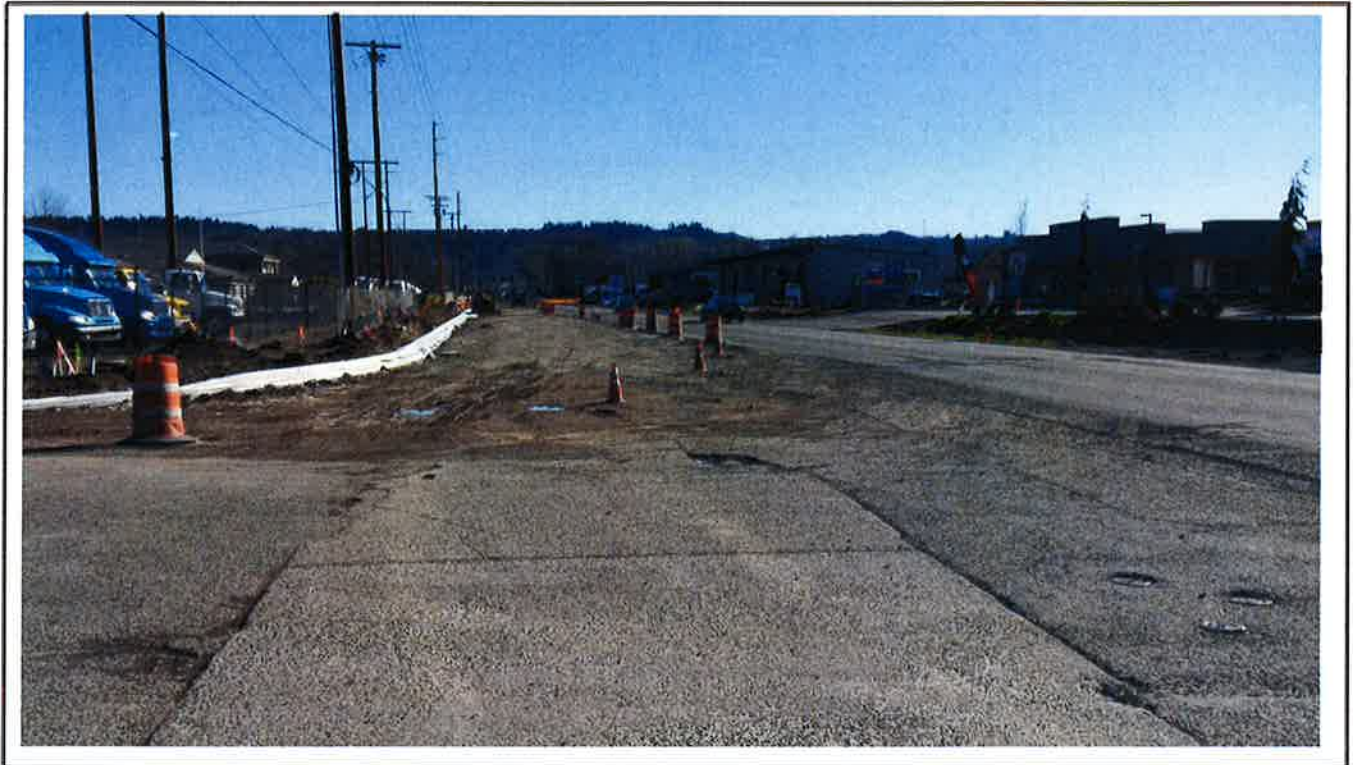


CHAPTER 8

TRANSPORTATION



1. INTRODUCTION

1.1 Framework Goal

The framework goal of the Transportation Element of the Comprehensive Plan is to:

Provide an efficient and safe multi-modal transportation network for residents, employees, businesses, and visitors while maintaining a small town quality of life.

The Transportation element specifically considers the operations and condition of the existing transportation network; the cause, scope, and nature of transportation problems based on the adopted Land Use Plan; projected transportation needs; and a funding an implementation plan to ensure that the City's adopted level of service (LOS) is maintained.

This element contains updates and revisions to the 1995 Comprehensive Plan and a subsequent Amendments. Those included policies for the City to coordinate with county and regional transit agencies to provide better service to Pacific residents and link Pacific to the nearby multi-modal transit stations.

The City of Pacific is located in King County and Pierce County, therefore its Transportation element has been developed in accordance with both King and Pierce County Countywide Planning Policies. It has been integrated with all other planning elements to ensure consistency throughout the Comprehensive Plan.

The Transportation element has also been developed in accordance with Section 36.70A.070 of the Growth Management Act (GMA), to address the motorized and non-motorized transportation needs of the City of Pacific. It represents the community's policy plan for the next 20 years.

Growth Management Act Requirements

The Growth Management Act (GMA) provides a framework for addressing land/use transportation linkages and a mechanism for assessing the impacts of planned growth. Although the GMA has very specific requirements, flexibility is written into the law so that each city can tailor its plan to its unique long range community vision and goals. The GMA requires development of a transportation element within the City's Comprehensive Plan that contains these basic components:

- Inventory of transportation facilities and services, including roadways, transit, ferries, non-motorized and freight;
- Existing conditions of roadway links
- Future Conditions and needs assessment for 2035
- Goals and Policies
- RCW 47.06.140 Compliance
- Funding strategies for concurrency

Concurrency

This element contains the City of Pacific's plan to provide specified levels of transportation service in a timely manner. The Level of Service (LOS) standards that are adopted in this plan will be maintained through upkeep of the existing circulation system and expansion of transportation services where needed.

The City has adopted a roadway link and intersection LOS standard of D (with exceptions noted in the plan). As specified by the GMA, new developments will be prohibited unless transportation improvements or strategies to accommodate the impacts of development are in compliance with concurrency. Improvements will be in place at time of development, or financially planned for within six years of development use. Concurrency will be applied in accordance with State statutes and the resources available to the City of Pacific.

Major Transportation Considerations and Goals

Because transportation and land use are inter-related, and each has the ability to have a profound impact on the other, it is important to consider type and availability of transportation resources in the development of land use patterns. **The City's Comprehensive Plan reflects this mutual dependency** and need for coordination.

The City's Vision for coordinated land use and transportation system includes:

- Environmental stewardship of critical areas, including conservation of land, air, water, and energy resources.
- Planning practices that promote livability, pedestrian and non-motorized transportation, and reduces air and noise pollution and traffic congestion.
- Citizen participation in planning the future of the community.
- Support the local economy by providing a predictable development atmosphere, encouraging diversity in the range of goods and services, and ensuring that employment opportunities are balanced with a range of housing and commercial opportunities.
- Increase opportunities for enjoyment of recreational and cultural activities, providing a range of activities for all ages and users.

2. GOALS AND POLICIES

The following transportation goals and policies are considered essential for meeting the quality of life as outlined **in the City's long range Vision Statement. The policies specify what** should be accomplished to reach the goals. These policies are intended to provide clear guidance for decision making. Accomplishments under these policies can be used to measure progress toward the goals.

REGULATORY CONSIDERATIONS

GOAL T-1: Provide an efficient and safe multimodal transportation system to improve mobility for residents, employees, and visitors of Pacific while maintaining the small town quality of life and supporting the economic vitality of the City.

POLICIES

Policy T-1.1: The City will plan for a safe, convenient and efficient transportation network for all residents and visitors of Pacific. This system should be compatible with neighboring cities, King and Pierce counties, Washington State, and other transportation providers.

Discussion: Private vehicles are the most common mode of travel throughout the region. It is anticipated that the majority of vehicle trips within Pacific will continue to be private vehicles. It is necessary that this system be coordinated with neighboring communities, the counties and state to provide a consistent blended transportation network.

Policy T-1.2: Work with other jurisdictions to plan, fund, and implement multi-jurisdictional projects necessary to meet shared transportation needs (including right-of-way preservation and purchase).

Discussion: State Highways and arterials are part of the regional transportation network. They not only impact the citizens of Pacific, but the stakeholders of adjacent jurisdictions and the region. Coordination of planning and funding with other agencies is essential to complete projects cost-effectively.

Policy T-1.3: Except as provided in Policy T-1.11, Pacific will adopt a level of service (LOS) of “D” for all streets.

The term "below the level of service standard" shall apply to situations where traffic attributed to a development results in either of the following:

- a. An unacceptable increase in hazard or safety on a roadway.
- b. An increase in congestion which constitutes an unacceptable adverse environmental impact under the State Environmental Policy Act.

Discussion: It is not practical or economically feasible to eliminate all transportation delays. Therefore, a LOS of ‘D’ has been established for all streets. New development projects will be required to perform a traffic impact analysis (TIA) to determine if there will be an adverse impact on the current level of service.

Policy T-1.4: Further consider transportation level of service standards for potential inclusion of pedestrian, non-motorized, and other multimodal options.

Discussion: The Growth Management Act requires level-of-service standards for all locally owned arterials and transit routes, and the multicounty planning policies (MPPs) call for other modes, such as biking and walking, to be addressed as well (MPP-DP-54-56). While there are many challenges involved in implementing multimodal level-of-service standards and concurrency, adoption of levels of service and a concurrency approach that includes multiple modes would strengthen and reinforce the many plan policies that support walking, biking and transit.

Policy T-1.5: The City street system is made up of three functional classes:

- a. Arterials - a system of City, state, and county streets designed to move traffic from or to one area within the local area to or from another area. These streets should be adequate in number, appropriately situated, and designed to accommodate moderate to high traffic volumes with a minimum of disruption in the flow.

- b. Collector Streets - a system of the intra-county or City roads linking residential neighborhoods to the urban street system.
- c. Local Streets - a system of City streets which collect traffic from individual sites and carry the traffic to the arterial system.

Discussion: Street classifications are determined at the regional and local level. The regional classifications determine the availability of potential project funding on those roadways. The local classification identifies local **limitations on roadway usage to reduce "wear and tear"**.

Policy T-1.6: Limit and provide access to the street network in a manner consistent with the function and purpose of each roadway classification.

Discussion: The City will seek consolidation of access points to state highways, arterials, and major collectors. This will complement the highway and arterial system, reduce interference with traffic flows on arterials, and discourage through traffic on local streets.

To achieve this level of access control, the City:

- Supports the State's controlled access policy on all state highway facilities;
 - May acquire access rights along some arterials and major collectors;
 - Encourages and may require landowners to work together to prepare comprehensive access plans that emphasizes internal circulation and discourage multiple access points to major roadways;
 - Encourages consolidation of access in developing commercial and high density residential areas through shared use of driveways and local access streets.
-

Policy T-1.7: Require dedication of roadway rights-of-way for new development consistent with the appropriate functional classification, adopted road standards, and the Comprehensive Plan.

Discussion: New development will result in additional traffic on City streets. Private development will be required to prepare a traffic impact analysis to determine the impact on the current level of service. Projects impacting the level of service will be required to mitigate those impacts.

Policy T-1.8: Design new residential streets to discourage cut-through traffic while maintaining the connectivity of the transportation system.

Discussion: Residential streets often have increased number of pedestrians. Measures to reduce speed and to limit cut-through traffic to increase safety will be implemented in compliance with the Manual of Uniform Traffic Control Devices (MUTCD) as determined during the planning phase of the project.

Policy T-1.9:

The City adopts the following policies on driveway access:

- Driveway accesses onto designated arterials and collectors shall be minimized.
- Wherever a development fronts on two or more streets, access shall be limited to the lowest-designated street.
- No subdivision of land shall be permitted which creates a new lot fronting on an arterial or collector street without establishment of cross easements for access and egress, and
- No such subdivision shall increase the total number of access points onto Pacific's arterial or collector streets.

Discussion: Arterial and collector streets frequently have a higher volume of traffic and occasionally increased speeds. Minimizing ingress/egress points on higher volume and higher speed roadways will maintain a higher level of service and reduce potential accidents.

Policy T-1.10: Efficient movement of existing pass-through traffic should be accomplished through traffic light synchronization, speed reduction, access management, channelization improvements, and multimodal design features; and with a minimum of disruption to the local community.

Discussion: There are two pass-through east-west corridors in Pacific: Ellingson Road and Stewart Road. Ellingson Road connects SR 167 to Pacific, Algona, Auburn, and portion of unincorporated King and Pierce Counties. This corridor currently has seven traffic lights and one railroad crossing under the control of five jurisdictions. Stewart Road currently has five lights, proposed to increase to eight lights, and one railroad crossing under the control of five jurisdictions. The traffic flows westerly in the morning and easterly in the evening. Synchronized signals in these corridors will help to prevent a decrease in the level of service as the development in the rural areas increases.

Policy T-1.11: West Valley Highway from Ellingson Road south to Stewart Road will be maintained at a “Level of Service” (LOS) “F” until additional improvements (such as HOV lanes or “hot lanes”) are completed by the State on State Route 167 to address re-occurring congestion.

In addition, Stewart Road will be maintained at LOS “E” due to recent widening of the roadway and lack of available right-of-way for future widening.

Discussion: The West Valley Highway runs parallel to State Route 167 (SR 167). Southbound traffic back-ups due to heavy traffic on SR 167 typically begins around 2:30pm and lasts to about 6:30/7:00pm. Being parallel to SR 167, the West Valley Highway suffers from heavy spill-over traffic from SR 167 that is avoiding back-ups on SR 167. This is one of the major reasons that lowers the projected LOS on West Valley Highway to LOS “F”.

Extending the HOV or “hot lanes” south on SR 167 to Stewart Road (8th Street E.) is currently under construction (as part of a design/build process) with the State Department of Transportation (WSDOT). **Once the HOV/“Hot Lanes” are extended, the City can re-examine raising the LOS on West Valley Highway to a higher LOS designation.**

Stewart Road is a main east-west roadway and experiences some of the highest traffic volumes in the City. The roadway has been widened between SR 167 and Valentine Avenue, with plans to continue widening to Butte Avenue and beyond the City limits. Due to the high volumes, the recent widening of the roadway to five lanes, and that there is a lack of right-of-way for additional widening, **the LOS standard was lowered to LOS “E”.**

PEDESTRIAN MOBILITY

GOAL T 2: Ensure adequate accommodation of pedestrian needs in all transportation policies and facilities.

POLICIES

Policy T-2.1: Sidewalks, trails, and other walking facilities should be extended throughout the City to allow more convenient and efficient pedestrian movement.

Discussion: The City is committed to providing alternative methods of transportation for pedestrians. Priority should be given to sidewalks leading to schools.

Policy T-2.2: Where appropriate, the City will install new sidewalks in pedestrian corridors considered by the City to be high priority [i.e., parks and areas used by elderly or handicapped persons] within two years of identification, as funds allow.

Discussion: A planned and prioritized pedestrian network provides direction to staff when seeking funds for new projects. End use generators must be identified. Coordination with school transportation is also important to provide safe facilities for students.

Policy T-2.3: Whenever the City contemplates reconstruction or major maintenance (including resurfacing) work on a City street that is without sidewalks, it should fully explore the possibility of adding sidewalks at the time of the street improvement.

Discussion: State and Federal funding programs require evaluation of pedestrian needs for most roadway improvement projects. Most programs require that existing pedestrian facilities be reviewed and evaluated for conformance with current accessibility requirements.

Policy T-2.4 Pedestrian access to the transit system in all land use areas, including residential, commercial and industrial, should be ensured by providing convenient and attractive walkways to transit stops. Fences, walls, and development patterns that inhibit pedestrian access to transit stops are discouraged.

Discussion: The current transit system is very limited. However, transit systems expand and contract with available funding. All arterials should provide sidewalks. Bicycle facilities should be evaluated based on alternative corridors and the proposed vehicle allocation. Pedestrian route of travel shall be evaluated for each new project to assure safe ingress/egress.

Policy T-2.5: The City should encourage consideration of the needs of pedestrians in all public and private development.

Discussion: Development should be evaluated to determine the level of pedestrians potentially generated by a project and the likely route of travel. The project may be required to provide adequate facilities to provide a safe course of travel.

Policy T-2.6: The City should ensure safe and comfortable pedestrian connectivity to transit stops in major employment areas.

Discussion: Safe and comfortable pedestrian connectivity helps to encourage increased transit use. The provision of sidewalks with planter strips between the curb and sidewalk provides a greater separation of pedestrian and vehicular traffic. This in turn provides a heightened sense of safety for pedestrians.

FREIGHT MOBILITY

GOAL T-3: Develop a transportation system that enhances the delivery and transport of goods and services. Improve existing, and construct new facilities for freight movement within the Sumner-Pacific MIC.

POLICIES

Policy T-3.1: Facilitate the movement of freight and goods through Pacific with minimal adverse traffic and environmental impact.

Discussion: The City should develop viable, established truck routes connecting to highway systems, thereby minimizing the impacts to established residential and commercial areas. These routes should be designed to provide sidewalks and roadways to serve the needs of freight while minimizing potential conflicts between trucks and pedestrians.

Policy T-3.2: Enforce regulations so that, outside of designated routes, trucks do not utilize City streets, except for local deliveries and services.

Discussion: Roadway designs are based on vehicle capacity, anticipated weight load, trip generators, etc. Each road is designed to be cost effective. A road that is anticipated to accommodate large vehicles is designed to a higher standard than a road used primarily for passenger vehicles. Therefore, to preserve the transportation system, some roads permit truck traffic and others do not.

Policy T-3.3: Projects which enhance freight and goods movements which benefit largely State, Federal, or national needs should be constructed to minimize the impact on the City's local transportation system. The primary beneficiaries of such projects, not the City of Pacific, should fund these projects and their mitigation.

Discussion: Development that will generate large vehicle traffic will need to provide a clear route for ingress/egress of the vehicles to their respective development without utilizing elements of the road system not intended for their use.

Policy T-3.4: The City shall continue to work with the Freight Mobility Roundtable, Fast, and other regional groups to address regional needs mitigate local impacts, and support freight mobility in the Sumner-Pacific MIC and other designated areas.

Discussion: Importing and exporting is a large portion of the State's economy. This requires warehousing of goods for redistribution throughout the country. Freight mobility is a critical element for Washington ports to compete with other west coast ports.

Policy T-3.5: Identify and address areas within the Sumner-Pacific MIC (Manufacturing Industrial Center) where efficient truck access and circulation are hindered by infrastructure gaps and inadequate design. Ensure future transportation improvements address the needs of large trucks, including intersection turning radii, driveway design and street weight load capacity.

Discussion: The Cities of Pacific and Sumner are working in a cooperative effort to reduce obstacles to freight mobility in the Sumner Pacific MIC (Manufacturing Industrial Center). This includes the current work on Stewart Road and Valentine Avenue. The final hurdle is the White River Bridge and the final segment of Stewart Road to the bridge. These projects are in the planning phase at this time.

Policy T-3.6: Promote public-private partnerships to address the need for improved parking, staging and related services for large trucks in or adjacent to the MIC.

Discussion: Private business may have a better understanding of the need regarding the staging of large trucks within the MIC. This is often due to the economic consideration business need to consider in staging areas and services for large trucks.

PARKING –LAND USE

GOAL T4: Develop guidelines that ensure adequate parking supply.

POLICIES

Policy T-4.1 Ensure the new development provides adequate off-street parking for its operations.

Discussion: Sufficient off-street automobile parking reduces transportation conflicts on streets and supports pedestrian and bicycle uses. The City should require parking to be designed for average need, not full capacity. The current Pacific Municipal Code (PMC) contains formulas for calculating parking requirements. The adopted formulas should be periodically checked to with other municipalities to ensure consistent requirements.

Policy T-4.2: Develop off-street parking that is compatible with abutting uses and supports a pedestrian- oriented streetscape.

Discussion: Pedestrian circulation throughout parking lots should be given careful consideration to minimize impacts between pedestrian traffic and vehicular traffic in parking lots.

Policy T-4.3: Encourage shared parking or parking structures.

Discussion: Generators of parking demand are often out of phase with each other: businesses operate on an 8 to 5 schedule generate demand during the week and dining establishments and houses of worship often have demand in the evening or on the weekends. If some of these facilities are adjacent to each other, parking can be shared.

ENVIRONMENTAL IMPACTS

GOAL T5: Minimize the environmental impacts of all new road construction and road improvements.

POLICIES

Policy T-5.1: The City shall consider the impact of road construction on the environment and natural resources (particularly on sensitive areas, wildlife habitats, and water quality) as part of its environmental review process.

Discussion: Most transportation funding is provided by either State or Federal agencies. A critical element of all projects is an environmental evaluation. Environmental impacts will be reduced to the extent feasible and where it is not feasible, the impacts will be mitigated elsewhere.

Policy T-5.2: Design transportation facilities within the Pacific Urban Growth Area to minimize adverse environmental impacts resulting from both their construction and operation.

Discussion: Most transportation funding is provided by either State or Federal agencies. A critical element of all projects is an environmental evaluation. Environmental impacts will be mitigated to the extent feasible. In some cases, the use of “low impact development” (LID) techniques should be considered.

Policy T-5.3: The City of Pacific will:

- Consider environmental costs of development and operation of the transportation system;
- Align and locate transportation facilities away from environmentally sensitive areas;
- Mitigate unavoidable environmental impacts wherever possible; and
- Solicit and incorporate the concerns and comments of interested parties.

Discussion: Where possible, transportation facilities should be located around sensitive areas. This provides the benefit of avoiding impacts to sensitive areas and the added costs (mitigation) to construct facilities that may impact sensitive areas.

Policy T-5.4: Storm water runoff from roads is a major cause of water quality degradation. All new road construction will employ the best management practices available to promote water quality compliance consistent with the adopted storm water management manuals.

Discussion: The Federal and State requirements for storm drainage require development of new facilities for roadway reconstruction and new roads. Therefore, any new roadway or reconstructed roadway will develop new stormwater facilities meeting State water quality and flow control requirements. Road resurfacing is exempt from this requirement.

AIR QUALITY

GOAL T6: The City will coordinate transportation planning with air quality guidelines published by the Puget Sound Regional Council.

POLICIES

Policy T-6.1: Support efforts to improve air quality throughout the Pacific area and develop a transportation system compatible with the goals of the Federal and State clean air acts.

Discussion: Most transportation funding is provided by either State or Federal agencies. A critical element of all projects is an environmental evaluation. Environmental impacts will be reduced to the extent feasible and where it is not feasible, the impacts will be mitigated elsewhere. Additionally, air quality receives the greatest impact from idling vehicles. The City has developed a LOS of D to reduce the number of idling vehicles.

Policy T-6.2: Coordinate with King County Metro, Pierce Transit, and other jurisdictions on Commute Trip Reduction (CTR) programs for major employers in Pacific and its UGA.

Discussion: New road projects will coordinate with the long term plans of the public transportation agencies, to provide pedestrian and transit facilities as required for future projects.

Policy T-6.3: Consider studies of impacts to air quality generated by traffic from new major developments.

Discussion: Depending on the type of development, traffic impacts are generated at a higher level. In these cases, the impacts to air quality should be considered as part of any environmental review.

Policy T-6.4: Promote other Transportation Demand Management (TDM) Programs.

Discussion: Besides roadway capacity improvements, implementation of technologies and other transportation demand management tools can also improve system performance and reduce vehicle-miles-traveled.

Policy T-6.5: Work with the private and other public sectors to introduce cleaner burning fuels for the existing motorized fleet, and vehicles powered by alternate fuel sources.

Discussion: The City has developed and annually reviews the fleet needs of various departments. A review of budget impacts on alternative fuel vehicles is incorporated into the decision making process.

Policy T-6.6: Promote non-motorized transportation modes.

Discussion: The City has developed a series of sidewalks and trails. A long term plan to complete the network should be developed.

TRANSIT

GOAL T7: Support improved transit coverage and service throughout the region to improve mobility options for Pacific.

POLICIES

Policy T-7.1: Coordinate with county and regional transit agencies to provide improved service to Pacific residents by providing routes, schedules, and ancillary facilities such as park & ride lots.

Discussion: Public transportation funding is often one of the first budget items to be cut. A valuation of the public transportation benefits needs to be conducted to educate the stakeholders of all costs associated with public transportation funds: reduced congestion; cost per rider mile; parking impacts; etc.

Policy T-7.2: Provide for a Park and Ride location in Pacific along SR 167, and identify and evaluate additional locations that could be easily served by public transportation.

Discussion: The ideal location for most park and ride facilities is at or near freeway interchanges. These properties should be noted for possible acquisition. These properties also typically have the highest land values.

Policy T-7.3: Coordinate with King County Metro, Pierce Transit, and Sound Transit to provide efficient regional transit connections, increased bus service with commuter rail service, and local service to best serve the City of Pacific.

Discussion: Private vehicles are the most common mode of travel throughout the region. It is anticipated that the majority of vehicle trips within Pacific will continue to be private vehicles. The City will need to modify the transportation network to meet the needs of increased demand. The provision of transit service to Pacific residents will provide viable options for residents to commute to other destinations. This will help to decrease the demand **on the City's road system.**

Policy T-7.4: Advocate frequent headways and express service, with priority given to higher density residential areas and popular destinations.

Discussion: Providing more commuting options for Pacific residents lessens the impacts to the regional road network and helps to decrease air quality impacts due to fewer vehicular trips on the regions roadways.

Policy T-7.5: Support regional express bus service, good connections to commuter rail stops, and a rider-friendly fare system.

Discussion: Providing more commuting options for Pacific residents lessens the impacts to the regional road network and helps to decrease air quality impacts due to fewer vehicular trips on the regions roadways.

Policy T-7.6: Consider transit facilities as mitigation for new developments that have probable significant impacts to the transportation system.

Discussion: As the City's Manufacturing Industrial Center (MIC) continues to develop, the provision of transit facilities to encourage commuting to jobs via transit should be considered.

Policy T-7.7: Promote programs to encourage carpooling, transit, and non-motorized transportation to reduce the transportation impacts of economic and residential development.

Discussion: Updating the City's website will provide links to carpooling and ride sharing programs.

Policy T-7.8: Work with transit agencies to make transit use more attractive to existing and potential customers, through right-of-way, sidewalk, and roadway improvements at transit stops, and safe and weather protected passenger waiting areas.

Discussion: New road projects will coordinate with the long term plans of the public transportation agencies, to provide pedestrian and transit facilities as required for future projects.

Policy T-7.9: Develop rider information packages for commuter, transit, rail, and air transportation opportunities.

Discussion: The City website will provide links to carpooling, ride sharing programs, and other alternatives to single passenger cars.

Policy T-7.10: Support and promote public involvement in Pierce Transit, King County Metro, and Regional Transit Authority decision-making.

Discussion: Promoting public involvement would allow decision makers hear the day to day needs of the travelling public, especially those would do not have the resources to own cars.

MOBILITY AND CAPACITY

GOAL T8: Promote adequate capacity on roadways and intersections to provide access to homes and businesses.

POLICIES

Policy T-8.1: Preserve and maintain capacity of roadways by:

- Providing internal access between off-street parking areas in commercial areas through reciprocal agreements;
- Using intersecting streets as access points; or
- Designing subdivisions for efficient internal circulation.

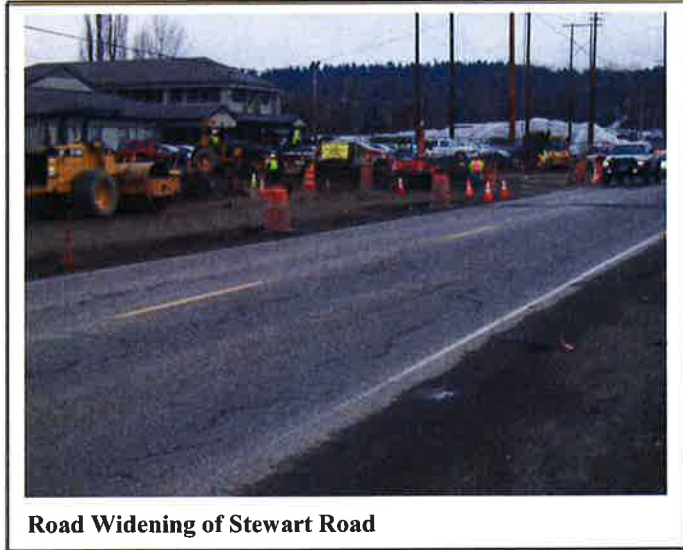
Discussion: Many safety and capacity problems relate to driveways that connect to public roads. The design of new street improvements should include provisions to consolidate existing accesses where feasible. Connecting

commercial parking lots providing interior traffic flow off of public streets will lessen the number of driveway cuts on public streets and the number of potential traffic conflicts.

Policy T-8.2: Identify, acquire, and preserve rights-of-way by methods including:

- Requiring dedication of rights-of-way condition for development when the need for such rights-of-way is linked to the development;
- Requesting donations of rights-of-way to the public;
- Purchasing rights-of-way by paying value; and
- Acquiring development rights and easements from property owners.

Discussion: Private vehicles are the most common mode of travel throughout the region. It is anticipated that the majority of vehicle trips within Pacific will continue to private vehicles. The acquisition of right-way (ROW) will be crucial to ensure the flow of traffic and provide for faster response times for emergency services.



Road Widening of Stewart Road

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Policy T-8.3: Continue to work with adjacent jurisdictions and stakeholders to develop major transportation corridors.

Discussion: Coordination with adjacent jurisdictions is necessary to ensure a safe consistent transportation system. For example, access to Lakeland Hills, a major residential area in Auburn, passes through three jurisdictions; Pacific, Sumner and Auburn. This is via Stewart Road/8th Ave. in Pacific and Sumner. This street is one of only two major east/west routes across the White River Valley connecting Lakeland Hills to SR 167. Coordination with Sumner and Pierce County has resulted in major road improvements to this road to provide greater capacity and safety.

MULTIMODAL TRANSPORTATION

GOAL T9: Promote the movement of people through multimodal transportation that is safe, compatible, and efficient.

POLICIES

Policy T-9.1: Develop a curb ramp program to install wheelchair ramps at all curbed intersections.

Discussion: Most transportation funding is provided by either State or Federal agencies. These funding programs require that all ramps are compliant with current ADA guidelines.

Policy T-9.2: Work with neighboring jurisdictions and other agencies to ensure that Pacific's bicycle routes and corridors are safe, functional, compatible, and interconnected.

Discussion: The City has worked with regional partners to obtain grant funding for non-motorized facilities of regional significance. The City will continue to pursue these funding sources until the network is complete.

Policy T-9.3: Plan for the expansion of appropriate road shoulders to maintain safe areas for walking, jogging, and biking.

Discussion: Expansion of impervious surfacing requires an expansion of stormwater facilities. The city needs to develop the long term pedestrian network that permits low impact or pervious surfacing alternatives.

Policy T-9.4: Accommodate the needs of bicyclists and pedestrians in the design and construction of all appropriate roadway improvements, with safety and traffic flow as primary considerations.

Discussion: Most transportation funding is provided by either State or Federal agencies. Most of these funding programs require that pedestrian facilities are provided to serve the stakeholder needs. The design of roadway improvements can reduce barriers and increase safety for bicyclists and pedestrians. The location and design of walkways and trails should vary depending on adjacent land uses.

Policy T-9.5: Work with King County Metro, Pierce Transit, Sound Transit, and businesses to evaluate and improve transit service and facilities that serve employment sites. Promote transit connections between local and regional high density-population centers and the Summer-Pacific MIC.

Discussion: The City website will provide links to carpooling, ride sharing programs, and other alternatives to single passenger cars, including regional transit programs. The City's elected officials and staff currently participates in regional transportation planning groups.

Policy T-9.6: Support public and private Transportation Demand Management (TDM) programs to promote alternatives to driving alone. Encourage Commute Trip Reduction (CTR) programs for businesses in the Summer-Pacific MIC and other areas.

Discussion: The City website will provide links to carpooling, ride sharing programs, and other alternatives to single passenger cars, including regional transit programs. The City elected officials and staff currently participate in regional transportation planning groups. To implement this policy, the City will work with major employers, such as schools and retail centers, to provide incentives for carpooling, transit use, non-motorized transportation, and telecommuting. The City can also support educational programs that communicate transportation options.

Policy T-9.7: Encourage new commercial, office and industrial developments to provide physical features supportive of carpooling, transit, and non-motorized modes of travel.

Discussion: To implement this policy, the City will work with major employers, such as schools and retail centers, to provide incentives for carpooling, transit use, non-motorized transportation, and telecommuting. For example, the provision of secured bicycle racks may help entice employees to ride their bikes to work. The City can also support educational programs that communicate transportation options.

Policy T- 9.8: The high density Urban Transit Center adjacent to the proposed Sunner-Pacific Station, which includes a mixture of urban transportation modes, should serve the Sunner-Pacific MIC and other areas of the City.

Discussion: The City website will provide links to carpooling, ride sharing programs, and other alternatives to single passenger cars, including regional transit programs. The City's elected officials and staff currently participate in regional transportation planning groups. Examples can include preferential parking for carpools, vanpools and bicycles; transportation information and bus schedules, special loading and unloading areas for transit, carpools, and vanpools; and strong pedestrian linkages to off-site destinations.

SAFETY

GOAL T 10: Minimize transportation conflicts to ensure safety.

POLICIES

Policy T-10.2: Maintain and enhance the safety of roads in the City of Pacific.

Discussion: Examples of methods to improve safety include access management, improved signalization, left-turn-only arrows; center left turn lanes, turn prohibitions, median islands, lighting, and other techniques. (Note: City insurance rates drop with improved safety.) Most transportation funding is provided by either State or Federal agencies. These funding programs require that a safety analysis be performed at critical areas. A warrant study is developed to determine intersection control needs as well as an evaluation of other elements that may be needed to improve safety.

Policy T-10.3: Work with residents to encourage preservation of neighborhood character and safety on residential streets.

Reducing speeds and cut-through traffic can protect the livability and safety of residential neighborhoods. The City should explore a program whereby neighborhoods can buy traffic calming devices. The City should involve the Valley Regional Fire Authority and the Pacific Police Department in the implementation of this policy.

MAINTENANCE

GOAL T 11: Assign a high priority to meeting the maintenance needs of the transportation system so that it is safe and functional.

POLICIES

Policy T-11.1: Develop a regular maintenance schedule for all components of the transportation infrastructure.

Discussion: The City currently contracts with King County for annual maintenance of traffic signals. The City public works crew evaluates street surfaces monthly as part of the street sweeping program. Long term road maintenance programs are in development. However, until there is a Transportation Benefit District or similar mechanism developed, there is no long term funding source for street maintenance. The City should base maintenance schedules on considerations for safety and resource conservation.

Policy T-11.2: Encourage the maintenance and improvement of the street system when addressing the transportation and circulation concerns of the community.

Discussion: The City currently contracts with King County for annual maintenance of traffic signals. The City public works crew evaluates street surfaces monthly as part of the street sweeping program. Long term road maintenance programs are in development. However, until there is a Transportation Benefit District or similar mechanism developed, there is no long term funding source for street maintenance.

Policy T-11.3: Develop strategies necessary to improve public streets to meet applicable road standards.

Discussion: The City public works crew evaluates street surfaces monthly as part of the street sweeping program. Long term road maintenance programs are in development. However, until there is a Transportation Benefit District or similar mechanism developed, there is no long term funding source for street maintenance.

LAND USE AND TRANSPORTATION

GOAL T 12: Ensure that transportation system improvements are compatible with adjacent land uses (as discussed in the Land Use element) and will minimize potential conflicts.

POLICIES

Policy T-12.1: Consider a complementary roadway pattern to increase accessibility to higher use areas and minimize traffic impacts on residential areas.

Discussion: Private vehicles are the most common mode of travel throughout the region. It is anticipated that the majority of vehicle trips within Pacific will continue to be private vehicles. The City will need to modify the transportation network to meet the needs of increased demand. In addition, the City has a strong desire to maintain the existing street network.

Policy T-12.2: Employ a functional roadway classification system and guidelines to:

- Control access to roads from adjacent developments;
- Route arterials and major collectors around residential neighborhoods;

- Prevent new residential areas from fronting on arterials;
- Incorporate transit, pedestrian, and bicycle access into major developments;
- Provide landscaping and noise buffers along major roadways;
- Provide facilities for bicyclists and pedestrians, and to access transit;
- Encourage changes to site plans to encourage pedestrian travel; and
- Improve pedestrian and vehicle circulation.

Discussion: The City should adopt a street grid classification system that would minimize pass through commercial traffic within defined residential neighborhoods. Where pass through traffic does occur, appropriate speed limits to help reduce the impact of traffic conflicts should be considered.

Policy T-12.3: Increase the visual ambiance along the Ellingson and Stewart Road corridors.

Discussion: This policy can be achieved through the requirement of street landscaping both within and outside of the right-of-way. Commercial design standards developed to complement the landscaping should be considered.

Policy T-12.4: Develop and encourage programs, such as “adopt-a-road,” to assist in keeping roadsides and trails free of litter.

Discussion: Adopt-a-road programs have proved successful on state highways to help decrease the amount of litter along those roads. The City should **identify heavily travelled roads within the City where an “adopt-a-road”** program may be successful. Removing litter from these roads will enhance the overall image of the City.

NON-MOTORIZED

GOAL T 13: Provide clear and identifiable systems of walkways, sidewalks, and trails to develop an environment that will make the use of alternative transportation modes an attractive and viable option.

POLICIES

Policy T-13.1: Pacific shall investigate transportation routes and means for non-motorized transportation between neighborhoods and with neighboring cities.

Discussion: The City working on a system of pedestrian/bike trails throughout the City that connect existing neighborhoods and with other jurisdictions. As street improvements are considered, the provision for bike lanes is considered based on the width of the right-of-way and the classification of the road. As part of new development, projects adjacent to the projected route of the Interurban Trail are required to construct that portion of the trail along their property.

Policy T-13.2: Provide signals for pedestrians, and install mid-block crossings where appropriate.

Discussion: The City should evaluate its street system do determine where mid-block crossings may be necessary based upon the length of block and the businesses fronting either side of the street. A signal crossing should also be considered on Stewart Road for pedestrians and cyclists using the Interurban Trail.

Policy T-13.3: Development in the Neighborhood Center should have non-motorized access and include characteristics such as limited setbacks, pedestrian-oriented streetscapes, and appropriate pedestrian crossings.

Discussion: New development within the Neighborhood Center should be designed to have access to the Interurban Trail located in the west of the Neighborhood Center through the provision of designated bike lanes on 3rd Ave. (this has been completed). This bike lane should also connect with the potential new pedestrian trail to be provided as part of the proposed levee improvements on the right bank of the White River in Pacific to be completed in 2017/2018.

Policy T-13.4: Provide a planned system of Linear Park Trails for pedestrians and bicyclists.

Discussion: A Linear Park Trails System can serve both a recreational and a transportation function and enhance community character. **This will be a system of “green streets” to connect parks, open space, recreation areas, transit, trails, schools, and shopping.** To implement this policy, the City should preserve rights-of-way for future non-motorized trail connections and utilize utility easements for trails when feasible. The City can provide systems of walkways and trails through some of the following methods:

- Working with school districts to identify and construct high priority pedestrian and bicycle school routes.
- Requiring new commercial and multi-family developments to construct sidewalks or trails.
- Assisting neighborhoods in forming Local Improvement Districts (LIDs) for sidewalk or trail construction.

Policy T-13.5: As general guidelines, give priority to improvements to the walkways and trails systems that:

- Increase public safety,
- Construct missing links in the existing bicycle and pedestrian system,
- Upgrade existing walkways and trails,
- Are along arterial streets, and
- Connect to key destinations.

Discussion: Information on costs and benefits of improvements will be included in a walkway and trail plan to assist the City Council and Planning Commission in establishing funding priorities. The City will continue to explore opportunities to expand the pedestrian and bicycle system where appropriate with the development of properties adjacent to potential pedestrian and bicycle corridors.

Policy T-13.6: The City shall continue to support the expansion of the Interurban Trail as an integral part of the regional transportation system.

Discussion: The City has regularly pursued grants to complete the Interurban trail. The completion of the trail has been designed to a fifty percent (50%) level. This provides a level of detail to pursue funding. However, the critical areas criteria change periodically requires additional funds for project mitigation. Expansion of the Interurban Trail will also be required as new development locates adjacent to the projected route of the Interurban Trail.



A portion of the Interurban Trail completed as part of the UPS development project.

Policy T-13.7: The City shall seek to accommodate bicycles in its management and design of the City street network.

Discussion: Bicycles are intended and expected users of all surface streets in the city. Based on right-of-way widths and the roads functional classification, the City will continue to determine where bicycle lanes would be warranted to provide non-motorize commuting options. On streets without bike lanes, bicycles shall be accommodated as users sharing the travel lanes of streets, with shared lane markings as necessary to guide cyclists to ride safely with traffic and to remind motorists to expect bicycles within travel lanes.

Policy T-13.8: The City shall encourage the inclusion of convenient and secure bicycle storage facilities in all large public and private developments.

Discussion: Given the City's commitment to provide non-motorize commuting options, the City should explore regulatory options to require new development to provide bicycle storage options (for example, secured bicycle racks) as part of new development and for public properties.

FINANCING

GOAL T 14: Secure funding to ensure an adequate roadway network that meets the City's LOS policy

POLICIES

Policy T-14.1: Funding efforts shall include:

- Identifying and pursuing long-term strategies to obtain grant funding.
- Maximizing opportunities for grant awards by matching project objectives with revenue sources and developing joint projects with neighboring jurisdictions and other agencies.
- Supporting efforts at the state and federal levels to increase funding for transportation systems.

Discussion: The City will continue to try to secure grant funding for road improvements. Potential funding sources include the following.

Policy T-14.2: Balance financing of roadway improvements between existing and future users based on the principle of proportional benefit.

Discussion: Existing gas taxes and motor vehicle registration fees are not sufficient to meet the financial needs of Pacific's transportation system. Other funding methods should be developed that are equitable and consistent with the benefits derived from improvements. Examples include, but are not limited to:

- Road Improvement Districts,
- LIDs,
- public/private partnerships,
- impact fees

The funding programs must be adequate to allow transportation improvements to be implemented concurrently with development. New development must pay a fair share of the cost to serve it.

Policy T-14.3: Require that all road projects be adequately funded to include all required public safety and design standards.

Discussion: The City has adopted design standards for roads that includes the required safety and design standards to protect the public.

Policy T-14.4: Identify and pursue long-term strategies to obtain grant funding.

Discussion: The City should maximize opportunities for grant awards by matching project objectives with revenue sources and developing joint projects with neighboring jurisdictions and other agencies. Potential funding sources include the following:

ROADS

State Funding

Transportation Improvement Board (TIB) – New and Preservation

Federal Funding

Surface Transportation Program (STP) – New and Preservation

Congestion Mitigation and Air Quality Program (CMAQ) - New

TRAILS

State Funding

WSDOT Pedestrian and Bicycle Safety – New

Federal Funding

Surface Transportation Program (STP) – New

Policy T-14.5: Develop interlocal agreements with neighboring jurisdictions and other agencies to develop funding sources for transportation improvements.

Discussion: The City should work with other agencies to mitigate the impacts of new development, coordinate joint projects, and establish a program for the maintenance of common corridors. The City can share transportation resources and reduce overlap in transportation expenditures through interlocal agreements. The City is coordinating with the City of Sumner to complete the Stewart St. /8th Ave. corridor improvements. Coordination is critical between the City and the City of Sumner to obtain funds to complete the corridor improvement across the White River which requires the construction of a new bridge.

Policy T-14.6: Prioritize transportation expenditures in the following manner within current municipal boundaries:

1. Correct known safety hazards in the road system and improve traffic operations through low cost improvements;
2. Maintain the existing transportation system to prevent deterioration of facilities and avoid the need for major reconstruction of roads and bridges;

3. Widen existing or construct new roadways to alleviate current capacity problems and to accommodate increases in traffic.

Discussion: The City should develop a maintenance program to inventory the condition of City streets which would allow the City to project potential maintenance costs which would allow the City to implement a yearly maintenance program based on projected yearly revenues.

Policy T-14.7: Use a standardized, well documented, and objective process to establish priorities for transportation **expenditures within the City's UGAs.**

Discussion: A standardized process will help the City determine additional City expenditures that would be necessary when annexation within the Urban Growth Area occurs.

Policy T-14.8: Allocate resources in the City TIP and City Capital Facilities Funding Plan according to the prioritization guidelines listed in the Capital Facilities element.

Discussion: The City will implement this policy through its TIP and concurrency management program.

Policy T-14.9: Follow the reassessment strategy identified in the Transportation Plan if funding falls short of plans.

Discussion: Funding plans can change over time so the City uses a reassessment strategy to adjust to changing conditions.

PLAN UPDATES

GOAL T 15: Respond to unanticipated circumstances and conditions that require modification of adopted plans or standards. These changes may be cultural, economic, environmental, or in another form that affects the transportation system.

POLICIES

Policy T-15.1: Annually update the TIP to reflect changes in revenue availability and roadway system needs.

Discussion: The TIP needs to be annually updated to accurately determine funding needs for roadway improvements. Forecasting these needs in advance will help the City procure revenue from a number of sources

Policy T-15.2: Develop a multimodal concurrency management program and revise it as part of the annual amendment process for the Comprehensive Plan.

Discussion: The intent of the concurrency management program is to ensure funding for transportation improvements needed to support new development and maintain adopted transportation LOS.

Policy T-15.3: In the event that the City is unable to fund the transportation capital improvements needed to maintain adopted transportation LOS standards, pursue one or more of the following actions:

- Phase development that is consistent with the Land Use element until resources can be identified to provide adequate improvements;
- Revise the Land Use element to reduce the traffic impacts to the degree necessary to meet adopted transportation service standards;
- Reevaluate the City's adopted transportation LOS standards to reflect levels that can be maintained, given known financial resources;
- Require new and existing development to implement measures to decrease congestion and enhance mobility; and/or
- Place a moratorium on development in affected areas.

Policy T-15.4: Analyze and strongly consider the use of development impact mitigation fees.

Discussion: The use of impact fees will help to mitigate the impacts of new development. The fees can be targeted to provide for system improvements that will help ensure that the City meets its “Level of Service” (LOS) concurrency requirements under Revised Code of Washington (RCW).

REGIONAL PLANNING COORDINATION

GOAL T 16: Support a continuous, cooperative, and comprehensive regional transportation planning process

POLICIES

Policy T-16.1: Support the comprehensive transportation process conducted by the PSRC pursuant to its designation as the Puget Sound's Metropolitan Planning Organization.

Discussion: The PSRC is the primary forum for the development of regional transportation and strategies. The City is required to submit this Transportation element to the PSRC for review and certification of conformity with the Metropolitan Transportation Plan, as dictated by county, state, and federal guidelines.

Policy T-16.2: Aggressively pursue improvements to the State Highways that run through Pacific. The improvements can include:

- Capacity increases;
- HOV lanes or transit enhancements;
- Interconnected and computerized signal systems, set for specific speeds; or
- Street lighting.

Discussion: Improvements to the State Highways will help the City maintain its adopted “levels of service” (LOS) for its street systems. The City’s adopted LOS for its streets is “D”. Based on projected traffic volumes, the LOS for West Valley Highway will drop to “F”. This is primarily due to spillover traffic from SR 167 to West Valley during pm peak traffic volumes. Improvements to SR 167, including the extension of the “hot/HOV” lanes will

help to improve the LOS for West Valley Highway.

3. TRANSPORTATION INVENTORY

This inventory addresses the transportation network located within the City, including those which are the responsibility of the Washington State Department of Transportation (State Route 167 in King or Pierce County).

Roadways

Roadway Classification

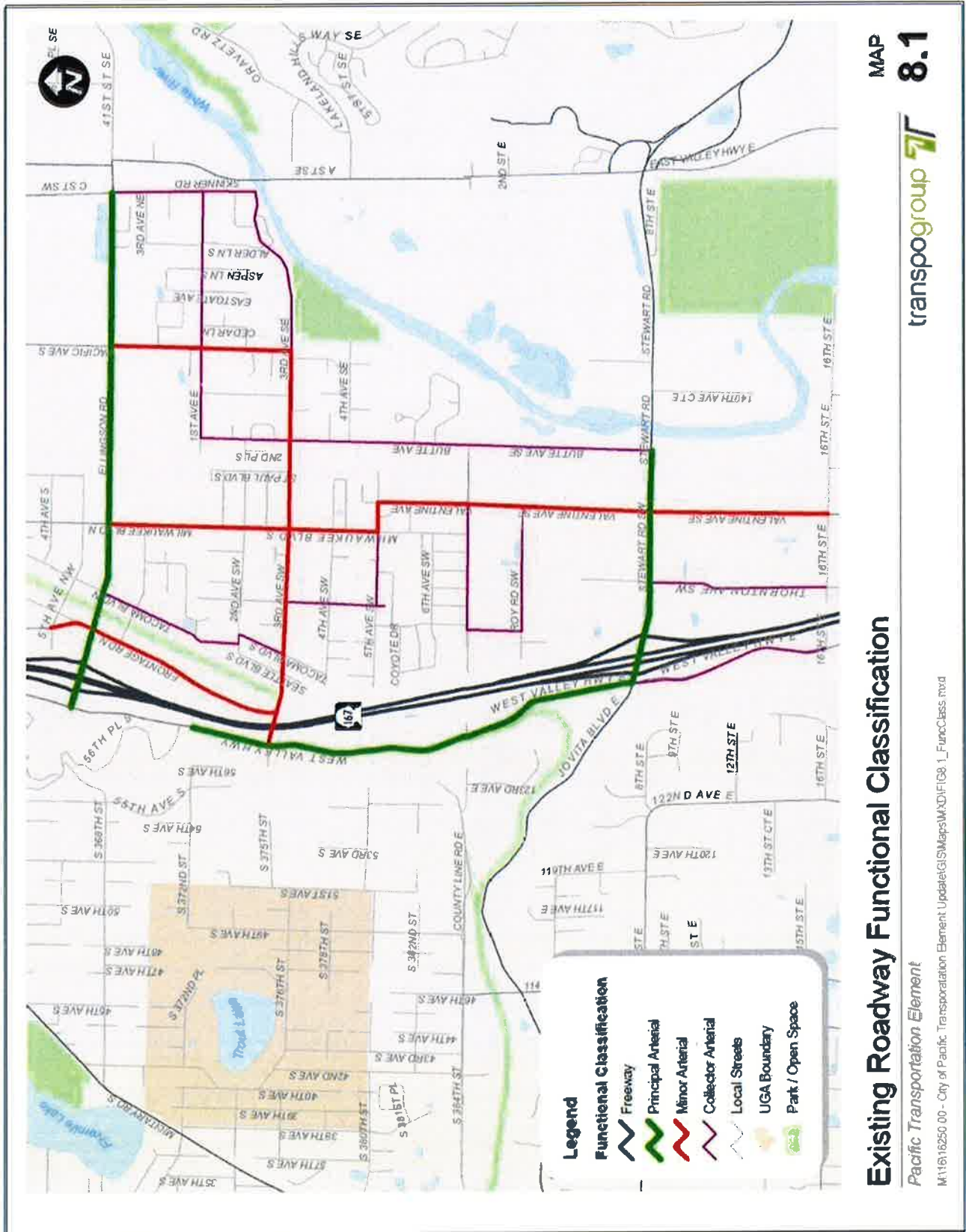
Map 8.1 depicts the functional classification of the arterial roadway system serving the study area. Identification of the roadway functions is the basis for planning roadway improvements and the appropriate standard (right-of-way width, roadway width, design speed) that would apply to each roadway facility. The following definitions serve as a general guide in determining street classifications.

Principal Arterials - Intercommunity roadways connecting primary community centers with major facilities. Principal arterials are generally intended to serve through traffic. It is desirable to limit direct access to abutting properties.

Minor Arterials - Intercommunity roadways connecting community centers with principal arterials. In general, minor arterials serve trips of moderate length. Access is partially controlled with infrequent access to abutting properties.

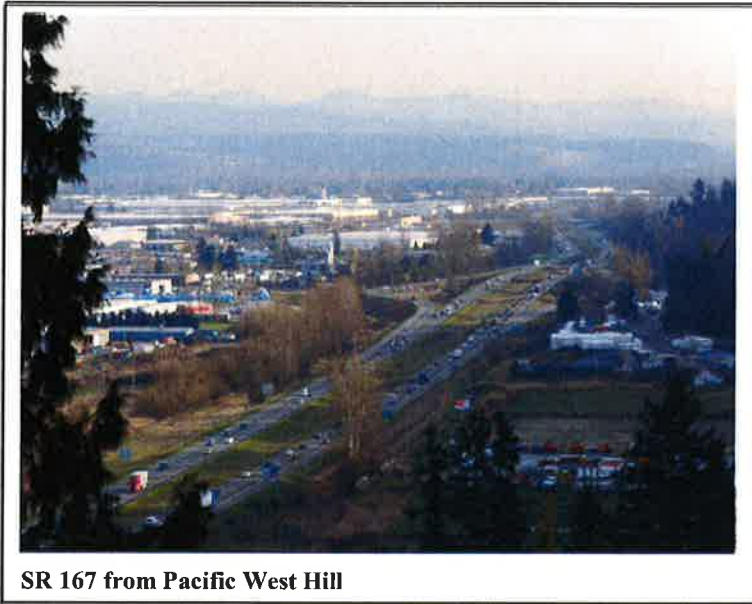
Collector Arterials - Streets connecting residential neighborhoods with smaller community centers and facilities as well as access to the minor and principal arterial system. Property access is generally a higher priority for collector arterials; through-traffic movements are served as a lower priority.

In addition to the roadway classifications described above, the roadway network includes local streets. These roadways are intended for use within commercial, single-family, and multi-family subdivisions to provide direct access to abutting lots, and to collect traffic from cul-de-sacs. Restrictions may be placed on entry and exit locations for traffic safety relative to intersections. Traffic volumes are typically very low for compatibility with abutting land uses, to accommodate turning movements and significant amounts of pedestrian activity, while providing minimal disturbance to the tranquility of the residential environment. Local streets are not typically designed to accommodate transit service. All roadways that are not otherwise classified are considered to be local access streets.



State-owned transportation facilities and highways of statewide significance

In 1998, the Washington State Legislature enacted the “Level of Service Bill” (House Bill 1487) which amended the Growth Management Act (GMA) to include additional detail regarding state-owned transportation facilities in the transportation element of comprehensive plans. Within Pacific, State Route 167 (SR 167) has been designated as a Highway of Statewide Significance (HSS) in **WSDOT’s Highway System Plan (HSP)**. SR 167 provides the major north-south regional connection between the cities of Renton and Puyallup. It connects to Interstate 405 in Renton, SR 18 in Auburn and SR 410 in Sumner. Through Pacific, SR 167 is a full limited access four lane freeway with interchanges at Ellingson Road and Stewart Road. It is classified as an urban principal



SR 167 from Pacific West Hill

arterial. The roadway (also called Valley Freeway) has two lanes in each direction separated by a center median. Interchange access is provided at Ellingson Road and Stewart Road. The posted speed limit is 60 mph.

Local Transportation System

The City of Pacific transportation network consists of several arterials that are supported by local access streets. The major arterials form a square roughly at the east-west and north-south boundaries of the city. There are several features (the White River, two rail lines, SR 167 and the steep slopes of West Hill) that limit east-west travel in the vicinity. The following is a listing and brief description of the major roadways serving the City of Pacific:

Ellingson Road is an east-west major arterial that runs from West Valley Highway to East Valley Highway. The roadway has two lanes in each direction with curbs and sidewalks along most of the roadway. Traffic signals are present at intersections with SR 167, Frontage Road, Milwaukee Boulevard, Pacific Avenue, C Street and A Street/East Valley Highway (in the City of Auburn).

Stewart Road is an east-west major arterial that extends from West Valley Highway to Butte Avenue in Pacific. The roadway is called 8th Street east of the City of Pacific and Jovita Boulevard west of the City limit. The roadway has recently been widened to include two travel lanes in each direction with a left-turn lane between West Valley Highway and Valentine Avenue. East of Valentine Avenue the roadway has one lane in each direction. The intersections with West Valley Highway, SR 167, and Valentine Avenue are under traffic signal control.

West Valley Highway is a north-south major arterial that runs parallel to and just west of SR 167. The roadway has a single lane in each direction with minimal shoulders and a 40 mph speed limit. Much of the roadway has poor pavement condition.

Milwaukee Boulevard and Valentine Avenue are north-south minor arterials that, combined, provide a continuous connection from Ellingson Road to the south city limit. Milwaukee Boulevard has a single lane in each direction with full urban improvements from 3rd Avenue to the north.

Valentine Avenue is a narrow roadway with a single lane in each direction and minimal shoulders. North of Roy Road the roadway is signed for local access only. The roadway ends at 5th Avenue SE, offset approximately 500 feet from where Milwaukee Boulevard begins.

3rd Avenue is a two lane roadway that extends east-west between Skinner Road and West Valley Highway. The roadway is designated a minor arterial between West Valley Highway and the Pacific City Park. The roadway is generally wide with urban improvements between West Valley Highway and Pacific Avenue. The roadway is signed for local access only east of Frontage Road.

Pacific Avenue is a two-lane north-south minor arterial that extends from 4th Avenue SE, past Ellingson Road to 1st Avenue in Algona. The roadway is generally wide with urban improvements.

Frontage Road is a two-lane minor arterial that runs from 3rd Avenue SW, north into Algona. The roadway has urban improvements and on-street parking on both sides.

Public Transportation

Transit is an important alternative to automobile travel for either regional or local trips. Transit is not only useful in reducing traffic volumes and pollution, but is often the only means of transportation available to some members of the community.

Pacific's greatest need is for mobility between towns and to urban areas. King County Metro provides local and regional bus service within the City, via DART route 917, and to the north. Pierce Transit and Sound Transit also provide public transportation in the region. The City of Pacific is currently working with these agencies to enhance connections within the City limits to include possible consideration of a park and ride lot.

Rail

At one time the railroad was a vital link in the City providing both passenger and freight service. The City does not currently have passenger service, and within Pacific there is no reliance on the railway for freight service from the BNSF and Union Pacific (UPRR) railroads. The BNSF main line is used by Amtrak and Sound Transit for through passenger rail service. Sound Transit has stations in the cities of Auburn and Sumner, but none in Pacific. The closest Amtrak stations are in Tacoma and Tukwila.

Non-Motorized Facilities

The City's existing pedestrian and bicycle facilities are shown in **Map 8.2** The system provides access for people on foot, bike, or other modes primarily with sidewalks, bike lanes, and off-street trails.

Sidewalks are located intermittently around the City, mostly along either arterial roadways or in certain neighborhood developments. The Interurban Trail runs from the northern City Limits to 3rd Avenue SW, between Frontage Road N and Tacoma Boulevard N, then picks up again in sections south of 5th Avenue SW. There is a trailhead at 3rd Avenue SW, near SR 167, as well as a sign showing an eastern extension of the trail with bike lanes to Pacific City Park. Bike lanes are also located along Skinner Road south of 1st Avenue E. Additionally, there are separate right-of-way trails in the City along the sides of roadways, as pictured in **Map 8.2**.

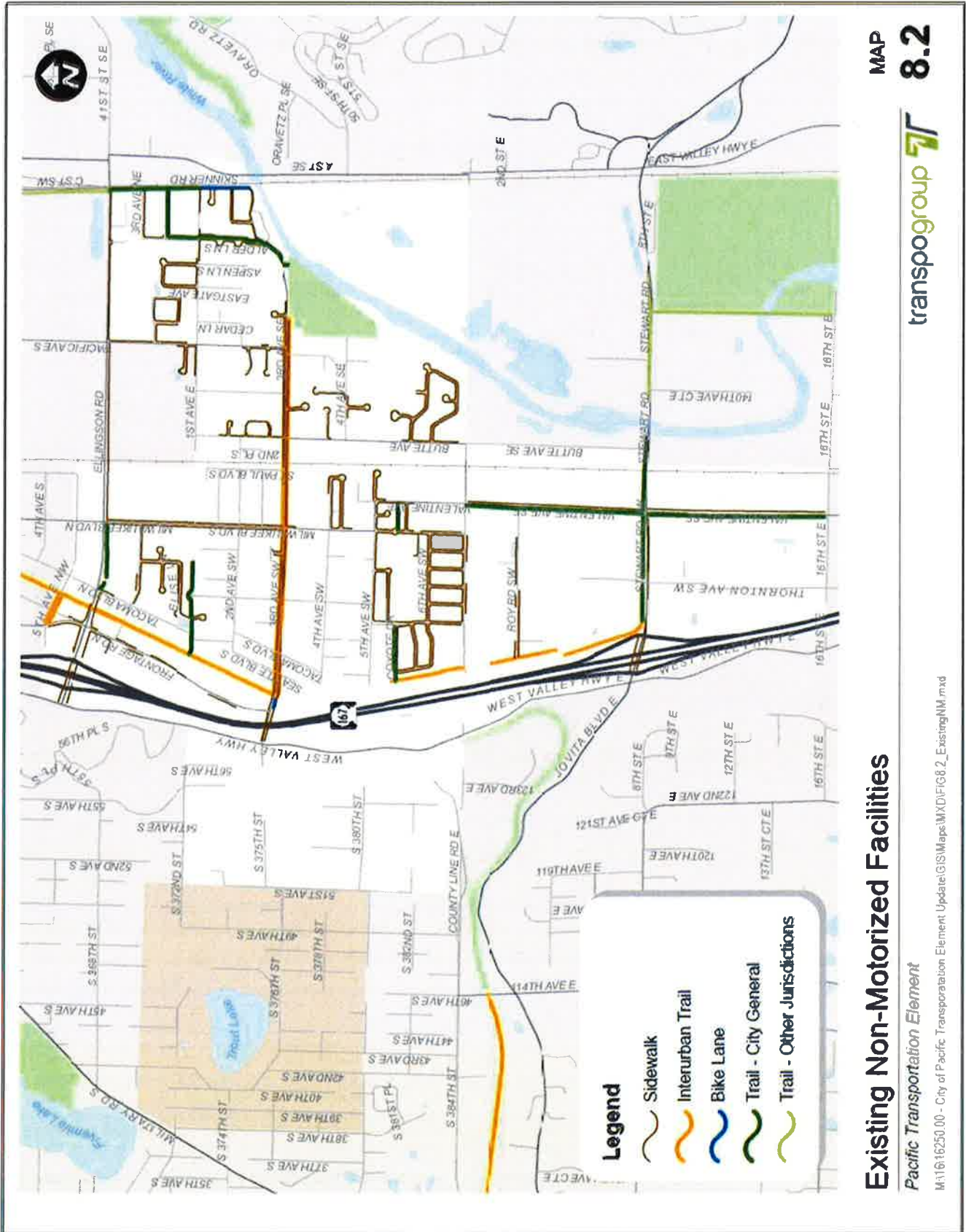
Continuity in pedestrian and bicycle access within the City provides for increased safety, comfort, and ease for residents and recreational users. The City is striving to create a fully integrated system for these modes of

transportation, yet recognizes the need to prioritize locations where it expects heavy use, such as routes connecting residential areas to recreational facilities and schools.

Freight Mobility

Truck traffic is vital to Pacific's industrial and commercial growth, as it is the mode used for transportation between most of these enterprises and their suppliers and customers. Truck traffic comprises a significant percentage of the total traffic on SR 167, on Ellingson Road, West Valley Highway, Stewart Road, and on Valentine Avenue. Gravel pits on East Hill, outside Pacific, generate considerable through truck traffic. Up to 100 one-way dump tandem or center dump truck trips per hour have been counted on Ellingson Road during gravel pit operations. The warehouse/industrial area of the City of Sumner generates heavy impacts on Valentine Avenue and Stewart Road on movements to and from SR 167. The heavy truck traffic is significant not only because of its impact on traffic flow but because of the structural impact on Pacific's street system.

Several roadways within the City are classified as T-3, T-2, or T-1 level roadways in the Washington State Freight and Goods Transportation System (FGTS). These roadways carry between 300,000 tons to more than 10 million tons per year, depending on their classification. The only City roadway classified as T-1 is Stewart Road; West Valley Highway is a T-2 roadway. All classified roadways are shown in **Map 8.3**.



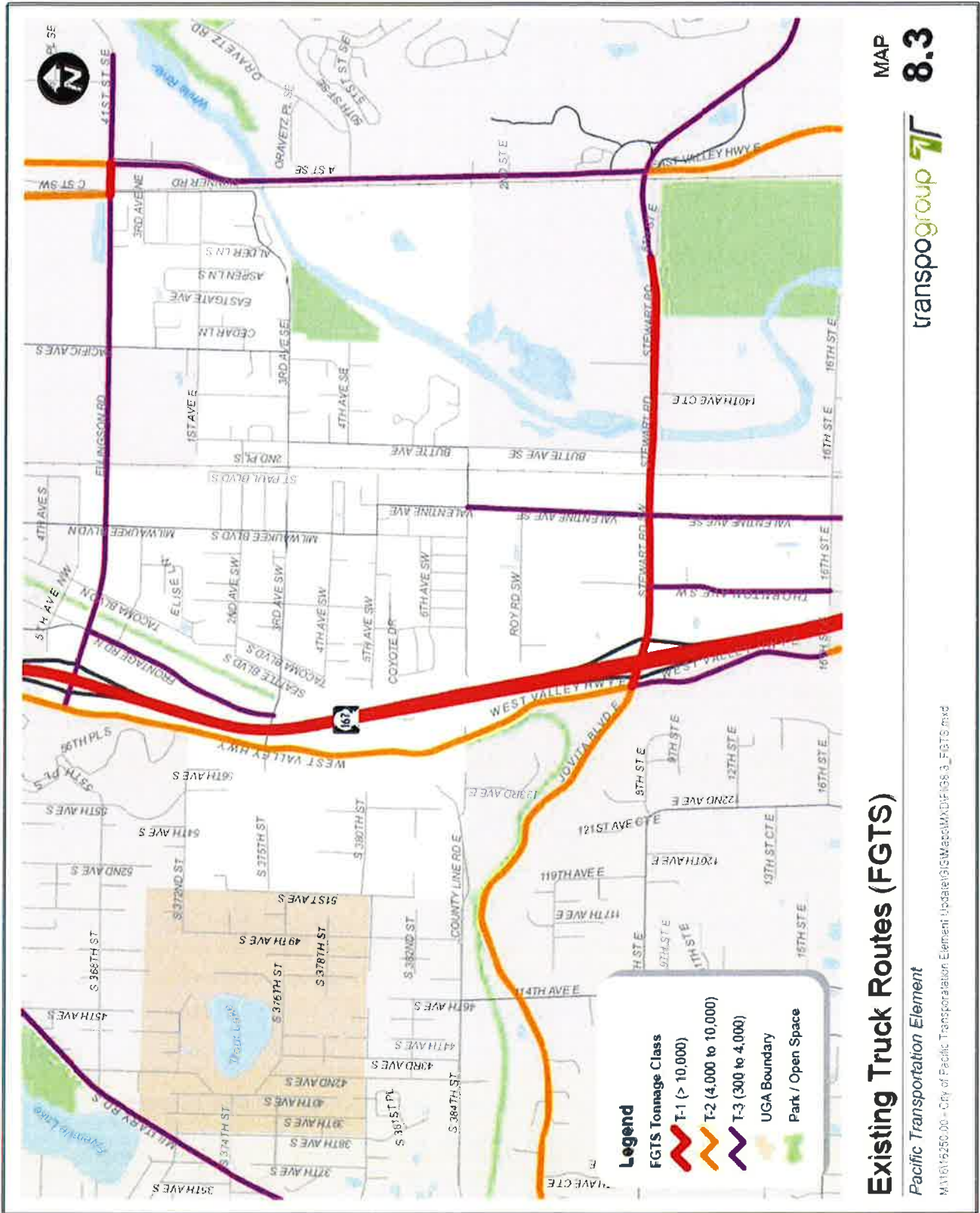
MAP 8.2

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Existing Non-Motorized Facilities

Pacific Transportation Element

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Existing Truck Routes (FGTS)

Pacific Transportation Element

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MAP 8.3

4. EXISTING CONDITIONS

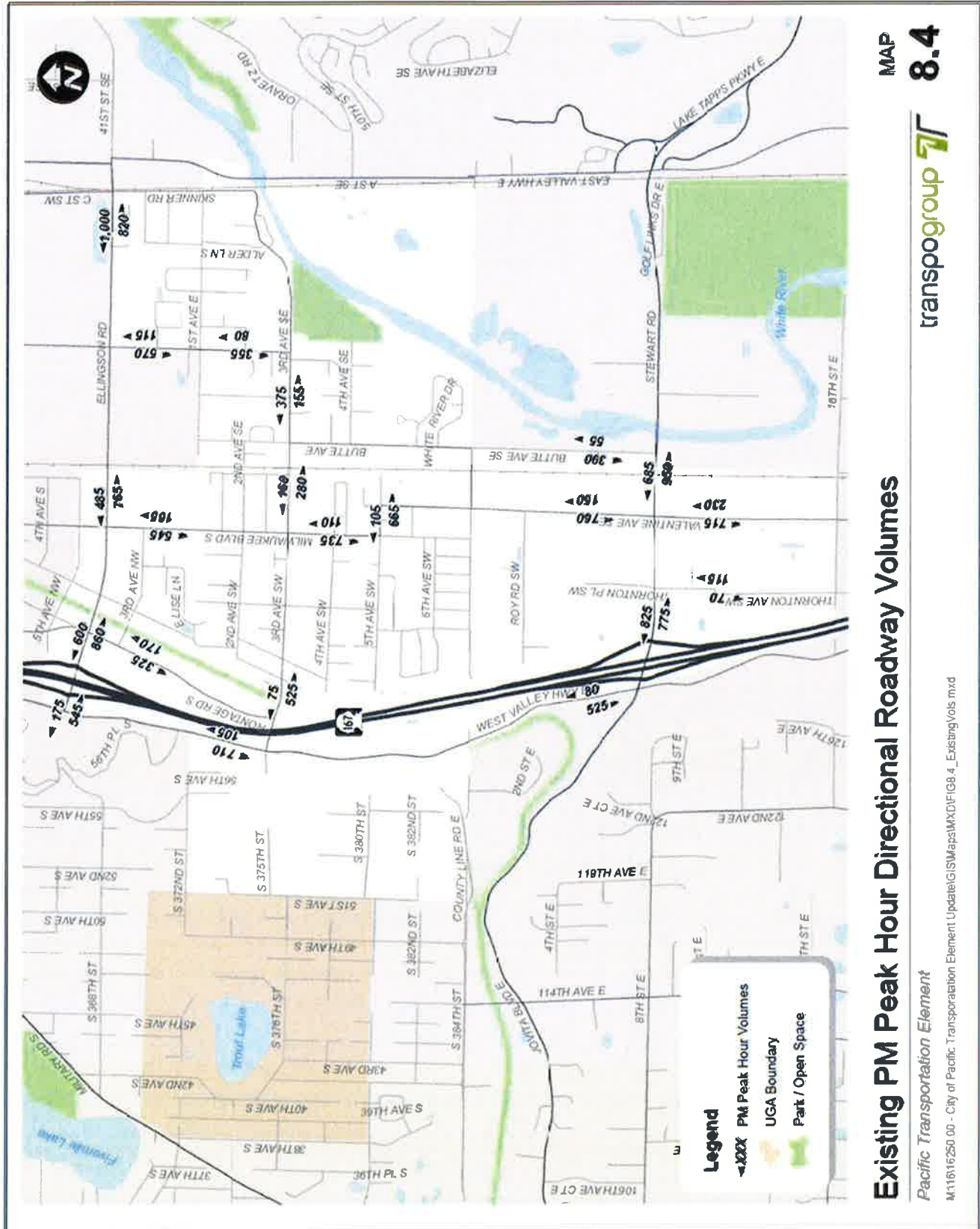
Traffic Volumes

Daily traffic volumes were assembled to provide a general understanding of travel patterns throughout the City. The volumes were assembled from previous counts by the City and WSDOT, as well by collecting recent counts at other locations. **Table 8.1** shows both directional and total daily roadway volumes on multiple City roadways.

Table 8.1			
Existing Average Daily Roadway Volumes*			
Count Location	NB or EB Volume	SB or WB Volume	Total Volume
SR 167 s/o Ellingson Rd [^] **	-	-	98,000
Ellingson Rd e/o SR 167	10,850	10,000	20,850
Frontage Rd s/o 3rd Ave NW**	1,600	1,700	3,300
Milwaukee Blvd s/o Ellingson Rd	3,550	2,600	6,150
W Valley Hwy s/o 3rd Ave SW****	2,740	3,370	6,110
3rd Ave SW e/o Frontage Rd	1,530	2,890	4,420
Pacific Ave S n/o 3rd Ave SE	1,060	2,230	3,290
Milwaukee Blvd n/o 5th Ave SW****	1,380	2,110	3,490
Valentine Ave s/o 5th Ave SW	1,080	3,310	4,390
W Valley Hwy n/o Jovita Blvd**	2,460	3,370	5,830
Stewart Rd e/o SR 167***	9,310	10,290	19,600
*All counts are 2016 unless otherwise noted.			
2015 Count *2014 Count ****2013 Count			
[^] Count taken from WSDOT 2015 Annual Traffic Report, which does not list directional volumes.			

As shown in **Table 8.1**, SR 167 in the vicinity has an average annual daily traffic (AADT) volume of approximately 100,000. City roadways with the heaviest volumes are Ellingson Road and Stewart Road, both with roughly 20,000 average daily vehicles. Other area roadways range from approximately 3,000 to 6,000 average daily vehicles.

PM Peak hour counts were also conducted throughout the City. These counts were collected in September 2016, after area schools were in session. The weekday PM peak hour (one hour between 4 and 6 p.m.) is typically used for evaluating transportation system needs because it represents the highest travel activity experienced during the day. Existing weekday PM peak hour volumes are shown on **Map 8.4** for selected locations in the City.



Consistent with the daily volumes, the City streets with the highest PM peak hour volumes are Ellingson Road and Stewart Road. Total PM peak hour roadway volumes along these streets range from roughly 1,200 to 1,800 vehicles. PM peak hour volumes on other City streets range from roughly 400 vehicles (along Frontage Road) to 900 vehicles (along Valentine Avenue). Along north-south streets, the heaviest traffic predominantly travels southbound. On east-west streets, traffic is typically traveling into the City; eastbound in the western half of the City, and westbound in the eastern half of the City. However, on Stewart Road the opposite is true, with the primary direction of travel heading outside of the City.

Level of Service

The Level of Service (LOS) calculation is the means by which the operation of road systems is measured to assure that adequate facilities are present or planned and funded to accommodate development. Level of Service is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from LOS A (very little delay) to F (long delays, congestion). Agencies are required to adopt regulations prohibiting any development which would cause a facility to drop below identified standards.

Within the City of Pacific, Level of Service D has been established as the minimum acceptable standard for roadways and intersections. Exceptions for this LOS standard are noted later in the plan.

Concurrency

For this plan, intersections were analyzed for concurrency. The City requires development to analyze impacts to specific intersections at the time a development is approved. The City maintains a list of critical intersections to the local transportation network (see Section 6 for list of critical intersections). Any developments proposing more than 25 new trips through any of these intersections are required to prepare a Traffic Impact Analysis that identifies any deficiencies resulting from the development, and a plan for mitigating the deficiency.

Existing Traffic Operations

Intersection traffic operations evaluate the performance of signalized and stop-controlled intersections according to the industry standards set by the *Highway Capacity Manual (HCM) 2010*. Weekday PM peak-hour traffic operations were evaluated at the study intersections using Synchro 9.0 software. For this study, the PM peak hour volumes were used as the basis for the LOS assessment due to the higher traffic volumes that occur during that time period. Traffic volume data at each intersection was collected in September 2016, after area schools were in session.

Intersection Level of Service

At signalized and all-way stop-controlled intersections, LOS is measured in average control delay per vehicle and is typically reported using the intersection delay. At stop-sign-controlled intersections, LOS is measured in delay per vehicle and is reported for the worst movement. Traffic operations for an intersection can be described with the same range of levels of service as roadways (LOS A through F). **Table 8.2** below summarizes the existing weekday PM peak hour LOS at study intersections. This represents the 2014 existing conditions and provides a basis to compare with the forecast traffic operations in 2035.

Table 8.2 Existing Intersection Level of Service (LOS)				
Intersection	Control Type*	LOS	Delay (sec)	WM**
Ellingson Rd & SR 167 SB Ramp^	TWSC	F	168	SBL
Ellingson Rd & SR 167 NB Ramp	Signal	A	7	-
Ellingson Rd & Frontage Rd	Signal	C	20	-
Ellingson Rd & Milwaukee Blvd	Signal	A	9	-
Ellingson Rd & Pacific Ave N	Signal	E	57	-
Ellingson Rd & Skinner Rd/C St SW	Signal	D	54	-
3rd Ave SW & W Valley Hwy	AWSC	D	31	-
3rd Ave SW & Frontage Rd	TWSC	C	16	SB
3rd Ave SW & Milwaukee Blvd	AWSC	D	30	-
3rd Ave SE & Pacific Ave N***	TWSC	A	7	SB
5th Ave SW & Milwaukee Blvd	AWSC	E	37	-
Stewart Rd & W Valley Hwy	Signal	C	23	-
Stewart Rd & SR 167 SB Ramp^	TWSC	F	201	SBTL
Stewart Rd & SR 167 NB Ramp	Signal	B	17	-
Stewart Rd & Thornton Ave SW	Signal	A	9	-
Stewart Rd & Valentine Ave SE	Signal	C	34	-
Stewart Rd & Butte Ave E	TWSC	F	>500	SB
<p>* AWSC = all-way stop-controlled, TWSC = two-way stop-controlled **Worst movement reported for two-way stop-controlled intersections where SB = southbound, SBL = southbound left, and SBTL = southbound through-left ***This intersection configuration could not be run with HCM 2010 methodology. Instead LOS was calculated using SimTraffic. ^Counts at these locations were conducted before new signals were operational. Intersections were analyzed as stop-controlled under existing conditions but with a signal under future conditions.</p>				

As shown in **Table 8.2**, several intersections in the City do not meet the City standard of LOS D. All but one intersection was stop-controlled. These intersections are:

- **Ellingson Road / SR 167 SB Ramps** – Without a signal this intersection operated at LOS F. However, the intersection was recently upgraded to a traffic signal.
- **Ellingson Road / Pacific Avenue** – This signal operates at LOS E. There is a high volume of east-west traffic on Ellingson Road with no left-turn pockets at this intersection. The existing left-turn volumes at the intersection can block through movements increasing overall delays.
- **5th Avenue SW / Milwaukee Boulevard** – This all-way, stop-controlled intersection operates at LOS E. Heavy volumes between the north leg and the east leg create a unique situation with higher delays.
- **Stewart Road / SR 167 SB Ramps** – Without a signal this intersection operated at LOS F. However, the intersection was recently upgraded to a traffic signal.
- **Stewart Road / Butte Avenue** – This unsignalized intersection operates at LOS F on the north and south

legs. The high east-west traffic volumes along Stewart Road create very little gaps for traffic entering from the side streets.

Specific factors could cause localized difficulties at certain intersections or on short sections of roadway. Some of these factors could include the lack of turning lanes, and high levels of truck traffic.

If an isolated stop sign-controlled intersection experiences excessive delay or congestion, it may be appropriate to construct turn lanes or to improve the traffic control if currently stop-controlled. Traffic control improvements could include implementing all-way stop control, constructing a traffic signal system, or constructing a roundabout. These types of isolated improvements are based on site-specific need and are not measures of the overall function of the transportation system. The implementation of intersection improvements is typically addressed in the 6-year planning efforts by the city and in Traffic Impact Analyses prepared for larger developments.

5. TRAVEL FORECASTS EVALUATION

Forecasting travel demand helps to define the future needs of the transportation system to support the land use plan which is based on a 2035 horizon year. Forecast travel demand within the City is based on the forecast land use within the City and the region. The aggregation of trips generated by future land uses provides planners with an estimate of total travel demand on the City’s transportation system.

2035 Baseline Evaluation

Land Use Forecasts

Travel forecasts are largely derived based on changes in households and employment within the study area. The Citywide land use targets for 2035 were based on PSRC land use assumptions for 2035, which is consistent with patterns of growth assumed in PSRC’s VISION 2040. Specific details about the land use growth targets and land capacity analysis are found in the memorandum “City of Pacific Growth Targets and Land Capacity Analysis” (BERK, January 29, 2016) which is basis for the land use assumptions in the land use element. As such, the land use assumptions in the transportation element are consistent with those in the land use element. Table 8.3 summarizes the land use forecasts for the City of Pacific.

Table 8.3 Summary of Land Use Forecasted for City of Pacific				
	2010	2035	Growth	Annual Growth Rate
Households				
King County	2,234	2,462	228	0.4%
Pierce County	36	45	9	0.9%
Total	2,270	2,507	237	0.4%
Employees				
King County	843	2,060	1,217	3.6%
Pierce County	2,071	4,791	2,720	3.4%
Total	2,914	6,851	3,937	3.5%
Sources: PSRC Vision 2040 (September 2015); City of Pacific Growth Targets and Land Capacity Analysis memorandum (BERK, January 29, 2016)				

Volume Forecasts

Volume growth rates by major City corridor were developed based on reviewing the PSRC travel demand model (2010 to 2035), recent neighboring city plans in the area, and estimated land use growth within the City of Pacific. City land use is expected to grow the most in the southern areas of the City as well as along West Valley Highway with annual growth rates between 2.4 and 3.4 percent. The rest of the City has more modest land use growth rates between 0.7 and 1.6 percent annually. Growth rates from the PSRC travel demand model, which accounts for regional land use growth, has similar growth rates in these areas. To develop 2035 traffic volume forecasts, the applicable growth rates were applied to the existing traffic counts at study intersections. After applying growth rates, the corridor volumes were checked for reasonableness and adjusted if necessary. A comparison of existing and future traffic volumes is shown in **Map 8.5**.

As the map shows, Ellingson Road and Stewart Road continue to have the highest weekday PM peak hour volumes in the City, as well as West Valley Highway. The largest amount of growth in traffic volume occurs in the southern portion of the City (which is consistent with where land use growth is anticipated to occur). Some sections of roadway in this portion of the City are expected see a total growth in volumes of 50 percent or more by 2035.

Planned Improvements

Typically, fully funded transportation system improvements are included in the traffic operations analysis to establish future baseline conditions for the Transportation Plan. This provides a basis to identify future new deficiencies. After reviewing Transportation Improvement Plans (TIP) from other agencies, the following list of projects that will affect the study area were incorporated into the baseline scenario.

SR 167 – SR 410 to SR 18 Safety (WSDOT)

This project will install cable median barrier and guardrail as part of the SR 167 (SR 410 to SR 18) Congestion Management project.

8th Street East - White River Bridge (City of Sumner)

This project will widen the bridge over White/Stuck River and is a joint project with Pierce County. The City is in the design and pursuing construction funding. Anticipated completion is Fall 2018.

Lake Tapps Parkway Preservation (City of Auburn)

This project will repair and overlay the existing travelled surface of Lake Tapps Parkway. This street is an extension of Stewart Road (8th St E).

A Street SE Non-Motorized Access Improvements (City of Auburn)

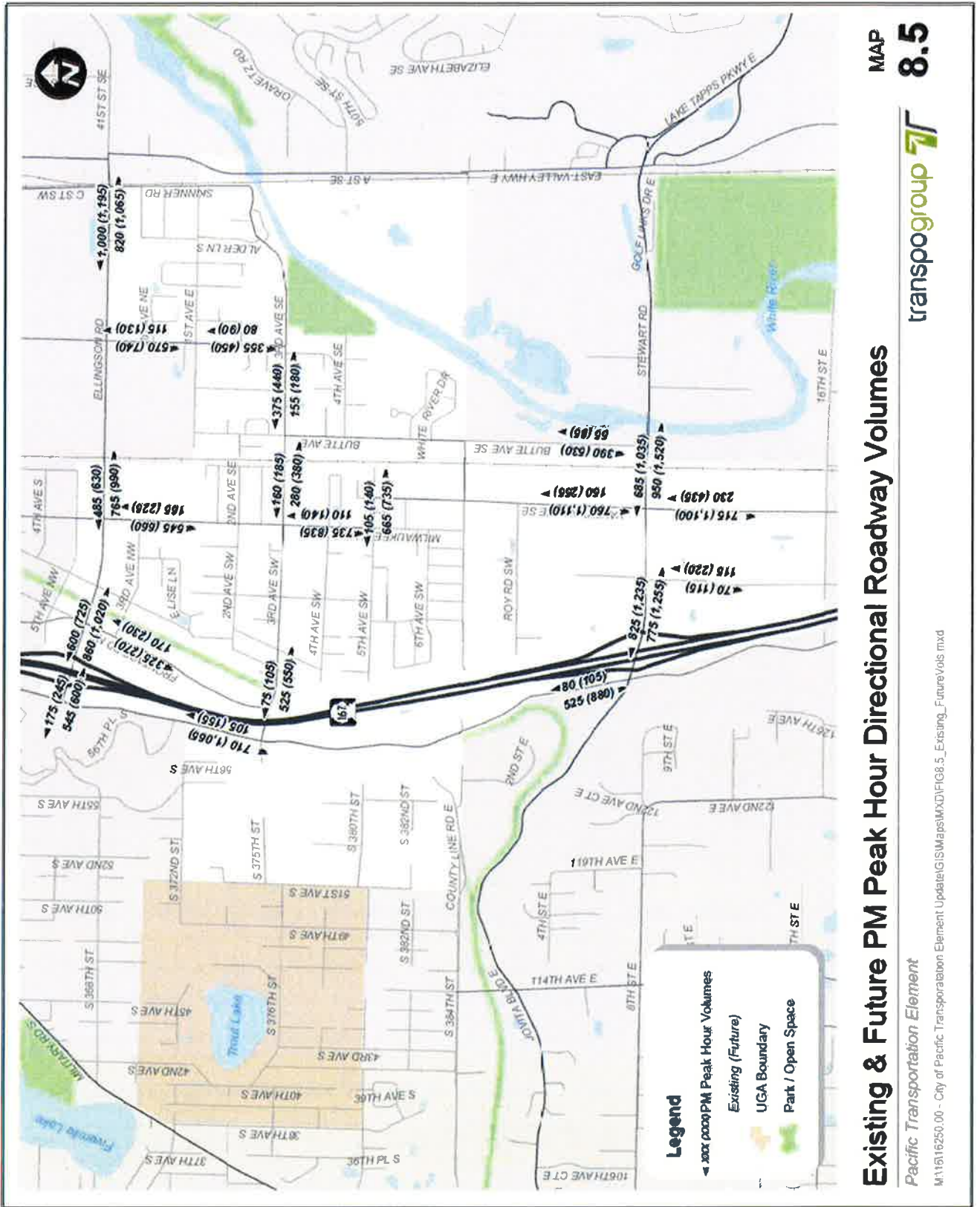
This project will improve pedestrian access in the A street corridor, a portion of which will pass through the City of Pacific.

Stewart Road Improvements (City of Pacific & City of Auburn)

This project widens Stewart Road to five lanes and installs sidewalks on the south side of Stewart with a pervious asphalt trail on the north side of Stewart. A new signal is planned at the intersection with Butte Avenue. The City of Auburn will contribute to the City of Pacific along this project corridor. It will tie the project into the City of Sumner's White River Bridge project.

West Valley Highway (City of Pacific)

This project includes widening the existing two lanes to better accommodate truck traffic and provide pedestrian facilities throughout the City. Bike facilities will also be provided south of 3rd Avenue SW.



2035 Traffic Operations

The 2035 Baseline scenario provides a reference point for identifying future traffic operations deficiencies, which were then used to establish a framework for the Transportation Systems Plan. The evaluation of the forecast traffic volumes includes an analysis of key intersections within the study area. The future 2035 operations analysis uses the same methodology as existing conditions analysis. **Table 8.4** below summarizes the future 2035 weekday PM peak hour LOS at study intersections.

Intersection	Control Type*	LOS	Delay (sec)	WM**
Ellingson Rd & SR 167 SB Ramp	Signal	C	35	-
Ellingson Rd & SR 167 NB Ramp	Signal	A	8	-
Ellingson Rd & Frontage Rd	Signal	C	28	-
Ellingson Rd & Milwaukee Blvd	Signal	B	12	-
Ellingson Rd & Pacific Ave N	Signal	F	164	-
Ellingson Rd & Skinner Rd/C St SW	Signal	E	72	-
3rd Ave SW & W Valley Hwy	AWSC	F	178	-
3rd Ave SW & Frontage Rd	TWSC	C	17	SB
3rd Ave SW & Milwaukee Blvd	AWSC	F	95	-
3rd Ave SE & Pacific Ave N***	TWSC	A	8	SB
5th Ave SW & Milwaukee Blvd	AWSC	F	73	-
Stewart Rd & West Valley Hwy	Signal	F	112	-
Stewart Rd & SR 167 SB Ramp	Signal	E	60	-
Stewart Rd & SR 167 NB Ramp	Signal	C	33	-
Stewart Rd & Thornton Ave SW	Signal	B	16	-
Stewart Rd & Valentine Ave SE	Signal	E	67	-
Stewart Rd & Butte Ave E	Signal	C	21	-
* AWSC = all-way stop-controlled, TWSC = two-way stop-controlled. **Worst movement reported for two-way stop-controlled intersections where SB = southbound. ***This intersection configuration could not be run with HCM 2010 methodology. Instead LOS was calculated using SimTraffic.				

As shown in **Table 8.4**, several intersections do not meet the City standard of LOS D. Many of these study intersections are impacted by vehicles attempting to avoid SR 167 by finding an alternative north-south route for their PM commute. Both the Milwaukee Boulevard/Valentine Avenue corridor and West Valley Highway are utilized in this capacity. Additionally, the Stewart Road and Ellingson Road corridors provide east-west routes for access to other cities from the north-south corridors. These intersections are discussed by corridor below.

Ellingson Road Corridor

Ellingson Road / Pacific Avenue builds on existing poor conditions and is expected to operate at LOS F. As mentioned previously, high east-west traffic volumes combined with no left-turn pockets create traffic delays along Ellingson Road. This intersection is operated by the City of Algona and, though included in this analysis, was not evaluated for improvements in the Transportation Systems Plan.

Ellingson Road / Skinner Road (C Street SW) is expected to operate at LOS E in the future. High volumes of turning traffic compete for limited green time at a very constrained intersection. This intersection is operated by the City of Auburn and, though included in this analysis, was not evaluated for improvements in the Transportation Systems Plan.

3rd Avenue and Milwaukee Boulevard Corridors

3rd Avenue / West Valley Highway is expected to operate at LOS F and experience heavy southbound left turn and through movements in the PM peak hour. While the other movements do not have high volumes, the southbound vehicles experience delay due to the all-way stop.

3rd Avenue / Milwaukee Boulevard is anticipated to operate at LOS F in the future, with competing heavy southbound through and eastbound right movements. Similar to the 3rd Avenue and West Valley Highway intersection, the heavy delay experienced by these vehicles is also partially due to the all-way stop.

5th Avenue SW / Milwaukee Boulevard is anticipated to operate at LOS F. It is unique in that the primary movement in the PM peak hour is the southbound left. Vehicles traveling south then go east to connect with Valentine Avenue S in order to continue traveling south. The southbound left movement represents just under 70 percent of the total entering volume at this intersection, which is slightly less than existing.

Stewart Road Corridor

Stewart Road / West Valley Highway is expected to operate at LOS F due to high traffic volumes on three out of the four legs of this intersection during the PM peak hour. All of these legs compete for time during the signal cycle, which leads to delays.

Stewart Road / SR 167 SB Ramps is expected to operate at LOS E. Similar to the Stewart Road / West Valley Highway intersection, high volumes movements compete for time during the signal cycle, causing delays most notably on the southbound leg.

Stewart Road / Valentine Avenue is expected to operate at LOS E in the future. This is due to heavy volumes on all legs, but particularly in the eastbound, westbound, and southbound through movements.

2035 With Improvements Evaluation

The 2035 Baseline forecast model was updated with the intersection capacity improvements identified in **Table 8.5** to develop a With-Project scenario. The results of the With-Project scenario show the 2035 PM peak hour intersection LOS with the transportation improvement projects identified in the Transportation Systems Plan. The resulting 2035 With-Project PM peak hour intersection levels of service are shown in **Table 8.5**.

Three intersections were identified to construct or install a roundabout or a signal (when warranted). These intersections would operate at either LOS A or B, depending on which improvement was implemented. For the roundabout improvement, the analysis was done use SIDRA software, version 6. Roundabouts are generally explored at intersections with high turning volumes, irregular designs, or right-of-way constraints along approaches. They have been proven to increase safety and reduce collision rates, especially fatal and injury collisions. Compared to signalized intersections, roundabouts can also provide cost savings over the life of the intersection due to lower operations and maintenance costs.

Improvements at the other study intersections generally included added lanes along with signal timing updates.

Aside from the Stewart Road / Valentine Avenue intersection, all intersections would operate at LOS D or better in 2035 with planned projects. There are no improvements recommended at Stewart Road/ Valentine Avenue intersection. The Transportation Systems Plan update allows for LOS E along Stewart Road.

Intersection	Control Type*	Future LOS	Recommended Improvement**	Improved LOS
3rd Ave SW & W Valley Hwy	AWSC	F	Roundabout or Signal (when warranted)	A (RAB), B (Signal)
3rd Ave SW & Milwaukee Blvd	AWSC	F	Roundabout or Signal (when warranted)	A (RAB), B (Signal)
5th Ave SW & Milwaukee Blvd	AWSC	F	Roundabout or Signal (when warranted)	A (RAB), B (Signal)
Stewart Rd & W Valley Hwy	Signal	F	Add EBT lane (for SR 167 SB ramp), SBL, and NBL turn lanes. Optimize signal timing with SR 167 Ramp intersections.	C
Stewart Rd & SR 167 SB Ramp [^]	Signal	E	Add EBR turn lane and optimize signal timing with NB ramp and W Valley Hwy intersections.	C
Stewart Rd & SR 167 NB Ramp	Signal	C	Optimize signal timing with SB ramp and W Valley Hwy intersections.	D
Stewart Rd & Valentine Ave SE	Signal	E	LOS standard is proposed to change along this corridor	-
* AWSC = all-way stop-controlled. ** EBT = eastbound through, EBR = eastbound right, SB = southbound, SBL = southbound left, NB = northbound, NBL = northbound left, [^] Counts at this location was conducted before new signal was operational. Intersection was analyzed as stop-controlled under existing conditions but with a signal under future conditions.				

6. Transportation Systems Plan

The transportation system improvement recommendations provide a long-range strategy for the City to address current and forecast transportation conditions and needs. A number of transportation improvement projects are identified, including capacity improvements, corridor upgrades, non-motorized improvements, and programmatic improvements that support the projected growth in population and employment within the City and its UGA. The recommended improvements are based on analyses of the existing transportation system, forecasts of future travel demands, anticipated availability of funding resources, and a vision of future connected networks throughout the City fueled by the desire of the community to create a transportation system that improves community livability.

These connected networks are discussed below. The table and map of improvement projects which addresses the identified needs follow the discussion.

Transportation Networks

Roadway Network & Level of Service (LOS)

As described previously, the City has an arterial roadway system comprised of Principal, Minor, and Collector roadways. Streets which are not on the arterial system are typically considered local roadways. Higher classifications (e.g., principal arterials) provide a high degree of mobility with higher traffic volumes, generally at higher speeds, and should have limited access to adjacent land uses. Lower classifications (e.g., local access streets) provide access to adjacent land and are not intended to serve through traffic, carrying lower volumes at lower speeds. Minor and collector arterials balance the function between mobility and access. This network of roadways is shown in **Map 8.1**.

Additionally, although most of the current roadway system has adequate capacity, the city will continue to upgrade roadways to improve various safety elements. Roadway improvements may also be constructed to improve access to appropriately zoned lands to encourage economic development.

The current Level of Service (LOS) standard along all City roadways is LOS D, with the exception of West Valley Highway which is LOS F. The Transportation System Plan establishes the LOS E standard for Stewart Road to reflect that this corridor is mostly built to its ultimate 5-lane configuration.

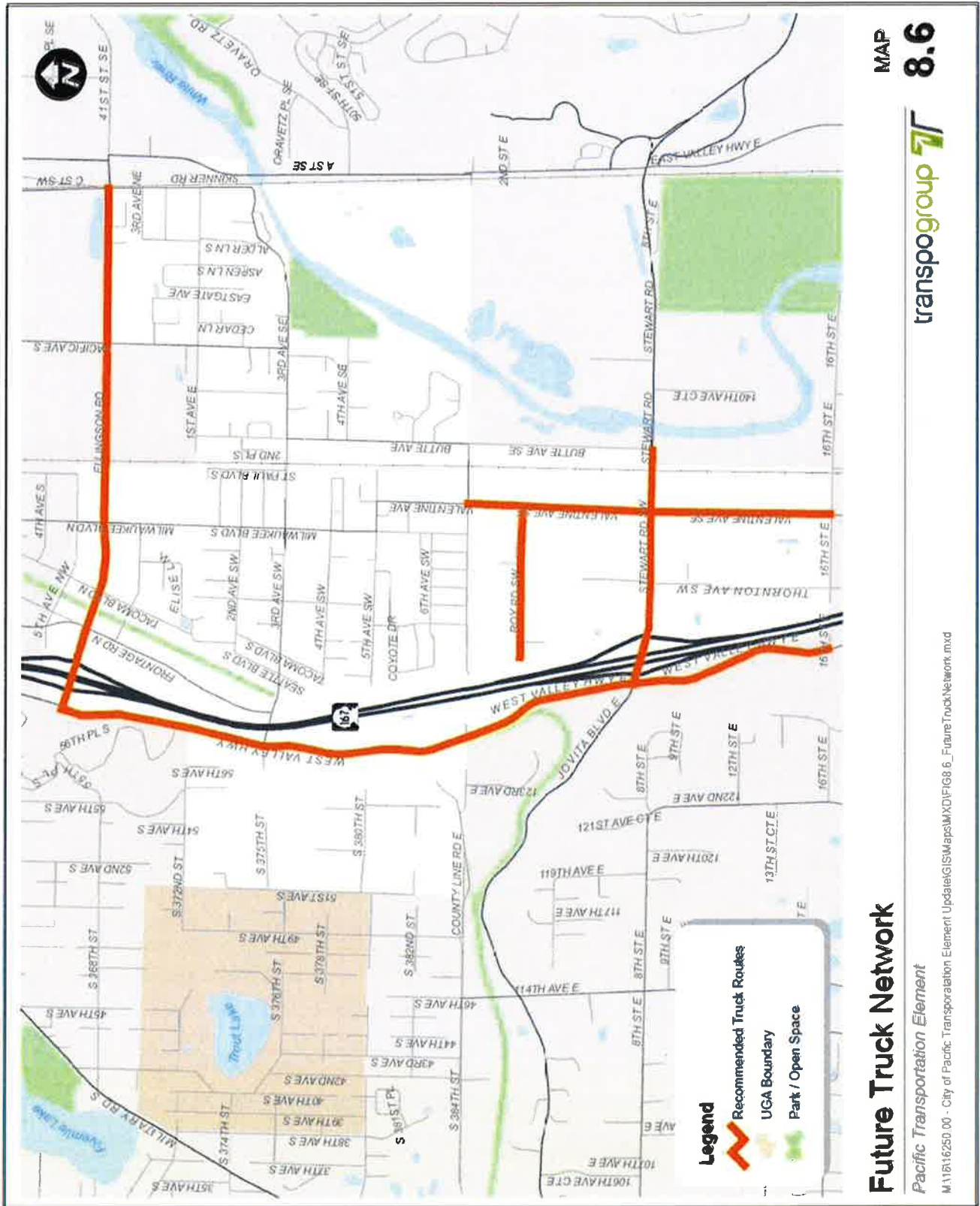
Freight Network

The City of Pacific has a successful and growing industrial land base. Consistent with the industrial land-use is elevated levels of truck traffic. Current strategies are in place to provide distinct truck routes to minimize the conflict with residential and non-industrial commute traffic. The recommended truck primary routes are shown on **Map 8.6**. Traffic Impact Analyses prepared for commercial/industrial developments will be required to identify the amount of truck traffic that will be generated by the project during the morning and evening peak hours and average weekday.

For purposes of this analysis, ‘truck’ is defined as any vehicle with a gross vehicle weight rating over 10,000 pounds and would include most combination and multiple-axle vehicles. The following levels of truck traffic would be deemed a significant increase according to the following guidelines.

The developer would be required to include with the Traffic Impact Analysis a pavement analysis for each roadway receiving an increase in truck traffic in excess of the limits defined in **Table 8.6** to determine if the roadway can accommodate the increase in truck loading.

Table 8.6 Significant Truck Traffic Levels For New Developments	
	Average Daily Volume
Designated Truck Routes	100
All other Streets	10

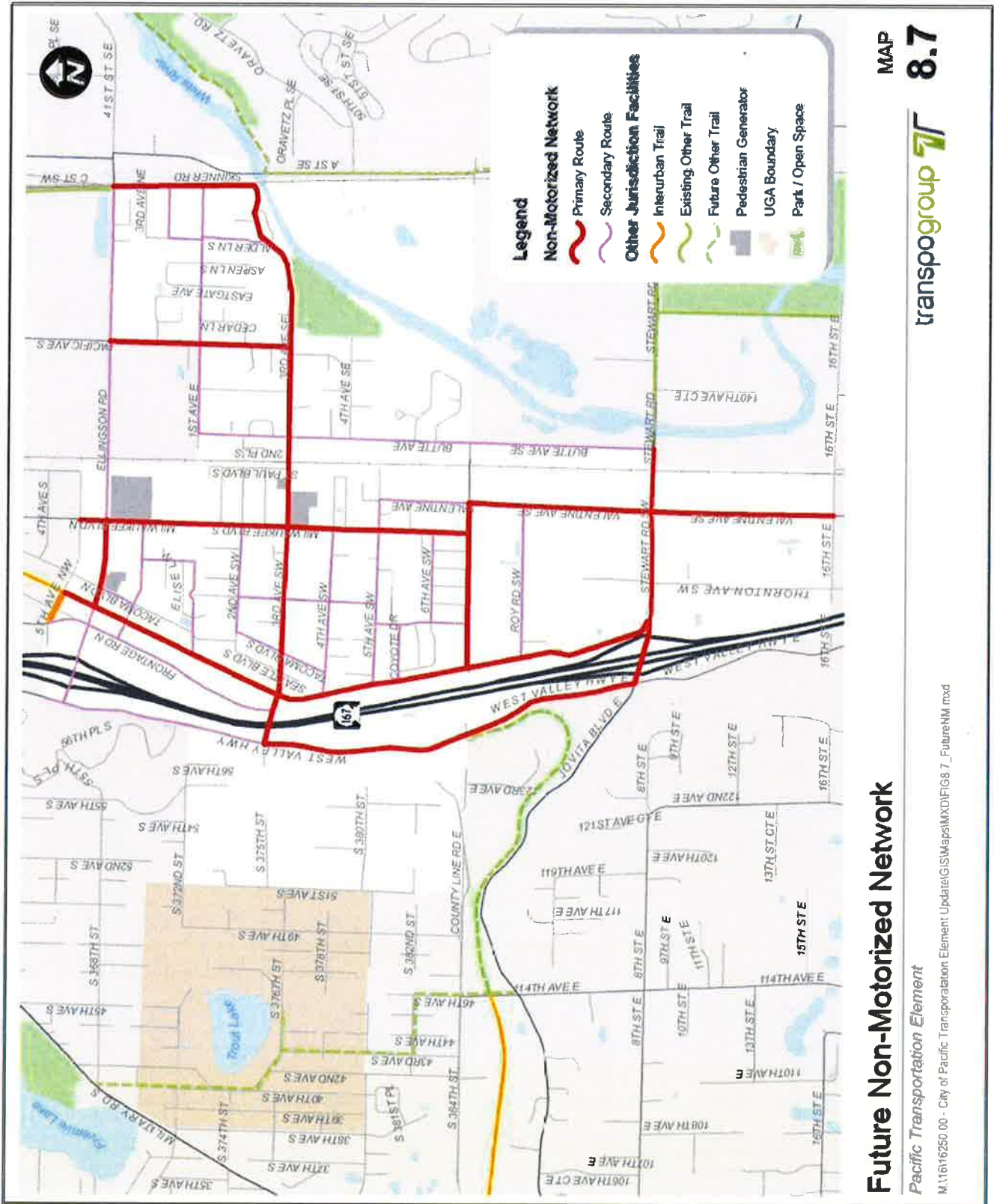


Non-Motorized Network

Active Transportation improvements add pedestrian and bicycle facilities to roadways or construct off-street multiuse pathways to complete gaps in the existing non-motorized network. Transportation system connectivity is drawing increased focus within local, state and federal planning circles as smart growth, active living, growth management, and sustainability programs stress smarter decision-making and place greater importance on pedestrian system connectivity. The quality of connectivity is inversely related to the number and severity of environmental and infrastructure barriers to walking and bicycling. The physical barriers that affect travel behavior is felt at the neighborhood level and these barriers take many forms, either inadequate networks (lack of optional routes) or disconnected routes, but also rivers, steep terrain, rail lines, freeways and major arterials pose significant barriers to pedestrian connectivity.

Land use and neighborhood street design patterns can also form barriers to pedestrian travel. For example, overly large blocks and the lack of mid-block crossings cause pedestrians to travel further to reach local destinations, often resulting in a decision to utilize a vehicle for short trips that would otherwise be completed on foot.

The future non-motorized network is broken down into primary and secondary routes and is based on making connections between existing facilities, future facilities, and pedestrian generators (such as schools, the downtown, parks, or residential areas). This network is meant to encourage walking and bicycle trips of various lengths and increase convenience for residents. Walking and regular physical activity include a range of health benefits that include reduced risk of coronary heart disease, high blood pressure, and diabetes. A well-established system encourages healthy recreational activities, reduces travel demand on City roadways, and enhances safety within a livable community. **Map 8.7** shows the future non-motorized network and how it connects to the surrounding system.



MAP 8.7

transpogroup

Future Non-Motorized Network

Pacific Transportation Element

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Transit Network & Transportation Demand Management (TDM)

While existing transit service is limited within City limits, the City encourages King County Metro to consider additional routes to provide adequate coverage and increased service frequency. The City would also like to see service to commuter rail stations either in the City of Sumner or Auburn. Additionally, providing a park and ride lot to connect with regional and local routes served by King County Metro, Sound Transit, and Pierce Transit is also recommended. The City will continue to work with King County Metro, Pierce Transit, and Sound Transit to ensure high-quality transit services and facilities are maintained as the City continues to grow.

In addition to capacity and safety enhancements to the existing system, the City also encourages managing demand on its facilities. This includes provision of non-motorized facilities such as bike and pedestrian paths and sidewalks, trail networks, and connections between modes such as auto and transit.

Transportation Demand Management (TDM) consists of strategies that seek to maximize the efficiency of the transportation system by reducing the number, length and need of private automobile trips. Typically, TDM measures include provision of park and ride lots, improvements to pedestrian and bicycle facilities, and promotion of ridesharing activities.

TDM strategies are typically most effective in denser and larger urban areas. However, strategies coordinated with King County, Pierce County, WSDOT, and PSRC can provide alternatives for residents and employees in Pacific. Potential TDM strategies the City could promote through policy or investment include but are not limited to the following.

- **Transit Incentives** – Employers can provide free or reduced-rate transit passes to all employees.
- **Ridesharing** - Employers can develop and maintain a database of home addresses to facilitate carpool and vanpool matching between employees working on the same site. Employers can also provide financial incentives or reserved parking spaces for carpool and vanpool vehicles.
- **Flexible Work Schedules** – Flexible work hour schedules allow employees to adjust start/end times to accommodate carpools, vanpools, or transit options. Alternative work schedules can also be used to reduce the number of days an employee commutes during peak travel periods. These programs help reduce the need for adding capacity to highways and arterials, and reduce the levels of peak hour congestion.
- **Telecommuting** – The use of telecommunications technology can allow some employees to work from home, reducing the need for travel to and from a work site for some work days.

Improvement Project List

Based on an evaluation of existing and forecast traffic volumes, traffic operations, safety, and circulation needs, a recommended list of transportation improvement projects and programs are identified. The project list is organized into the following categories:

- **Roadway Network** improvements include projects that benefit all modes and are further sub-divided into the following categories:
 - **Intersection / Operations** projects include upgrading intersections through the addition of roundabouts, added turn lanes, or modifications to traffic controls. Where applicable, improvements may also include upgrading of traffic signals.

- **Widening / Reconstruction** projects include widening existing corridors to add travel lanes and turn lanes to add capacity. Includes reconstruction and upgrading roadways to serve higher traffic volumes and non-motorized travel.
- **Non-Motorized Network** improvements add facilities to complete gaps in the existing non-motorized network, focusing particularly on the primary routes. These improvements could include sidewalks, bike lanes, bike signage or markings, or multiuse pathways. All projects are meant to expand route options for pedestrians and bicyclists through the City.
- **Other Agency** improvements include projects developed by other agencies that impact the City's transportation system.
- **Citywide Programs** include annual transportation programs within the City of Pacific.

Map 8.8 and **Table 8.7** identify each of the projects and their locations. **Table 8.7** provides a brief description of each project including the project limits. The table identifies projects that are currently part of the City's 6-year Transportation Improvement Program (TIP). A project identification number is provided for each project that is referenced in **Map 8.8**

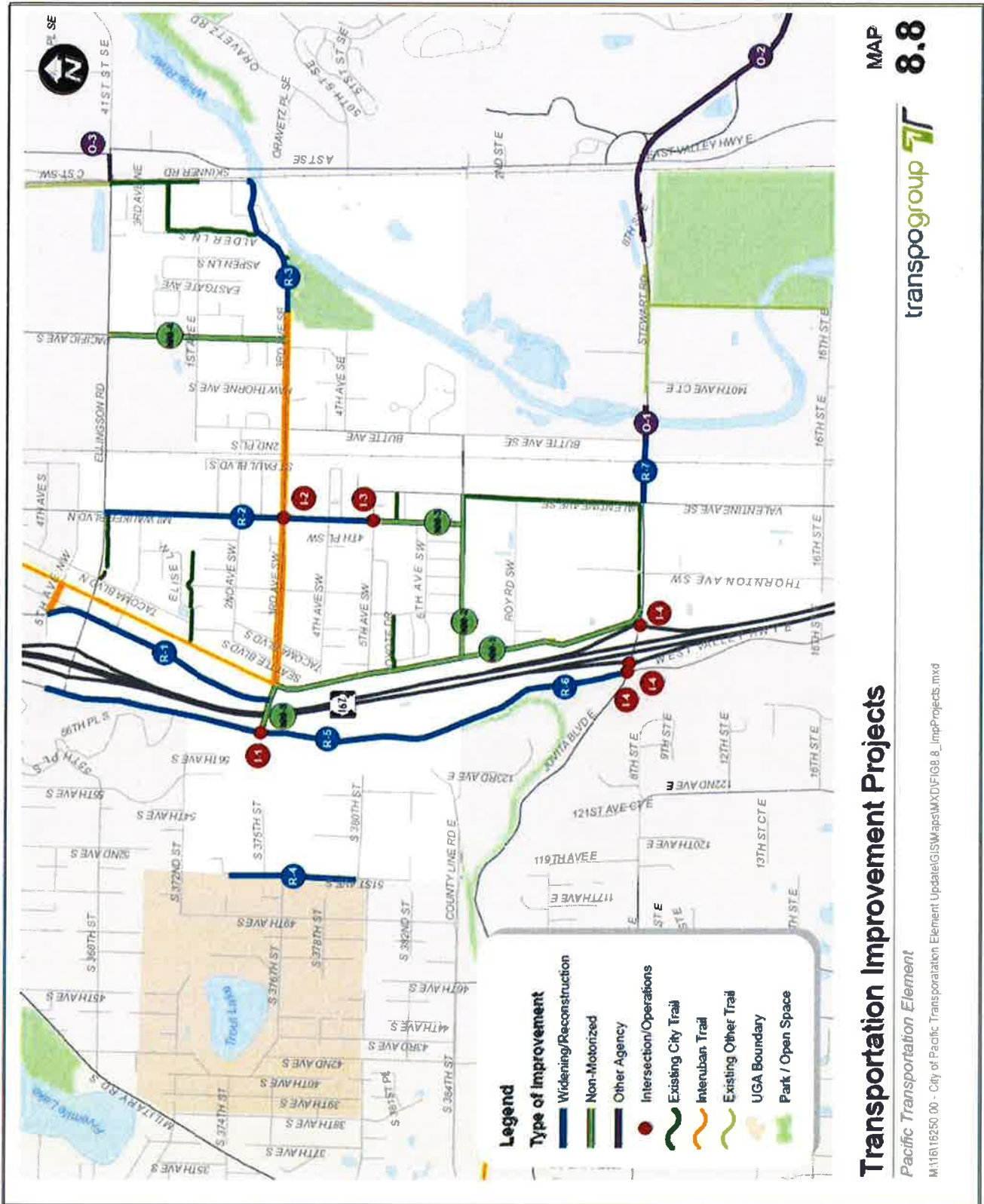
In addition to roadway and intersection improvements, there are other measures that can be considered to improve the overall safety of City roadways. Potential safety measures may include:

- Widening the existing travel lanes
- Improving horizontal and vertical curves
- Constructing or widening shoulders
- Removing obstructions to improve sight distances
- Road surface maintenance
- Constructing turn lanes at intersections
- Constructing sidewalks or bike lanes
- Adding street lighting

Table 8.7 Improvement Projects

Transportation Improvement Projects and Programs
City of Pacific Transportation Element Update

Type	Project ID	CIP ID	Project Name	Description	Total Cost Estimate
Interagency / Operations	I-1	*	3rd Avenue SW / W Valley Hwy Intersection	Future roundabout or signal (when warranted).	\$ 655,000.00
Interagency / Operations	I-2	*	3rd Avenue SW / Milwaukie Blvd Intersection	Future roundabout or signal (when warranted).	\$ 1,165,000.00
Interagency / Operations	I-3	*	5th Avenue SW / Milwaukie Blvd Intersection	Future roundabout or signal (when warranted).	\$ 1,100,000.00
Interagency / Operations	I-4	*	Howard Rd / W Valley Hwy Intersection	Add an eastbound through lane to address southbound SR 147 ramp at adjacent intersection, add a northbound left-turn lane and a combined left-turn lane, then optimize width and coordinate signal timing with two adjacent intersections. Will require coordination with City of Edgewood.	\$ 1,310,000.00
Agency / Reconstruction	R-1	WA-0561	Frontage Road Rehabilitation 3rd Ave SW to 3rd Ave SE	Frontage Road rehabilitation including repair of pedestrian facilities.	\$ 1,500,000.00
Agency / Reconstruction	R-2	PAC-8	Milwaukie Boulevard Minor Midblock, Elginson Rd to 3rd Ave SW	Phase 1 of the project will construct 1,200 ft of sidewalk between 3rd Ave SW & 5th Ave SW. Phase 1 will overlay 2,000 LF of existing pavement from Elginson Rd to 3rd Ave SE, reconstruct 320 LF of new sidewalk along a missing "gap" on the east side of Milwaukie Blvd from 3rd Ave SE to 4th Ave SE, reconstruct approx. 800 LF of block segments of curb, gutter, and sidewalk on Milwaukie Blvd from Elginson Rd to 3rd Ave SE, replace or construct 19 access ramps to meet current requirements, and replace/reconstruct approx. 33 driveway approaches to meet current standards for accessibility. Signal will also include bicycle signals.	\$ 1,360,000.00
Agency / Reconstruction	R-3	*	3rd Avenue SE Pacific City Park entrance to Stoner Rd	Widen to two through lanes, provide sidewalk on the south side and bike lanes on both sides of the roadway.	\$ 2,120,000.00
Agency / Reconstruction	R-4	WA-0563	3rd Avenue Reconstruction 2.37 am to 2.35 pm	From S 27th St to S 38th St construct a 24-foot wide paved road over an existing ROW containing a gravel road. Work includes a stormwater conveyance and collection system.	\$ 560,000.00
Agency / Reconstruction	R-5	PAC-7	West Valley Highway Reconstruction 3rd Ave SW to 1st Ave W (north city limit)	Widen the two lanes facility for wider travel lanes to better accommodate trucks, reconstruct roadway to sub-base, provide pedestrian facilities, and provide stormwater facilities.	\$ 2,650,000.00
Agency / Reconstruction	R-6	PAC-7A	West Valley Highway Reconstruction 3rd Ave SW to 2nd Ave SW	Widen an existing 2-lane undivided, narrow minor arterial road. The final roadway section will two wide travel lanes to better accommodate truck traffic, 5-foot bike lanes on both sides of the roadway, sidewalks on the eastern side of the roadway, landscape areas, illumination and associated utility elements.	\$ 4,400,000.00
Agency / Reconstruction	R-7	PAC-2B	Biopark Road Improvements, Valentine Ave to 3rd Ave	Widen Street Road (2 lanes to 5 lanes) and install sidewalks (south side of Street) and a concrete asphalt trail (north side of Street) from Valentine Ave SE to White River Bridge. Environmental documentation will be completed for future construction of the concrete asphalt trail from Valentine Ave SE to Blue Ave SE, installation of a new signal at Blue, Project activities to complete this work include clearing, grading, paving, signing, signage, illumination, utility relocation, stormwater upgrades, and installation of new water main.	\$ 4,700,000.00
Non-Motorized Facility	NM-1	WA-0562	Midway Trail 3rd Ave SW to Stewart Road	This project will extend the Interurban Trail from 3rd Ave SW to Roy Road. Project elements consist of 0.75 miles of multi-use trail utilizing previous pavement. Trail may be extended further, as funding allows.	\$ 1,800,000.00
Non-Motorized Facility	NM-2	*	County Line Road Intersection 7th St / Valentine Ave SE	Install bicycle lanes and BBI in missing pedestrian busy gaps	\$ 800,000.00
Non-Motorized Facility	NM-3	*	Milwaukie Blvd N 3rd Ave SW to County Line St	Install bicycle signals	\$ 40,000.00
Non-Motorized Facility	NM-4	*	Pacific Ave S Elginson Rd to 3rd Ave SE	Install bicycle signage and BBI in pedestrian facilities	\$ 360,000.00
Non-Motorized Facility	NM-5	*	3rd Ave SW Intersection Trail to W Valley Hwy	Install bicycle signals	\$ 20,000.00
Other Agency Improvements	O-1	*	Howard Rd - White River Bridge	Replace the existing 2-lane bridge with a bridge that is 74 feet to accommodate 4 lanes, a sidewalk on one side, and a trail crossing on the other	n/a
Other Agency Improvements	O-2	*	John Tappa Pathway Preservation	This project will complete a patch and overlay of pavement between the Auburn/Summer City limit and Labeled 164. Way including all required ADA improvements to curb ramps, sidewalks, and pedestrian signals.	n/a
Other Agency Improvements	O-3	*	A Street SE Non-Motorized Improvements	This project will fund the permitting, design and construction of a new pedestrian underpass at the BNSF Railway mainline tracks south of 41st St SE and a new signalized pedestrian crossing of A St SE.	n/a
Citywide Programs	C-1	WA-0568	Road Repair & Preservation City Wide	Overlays, repairs, and drainage improvements throughout the city.	\$ 825,000.00
Citywide Programs	C-2	WA-0567	Sidewalk Improvements	Repair/replace sidewalks throughout the City of Pacific.	\$ 360,000.00



7. CONSISTENCY WITH OTHER AGENCIES

The 1998 legislation House Bill 1487 known as the “Level of Service” Bill, amended the Growth Management Act; Priority Programming for Highways; Statewide Transportation Planning, and Regional Planning Organizations. The combined amendments to these RCWs were provided to enhance the identification of, and coordinated planning for, “transportation facilities and services of statewide significance (TFSSS)” HB 1487 recognizes the importance of these transportation facilities from a state planning and programming perspective. It requires that local jurisdictions reflect these facilities and services within their comprehensive plan.

State-Owned Transportation Facilities

SR 167 provides the major link between the City of Pacific and the region. This limited access divided highway has interchanges at Ellingson Road and Stewart Road (8th Street East) to connect the city with the State highway system. It is the only state facility within the City limits.

Highways of statewide significance (HSS)

SR 167 is identified as a Highway of Statewide Significance (HSS). The City of Pacific affirms the establishment of LOS D as adopted by WSDOT for HSS facilities.

Regionally Significant State Highways

The Puget Sound Regional Council (PSRC) adopted level of service standards for regionally significant state highways in the central Puget Sound region. Regionally significant state highways are state transportation facilities not designated as being of statewide significance. The PSRC 3-tiered approach to LOS is described below.

Tier 1

For this process, the "inner" urban area is generally defined as a 3-mile buffer around the most heavily traveled freeways (I-5, I-405, SR 167, SR 520, and I-90), plus all designated urban centers (most are located in the freeway buffer already). The proposed standard for Tier 1 routes is LOS E/mitigated, meaning that congestion should be mitigated (such as transit) when p.m. peak hour LOS falls below LOS E.

Tier 2

These routes serve the "outer" urban area - those outside the 3-mile buffer - and connect the "main" urban growth area (UGA) to the first set of "satellite" UGA's (e.g., SR 410 to Enumclaw). These urban and rural areas are generally farther from transit alternatives, have fewer alternative roadway routes, and locally adopted LOS standards in these areas are generally LOS D or better. The proposed standard for Tier 2 routes is LOS D.

Tier 3

Rural routes are regionally significant state routes in rural areas that are not in Tier 2. The proposed standard for rural routes is LOS C, consistent with the rural standard in effect for these routes once they leave the four counties in the PSRC region, such as SR 530 entering Skagit County.

The City of Pacific asserts that proposed improvements to state-owned facilities will be consistent with the Regional Transportation Plan (RTP) and the State Highway System Plan within Washington’s Transportation Plan (WTP). No Non-HSS facilities are currently located within the City of Pacific.

8. FINANCING AND IMPLEMENTATION

The State of Washington’s Growth Management Act (GMA) requires that a jurisdiction’s transportation element contain a funding analysis of the transportation projects that are needed to support the land use element. The purpose of the funding and implementation plan is to confirm that the transportation improvement projects can be

overall capital improvement program. It also establishes a level of funding needed through transportation impact fees and other developer mitigation. Table 8.9 summarizes the anticipated sources of revenues needed to fund the identified capital improvements.

Table 8.9 Capital Project Funding Strategy Summary	
Source	2017 to 2035 Revenues ¹
<u>City Funding</u>	
Real Estate Excise Tax (REET)	\$3,400,000
Motor Vehicle Fuel Tax ²	\$0
General Fund ²	\$300,000
<i>Subtotal</i>	<i>\$3,700,000</i>
<u>Grants and Other Agency Funding</u>	
Federal, State, or Regional Grants	\$13,900,000
Other Agencies	\$0
<i>Subtotal</i>	<i>\$13,900,000</i>
<u>Development Funding</u>	
Transportation Impact Fees ³	\$6,800,000
Other Developer Mitigation ⁴	\$455,000
<i>Subtotal</i>	<i>\$7,255,000</i>
Total Estimated Revenues	\$24,855,000
<ol style="list-style-type: none"> 1. Planning level costs in 2017 dollars. 2. MVFT revenue assumed to be allocated to administration and maintenance. General fund is assumed to be minimal. 3. Transportation impact fee revenues based on estimated growth related costs of capital improvements. 4. Developer funding beyond transportation impact fees. Could include frontage improvements, local improvement districts, reimbursement agreement, or other similar funding program. Assume that all, or part of, improvements are constructed or right-of-way dedicated as a condition of development. 	

Local Funding

The City utilizes a number of fees and tax revenues to construct and maintain its transportation facilities. City tax revenues directed toward transportation capital improvement projects are primarily from the Real Estate Excise Tax (REET). The City also uses fuel taxes and sometimes directs revenue from its General Fund to fund transportation capital projects, as needed, but those revenues are typically allocated to administration and maintenance expenses.

Grants

The City will aggressively pursue federal, state, and regional grants to implement many of the identified transportation improvements. Key grant programs that the City will pursue are managed by the state Transportation Improvement Board (TIB), PSRC, or through WSDOT Local Programs. Each grant program requires an agency match. The City will need to reserve adequate funding for use in matching against any grant funds that are received.

The City will work through TIB, PSRC, and WSDOT to pursue grants for specific projects. Projects to improve regional roadways are candidates for TIB and some federal grant programs managed through WSDOT. Grants to enhance pedestrian and bicycle facilities are largely through either TIB, WSDOT pedestrian/bicycle program, or the Safe Routes to Schools program.

Other Agency Funding

Pacific's transportation system is also impacted by regional traffic and neighboring jurisdictions. The City needs to address regional traffic impacts to jointly develop or advocate for transportation improvements along common border streets and along SR 167. The City will closely coordinate with WSDOT to implement improvements to SR 167. The City must also work to improve connections to key Pierce Transit and Sound Transit facilities.

Regular coordination with the Puget Sound Regional Council to review the effect of regional LOS standards on Highways of Statewide Significance (SR 167) or regional significance should be a priority. Timely and regular coordination will allow consideration for changes in regional travel growth, employment, and economic development as well as funding the identified state highway improvements.

Transportation Impact Fee Program

The City plans to adopt a Transportation Impact Fee program to support implementation of growth related transportation improvements. The Growth Management Act (GMA) allows agencies to develop and implement a Transportation Impact Fee (TIF) program to help fund some of the costs of transportation facilities needed to accommodate growth. State law (Chapter 82.02 RCW) requires that TIFs are:

- Related to improvements serving new developments and not existing deficiencies;
- Assessed proportional to the impacts of new developments;
- Allocated for improvements that reasonably benefit new development; and
- Spent on facilities identified in the Capital Facilities Plan.

TIFs can only be used to help fund improvements that are needed to serve new growth. The impact fees are assessed on new development activity and are based upon the number of new trips a development generates. Trip rates are based upon the Institute of Transportation Engineers Trip Generation Manual. In some circumstances developers can construct improvements concurrent with development activity and earn credits to offset impact fees.

The City can apply a cost escalation factor each year, or update project cost estimates, to update the TIF rates. A full evaluation and update of the TIF rates would primarily be needed only when the Transportation Element is updated to reflect changes in land use plans, the project list, funding, or LOS standards.

Other Development Mitigation

All new development in the City must pass state and local development regulations and requirements. These include GMA concurrency requirements, the State Environmental Policy Act (SEPA), and road standards/frontage improvements. These elements are project specific and are reviewed as part of each development application.

Other Potential Funding Sources

The following outlines possible funding sources the City could consider for financing transportation maintenance, and capital projects and programs. The City should explore strategies to address funding shortfalls and consider

policy changes that would provide for reliable future revenues to fully maintain, operate, and expand its transportation system. The potential funding options are described below and listed in Table 8.10.

Table 8.10 Other Local Transportation Funding Options	
Local Funding Source	Comments
Transportation Impact Fee	<u>With City Council approval</u> , the City may charge a fee to help fund specific transportation projects shown to be reasonably related to new development.
Local or Business Improvement District (LID or BID)	Levy a special benefit assessment on properties within a specific area that would benefit from the improvement.
General Obligation (GO) Bonds	With voter approval, a GO bond requires 60 percent approval and creates a new source of funds when tied to an excess levy for repayment of the bond debt.
Planned Action Ordinance	A project specific action under the State Environmental Protection Act (SEPA) in which the mitigation measures that will be applied have already been identified through an environmental review process.
Latecomers Agreements	Allow property owners who have paid for capital improvements to recover a portion of the costs from other property owners in the area who later develop property that will benefit from those improvements.
Source: Transpo Group 2017	

Local Improvement District or Parking and Business Improvement Area

Any jurisdiction may form a local improvement district (LID) parking and business improvement area (PBIA) and levy a special assessment on properties within the district that would benefit from the improvements. An LID is a special purpose financing option that may be created by the City or other local governments to fund improvements, such as streets, water, or sewer facilities that benefit nearby property owners. Voter approval is not required to form an LID, but the LID formation may be challenged by the property owners. LIDs for cities are authorized under RCW 35.43 to 35.56. The City may levy a tax on the property within an area that will benefit from a specific capital project. They can be created by local governments or they can be initiated by property owners in the benefit area. Property owners that will benefit from the improvements would be assessed a special benefit assessment based on proportionate levels determined during the formation of the districts. This special benefit assessment would typically be paid annually by the property owner for a time period established during the formation of the district. The City would have discretion in its financial contribution to the overall project costs of the district.

A PBIA is somewhat similar to an LID, but has specific requirements per RCW 35.87A.010. A PBIA is permitted to aid general economic development and neighborhood revitalization. It is intended to facilitate the cooperation of merchants, businesses, and residential property owners to support economic vitality, livability, and general trade. A PBIA requires a petition be submitted by at least 60 percent of the assessments of property within the area.

General Obligation Bonds Supported with an Excess Property Tax Levy

The City Council may go to the public for a voter-approved bond with a property tax increase. With voter approval, the City can increase funding through debt by raising the property tax rates to pay the general obligation bond.

Planned Action Ordinance

Planned Action Ordinances (PAO) are a project specific action under the State Environmental Protection Act (SEPA) in which an Environmental Impact Statement (EIS) designates, by ordinance, those types of projects to be considered Planned Actions – spelling out mitigation measures that will be applied. This type of action is appropriate for small areas, such as the downtown, expecting a specific type of development. Per RCW 43.21C.031, GMA counties and cities may designate a planned action. A planned action must be designated by an adopted ordinance or resolution of the City. The planned action must be based on an Environmental Impact Statement (EIS) that adequately addresses significant environmental impacts. The EIS needs to be prepared in conjunction with a comprehensive plan or subarea plan adopted under GMA.

The planned action can only include projects that are subsequent to or implement the comprehensive plan or subarea plan; however, the projects must be located within the defined urban growth area. The planned action would be limited to specific geographical areas that are less than the boundaries of the City or to specific types of development within the City. The ordinance and/or EIS must specify a time limit for the planned action. The City will need to fund the costs of preparing the subarea plan and EIS to establish the planned action, which is typically a significant upfront investment.

To ensure that the developments are not paying twice for the same impacts, it is recommended that projects included in a planned action are not also included in a TIF, or at least are specifically allocated to each funding source. This distinction would simplify the administration of both funding options.

Latecomers Agreements

Latecomers Agreements (RCW 35.72) are contracts that allow property owners who have elected to install capital improvements to recover a portion of the costs from other property owners in the area who later develop property that will benefit from those improvements. The City may also join in the financing of the improvement projects and be reimbursed in the same manner as a property owner. The period of collection may not exceed 15 years and is based on a pro-rata share of the construction and contract administration costs of the particular project. The City must define an area subject to the charges by determining which properties would require similar improvements. The preliminary assessment reimbursement area needs to be provided to all property owners within the area; owners of property in the area may request a hearing to discuss the Latecomers Agreement. The contract must define the cost allocation process based on benefits to properties in the reimbursement area. The final contract must be recorded with the County Auditor within 30 days to be valid. Although not explicitly required, the City could adopt an ordinance noting the circumstances where the option for such a reimbursement contract would be acceptable.

Concurrency Management and Development Review

Concurrency refers to the ongoing process of coordinating infrastructure needs with community development. This concept was formalized in the GMA to ensure that adequate public facilities as defined by local jurisdictions are provided in concert with population and employment growth. For transportation facilities, the GMA requirement is fulfilled if its LOS standards will continue to be met including the additional travel demand generated by each development.

Concurrency determinations for the roadway network are closely linked with development review decisions. In addition, the City reviews development applications pursuant to the State Environmental Policy Act (SEPA). Concurrency and SEPA are primarily focused on a shorter-term time frame.

The City will consider adoption of a TIF program to help fund growth related improvements, both long-term and short-term needs. Projects that result in an adverse impact are required to fund or implement mitigation measures

that reduce the impact below a level of significance and/or meet the LOS standard. A TIF program will provide credits to developers to construct improvements whose costs are included in the TIF program.

The City will regularly monitor the operations and levels of service of its transportation system. The City will use the information in developing its Six-Year Transportation Improvement Program (TIP), pursuit of grants, and coordination with WSDOT and other agencies. The City will apply SEPA and its development standards to evaluate and identify appropriate improvements for mitigating impacts of developments in the city.

Reassessment Strategy

The implementation strategy to complete the identified capital projects are largely based on revenue from grants and adoption of a TIF program. The City may be able to shift revenues from other funding programs to address specific needs as yearly budgets are prepared. In addition, the City is committed to reassessing its transportation needs and funding sources each year as part of the annual Six-Year TIP. This allows the City to match the shorter-term improvement projects with available funding.

In order to maintain the vitality of the City's transportation system, the City should adhere to the following principles as it implements the project list:

- The City will balance improvement costs with available revenues when developing the annual Six-Year TIP;
- Review project design during the development review process to determine whether costs could be reduced through reasonable changes in scope or deviations from roadway design standards;
- Coordinate and partner with WSDOT and other agencies to aggressively pursue grants from state, federal, and regional agencies to help fund and implement improvements along SR 167;
- Work with regional and local agencies to develop multi-agency grant applications for projects that serve regional travel;
- If a TIF program is adopted, TIF revenues will be reviewed on a regular basis to determine whether the impact fees should be adjusted to account for project cost increases and/or decreases in grants or cost sharing; and
- If the actions above are not sufficient, consider changes in the LOS standards and/or limit the rate of growth.