected and prioritized based on feedback obtained from the Technical Advisory Committee (TAC), Citizens Advisory Committee (CAC), Planning Commission, City Council, and citizen input during the plan's development. The decision process was guided in part by the goals and policies enumerated in Section 2.

Roadway System Plan

The roadway system plan provides guidance on how to best facilitate vehicular travel over the next twenty years, as well as identifying key elements of a future vision of transportation facilities serving the city. This plan seeks to address the identified existing and anticipated future operational and circulation needs.

FUNCTIONAL CLASSIFICATION PLAN

The purpose of the functional classification plan is to create a mechanism through which a balanced transportation system can be developed that facilitates mobility for all modes of transportation as well as access to adjacent land uses. A roadway's functional classification determines its intended purpose, the amount and character of traffic it is expected to carry, the degree to which non-auto travel is emphasized, and the roadway's design standards and overall management approach. It is imperative that a roadway's classification consider the adjacent land uses and the transportation modes that should be accommodated. The public right-of-way must also provide sufficient space for utilities to serve adjacent land uses.

The functional classification plan for the City of St. Helens is shown in Figure 7-1. The new roadway alignments shown on the plan should be considered as conceptual. The end points of the streets are generally fixed where they make essential connections to other roadways while the alignments between intersections may vary depending on design requirements and right-of-way available at the time a given facility is constructed.

The functional classification plan incorporates three functional categories: arterials (major and minor), collectors, and local streets.

Arterials

Arterials are roadways that are primarily intended to serve traffic entering and leaving the urban area. While arterials may provide access to adjacent land, that function is subordinate to the mobility service provided to major traffic movements.

Major Arterials

Major arterials are typically longest-distance, highest-volume roadways within the urban growth boundary (UGB). Although the streets focus on serving longer distance trips, they also serve local pedestrian and/or bicycle activities, which should be accommodated in the arterial streetscape.

The only major arterial serving St. Helens is the Columbia River Highway (US 30). US 30 is a Statewide Highway and designated Freight Route. US 30 runs north-south through the city, connecting St. Helens to Columbia City, Rainier, and the Oregon Coast to the north and Scappoose and the Portland to the south. The current cross-section of US 30 is four to five lanes within the city's UGB. The TSP has been developed with the intention of maintaining a maximum five-lane cross-section through the city not withstanding right-turn deceleration lanes at key intersections. This can be accomplished by developing a more efficient network of local roadways that serve city traffic off the highway.

The TSP identifies the need for several improvement projects along US 30, such as new traffic signals at several key intersections. All projects along US 30 are subject to ODOT plans, policies, and standards and all changes and/or improvements must conform with the ODOT approval and permitting process¹¹.

At the time of this writing, ODOT is conducting a study along US 30 between Scappoose and St. Helens that will evaluate alternatives to improve the safety of the corridor. A detailed Road Safety Audit will be completed between Bere Road in Scappoose and Millard Road in St. Helens. The audit could result in recommendations for improvements at Bennett Road and Millard Road that directly impact the recommendations contained in this TSP. ODOT will work with the City of St. Helens in developing the safety corridor and the St. Helens City Council may be asked to adopt the plan and amend the TSP, if necessary.

Minor Arterials

Minor arterials provide a higher degree of access than major arterials. The primary function of minor arterials is to serve local and through traffic between neighborhoods and to community and regional facilities.

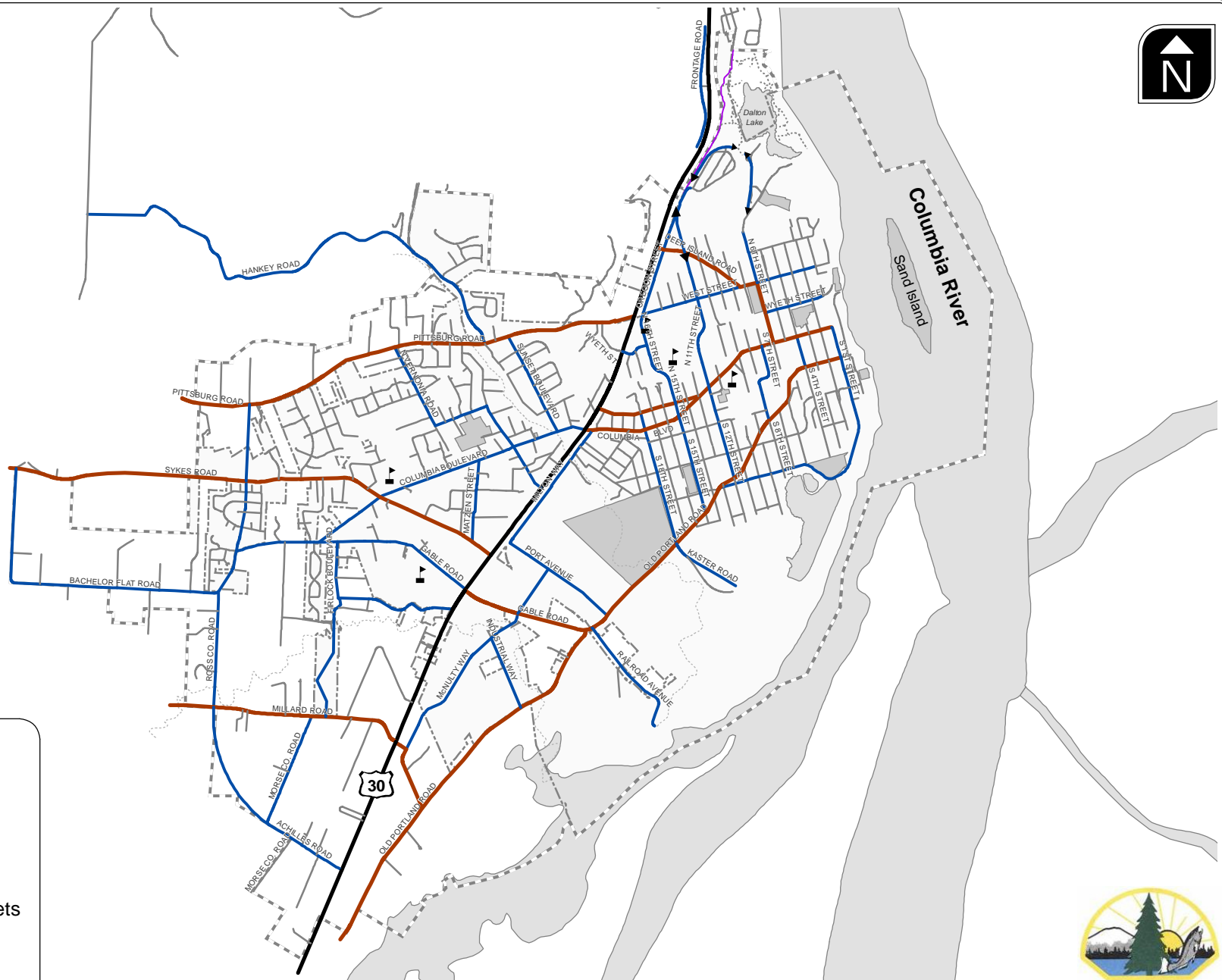
Collectors

Collector streets generally facilitate the movement of traffic within the city's UGB. Collectors provide for circulation and mobility for all users of the system. Collectors carry lower volumes than arterials and typically have two-lane cross-sections with on-street parking. They serve as the primary routes into residential neighborhoods. Although they carry higher volumes than local streets, they are intended to provide direct access to adjacent land rather than serving through traffic.

Local Streets

Local streets are primarily intended to provide access to abutting land uses. Local street facilities offer the lowest level of mobility and consequently tend to be short, low-speed facilities. As such, local streets should primarily serve passenger cars, pedestrians, and bicyclists; heavy truck traffic is discouraged. On-street parking is common. Sidewalks are typically present, though the relatively low travel speeds and traffic volumes allow bicycles to share the vehicle travel lanes.

¹¹ Before a signal can be installed on the State system, OAR 734-020-0440 requires a traffic engineering investigation that shows how traffic signal warrants and highway design and spacing standards are met with the proposed signal and how the proposed signal would improve the overall safety and operation of the intersection. A progression analysis would be required as per OAR 734-020-0470 for signals that will not meet the one half mile minimum spacing standard for traffic signals on State highways. Signals may not be installed until signal warrants are satisfied and the installation request and design has been approved by the State Traffic Engineer (OAR 734-020-0410).



LEGEND

-  Schools
-  Major Arterials
-  Minor Arterials
-  Collector Streets
-  Local Streets
-  City Limits
-  City UGB



**FUNCTIONAL CLASSIFICATION PLAN
ST. HELENS, OREGON**

STREET DESIGN STANDARDS

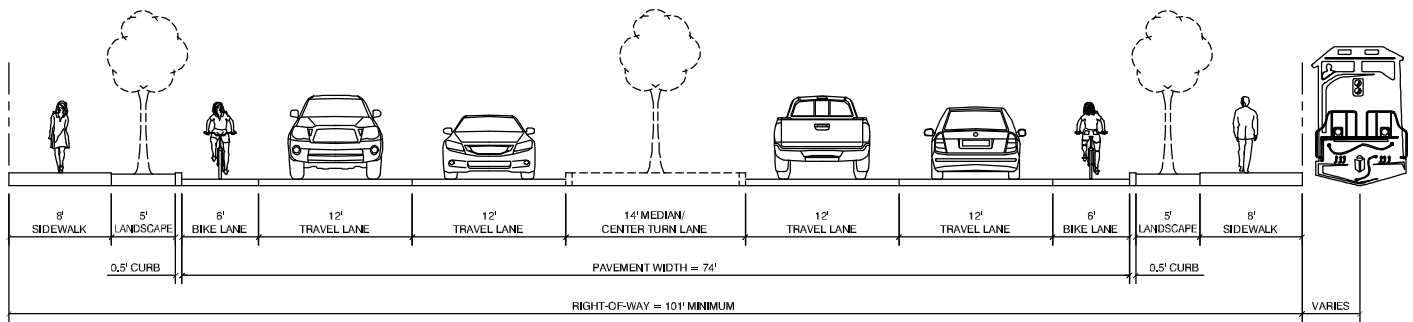
Street design standards support the functional and operational needs of the community's roadway network. The standards provide guidance on the operations, appearance and function of a roadway by defining factors such as the type of pedestrian and bicycle facilities, the number of travel lanes, capacity, operating speed, and safety. The standards are necessary to ensure that the system of streets, as it develops, will be capable of safely and efficiently serving the traveling public while also accommodating the orderly development of adjacent lands.

The street design standards are shown as cross sections in Figures 7-2 and 7-3. The cross sections are intended to be used for planning purposes for new road construction, as well as for those locations where it is physically and economically feasible to improve existing streets. Detailed design elements, such as cross-slopes, are not shown in the figures, but should be added when the City of St. Helens updates its standard engineering drawings. On-street parking has been identified as an optional element in some of the street sections where right-of-way is limited or a left-turn lane is needed. Also, additional width for turn lanes may be needed at specific intersections based on an engineering investigation; these are not shown in the street design standards. The standards shown are intended to define typical cross-sections of streets between intersections.

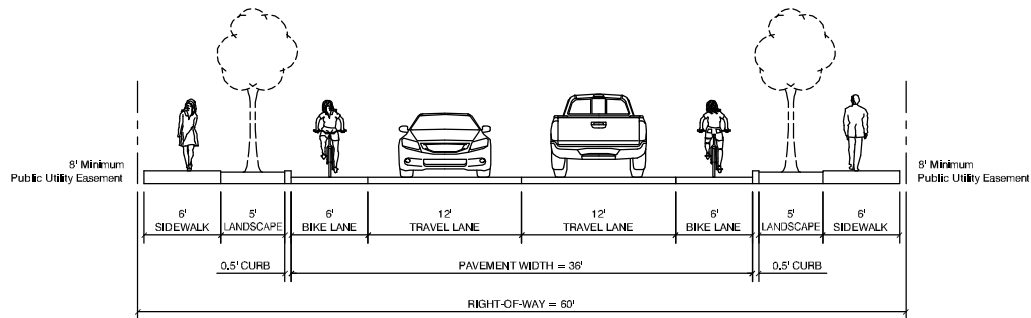
Many of the city's existing streets are wider than the proposed cross sections. As a result, retrofitting streets to add bike lanes, sidewalks, landscaping strips or different travel lane widths/turn lanes may be possible at a number of locations without requiring right-of-way acquisition.

Finally, it should be noted that many agencies are developing "green street" programs that incorporate stormwater management features involving natural absorption and treatment. While green street treatments are independent of functional class, they may require modification of the landscape area or other street design standards to accommodate this evolving practice. The street design standards shown are not intended to preclude green street treatments.

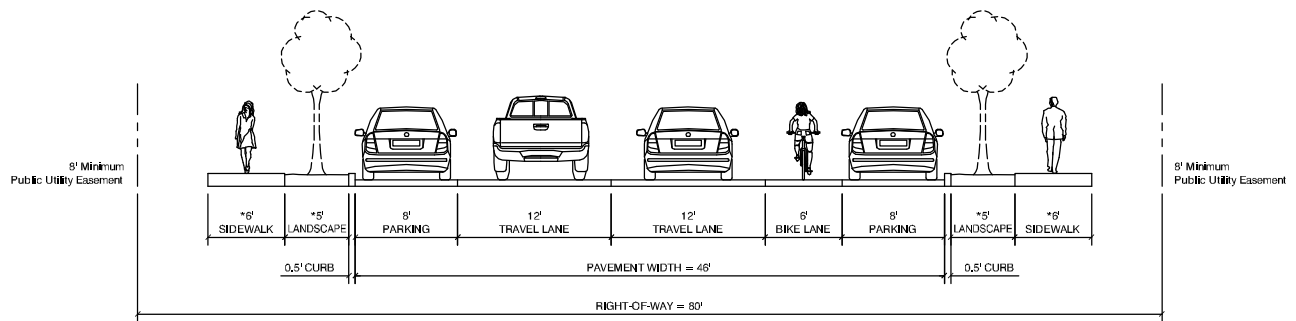
As shown in Figure 7-3, there are three cross sections provided for minor arterial streets; including one typical cross section, one cross section specific to the one-way - St. Helens Street/Columbia Boulevard couplet between US 30 and 13th Street, and a cross section for the two-way downtown area. The cross section for the segment of Columbia Boulevard east of 13th Street provides for an optional center left-turn lane in lieu of on-street parking. The presence of a center left-turn lane near the 12th Street/Columbia Boulevard intersection could help to improve operations near the Lewis Clark Elementary School during school peak hours as vehicles turning into the school will not be blocking the through travel lane in the southbound direction.



Major Arterial (US 30)*

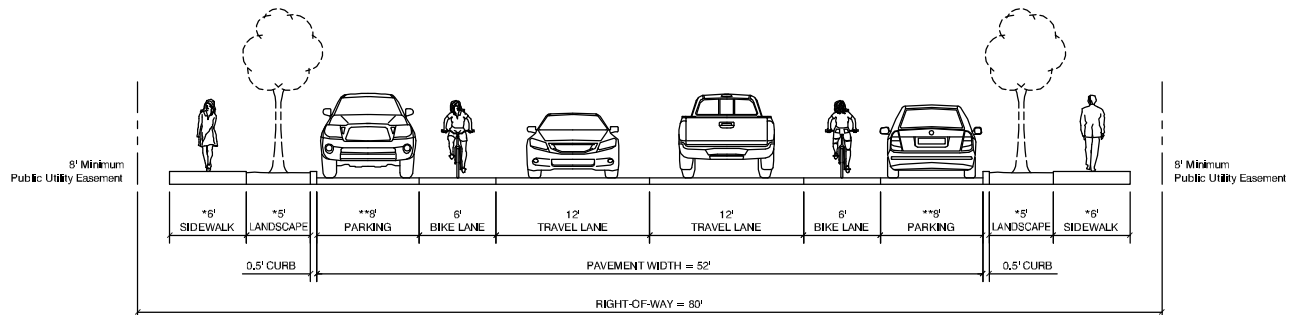


Minor Arterial (Typical)



*Optional 11' sidewalk with tree wells.

Minor Arterial (One-Way - Columbia Boulevard/
St Helens Street - US 30 to 13th Street)



*Optional 11' sidewalk with tree wells.

**On-street parking may be reduced to allow for installation of a left-turn lane where needed.

Minor Arterial (Two-Way Downtown)

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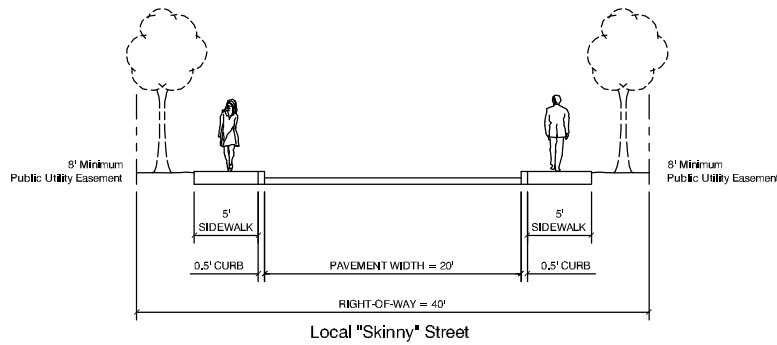
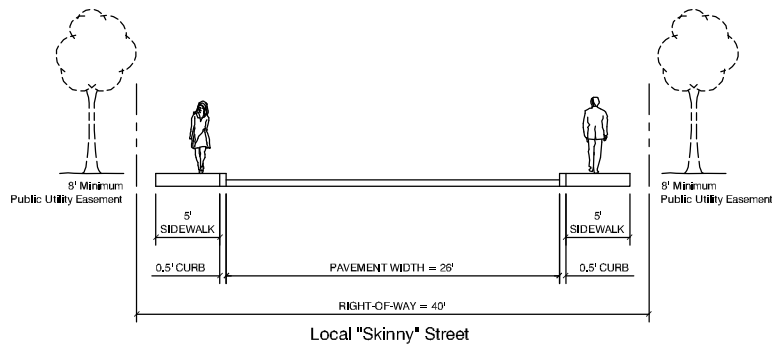
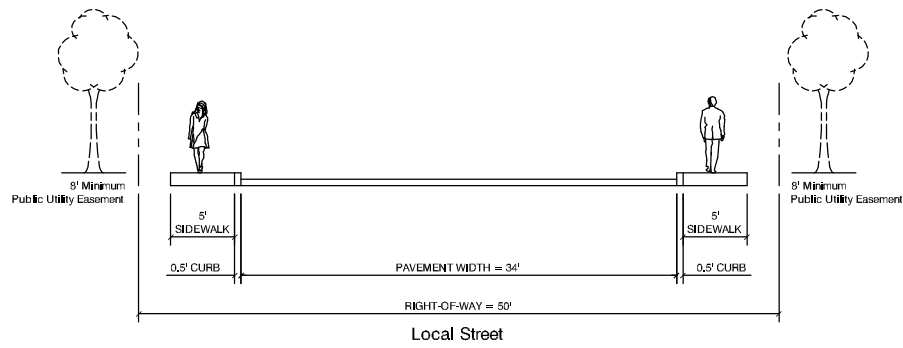
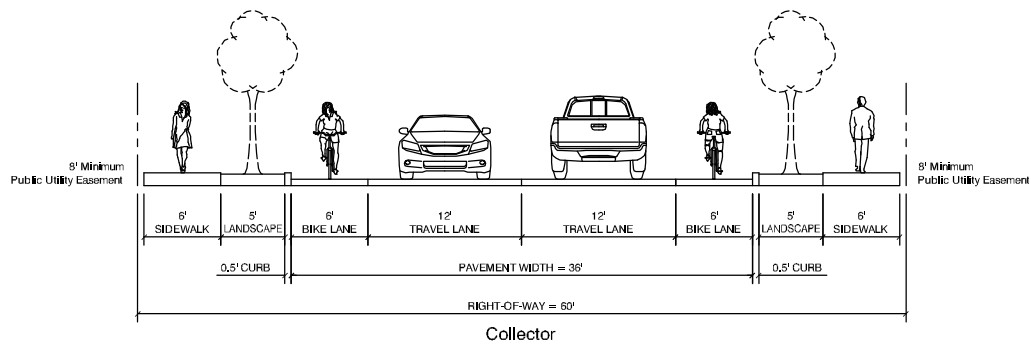
TREES TO BE PROVIDED AS APPROPRIATE PER CITY CODE AND LOCATION SPECIFIC CONSIDERATIONS

*The US 30 Cross-Sections are shown to be consistent with ODOT Standards. Specific roadway designs will be developed through a refinement plan or project development process. Design and future improvements to US 30 must also address ORS 366.215 (Reduction in Vehicle Carrying Capacity) on this national freight network facility.



STANDARD CROSS SECTIONS
ST. HELENS, OREGON

FIGURE
7-2



LEGEND



TREES TO BE PROVIDED AS APPROPRIATE PER CITY CODE AND LOCATION SPECIFIC CONSIDERATIONS



STANDARD CROSS SECTIONS
ST. HELENS, OREGON

FIGURE
7-3

LOCAL STREET OPTIONS

The standard cross-section for local streets includes a total paved width of 30 feet, which is intended to accommodate parking on one or both sides of the street. Two skinny street options are identified for application in local street settings where low traffic volumes and narrow roadway elements are desired. Skinny streets typically result in slower vehicle speeds, making them attractive in residential areas. Other benefits include reduced impervious surface area (reduced stormwater and environmental impact) and improved pedestrian and bicycle safety related to the lower vehicle speeds.

On-street parking along skinny streets can pose challenges for emergency vehicles as well as other service providers such as refuse/recycling trucks, school busses, and other delivery vehicles. The City of St. Helens can permit construction of 20 to 26 feet wide streets that accommodate parking on only one side of the street. These options are most appropriate for lower volume streets (typically less than 400 vehicles per day).

LANDSCAPING

Landscaping Area

Each of the City's street design standards includes a landscape strip separating the roadway curb from the sidewalk. This landscaping strip serves to better separate motorized vehicle and pedestrian traffic and creates an opportunity for landscaping in the form of street trees or other elements. The City of St. Helens seeks to incorporate street trees in all street landscaping areas where possible. In situations where street trees are not feasible (basalt below, etc.), the City of St. Helens may require fee-in-lieu contributions/payments.

Design Variations

The street design standards are intended to provide uniformity for city streets. It may be necessary to deviate from the design standards in situations where:

- Existing right-of-way constraints, structures, topographic features, environmentally sensitive areas, or other constraints preclude designing to the standards; or
- An alternative design that is functionally equal or superior to the standard design is proposed; or
- Green Streets design elements are incorporated in a way that preserving the function and integrity of the roadway; or

- The City Engineer otherwise determines that a deviation is in the public interest.

GUIDELINES FOR ARTERIAL/COLLECTOR INTERSECTION IMPROVEMENTS

In addition to roadway cross-section standards, the City of St. Helens should adopt standards for intersection improvements (note that improvements on state highways must meet ODOT operating and design criteria). As intersection improvements are made at arterial/collector intersections in the city, the following general guidelines should be considered:

- maintain adequate signing of side-streets (stop signs and visible street signs);
- restrict parking and potential sight obstructions in the intersection vicinity;
- provide intersection illumination to increase visibility;
- provide proper channelization (striping, raised medians, etc.) of movements;
- provide a paved apron on unpaved side-street approaches to create a smooth transition to and from the major street;
- install right-turn transition tapers or lanes at high-speed unsignalized intersections and right-turn lanes at signalized intersections on US 30 approaches when warranted;
- install left-turn lanes when warranted to reduce interruptions in the flow of through traffic; and,
- locate traffic signals or roundabouts with consideration of appropriate spacing requirements and impacts on side-street traffic patterns.

ACCESS MANAGEMENT PLAN

As the city continues to grow, its street system will become more heavily traveled. Consequently, it will become increasingly important to manage access on the arterial and collector street system as new development occurs. This will preserve those streets' function for carrying through traffic. ODOT has legal authority to regulate access points along US 30 within the city's urban growth boundary. The City of St. Helens and Columbia County jointly manage several roadways within the city's UGB to ensure the efficient movement of traffic and enhance safety. The City of St. Helens independently manages access on all other collector and local streets within its jurisdiction.

The Oregon Transportation Planning Rule defines access management as a set of measures regulating access to streets, roads, and highways, from public roads and private driveways. The TPR requires that new connections to arterials and state highways be consistent with designated access management

categories. This TSP includes an access management policy that maintains and enhances the integrity (capacity, safety, and level of service) of the city's streets.

Access management standards vary depending on the functional classification and purpose of a given roadway. Roadways on the higher end of the functional classification system (i.e., arterials and collectors) tend to have higher spacing standards, while local streets allow more closely spaced access points. These standards apply to new development or redevelopment. Existing accesses are allowed to remain as long as the land use does not change and no safety problem is posed. As a result, access management is a long-term process in which the desired access spacing to a street slowly evolves over time as redevelopment occurs.

In implementing access management standards, parcels cannot be land-locked; they must have some way of accessing the public street system. This may mean allowing closer access spacing than would otherwise be allowed or implementation of shared access with a neighboring parcel, where possible. Where a property has frontage on two roadways, access on the roadway of lower classification is preferred, all other things being equal. The following discussion presents the hierarchical access management system for roadways in the St. Helens UGB.

ODOT ACCESS MANAGEMENT STANDARDS

The OHP specifies an access management classification system for state facilities based on its highway classification system. As indicated in the existing conditions analysis, the OHP classifies US 30 as a Statewide Highway and a Freight Route. Future developments along US 30 (new development, redevelopment, zone changes, and/or comprehensive plan amendments) will be required to meet the OHP Access Management policies and standards. Table 7-1 summarizes ODOT's current access management standards for US 30 per the 1999 OHP.

TABLE 7-1: US 30 ACCESS SPACING STANDARDS

Posted Speed (MPH)	Spacing Standards (Feet) ¹
≤ 25	520
30 and 35	720
40 and 45	990
50	1,100
≥ 55	1,320
¹ These access management spacing standards do not apply to approaches in existence prior to April 1, 2000 except as provided in OAR 734-051-0115(1)(c) and 734-051-0125(1)(c).	

CITY ROADWAY ACCESS STANDARDS

Table 7-2 identifies the minimum public street intersection and private access spacing standards for the city's roadway network as they relate to new development and redevelopment. Minimum and maximum standard widths for private driveways are summarized in Table 7-3. County facilities within the city's UGB should also be planned and constructed in accordance with these street design standards.

TABLE 7-2: CITY STREET ACCESS SPACING STANDARDS

Functional Classification	Public Street (feet)	Private Access Drive (feet)
Local Street	150	50
Collector	300	100
Minor Arterial	350 or block length	200 or mid-block

TABLE 7-3: PRIVATE DRIVEWAY WIDTH STANDARDS

Land Use	Minimum (Feet)	Maximum (Feet)
Single Family Residential	12	24
Multi-Family Residential	24	30
Commercial	30	40
Industrial	30	40

Access spacing variances may be provided to parcels whose highway/street frontage, topography, or location would otherwise preclude issuance of a conforming permit and would either have no reasonable access or cannot obtain reasonable alternate access to the public road system. In such a situation, a conditional access permit may be issued by ODOT or the City of St. Helens, as appropriate, for a connection to a property that cannot be accessed in a manner that is consistent with the spacing standards. The permit can carry a condition that the access may be closed at such time that reasonable access becomes available to a local public street. The approval condition might also require a given land owner to work in cooperation with adjacent land owners to provide either joint access points, front and rear cross-over easements, or a rear access upon future redevelopment.

The requirements for obtaining a deviation from ODOT's minimum spacing standards are documented in OAR 734-051. For streets under the City's jurisdiction, the City may reduce the access spacing standards, at the discretion of the City Engineer, if the following conditions exist:

- Joint access driveways and cross access easements are provided in accordance with the standards;
- The site plan incorporates a unified access and circulation system in accordance with the standards;
- The property owner enters into a written agreement with the City of St. Helens that pre-existing connections on the site will be closed and eliminated after construction of each side of the joint use driveway; and/or,
- The proposed access plan for redevelopment properties moves in the direction of the spacing standards.

The City Engineer may modify or waive the access spacing standards for streets under the City's jurisdiction where the physical site characteristics or layout of abutting properties would make development of a unified or shared access and circulation system impractical, subject to the following considerations:

- Unless modified, application of the access standard will result in the degradation of operational and safety integrity of the transportation system.
- The granting of the variance shall meet the purpose and intent of these standards and shall not be considered until every feasible option for meeting access standards is explored.
- Applicants for variance from these standards must provide proof of unique or special conditions that make strict application of the standards impractical. Applicants shall include proof that:
 - Indirect or restricted access cannot be obtained; and
 - No engineering or construction solutions can be applied to mitigate the condition; and,
 - No alternative access is available from a road with a lower functional classification than the primary roadway.
- No variance shall be granted where such hardship is self-created.

ACCESS MANAGEMENT MEASURES

From an operational perspective, access management measures limit the number of redundant access points along roadways. This enhances roadway capacity and benefits circulation. Enforcement of the access spacing standards should be complemented with provision of alternative access points.

Purchasing right-of-way and closing driveways without a parallel road system and/or other local access could seriously affect the viability of the impacted properties. Thus, if an access management approach is taken, alternative access should be developed to avoid “land-locking” a given property.

As part of every land use action, the City of St. Helens will evaluate the potential need for conditioning a given development proposal with the following items in order to maintain and/or improve traffic operations and safety along the arterial and collector roadways.

- Provision of crossover easements on all compatible parcels (considering topography, access, and land use) to facilitate future access between adjoining parcels.
- Issuance of conditional access permits to developments having proposed access points that do not meet the designated access spacing policy and/or have the ability to align with opposing driveways.
- Right-of-way dedications to facilitate the future planned roadway system in the vicinity of proposed developments.
- Half-street improvements (sidewalks, curb and gutter, bike lanes/paths, and/or travel lanes) along site frontages that do not have full build-out improvements in place at the time of development.

Figure 7-4 illustrates the application of cross-over easements and conditional access permits over time to achieve access management objectives. The individual steps are described in Table 7-4. As illustrated in the figure and supporting table, using these guidelines, all driveways along the highways can eventually move in the overall direction of the access spacing standards as development and redevelopment occur along a given street.

Proposed Access Management Strategy

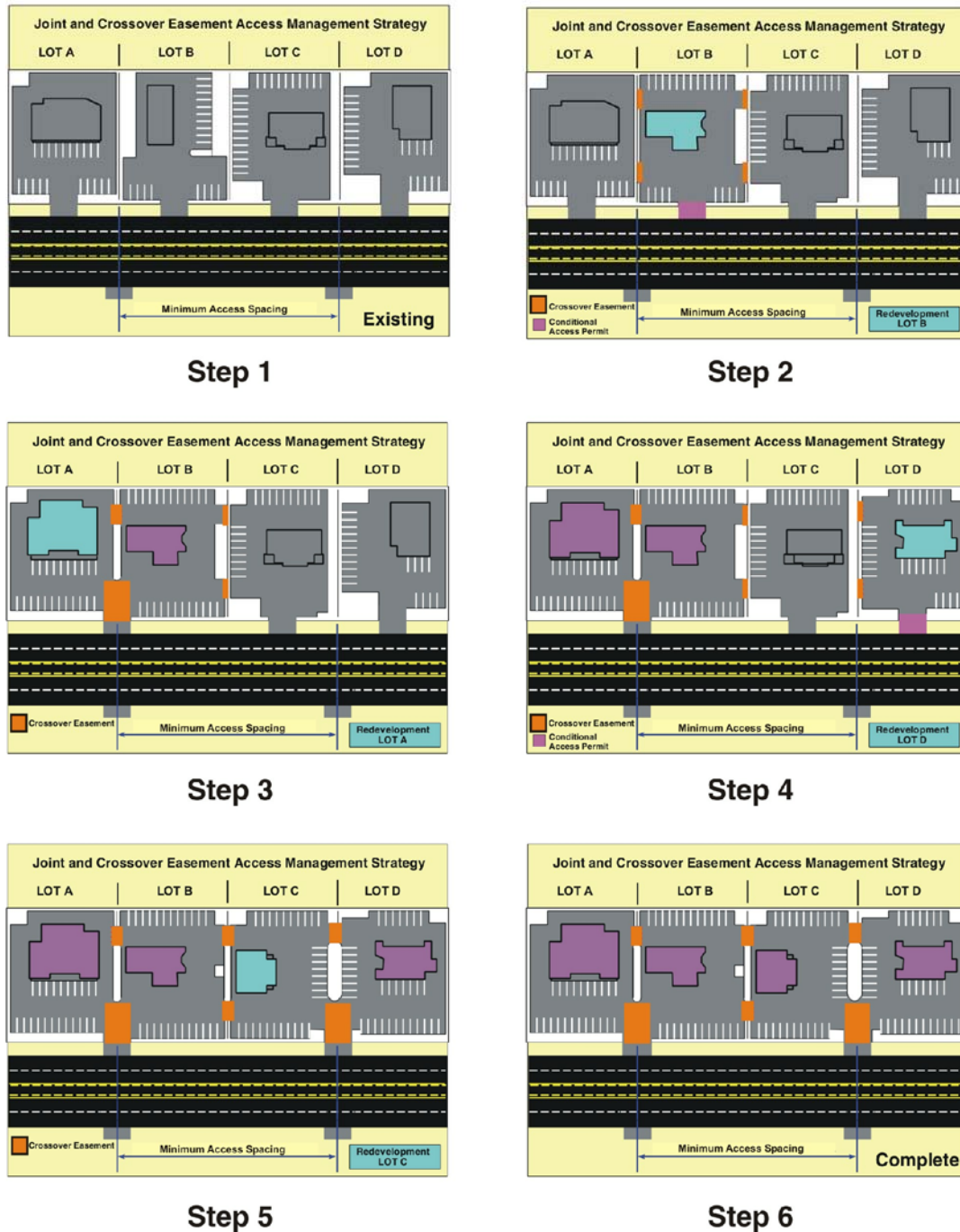


TABLE 7-4: EXAMPLE OF CROSSOVER EASEMENT/INDENTURE/CONSOLIDATION

Step	Process
1	EXISTING – Currently Lots A, B, C, and D have site-access driveways that neither meet the access spacing criteria of 500 feet nor align with driveways or access points on the opposite side of the highway. Under these conditions motorists are into situations of potential conflict (conflicting left turns) with opposing traffic. Additionally, the number of side-street (or site-access driveway) intersections decreases the operation and safety of the highway
2	REDEVELOPMENT OF LOT B – At the time that Lot B redevelops, the City would review the proposed site plan and make recommendations to ensure that the site could promote future crossover or consolidated access. Next, the City would issue conditional permits for the development to provide crossover easements with Lots A and C, and ODOT/City would grant a conditional access permit to the lot. After evaluating the land use action, ODOT/City would determine that LOT B does not have either alternative access, nor can an access point be aligned with an opposing access point, nor can the available lot frontage provide an access point that meets the access spacing criteria set forth for segment of highway.
3	REDEVELOPMENT OF LOT A – At the time Lot A redevelops, the City/ODOT would undertake the same review process as with the redevelopment of LOT B (see Step 2); however, under this scenario ODOT and the City would use the previously obtained cross-over easement at Lot B consolidate the access points of Lots A and B. ODOT/City would then relocate the conditional access of Lot B to align with the opposing access point and provide an efficient access to both Lots A and B. The consolidation of site-access driveways for Lots A and B will not only reduce the number of driveways accessing the highway, but will also eliminate the conflicting left-turn movements the highway by the alignment with the opposing access point.
4	REDEVELOPMENT OF LOT D – The redevelopment of Lot D will be handled in same manner as the redevelopment of Lot B (see Step 2)
5	REDEVELOPMENT OF LOT C – The redevelopment of Lot C will be reviewed once again to ensure that the site will accommodate crossover and/or consolidated access. Using the crossover agreements with Lots B and D, Lot C would share a consolidated access point with Lot D and will also have alternative frontage access the shared site-access driveway of Lots A and B. By using the crossover agreement and conditional access permit process, the City and ODOT will be able to eliminate another access point and provide the alignment with the opposing access points.
6	COMPLETE – After Lots A, B, C, and D redevelop over time, the number of access points will be reduced and aligned, and the remaining access points will meet the access spacing standard.

Pedestrian and Bicycle System Plan

Providing connections between major activity centers is a key objective of the pedestrian and bicycle system plans. Major activity centers are defined as locations that typically attract high levels of pedestrian and bicycle activity on a regular basis. Within St. Helens, these activity centers include the commercial areas along US 30, Columbia Boulevard, and St. Helens Street, as well as the downtown core, city parks, and city schools. This section identifies specific pedestrian and bicycle priorities for local connectivity and access.

PEDESTRIAN SYSTEM COMPONENTS

The recommended pedestrian improvement projects include the provision of sidewalks and off road trails to facilitate pedestrian travel throughout the transportation system, as well as treatments to aid pedestrians crossing traffic. The street design standards presented in this TSP can help ensure that pedestrian facilities are provided in conjunction with all new or substantially reconstructed public streets. For existing roadways without sidewalks, the inclusion of sidewalks should be required with any redevelopment of adjacent properties or with significant improvements in the roadways.

The sidewalk improvement projects prioritized in the TSP represent specific improvements that have been identified to improve pedestrian conditions in a number of areas throughout the city. Many of the priority areas surround existing school sites and could benefit from completion of a Safe Routes to School (SRTS) assessment by the St. Helens school district. As discussed in Section 9, preparation of a SRTS program could also enhance the community's ability to secure grant funding for pedestrian facility improvements.

Figure 7-5 and the project summary tables (7-5 through 7-7) at the end of this section present the recommended pedestrian facilities. In addition to sidewalk improvements, several pedestrian crossing improvement projects are also recommended for prioritization. Examples of the types of crossing improvements needed are discussed below.

Pedestrian Countdown Signals

Pedestrian Countdown Signals are recommended at each of the signalized intersections along US 30, including Deer Island Road, St. Helens Street, Columbia Boulevard, and Gable Road. Future traffic signals at Pittsburg Road, Vernonia Road, and Millard Road should also be equipped with pedestrian countdown signals per the MUTCD. The countdown signals will help inform pedestrians of the time remaining to cross the street.

Curb Extensions

Curb extensions are recommended at 16 locations along Columbia Boulevard and St. Helens Street to provide shorter crossing distances for pedestrians at intersections as well as to encourage reduced travel speeds by motorists. The curb extensions will occupy the portion of the roadway in close proximity to the intersection that is currently used for on-street parking.

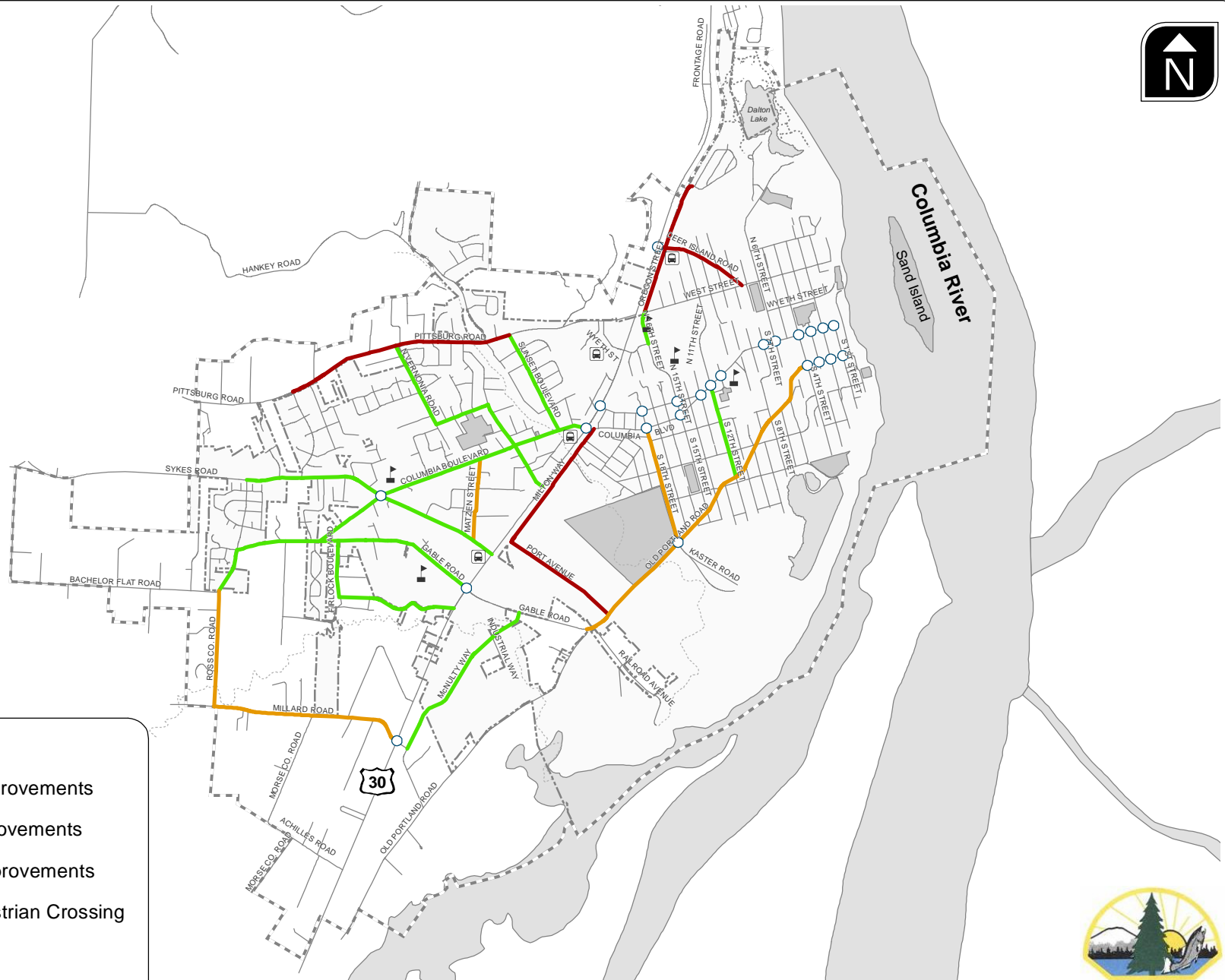
Raised Median Islands

Raised median islands are included in the recommended street design standards for US 30 and Columbia Boulevard. Raised median islands can provide pedestrians with a refuge area within the crosswalk to stop while crossing the street and complete a two-stage crossing if needed.

Other Pedestrian Crossing Treatments

Several additional pedestrian crossing treatments are presented in Section 6 that can also be applied on future projects, such as:

- leading pedestrian intervals which allow pedestrians to begin crossing before conflicting motorists are given a green light, and



LEGEND

- Near-Term Improvements
- Mid-Term Improvements
- Long-Term Improvements
- Improve Pedestrian Crossing
- Transit Stop
- City UGB
- City Limits



**PEDESTRIAN SYSTEM PLAN
ST. HELENS, OREGON**

- other enhanced pedestrian crossing treatments such as the Rectangular Rapid Flash Beacons and the Pedestrian Hybrid Signals.

As part of all street and intersection improvement projects in the future, the City should consider application of treatments to further enhance the comfort, convenience and safety of pedestrian crossings at intersections throughout the City.

BICYCLE SYSTEM COMPONENTS

The bicycle plan is intended to establish a network of bicycle lanes and routes that connect the city's bicycle generators and provide a safe and effective system. Although bicycle lanes should be provided along all arterials and collectors per City code, many of the arterial and collector roadways in St. Helens do not have sufficient width to accommodate bicycle lanes. Therefore, the projects recommended in the TSP represent a prioritization of the most important bicycle facility needs (some roadways will require widening, while other will only require striping). These designated facilities will provide essential connections between many of the residential neighborhoods, commercial areas, schools, and various recreational areas within the city. The recommended bicycle improvement projects are shown in Figure 7-6 and are included in the project summary tables (7-5 through 7-7). The various types of bicycle facilities included in the bicycle system plan are described below.

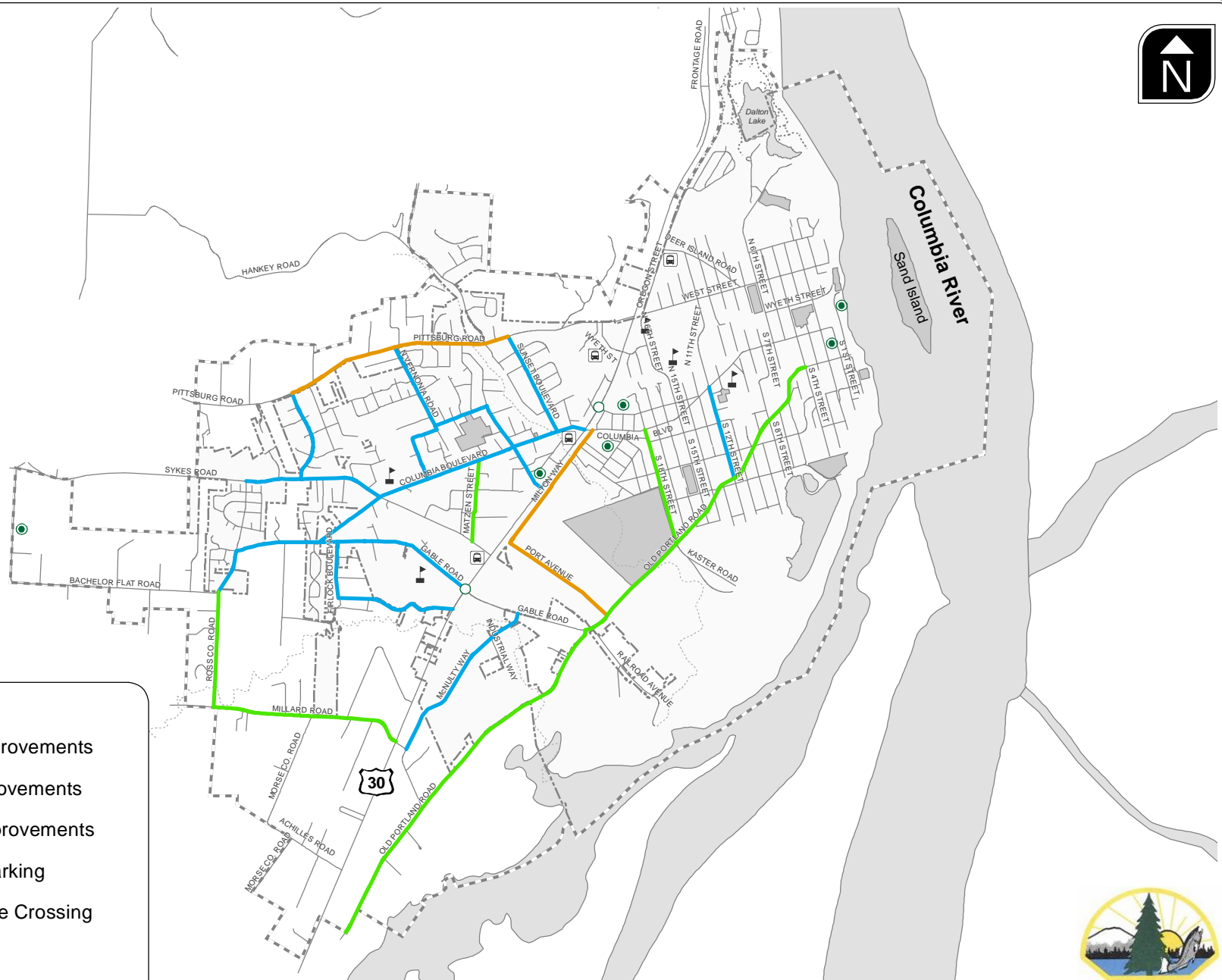
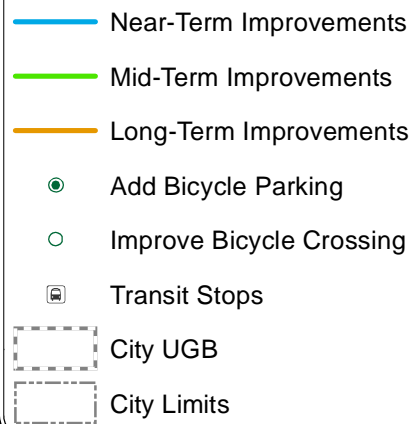
Shared Roadways and Shared-Lane Pavement Markings

Although any roadway without a dedicated bicycle facility is generally considered a shared roadway, Barr Avenue and Cherrywood Drive would benefit from shared-lane pavement markings (sharrows) to help communicate to bicyclists as well as motorists that the roadways are priority bicycle routes. Both roadways are currently designated by the City as Local streets, without any accommodations for striped bike lanes. Sharrows on these roadways can help better facilitate bicycle travel without requiring additional right-of-way.

To enhance the bicycling environment, the City should consider installing sharrows on other collector and arterial facilities commonly used by cyclists where right-of-way constraints limit the ability to add bike lanes in the future. This is a low cost solution with benefits to both motorists and cyclists.

Bicycle Lanes

A majority of the bicycle improvement projects prioritized in the TSP update involve widening City and County roadways to accommodate striped bicycle lanes. Striped bicycle lanes can improve bicycle



safety along high speed and higher volume roadways, by separating slower moving bicyclists from faster moving motorists. A comprehensive system of bicycle lanes can provide direct connections between neighborhoods, the downtown, retail and employment areas, bus stops along US 30, and the future transit center. Sunset Boulevard and Columbia Boulevard currently have sufficient width to accommodate bicycle lanes and were therefore included in the short-term recommendations. Due to limitation of future financial resources, the recommended TSP project list for mid-term and long-term includes the addition of bike lanes on only those roadways that are anticipated to facilitate the predominance of bicycle demand in the future. Any arterial or collector improvement project should include bike lanes, even if that roadway is not listed as a priority in the TSP list.

Bike Parking

Additional bicycle parking facilities are recommended in several areas throughout the city, including the commercial areas along US 30, Columbia Boulevard, and St. Helens Street, as well as the Old Town, Downtown, and Riverfront areas, and the Columbia County Fairgrounds.

Bicycle Crossings

The need for bicycle crossing improvements was identified in the existing conditions analysis at the US 30/St. Helens Street and US 30/Gable Road intersections. The recommended improvements at the US 30/St. Helens Street intersection include restriping the westbound approach to accommodate a bicycle lane between the left- and right-turn lanes. The recommended improvements at the US 30/Gable Road intersection include enhancing the existing bicycle facilities in the near-term to include pavement markings and signage that directs bicyclist's through the intersection. The existing curb ramp in the northeast corner of the intersection could also be maintained in the near-term to accommodate bicyclists who choose to dismount their bikes and use the crosswalk as a pedestrian. Long-term roadway improvements at the US 30/Gable Road intersection include provision of a separate westbound right-turn lane when needed. At that time, the westbound approach should be restriped to accommodate a bicycle lane between the thru and right-turn lanes, similar to the near-term improvements at the US 30/St. Helens Street intersection.

The city should periodically review other key intersections throughout the city to determine whether additional bicycle treatment improvements are needed to ensure the comfort and safety of cyclists.

Multi-Use Paths and Trails

The continued use of the existing multi-use paths and trails as well as the future development of new paths is recommended as part of the prioritized TSP project list. It is recommended though to replace the existing multi-use path along Old Portland Road north of Gable Road with bicycle lanes, curbs, and

sidewalks given its significant role in the pedestrian system. Further, the section of Old Portland Road south of Gable Road should be considered for a new multi-use path. Both projects would help to provide a continuous network of pedestrian facilities that connect the entire east side of the city (and all areas west of US 30 that connect to Old Portland Road) with the down town area.

Public Transportation Plan

The City of St. Helens (along with Columbia County and other impacted communities) adopted the Columbia County Community-Wide Transit System Plan (Reference 14) in 2009. The adopted plan includes transit related improvements along the US 30 corridor needed within a 10-year period. Recommended improvements to the transit stops located in St. Helens are described below.

Safeway/Rite Aid at Gable Road:

- Install an information display case on the existing shelter
- Install a new shelter, bus stop sign and information display case
- Install a sidewalk into the Safeway/Rite Aid site with five curb ramps
- Install two park-and-ride signs

Ace Hardware at Columbia Boulevard:

- Install a new bus stop sign and information display
- Install a new sidewalk on the south side of Columbia Boulevard across the railroad tracks between US 30 and Milton Way along with 12 new/reconstructed curb ramps

Columbia Commons at Pittsburg Road:

- Install information display on existing bus shelter
- Install three bollards between the bus shelter and the parking lot
- Install three new park-and-ride signs

Simpson Site at Deer Island Road (funded and under construction):

- Redevelop site to accommodate transit center including new buildings, park-and-ride lot, and frontage improvements
- Install four park-and-ride signs
- Restripe southbound left-turn lane on US 30
- Install transit signal priority along US 30

Air Service

Passenger and/or commercial air service is beyond the scale of what St. Helens can pursue independently. However, the city should remain aware of changes or opportunities to bring other air travel options to the community and should support those efforts, as they are able. In the interim, air service will continue to be accessible at the Portland International Airport, the Scappoose Industrial Airpark, and the Southwest Regional Airport in Kelso Washington.

Marine System Plan

The Columbia River provides an opportunity for surface water transportation for the City of St. Helens. The City should continue to pursue opportunities to utilize the Columbia River for both recreational and commercial activities, including provision of access to Sand Island through some form of boat shuttle service.

Rail Service

Columbia County (in conjunction with Clatsop County) conducted a study of the Lower Columbia River Rail Corridor which included several recommendations for improvements to key study intersections/rail crossings along US 30. The following summarizes the recommended improvements in St. Helens.

- Study the potential closure of the US 30/Wyeth Street intersection
- As indicated later in this section, this should be considered in conjunction with the provision of a westbound left-turn lane at the US 30/Deer Island Road intersection and a traffic signal at the US 30/Pittsburg Road intersection.
- Close pedestrian access or adjust signal timing to provide sufficient crossing time for pedestrians at the US 30/Columbia Boulevard intersection.
- Add 215 feet of southbound left-turn storage and 65 feet of northbound right-turn storage to the US 30/Columbia Boulevard intersection.
- Install a traffic signal inter-tied with the existing railroad crossing and add an at-grade pedestrian sidewalk across the railroad tracks to the US 30/Millard Road intersection.
- Install an at-grade pedestrian sidewalk across the railroad tracks and add 150 feet of southbound left-turn storage to the US 30/Deer Island Road intersection.

- Install an at-grade pedestrian sidewalk across the railroad tracks and replace the obsolete gates at the US 30/St. Helens Street intersection.
- Add 210 feet of southbound left-turn storage and an ADA compliant pedestrian/bicycle overpass at the US 30/Gable Road intersection.

Future consideration should be given to the potential for long-term passenger rail service in St. Helens. The addition of passenger rail service would increase activity along the Portland and Western Railroad which would impact operations at each of the existing rail crossings and would likely require additional pedestrian facilities for access to the service.

Pipeline and Transmission Systems Plan

The existing high pressure natural gas transmission line that runs along the Rutherford Parkway at the northern end of the city, US 30, and along Old Portland Road should be maintained and enhanced as necessary by its owner/operator (Northwest Natural Gas) to ensure adequate 20-year capacity is provided.

Implementation Plan

This section outlines specific transportation system improvement projects as well as a recommended timeline for implementation. The sequencing plan presented is not detailed to the point of a schedule identifying specific years when infrastructure should be constructed, but rather prioritizes projects to be developed within near-term (2011 to 2016), mid-term (2017 to 2021), and long-term (2022 to 2031) horizons. In this manner, implementation of identified system improvements has been staged to spread investment in the city's transportation infrastructure over the life of the plan. The City of St. Helens will need to periodically update its TSP and will review the need and timing for longer-term improvements as conditions evolve.

In addition, several potential projects have been identified for the "long-range vision." Such projects may not be feasible within the twenty-year planning horizon, for reasons of both need and resources. However, they represent a vision for an efficient transportation system in the future and they have been identified to support the preservation of improvement opportunities as future conditions may warrant them. The City of St. Helens, Columbia County, and ODOT should take the appropriate steps to prevent actions and/or development that would preclude these projects in the future.

The construction of roads, water, sewer, and electrical facilities in conjunction with local development activity should be coordinated to ensure the city develops in an orderly and efficient way.

Consequently, the planned improvements identified in the TSP should be considered in light of evolving infrastructure sequencing plans, and may need to be modified accordingly.

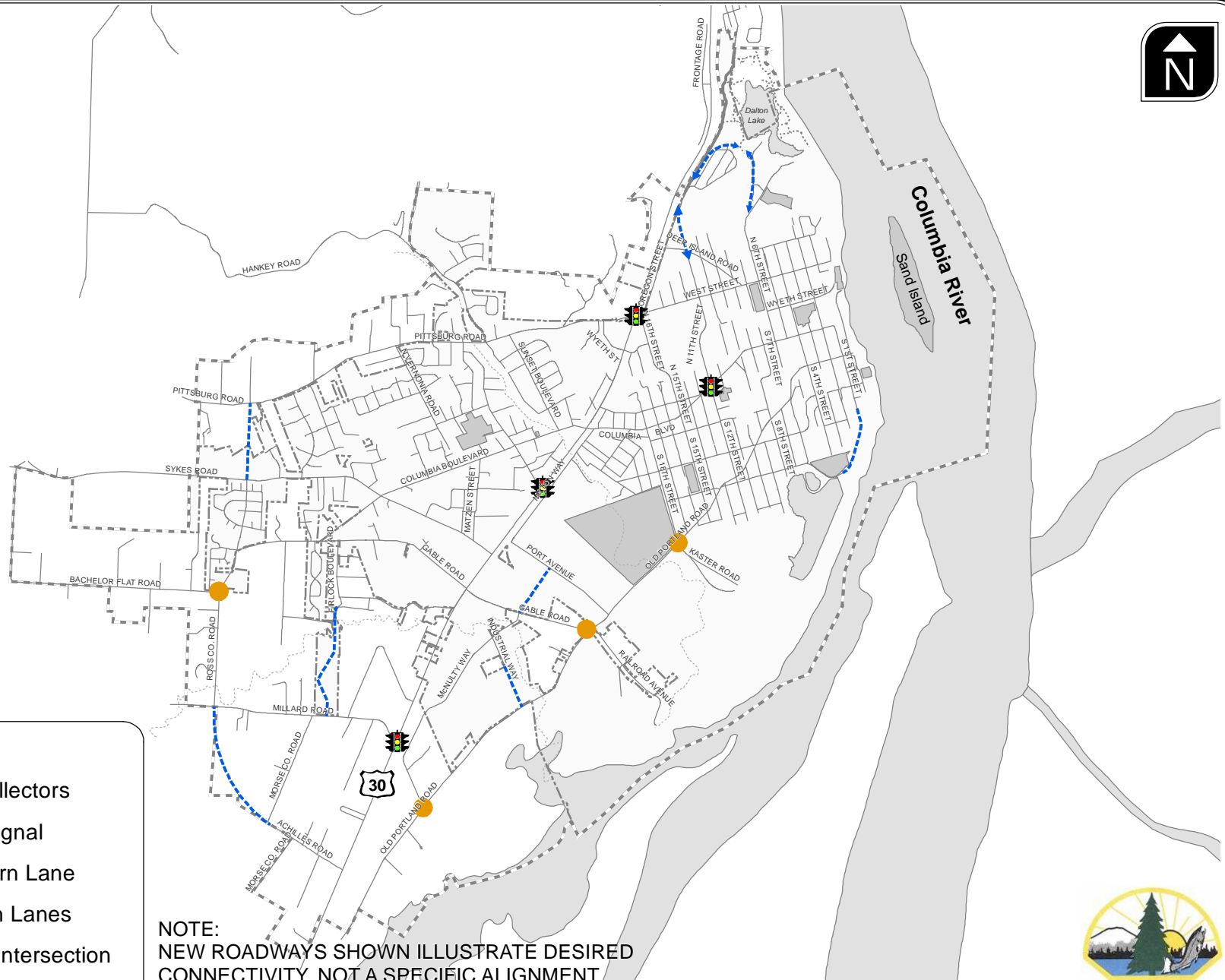
PLANNED IMPROVEMENTS

The planned improvement projects enhance rail, motor vehicle, bicycle, and pedestrian travel within and through the city. While site specific projects such as traffic signals and turn lanes have been included to improve conditions at particular locations, the plan also seeks to develop an efficient transportation network that will reduce reliance on US 30 through development of parallel facilities. New roadways or roadway extensions are planned to serve all modes. These include road segments to fill gaps in the existing street system, new roads to serve development on adjacent properties, and new arterials and collectors to create an efficient grid system of future roadways.

A prioritization of transportation improvements in the city for the near-term, mid-term, and long-term as well as for the future vision of the city are listed in Tables 7-5 through 7-7, respectively. The tables include pedestrian and bicycle improvement projects, which are depicted in Figures 7-5 and 7-6, as well as roadway improvement projects shown in Figure 7-7.

The implementation plan recognizes that only a certain amount of money will be available to fund projects. As a result, a number of lower-cost improvements with immediate benefit are shown in the near-term (2011 to 2015) time frame. The longer project timelines reflect a combination of anticipated future needs and the reality that it will take time to accumulate the required funds.

It should be recognized that the inclusion of proposed projects and actions in this plan does not obligate or imply obligations of funds by any jurisdiction for project-level planning or construction. Instead, the inclusion of proposed projects and actions serves as an opportunity for the, to be included, if appropriate, in the State Transportation Improvement Program (STIP) and the City of St. Helens Capital Improvement Program. Such inclusion is not automatic, but it is incumbent on the State, City of St. Helens, Columbia County, and the general public to take action to encourage and support inclusion of projects in the STIP or the CIP at the appropriate time. Because a project must have identified funding to be included in the STIP or CIP, the ultimate number of projects that can be included in these documents is constrained by available funding.



LEGEND

- - - - - Proposed Collectors
- Add Traffic Signal
- Add Right-Turn Lane
- Add Left-Turn Lanes
- Reconfigure Intersection
- City Limits
- City UGB

NOTE:
NEW ROADWAYS SHOWN ILLUSTRATE DESIRED
CONNECTIVITY, NOT A SPECIFIC ALIGNMENT



NEAR-TERM IMPROVEMENTS

Table 7-5 summarizes the near-term transportation improvement program for the St. Helens TSP update. This program is intended to address deficiencies in the existing transportation system that were identified as priorities during the TSP update process. As shown, the near-term improvements primarily focus on increasing the comfort, convenience, and safety of pedestrian and bicycle travel within the city. Per the existing conditions analysis, the prevalence of bicycle and pedestrian improvement projects included in the near-term program reflect the significant gaps identified in the existing networks and the opportunity to fill those gaps before significant increases in traffic volumes require vehicular capacity improvements. The projects shown in Table 7-5 are divided into roadway, bicycle, and pedestrian improvement projects and are in order by their estimated costs (least to highest). The projects shown in grey are along roadways operated and maintained by Columbia County.

TABLE 7-5: NEAR-TERM (2011 TO 2016) TRANSPORTATION IMPROVEMENT PROGRAM

Project No.	Project Location	Project Description	Estimated Cost
Roadway Improvement Projects			
N01	Ross Road/Bachelor Flat Road	Study and implement all-way stop control, if warranted ¹	\$12,000
N02	US 30/Millard Road	Regrade southwest corner to provide adequate sight distance	\$20,000
N03	18 th Street/Old Portland Road	Reconfigure intersection to stop control or upgrade signal to current standard	\$100,000
Bicycle Improvement Projects			
N04	Firlock Park Road (Gable Road to US 30)	Widen roadway and add bike lanes	\$891,000
N05	12 th Street (Columbia Blvd. to Old Portland Road)	Widen roadway and add bike lanes	\$364,000
N06	Cherrywood Drive (Vernonia Road to Columbia Blvd.)	Add sharrows	\$4,500
N07	Barr Avenue (Pittsburg Road to Sykes Road)	Add sharrows	\$5,500
N08	Sunset Blvd. (Pittsburg Road to Columbia Blvd.)	Add bike lanes	\$15,000
N09	Columbia Boulevard (Sykes Road to US 30)	Add bike lanes	30,000
N10	Sykes Road (Summit View Drive to Columbia Blvd.)	Widen roadway and add bike lanes	\$643,000
N11	Bachelor Flat Road (Ross Road to Columbia Blvd.)	Widen roadway and add bike lanes	\$461,000
N12	Columbia Blvd. (Gable Road to Sykes Road)	Widen roadway and add bike lanes	\$304,000
N13	Gable Road (Bachelor Flat to US 30)	Widen roadway and add bike lanes	\$502,000
N14	Vernonia Road (Pittsburg Road to US 30)	Widen roadway and add bike lanes	\$482,000
N15	McNulty Way (Millard Road to Gable Road)	Widen roadway and add bike lanes	\$337,000
N16	US 30/St. Helens Street	Reconfigure bike lane striping across right turn lane	\$5,000
N17	US 30/Gable Road	Enhance existing bicycle facilities with pavement markings and signage	\$5,000
Pedestrian Improvement Projects			
N18	Firlock Park Road (Gable Road to US 30)	Add curbs and sidewalks	\$1,103,000
N19	12 th Street (Columbia Blvd. to Old Portland Road)	Add curbs and sidewalks	\$580,000
N20	16 th Street (West Street to Middle School Driveway)	Add curbs and sidewalks	\$266,000
N21	Sunset Blvd. (Pittsburg Road to Columbia Blvd.)	Add curbs and sidewalks	\$668,000
N22	Columbia Blvd. (Sykes Road to US 30)	Add curbs and sidewalks	\$1,353,000
N23	Sykes Road (Summit View Drive to Columbia Blvd.)	Add curbs and sidewalks	\$805,000
N24	Sykes Road (Columbia Blvd. to US 30)	Add curbs and sidewalks	\$190,000
N25	Bachelor Flat Road (Ross Road to Columbia Blvd.)	Add curbs and sidewalks	\$804,000
N26	Columbia Blvd. (Gable Road to Sykes Road)	Add curbs and sidewalks	\$400,000
N27	Gable Road (Bachelor Flat to US 30)	Add curbs and sidewalks	\$995,000
N28	Vernonia Road (Pittsburg Road to US 30)	Add curbs and sidewalks	\$1,319,000
N29	McNulty Way (Millard Road to Gable Road)	Add curbs and sidewalks	\$749,000
N30	Columbia Blvd./Sykes Road	Install 2 striped crosswalks and 6 new ADA ramps	\$19,000
N31	18 th Street/Old Portland Road	Install 2 striped crosswalks and new 6 ADA ramps	\$19,000
-Continued on the next page -			

Project No.	Project Location	Project Description	Estimated Cost
<i>-Continued from the previous page -</i>			
N32	Columbia Blvd./St. Helens Couplet	Install curb extensions (4 locations)	\$106,000
N33	Columbia Blvd. Couplet to 2 nd Street	Install curb extensions and island refuges (8 locations)	\$200,000
N34	Columbia Blvd./1 st Street	Install 1 striped crosswalk and 3 new ADA ramps	\$10,000
N35	St. Helens Street	Install curb extensions (4 locations)	\$106,000
N36	US 30 Corridor	Install Pedestrian Countdown Heads (5 Locations)	\$15,000
Total Near-Term Estimated Costs			\$13,888,000

¹ The study should evaluate the potential to reopen the Nobel Street connection to Bachelor Flat Road.

In addition to the projects shown in Table 7-5, the City/ODOT should complete a corridor master plan for US 30 through St. Helens. The master plan should consider streetscape options and gateway treatments that incorporate the St. Helens Arts & Cultural commission recommendations to make city more inviting and attractive by creating “Gateways.” The City should also complete a corridor master plan for Columbia Boulevard/St. Helens Street (east of US 30) that examines in more detail lane widths, sidewalks, landscaping, lighting, pedestrian and bicycle amenities, street furniture, guide/way finding signs, etc. Many of these types of treatments are addressed in “Creating Livable Streets: Street Design Guidelines for 2040” (Reference 15) and “Green Street: Innovative Solutions for Stormwater & Stream Crossing” (Reference 16).

Mid-Term Improvements

Table 7-6 summarizes the mid-term transportation improvement program for the St. Helens TSP update. This program includes a mixture of connectivity improvements for pedestrians, cyclists and motorists as well as capacity-based projects along US 30 and on the city’s arterial and collector street network. The projects shown in grey are along roadways operated and maintained by Columbia County (only a portion of Old Portland Road from Millard Road to Gable Road is under the County’s jurisdiction).

The timing of construction of the capacity-based projects shown in Table 7-6 is an important consideration given that changes made in one location may result in a change in traffic volumes, patterns and/or operations at another. For example, the installation of a traffic signal at the US 30/Millard Road intersection should be accompanied by improvements along Millard Road and Ross Road as well as the reconfiguration of the Ross Road/Bachelor Flat road intersection (to accommodate

the anticipated increase in traffic volumes along those roadways) and the Millard Road/Old Portland Road (to better accommodate truck turns)¹².

TABLE 7-6 MID-TERM (2017 TO 2021) TRANSPORTATION IMPROVEMENT PROGRAM

Project No.	Project Location	Project Description	Estimated Cost
Roadway Improvement Projects			
M01 ¹	US 30/Deer Island Road	Install westbound right-turn lane	\$485,000
M02 ^{1,2}	US 30/Millard Road Intersection	Install traffic signal and reconfigure the McNulty Way/Millard Road intersection to accommodate heavy truck turning movements	\$1,000,000
M03	Columbia Boulevard/Sykes Road	Install left-turn lanes on Columbia Boulevard	\$368,000
M04	Ross Road/Bachelor Flat Road	Reconfigure intersection to emphasize the northbound-through movement	\$769,000
M05	Old Portland Road/Millard Road	Widen intersection to accommodate heavy truck turning movements	\$60,000
M06	Millard Road	Reconstruct roadway to City street standards	\$2,892,000
M07	Ross Road	Reconstruct roadway to City street standards	\$1,617,000
Bicycle Improvement Projects			
M08	18 th Street (Columbia Blvd. to Old Portland Road)	Widen roadway and add bike lanes	\$242,000
M09	Matzen Street (Columbia Blvd. to Sykes Road)	Widen roadway and add bike lanes	\$51,000
M10	Old Portland Road (Gable Road to St. Helens Street)	Widen roadway and add bike lanes	\$1,048,000
M11	Old Portland Road (Millard Road to Gable Road)	Add 10-foot Multi-Use Path on east side of roadway	\$872,000
M12	Old Portland Road (City Limits to Millard Road)	Add 10-foot Multi-Use Path on east side of roadway	\$517,000
Pedestrian Improvement Projects			
M13	18 th Street (Columbia Blvd. to Old Portland Road)	Add curbs and sidewalks	\$638,000
M14	Matzen Street (Columbia Blvd. to Sykes Road)	Add curbs and sidewalks	\$94,000
M15	Old Portland Road (Gable Road to St. Helens Street)	Widen roadway and add bike lanes	\$2,199,000
Total Mid-Term Estimated Costs			\$12,852,000

¹Project will require coordination/approval by ODOT and ODOT Rail Division. Engineering studies, traffic analysis, and conformance with ODOT standards will be evaluated as projects are developed.

²Project must meet traffic signal warrants and receive approval from State Traffic Engineer. Engineering studies, signal warrant and traffic analysis, and conformance with ODOT standards will be evaluated as projects are developed.

In addition to the projects shown in Table 7-6, the eastbound and westbound left-turn movements at the US 30/Wyeth Street intersection will likely need to be restricted as traffic volumes along US 30

¹² Before a signal can be installed on the State system, OAR 734-020-0440 requires a traffic engineering investigation that shows how traffic signal warrants and highway design and spacing standards are met with the proposed signal and how the proposed signal would improve the overall safety and operation of the intersection. A progression analysis would be required as per OAR 734-020-0470 for signals that will not meet the one half mile minimum spacing standard for traffic signals on State highways. Signals may not be installed until signal warrants are satisfied and the installation request and design has been approved by the State Traffic Engineer (OAR 734-020-0410).

increase. The provision of a westbound right-turn lane at the US 30/Deer Island Road intersection and the long-term provision of a traffic signal at the US 30/Pittsburg road intersection should accommodate the impact of these restrictions as well as the long-term goal of complete closure as described below.

Long-Term Improvements

Table 7-7 summarizes the long-term transportation improvement program. This program is intended to address anticipated multimodal deficiencies in the transportation system that are unlikely to be funded in the next ten years. This program also includes improvements that may be constructed with future developments. The projects shown in grey are along roadways operated and maintained by Columbia County.

In addition to the projects included in Table 7-7, the US 30/Wyeth Street intersection should be closed per recommendations in the Lower Columbia River Rail Corridor study (LCRRC).

As shown in Table 7-7, provision of a southern overpass was included as part of the long-term transportation improvement program despite its significant impact to the total long-term estimated costs. Additional information related to the southern overpass is included in Section 6 of the TSP as well as below.

TABLE 7-7 LONG-TERM (2022 TO 2031) TRANSPORTATION IMPROVEMENT PROGRAM

Project No.	Project Location	Project Description	Estimated Cost
Roadway Improvement Projects			
L01 ¹	US 30/Gable Road	Install westbound right-turn lane	\$485,000
L02 ²	US 30/Pittsburg Road	Install traffic signal	\$400,000
L03 ²	US 30/Vernonia Road	Install traffic signal	\$400,000
L04	12 th Street/Columbia Blvd.	Install traffic signal or roundabout	\$250,000
L05	Old Portland Road/Gable Road	Realign intersection to emphasize northbound movement	\$2,785,000
L06	Summit View Drive Extension	Install roadway, curbs, and sidewalks	\$1,656,000
L07	Achilles Road Extension	Install roadway, curbs, and sidewalks	\$2,952,000
L08	Industrial Way Extension	Install roadway, curbs, and sidewalks	\$1,000,000
L09	Plymouth to 1 st Street Extension	Install roadway, curbs, and sidewalks	\$1,505,000
L10	Firlock Park Extension	Install roadway, curbs, and sidewalks	\$2,260,000
L11	Milton Way Extension	Install roadway, curbs, and sidewalks	1,767,000
L12	US 30/Millard Road	Install partial interchange	\$15,000,000
Bicycle Improvement Projects			
L13	Pittsburg Road (Barr Road to Vernonia Road)	Widen roadway and add bike lanes	\$562,000
L14	Pittsburg Road (Vernonia Road to Sunset Blvd.)	Widen roadway and add bike lanes	\$242,000
L15	Port Avenue (Milton Way to Old Portland Road)	Widen roadway and add bike lanes	\$340,000
L16	Milton Way (Port Avenue to Columbia Blvd.)	Widen roadway and add bike lanes	\$709,000
Pedestrian Improvement Projects			
L17	Pittsburg Road (Barr Road to Vernonia Road)	Add curbs and sidewalks	\$680,000
L18	Pittsburg Road (Vernonia Road to Sunset Blvd.)	Add curbs and sidewalks	\$402,000
L19	Port Avenue (Milton Way to Old Portland Road)	Add curbs and sidewalks	\$453,000
L20	Milton Way (Port Avenue to Columbia Blvd.)	Add curbs and sidewalks	\$756,000
L21	Oregon Street (West Street to Rutherford Parkway)	Add curbs and sidewalks	\$841,000
L22	Deer Island Road (US 30 to West Street)	Add curbs and sidewalks	\$591,000
Total Long-Term Estimated Costs			\$36,036,000

¹Project will require coordination/approval by ODOT and ODOT Rail Division. Engineering studies, traffic analysis, and conformance with ODOT standards will be evaluated as projects are developed.

²Project must meet traffic signal warrants and receive approval from State Traffic Engineer. Engineering studies, signal warrant and traffic analysis, and conformance with ODOT standards will be evaluated as projects are developed. Projects may also require approval for a deviation to the access spacing standards for a traffic signal along US 30.

Long-Term Vision

The long-term vision for the City's transportation system involves completion of a safe and efficient multimodal transportation system that can accommodate all travel modes along all major roadways.

The plan also anticipates an off-street multi-use path and trail system that is integrated with the existing trail and street system throughout the city.

The projects shown in Table 7-5, 7-6, and 7-7 make significant progress toward providing a balanced multimodal transportation system within the city, and also provide for much of the vehicular capacity that will likely be needed within the 20-year planning horizon. Notwithstanding these improvements, it is recommended that the completion of at least one overpass of US 30 within the city limits be included in the city's long-term vision. As indicated in Section 6, provision of an overpass at the northern end of the city near the US 30/Pittsburg Road intersection or at the southern end of the city near the US 30/Millard Road intersection can be considered.

The concept of a northern overpass was included in the previous TSP effort as well as other City and regional planning documents. Conceptually the facility is attractive because it could connect Pittsburg Road west of US 30 and West Road east of US 30 while crossing over both US 30 and the PNWR rail line. The northern overpass would provide significant improvements in traffic operations near the north end of the city while providing access to local school and commercial activities for local residents.

While the northern overpass concept is attractive, more traffic, including heavy truck traffic, enters and exits the city from the south. Provision of the southern overpass, and the resultant re-routing of local traffic off of US 30 as it enters the city, improves operations all along the US 30 corridor.

Ultimately, the concept of a southern overpass near the US 30/Millard Road intersection was identified as a higher-priority alternative and included in the long-term transportation improvement program based on the benefits provided, including:

- Improved vehicular access and circulation to the residential areas east and west of US 30.
- Improved truck circulation to the industrial area east of US 30 assuming trucks would access US 30 at the overpass (reducing the potential for rail/truck interaction).
- Improved access and circulation for emergency response vehicles to areas both east and west of US 30.

While it is unlikely that an overpass will be constructed in the next 20 years, the City of St. Helens and ODOT should take appropriate steps to further conceptual planning for a southern overpass.