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CHAPTER 1. INTRODUCTION

The transportation system is a vital component of Auburn's social, economic, and physical structure. The primary purpose of the transportation system is to support the movement of people and goods within the City



Auburn Station

and connect the City to the broader region. Secondarily, it influences patterns of growth, development_a and economic activity by providing access to adjacent land uses. Planning for the development and maintenance of the transportation system is a critical activity promoting the efficient movement of people and goods, ensuring emergency access, and optimizing the role transportation plays in attaining other community objectives.

1.1 PURPOSE

The Comprehensive Transportation Plan is the framework for transportation planning in Auburn. It functions as the overarching guide for changes to the transportation system. The Plan evaluates the existing system by identifying key assets and improvement needs. These findings are then incorporated into a needs assessment, which guides the future of the transportation system.

This Plan is multi-modal, addressing multiple forms of transportation in Auburn including the street network, non-motorized travel, and transit. Evaluating all modes enables the City to address its future transportation needs in a comprehensive and balanced manner.

VISION

The Comprehensive Transportation Plan reflects the current and future needs of the Auburn community and, in doing so, seeks to:

- Enhance the quality of life for all Auburn residents;
- Encourage healthy community principles through non-motorized travel;
- Promote a transportation system that supports local businesses and enhances economic development opportunities;
- Create a transportation system that is efficient, uncomplicated, and welcoming to visitors; and
- Provide a balanced, multi-modal transportation system that addresses both local and regional needs.



GMA REQUIREMENTS

Washington State's 1990 Growth Management Act (GMA) requires that transportation planning be directly tied to the City's land use decisions and fiscal planning. This is traditionally accomplished through the adoption of the Transportation Element of the Comprehensive Plan. Auburn fulfills this mandate by adopting the Comprehensive Transportation Plan as the Transportation Element of the City's Comprehensive Plan. In order to be GMA compliant, the Comprehensive Transportation Plan must:

- Inventory the existing transportation system in order to identify existing capital facilities and travel levels as a basis for future planning;
- Identify level-of-service (LOS) standards for all arterials, transit routes, and state-owned facilities as a gauge for evaluating system performance;
- Specify actions and requirements for bringing into compliance locally owned transportation facilities or services that are below an established level-of-service standard;
- Determine existing deficiencies of the system;
- Use land use assumptions to estimate future travel, including impacts to state-owned facilities;
- Identify future improvement needs from at least ten years of traffic forecasts based on the adopted land use plan;
- Include a multiyear financing plan based on the identified needs;
- Address intergovernmental coordination; and
- Include transportation demand management strategies.

1.2 How the City Uses the Plan

The Comprehensive Transportation Plan provides policy and technical direction for development of the City's transportation system through the year 2035. It updates and expands the 201509 Comprehensive Transportation Plan by recognizing network changes since the last plan, evaluating current needs, and identifying standards for future development, and various infrastructure improvement scenarios. The Plan underwent a major update in 2005 and a midterm update in 2009 to incorporate the Lea Hill and West Hill annexation areas into the Plan.

NEEDS ASSESSMENT

A system-wide, multi-modal needs assessment was conducted throughout plan development to ascertain which aspects of Auburn's existing transportation system work well and which ones need improvement. An evaluation of potential solutions and investment priorities was also conducted as part of this process. The end result is that Auburn has a more thorough understanding of system deficiencies, how best to address these deficiencies, and direction for expanding the system in a sustainable manner.

PUBLIC INVOLVEMENT

Public outreach is an important component of the ongoing needs assessment process. During Throughout the year 2014, the City held a number of community meetings through the Imagine Auburn visioning



Process, for the for-major update adopted in 2015. The meetings included discussions of capital investments in transportation infrastructure and other transportation related issues which have been incorporated into this document.

As part of the adoption process, the Plan is also reviewed by the City of Auburn Planning Commission, including a hearing where members of the public are provided the opportunity to provide input on the plan, and which is then reviewed and adopted by the City Council.

POLICY DEVELOPMENT

The City creates policies to state preferences for preservation of the existing system and development of the future transportation system. Policies can be qualitative in nature, but often they are quantitative and prescribe a specific standard.

Policies are also important for communicating the City's values and needs to neighboring jurisdictions and regional and state agencies. Having established policies in place enables the City to more effectively influence change in keeping with its needs and objectives.

LOS AND CONCURRENCY

The concurrency provisions of the 1990 Growth Management Act (GMA) require that local governments permit development only if adequate public facilities exist, or can be guaranteed to be available within six years, to support new development.

The GMA requires each local jurisdiction to identify facility and service needs based on level-ofservice (LOS) standards. Auburn ensures that future development will not cause the system's performance to fall below the adopted LOS standard by doing one or a combination of the following: limiting development, requiring appropriate mitigation, or changing the adopted standard.

CAPITAL FACILITIES PLAN AND TRANSPORTATION IMPROVEMENT PROGRAM

The City uses the Transportation Improvement Program (TIP) and Capital Facilities Plan (CFP) to develop a financial plan for capital improvements in Auburn, thus enabling the City to fulfill the GMA requirement of having a multiyear financing plan based on the identified transportation needs.

The TIP, is a financial planning tool used to implement the list of transportation improvement projects identified in the Transportation Plan. It is a six-year plan which is reviewed and updated annually by the City Council to reflect changes to project priorities and funding circumstances. The first three years of the plan are fiscally constrained. Traffic impact fees on new development are determined by the cost of the capacity projects included in the TIP.

The Capital Facilities Plan is also an annually adopted six-year financing plan. However, it is fiscally constrained for all six years. Unlike the TIP, the CFP is an adopted element of the City's Comprehensive Plan.

ADA TRANSITION PLANCOMPLIANCE

The City is committed to providing public infrastructure without barriers to those with disabilities

Chapter 1. Introduction



and achieving compliance with the American with Disabilities Act (ADA).

According to ADA local governments must develop a transition plan describing how it will ensure its facilities, services, programs and activities are accessible. The transition plan:

- Identifies physical barriers that limit the accessibility of its programs or activities to individuals with disabilities.
- Describes the methods that will be used to remove the barriers.
- Provides an estimated schedule for taking the steps necessary to achieve compliance.
- Identifies the city official responsible for implementation and provides information on how to file a grievance or complaint.

The City is in the process of developing an ADA Transition Plan for the Public Right-of-way that will summarize the City's policies and standards is a guidinge to implement changes to the right-ofway maintenance and improvements; to pursuegradually meet full compliance with the American with Disability Act (ADA) of 1990ADA. The ADA Transition Plan will documentinclude the development of internal design standards and specifications, development of a schedule and budget, and a step to monitor the process outlined in the plan. The ADA Transition Plan for the Public Right of Way is specific Transition Plan exclusively addresses the public right of way (ROW) of the City of Auburn, which typically includes vehicular and bicycle roadway lanes, sidewalks, roadside trail, street landscape areas, crosswalks, and traffic signals. travel lanes, medians, planting strips; and sidewalks.

TITLE VI COMPLIANCE

Insert text about title VI here and refer to Title VI report.



1.3 REGIONAL COORDINATION

In addition to being influenced by factors within the City, Auburn's transportation system is influenced by what happens beyond its City limits: growth in neighboring communities, infrastructure maintenance by regional agencies, the lack of funding for road maintenance, new capacity projects, and competing demands for transit services. This Plan calls for effective inter_jurisdictional actions to address cross-border issues and to mitigate the impact of new development. The Plan also recognizes that other jurisdictions, particularly state agencies and transit providers, are responsible for a major share of the transportation facilities serving Auburn.

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

The Washington State Department of Transportation (WSDOT) has jurisdiction over three major routes connecting Auburn to the region: SR-167, SR-18, and SR-164 (Auburn Way South). Auburn coordinates with WSDOT to study these corridors and implement roadway improvements. WSDOT also serves an important role as administrator of federal and state transportation funds.

SOUND TRANSIT

Sound Transit provides a variety of regional transit services for King, Snohomish, and Pierce counties. In Auburn, Sound Transit provides commuter rail and express bus service. <u>The</u> Auburn Station also serves as a hub and transfer station for local transit service provided by King County Metro Transit and Pierce Transit.

The transit chapter provides more detail on current Sound Transit services, remaining needs for regional transit service, and the role Auburn plays in coordinating with the agency.

KING COUNTY

King County Metro Transit, <u>formerly</u> a division of the King County Department of Transportation, <u>is now the King County Transit Department</u>. The King County Transit Department provides local bus service for the Auburn area. Planned service for the City of Auburn is described in the Metro Strategic Plan for Public Transportation 2011-2021, and in Metro²s <u>Connects</u> Long Range Public Transportation Plan, <u>which now under development and expected to be completed in 2016was</u> updated in 2015 which was adopted by the King County Council in 2017.-and which will bring significant positive changes to transit service and provide new mobility options in Auburn over the <u>next two decades</u>. The City has developed an employee Commute Trip Reduction (CTR) program are summarized in the Non-motorized and Transit chapters of this plan.

Auburn partners with King County<u>Metro</u>Transit on the 497 bus route, which provides peak hour service from Lakeland Hills to the Auburn Station. Auburn and King County <u>Metro</u>-Transit hope to continue this relationship and develop future partnerships to expand transit service in Auburn.

King County Road Services Division is responsible for maintaining and regulating the roadway network in King County, including the Totem and Klump portions of King County located inside the City limits. King County Road Services has a number of programs and plans in place that regulate development and other activities affecting their roadway network.



PIERCE COUNTY

Auburn partners with Pierce Transit on the 497 bus route, which provides peak hour service from Lakeland Hills to the Auburn Station. Auburn and Pierce Transit hope to continue this relationship and develop future partnerships to expand transit service in Auburn.

Auburn also participates in The Regional Access Mobility Partnership (RAMP), a regional coalition comprised of both public and private sector interests dedicated to improving mobility in the South Puget Sound and Washington State.

COUNTYWIDE PLANNING POLICIES

Under the Growth Management Act, King and Pierce Counties have adopted Countywide Planning Policies to guide development in both incorporated and unincorporated areas of their jurisdictions. The policies support county and regional goals to provide a variety of mobility options and establish LOS standards that emphasize the efficient movement of people and not just vehicles. The Countywide Planning Policies are also important because they provide direction for planning and development of potential annexation areas.

PUGET SOUND REGIONAL COUNCIL

The Puget Sound Regional Council (PSRC) sets policy for King, Pierce, Kitsap, and Snohomish counties through its long-range planning document, *Vision 2040*, and its regional transportation plan, *Transportation 2040*. Both documents encourage future growth to be concentrated in regional growth centers. They also seek to provide a multi-modal transportation system that serves all travel modes, actively encouraging the use of alternatives to single occupant vehicles. Another important policy theme is a focus on maximizing the efficiency of the transportation system through transportation demand management (TDM) and transportation system management (TSM) strategies, as well as completing critical links in the network.

Currently, PSRC is working on a Draft document for *Vision 2050*, which is an update of *Vision 2040*. *Vision 2050* is expected to be adopted by the King County Board of Commissioners in 2020.

Auburn's Transportation Plan is required to be consistent with PSRC's regional planning efforts.

ADJACENT CITIES

The City recognizes the importance of coordinated and strong inter-jurisdictional action because transportation impacts do not stop at local boundaries. The City works closely with neighboring cities and the Muckleshoot Indian Tribe to address transportation issues. These neighbors adopt goals and policies that directly impact Auburn. In developing this plan, analysis was undertaken to ensure that all transportation system improvements are compatible with neighboring jurisdictions.

CITY OF KENT

The City of Kent shares Auburn's northern border and several regional transportation corridors including S 277th Street, SR 167, and the West Valley Highway. Most recently, Auburn has completed coordination with Kent on the annexation of the S 277th Street from Auburn Way North to the Green River into the City of Auburn to allow the widening of S 277th Street between Auburn Way N and L Street NE.



CITY OF FEDERAL WAY

The City of Federal Way is located west of Auburn. Several roadways, most notably SR 18, connect Auburn and Federal Way. Auburn and Federal Way regularly coordinate on both motorized and non-motorized roadway improvements affecting both jurisdictions.

CITES OF SUMNER/ALGONA/ PACIFIC/BONNEY LAKE

The City partners with its southern neighbors in many respects, including street system planning, transit planning, and regional trail planning. Auburn is also working with Sumner, Pacific and Algona on roadway improvement projects, including the recent preservation of Boundary Boulevard in partnership with Algona, and financial support of Pacific's project to widen Stewart Road to the west of the White River. The City coordinates primarily with Bonney Lake for provision of water service in the Pierce County



Map 1-1 Adjacent Jurisdictions

portion of the City. However, efforts to coordinate transportation systems and services will likely occur in the future. Partnerships with neighboring cities will continue to be an important factor in successful transportation planning.

MUCKLESHOOT INDIAN TRIBE

The Muckleshoot Indian Tribe (MIT) is situated in the southeastern portion of the City and in unincorporated King County, generally to the east of Auburn Way South (SR-164) and south of SR-18. The Muckleshoot Tribe operates two major attractions in or near Auburn: the Muckleshoot Casino and the White River Amphitheatre. Both of these activity centers generate a large number of vehicle trips. Commercial development on tribal lands is expected to increase in the future and must be evaluated during transportation planning efforts.

The City and tribe coordinate on a variety of transportation planning issues, both to accommodate the capacity needs derived from traffic generated by tribal land uses and to ensure the tribe has a functioning transportation system for its members.

The Muckleshoot Tribe has developed their own Comprehensive Land Use Plan. In addition, a Transportation Plan and a Tribal Transportation Improvement Program have been created to identify transportation needs and plan for the next seven generations. One theme that is emerging from this effort is the need to build a well-connected internal roadway system on the reservation. Currently, Auburn Way South is the primary route for drivers and pedestrians traveling within the reservation. This extensive internal network will increase transportation efficiency and most importantly improve safety along the Auburn Way South corridor. The Muckleshoot Indian Tribe and the City of Auburn have created a partnership to provide safety improvements along Auburn



Way South. These improvements are currently under construction and are anticipated to be complete in the Spring of 2017<u>complete</u> and the City continues to pursue grant and partnership opportunities to complete additional improvements along the corridor.

During July 2015, the State Legislature passed a transportation package which included-a \$15 million for the SR 164 East Auburn Access project, which will create and develop an affordable, long-term improvement to congestion and safety issues, while also planning to accommodate future growth in the area. project to construct a new off-ramp from eastbound SR-18 to SR-164. At this time the scope and alignment of this new connection are not know, however, the City will be working with the MIT and WSDOT in the design process. The City is involved in the development of the preferred alternative for this project.

The Muckleshoot Tribe runs two publicly available Transit routes along State Routeoad 164.

The Reservation Route runs through the Tribe community, and stops southeast of Les Gove Park. It runs every 30 minutes starting at 7:00am. The Auburn Route Express runs from the Tribe through the City of Auburn, making stops along the way. It runs every hour starting at 7:00am.

1.4 Accomplishments Since the Last Plan

Since 20<u>15</u>09, the City has completed numerous transportation improvements, with an emphasis on providing new road capacity, improving pedestrian and bicycle safety, preservation of existing infrastructure, and providing better access to regional transit services including commuter rail.

Table 1-1 shows the key projects completed since the 20<u>15</u>09 plan. The completed projects list includes-<u>[list some major accomplishment]</u> the grade separation of M Street SE and the A Street NW corridor, which provides a parallel connection to Auburn Way N between downtown Auburn and S 272nd Street.



	Table 1-1. Trans	portation Imp	provements Com	pleted Since	201509
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#	Project Name	Location	Type of Improvement
1	M-Street SE Underpass	M St SE (3 rd SE to 8 th SE)	Roadway
2	A Street Corridor NW	New Road (3 rd NW to 14 th NW)	Roadway
3	ITS Improvements, Phase B	S-277 th to City Hall	Signal and ITS
4	8th Street NE and R Street	8 th St NE & R St NE	Signal & ITS
5	A Street SE Pedestrian Improvements	A St SE (3 rd St SE to 6 th St SE)	Non-Motorized
6	37th Street SE and R Street SE Pedestrian Connector	37 th -St-SE (Olympic to R-St-SE)	Non-Motorized
7	SE 316th Place Traffic Calming Improvements	SE 316 th Place (112 th to 116 th)	Safety
8	Terrace Drive Re-channelization	Terrace Dr. NW (15 th to W St)	Safety
9	2009 Sidewalk Improvements	Citywide	Non-Motorized
10	2009 Citywide Arterial Pavement Patching	Citywide	Preservation
11	Citywide Guardrail Improvements	Citywide	Safety
12	F Street SE and 4th Street SE Traffic Signal	F St SE & 4 [#] St SE	Intersection, Safety
13	West Valley Highway Improvements	WVH, W Main St to SR-18	Roadway
14	Citywide School Zone Flashing Beacons	Citywide	Safety
15	2010 Local Street Preservation	Citywide	Preservation
16	South Auburn ITS Improvements	C St SW, A St SE	Signal and ITS
17	S Division Street	Main St to 3 rd St SE/SW	Roadway
18	8th Street NE Re-channelization	M St NE to 104 th	Roadway
19	2010 Traffic Signal Improvements	Citywide	Signal & ITS
20	Auburn Way South & M St Improvement's	AWS & M St SE	Intersection, Safety
21	2011 Local Street Preservation	Citywide	Preservation
22	8th and 104th Signal Improvements	8 th -St NE & 104 th Ave SE	Intersection, Safety
23	2011 Citywide Sidewalk Improvements	Citywide	Non-motorized
24	Auburn Way South Phase 1	Dogwood to Fir	Roadway
25	Auburn Way South Phase 2-	Fir to Hemlock	Roadway
26	Lea Hill Safe Routes to School	116[#] Ave SE, SE 312[#] St	Safety
27	2011 Local Street Reconstruction	Citywide	Preservation
28	2012 Local Street Preservation	Citywide	Preservation
29	15th and WVH SW Repairs	15 th -St SW & WVH	Signal & ITS
30	Traffic Signal Battery Backup Improvements	BNSF Grade Crossings	Signal & ITS
31	Citywide Traffic Signal Safety Improvements	Citywide	Signal & ITS, Safety



#	Project Name	Location	Type of Improvement
32	2013 Local Street Preservation	Citywide	Preservation
33	West Valley Highway Preservation	WVH, 15 th NW to 37 th NW	Preservation
34	8th Street NE ITS Improvements	8 th -St NE (M St to 104 th Ave SE)	Signal & ITS
35	2013 Sidewalk Repairs	Citywide	Non-Motorized
36	2013 Arterial Pavement Patching	Citywide	Preservation
37	37th and B-Street Pre-Signal	37 th St NW & B St NW	Signal & ITS, Safety
38	29th and A-SE-Repairs	29 th & A St SE	Signal & ITS
39	E Main Signal Pole Replacement	E Main St & Auburn Way	Signal & ITS
40	East Valley Hwy Overlay	Peirce County Limits	Preservation
41	2013 Arterial Crackseal	Citywide	Preservation
42	2014 Traffic Signal Improvements	Citywide	Preservation
43	2014 Local Street Improvements	Citywide	Preservation
44	2014 Citywide Arterial Pavement Preservation	Citywide	Preservation
45	2014 Citywide Arterial Crackseal	Citywide	Preservation
46	R Street SE Bicycle Lanes	17 th -St SE to White River	Non-Motorized
47	B-Street NW-Bicycle Lanes	3 rd -St-NW to 30 th -St-NW	Non-Motorized
48	Terrace Drive NW Bicycle Lanes	15 th -St NW to W St NW	Non-Motorized
49	Dogwood Street SE Bicycle Lanes	21 st St SE to Skyway Lane	Non-Motorized
50	West Valley Highway Bicycle Lanes	Main St to SR-18	Non-Motorized
51	14th Street NW Bicycle Lanes	B-St-NW-to-A-St-NE	Non-Motorized
52	116th Avenue SE Bicycle Lanes	SE 304 th St to SE 312 th St	Non-Motorized
53	124th Avenue SE Bicycle Lanes	SE 316 th St to SE 320 th St	Non-Motorized
54	132nd Avenue SE Bicycle Lanes	SE 304 th St to SE 312 th St	Non-Motorized
55	M-Street SE Bicycle Lanes	4 th -St-SE to 8 th -St-SE	Non-Motorized
56	Evergreen Way SE*	New Roadway	Roadway
57	I-Street NE*	New Roadway	Roadway

* These projects were constructed by others as part of private development projects

1.5 Plan Organization

The following three chapters are organized according to the three primary transportation modes in Auburn: the *street system* (Chapter 2), the *non-motorized system* (Chapter 3), and the *transit system* (Chapter 4). Each chapter contains a needs assessment and discussion of the future system, including proposed projects or improvements.



The remaining chapters cover subjects pertaining to all three system types. Chapter 5 details the City's transportation objectives and policies. Chapter 6 discusses funding sources that can be used to finance future network improvements. Chapter 7 identifies a monitoring and evaluation strategy to ensure the document remains relevant and that progress is made towards implementation of the Plan.

1.6 Staff Resources

Implementation of the Comprehensive Transportation Plan requires numerous resources, including staff time. All departments play a role in executing the Plan, but the <u>Community Development &</u> Public Works (CDPW)—Department is the implementation lead. The <u>Public Works CDPW</u> Department employs engineers, planners, technical and support staff, and maintenance and operations personnel to maintain and improve the City's transportation system. Nonetheless, staff performs many functions, and dedicating sufficient resources to carry out the goals of this plan continues to present challenges. Figure 1-1 identifies the basic organization of the <u>CPDW–Public</u> <u>Works</u> Department, <u>Transportation Program</u>.

Figure 1-1 Transportation Program Staff Resources (20195)





Chapter 1. Introduction



Chapter 2. THE STREET SYSTEM

The City is served by an extensive street network, which includes highways, arterials, collectors, and local streets. The Auburn transportation system is designed to accommodate all modes of travel. This chapter describes the network and how well it serves the City both existing and future.



Auburn Way S at M Street SE

2.1 Existing Street System FUNCTIONAL CLASSIFICATION

The street system functions as a network. Functional classification is the hierarchy by which streets and highways are defined according to the character of service they provide. There are three main classes of streets in Auburn: arterials, collectors, and local streets. Existing street classifications are shown in Map 2-1. All streets have been classified using the Federal Functional Classification system guidelines. No significant changes have been made to the classification of City streets from the previous Comprehensive Transportation Plan.

The *Auburn Engineering Design Standards* identifies design standards for each type of City street, in conformance with WSDOT and AASHTO standards.

From a planning perspective, acknowledgment and proper designation of functional classifications allows for the preservation of right-of-way for future transportation corridors, whether the corridor provides access to car, HOV, transit, bike, or pedestrian use. Functional classification helps establish corridors that will provide for the future movement of people and goods, as well as emergency vehicle access. Proper designation is crucial to the planning effort; as development occurs, accommodation for the appropriate transportation corridors should be incorporated into development plans.

STATE HIGHWAYS

SR-18 – connects I-5 to I-90 through Auburn. Within the City limits, SR-18 has interchanges with SR-167, West Valley Highway, C Street, SR-164/Auburn Way S, Auburn Black Diamond Road, and SE 304th Street providing access to downtown Auburn and Lea Hill. It is classified as both a Highway of Statewide Significance (HSS) and a National Highway System (NHS) route for the entire corridor segment. SR-18 is a full control limited access highway, allowing access only at interchanges within the City limits.

SR-167 - also known as the Valley Freeway, serves as an alternative to I-5, connecting South King and north Pierce counties to the I-405 corridor to the north. SR-167 is designated as both HSS and NHS. Within the City limits, SR-167 has interchanges with SR-18, S 277th Street, 15th Street NW, and 15th Street SW. SR-167 is a full control limited access highway, allowing access only at interchanges within the City limits.



SR-164 - is a 15-mile roadway corridor beginning at the SR-18 interchange with Auburn Way S. The corridor is aligned southeast through the City, connecting with the Muckleshoot Tribal Reservation and White River Amphitheater, and unincorporated King County before terminating in the City of Enumclaw at its junction with SR-410. SR-164 is a City street which is part of a State Highway. It is classified as an urban minor arterial by WSDOT, and also a HSS. The City of Auburn classifies its as a principal arterial. SR-164 does not have the same access restrictions as found on SR-18 and SR-167.

ARTERIALS

Arterials are the highest level of City street classification. There are two types of arterials in Auburn.

Principal Arterials are designed to move traffic between locations within the region and connect with the freeway system. Design emphasis is placed on providing movement for both inter- and intra-city traffic. As such, these facilities typically carry the highest traffic volumes, experience the longest vehicle trips, and have the highest speed limits of all City streets.

Direct access to adjacent land uses is permitted, although these streets are most likely to have limited access, in an effort to enhance safety along these corridors, and increase capacity for through vehicles.

These arterials are the framework street system for the City and usually extend beyond the City limits, connecting with neighboring jurisdictions. They are typically constructed to accommodate five-lanes of traffic with speed limits of 30 to 45 mph. The design year average daily traffic (ADT) is greater than 15,000 vehicles per day. Principal arterials are heavily utilized as bus routes, carrying both local and regional service. Typically, on-street bicycle facilities are not appropriate for Principal Arterials and bicyclists are accommodated on adjacent separated trails or on parallel bicycle routes. Pedestrians are accommodated on sidewalks.

Minor Arterials interconnect and augment the principal arterial system by providing access to and from the principal arterials and freeways. They serve moderate length trips with slightly less mobility than principal arterials and distribute traffic to smaller geographic areas. Minor arterials may serve secondary traffic generators such as business centers, neighborhood shopping centers, major parks, multifamily residential areas, medical centers, larger religious institutions, and community activity centers. While minor arterials should not enter neighborhoods, they do provide access between neighborhoods. They are typically constructed to accommodate four to five lanes of traffic with speed limits of 30 to 35 mph and a design year ADT of 10,000 to 20,000 vehicles per day. Minor arterials are frequently utilized as bus routes, have sidewalks to comfortably accommodate pedestrians and may include bicycle lanes, as appropriate.

COLLECTORS

Collectors are a step below arterials in the City classification system. There are three types of collectors in Auburn.

Urban Residential Collectors are used to connect local streets and residential neighborhoods to community activity centers and minor and principal arterials. Urban Residential Collectors are typically constructed to accommodate two travel lanes with medians and turn pockets at intersections or two travel lanes with bicycle lanes. The posted speed limit is generally 30 mph and the design year ADT is 2,500 to 10,000 vehicles per day. Urban Residential Collectors have sidewalks and may be utilized for some transit service, including dial-a-ride transit and paratransit services.





Residential Collector, Urban

Rustic Residential Collectors are routes located in areas with less intensive land uses associated with the Residential Conservancy land-use designation. They carry traffic between local and arterial streets. Rustic Residential Collectors provide access to all levels of arterials, are typically constructed to accommodate two lanes with gravel shoulders on both sides, and have a speed limit of 30 to 40 mph. The gravel shoulder may be reduced on one side to provide a wider shoulder on the other for equestrian access or bicycle travel. Rustic Residential Collectors do not have sidewalks and generally do not carry transit services except for paratransit and possibly

dial-a-ride-transit. The design year ADT is 1,000 to 5,000 vehicles per day.

Non-Residential Collectors provide intra-community access by connecting non-residential areas such as industrial and commercial areas to minor and principal arterials. They may serve neighborhood traffic generators such as stores, elementary schools, religious institutions, clubhouses, small hospitals or clinics, areas of small multifamily developments, as well as other commercial and industrial uses. Non-Residential Collectors are typically constructed to accommodate two lanes and a center two-way left-turn lane, with a speed limit of 30 mph and may include bicycle lanes. The design year ADT is 2,500 to 5,000 vehicles per day. Non-Residential Collectors have sidewalks and may be utilized for some transit service, including dial-a-ride transit and paratransit services.

LOCAL STREETS

Local Streets are the most common street type in the City. Local streets comprise all facilities not part of one of the higher classification systems. Local streets primarily provide direct access to abutting land and to the higher order streets. Service to through traffic is discouraged. There are four categories of local streets.

Urban Local Residential Streets provide access to abutting residential parcels. They offer the lowest level of mobility among all street classifications. The street is designed to conduct traffic between dwelling units and higher order streets. As the lowest order street in the hierarchy, the street usually carries minimal through traffic and includes short streets, cul-de-sacs, and courts. The speed limit is generally 25 mph and the design year ADT is 200 to 1,200 vehicles per day. Urban Local Residential Streets have sidewalks to accommodate pedestrians. Bicyclists may travel either on the sidewalk or within the travel lane depending on their level of comfort. Transit service is generally limited to dial-a- ride transit and paratransit.

Rustic Local Residential Streets serve areas associated with the Residential Conservancy zoning designation. They provide access to adjacent land and distributing traffic to and from the arterials, residential collectors, rustic, and local streets. Rustic Local Residential Streets are two-lane roadways with gravel shoulders and a speed limit of 25 mph. The design year ADT is 100 to 1,000 vehicles per day. Because these streets have low traffic volumes, bicyclists can comfortably share the travel lane with motorized vehicles. Since Rustic Local Residential Streets do not have sidewalks, pedestrians walk



along the shoulder of the road. Transit service is very infrequent and most likely limited to paratransit and possibly dial-a-ride-transit.

Local Non-Residential Streets provide direct access to higher order classification streets and serve primarily industrial and manufacturing land uses. They offer a lower level of mobility and accommodate heavy vehicle traffic. Typically they have two travel lanes with a speed limit of 25 mph and the design year ADT is 400 to 1,200 vehicles per day. Local Non-Residential Streets have sidewalks to accommodate pedestrians and bicyclists may travel on the shoulder of the road (Class IV bicycle facility), although bicycle travel may not be as comfortable as on Local Residential Streets due to a greater frequency of trucks and other heavy vehicles. Transit service is generally limited to dial-a- ride transit and paratransit.

Private Streets can be appropriate for local access in very limited usage. They provide direct access to City streets and should be limited to those streets accessing properties within a planned area and immediately adjacent properties. Private streets at a minimum are built to the same design and construction standards as a local residential street.

ALLEYS AND ACCESS TRACTS

Alleys provide vehicular access to abutting properties, generally through the rear or side of the property. Alleys can be public or private and serve several purposes including access management and the alleviation of traffic problems on city streets. Alleys should provide through access to city streets or adequate turnaround space if through access is not feasible. Alleys shall be constructed to allow for general-purpose and emergency access at all times.

Access Tracts, sometimes referred to as shared driveways, provide vehicular access for lots that do not abut a street or alley. They are most common in panhandle lots or rear lots that do not have street or alley access. Access tracts are privately owned and maintained. They must provide for sufficient vehicular movement and turnaround space, be free of temporary and permanent obstructions, and provide for emergency access.

TRAFFIC VOLUMES

Average daily traffic counts were obtained from data collected during 2013. Map 2-2 shows the existing average weekday daily traffic volumes on City arterials.

A major contributor to the high traffic volumes on City arterials is traffic passing through the City. This pass-through traffic originates in surrounding jurisdictions and uses City streets to access the major regional highways, such as SR-18 and SR-167. Between 25 and 30 percent of all vehicle trips on the Auburn street system begin and end outside the City. The City is committed to working with WSDOT to improve the state highway system, thereby reducing the demand on the City street system.

SPEED LIMITS

The City designates speed limits as a means of alerting drivers to safe and appropriate travel speeds for a particular corridor segment. Typically, the higher the classification of roadway, the higher the posted speed limit. Except for school zones which are posted at 20 mph when children are present, speed limits in the City range from 25 mph (typically for local roads) to 45 mph on some principal arterials. The City routinely monitors corridors to ensure appropriate speed limits are in place. Unless otherwise posted the statutory legal speed limit in the City is 25 mph.



TRAFFIC SIGNALS AND SIGNS

Traffic signals, signs, and pavement markings are used to inform road users, thereby increasing the effective use of the roadway by moving traffic more efficiently and safely. The City uses the Manual of Uniform Traffic Control Devices (MUTCD) as guidance for design, construction, and placement of these design elements in the right of way.

FREIGHT

Auburn is an important freight hub in the Puget Sound region, and the efficient movement of freight, through and within the City, is critical to Auburn's economic stability. Both rail and truck freight, originating largely in the Ports of Tacoma and Seattle, pass through Auburn regularly.

RAIL

The Union Pacific Railroad (UP) and Burlington Northern Santa Fe Railway (BNSF) have rail lines running through Auburn. The UP line runs north-south, to the east of the Interurban Trail. BNSF has a double-track, federally designated, high-speed railroad line running north-south. BNSF and Sound Transit are planning to addadded a third track to this north-south line inby 2016. This third track is beingwas installed to handle increased commuter rail traffic and freight traffic. The BNSF Stampede Pass line runs east-west through downtown Auburn, entering Auburn at the east end of town near Auburn-Black Diamond Road, and mergesing with the north-south line just south of the Auburn Station.

In addition, BNSF operates a rail yard between A Street SE and C Street SW, south of SR-18. In the future, this area may develop as a multi-modal rail yard, prompting the need to mitigate increased truck traffic through capacity improvements. BNSF also has plans to increase traffic on the Stampede Pass line, the east-west rail line running through Auburn. To accommodate this increase, the City recently completed the grade separation of M Street SE. Both the BNSF north-south line and the Stampede Pass line are handling an increase in rail freight traffic. BNSF handles a number of unit (solid) coal trains traveling to terminals in northwest Washington state, as well as unit oil trains carrying crude oil to northwest Washington state refineries. While loaded coal and oil trains are usually handled on the -north-south line, some of these empty trains return east to Wyoming or North Dakota via the Stampede Pass line.

The pavement at the crossing of the Union Pacific Railroad at 15th Street SW is in very poor condition. Rehabilitation of the pavement is a high priority for the City, and a project has been programmed to reconstruct 15th Street SW from C Street SW to the railroad tracks.

TRUCK

The City has designated truck routes for through freight movement in an effort to maximize the efficiency of, and protect the roadway infrastructure. Current City of Auburn truck routes are shown in Map 2-3. Truck routes, established by City ordinance, are designated for roadways that incorporate special design considerations such as street grades, continuity, turning radii, street and lane widths, pavement strength, and overhead obstruction heights.

In addition, the Washington State Freight and Goods Transportation System (FGTS) is used to classify roadways, freight railroads, and waterways according to the annual freight tonnage they carry as directed by RCW 47.05.021. Map 2-4 shows the 2013 classifications of City streets. The FGTS is primarily used to establish funding eligibility for Freight Mobility Strategic Investment Board (FMSIB)



grants, fulfill federal reporting requirements, support transportation planning process, and plan for pavement needs and upgrades. The FGTS classifies roadways using the following categories:

- T1: more than 10 million tons per year
- T2: 4 million to 10 million tons per year
- T3: 300,000 to 4 million tons per year
- T4: 100,000 to 300,000 tons per year
- T5: at least 20,000 tons in 60 days and less than 100,000 tons per year

Truck freight tonnage values are derived from actual or estimated truck traffic counts and converted into average weights by truck type.

The City expects that the majority of regional truck trips will take place on state highways. However, recognizing that trips through the City are sometimes necessary, Auburn has designated a network of north-south and east-west corridors as truck routes, which are built to truck standards. In addition, the City has designated future truck routes, which will be designed and constructed to accommodate truck traffic, as opportunities arise. FMSIB has expressed an interest in these first and last mile connectors which provide access between these classified freight facilities and port, rail yard, distribution centers and truck terminals.

Auburn has significant industrial and commercial development throughout the City. The City encourages local delivery trucks to use the designated truck network as much as possible, but recognizes that trips on non-truck routes are necessary. The City is committed to supporting local industry, business, and residential needs and recognizes that the ability to ship and receive freight is essential to the success of many businesses. To implement this policy, the City will collaborate with local businesses to improve freight access, while maintaining the roadway infrastructure, whenever possible. This may include adopting City Code and updating the *Auburn Engineering Design* and *Construction Standards* in a manner that favors these priorities. However, in a limited number of key locations, trucks may be prohibited due to existing design elements which do not support trucks, protecting sensitive areas such as downtown and residential neighborhoods, and to extend pavement life.



Truck Traffic Using S 277th Street

SAFETY

The City places the highest priority on providing a safe transportation system for all travel modes. Continual efforts are made to make changes to the street system in a manner that improves safety and decreases the likelihood and severity of collisions. Pedestrian crossings and other non-motorized safety issues are discussed in the following chapters. At grade railroad crossings, emergency response needs and collisions related to the street system are discussed below.

At Grade Railroad Crossings





At grade railroad crossings create conflict points between vehicles and non-motorized road users and rail traffic. Auburn has several at grade railroad crossings: the Union Pacific tracks cross 44th St NW, 37th Street NW, 29th Street NW, West Main Street, and 15th Street SW. The BNSF tracks cross 37th Street NW, 29th Street NW, 3rd Street NW, W Main Street, and Auburn-Black Diamond Road.

With more than as many as 7560 trains passing through the City each day, the City has many att- grade crossings, each with unique safety implications. The City coordinates with railroad operators and the State to upgrade the crossings whenever possible. For instance, the project to grade separate M Street SE at the BNSF Stampede Pass tracks by lowering M Street SE under the railroad overpass was completed during 2013.

Recent upgrades include the construction of a pre-signal where 37th Street NW crosses the BNSF tracks, to stop westbound vehicles on 37th Street NW to the west of the grade crossing in advance of the traffic signal at B Street NE. The pre-signal will prevent vehicles from stopping on the crossing.

BNSF is currentlyrecently constructeding a third rail mainline between Seattle and Auburn to improve service and reliability for passenger rail. The new mainline is located on the west-side of the existing tracks. The third mainline will reduces vehicle storage for westbound vehicles on W Main Street and 3rd Street NW between the tracks and traffic signals with C Street NW. The City is working with BNSF to upgrade the crossings to provide additional time to clear vehicles and pedestrians from these crossings before the gates come down.

Impacts at the remaining grade crossings are anticipated to worsen in the future due to increased vehicle demands at the crossings, combined with increased rail traffic, resulting in more frequent, and longer duration, closures.



BNSF Freight Train at West Main Street

EMERGENCY RESPONSE AND MANAGEMENT

Providing residents with quick responses in emergency situations is a high priority for the City. The City maintains a Comprehensive Emergency Management Plan and supporting plans which identify critical facilities that should be maintained as a first priority during catastrophic events. Critical transportation facilities, generally include Principal Arterials, bridges and major evacuation routes.

In addition, the City works to provide a street network that will ensure multiple alternate routes for emergency vehicles. Fire and police response vehicles are equipped with traffic signal controls

that enable emergency vehicles to secure safe and rapid passage along signalized corridors. In addition, the City has mutual-aid agreements with nearby emergency response operators to ensure adequate coverage in case of road closures or other obstacles that would otherwise prevent timely emergency response.

COLLISIONS

The City collects and reviews collision data to identify intersection and roadway locations where potential hazards exist. Potential safety problems are identified using the Safety Priority Index System (SPIS) methodology, an effective problem identification tool for evaluating locations with higher



collision histories. The SPIS score for a location considers three years of data and considers frequency, collision rate, and severity.

If a hazard is identified, corrective measures can then be identified and implemented as appropriate. While the City relies primarily on its own data, collision data from other sources, including neighboring jurisdictions and the State, is utilized whenever available.

2.2 Street Standards and Levels-of-Service

The Growth Management Act (GMA) requires the City to establish service levels for the street network and to provide a means for correcting deficiencies and meeting future needs. Transportation professionals use the term 'level-of-service' (LOS) to measure the operational performance of a transportation facility, such as a street corridor or intersection. This measure considers perception by motorists and passengers in terms of speed, travel time, freedom to maneuver, traffic interruptions and delays, comfort, and convenience.

The City currently uses a single-mode LOS system based upon vehicular travel. In the future, a multimodal system which includes transit, pedestrians, and bicyclists should be developed and adopted.

The currently adopted LOS methodology gives letter designations from 'A' through 'F', with LOS A representing the best operating conditions, and LOS F representing the worst. LOS can be quantified in different terms, depending on the transportation facility. Definitions for each level-of-service and the methodologies for calculating the level-of-service for various facilities are contained in the *Highway Capacity Manual (Transportation Research Board, 2000).* The City most commonly uses corridor level-of-service for accessing facilities. Generally, this is considered the most comprehensive way to determine vehicular traffic impacts. The following descriptions provide some guidance for interpreting the meaning of each LOS letter for corridor LOS on city streets.

- LOS A describes primarily free-flow operations at average travel speeds, usually about 90 percent of the free-flow speed (FFS) for the given street class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal. FFS is the average speed of vehicles on a given facility, measured under low-volume conditions, when drivers tend to drive at their desired speed and are not constrained by control delay. Control delay is the total elapse time from a vehicle joining the queue until its departure from the stopped position at the head of the queue. This includes the time required to decelerate into the queue and accelerate back to free-flow speed.
- LOS B describes reasonably unimpeded operations at average travel speeds, usually about 70 percent of the FFS for the street class. The ability to maneuver within the traffic stream is only slightly restricted, and control delays at signalized intersections are not significant.
- LOS C describes stable operations; however, ability to maneuver and change lanes in midblock locations may be more restricted than at LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50 percent of the FFS for the street class.
- LOS D borders on the range in which small increases in the number of vehicles may cause substantial increases in delay and decreases in travel speed. LOS D may be due to poor progression through the signalized intersections along a corridor, inappropriate signal timing, high



traffic volumes, or a combination of these factors. Average travel speeds are about 40 percent of FFS.

- LOS E is characterized by significant delays and average travel speeds of 33 percent or less or the FFS. Such operations are caused by a combination of adverse signal progression, close signal spacing, high volumes, extensive delays at critical intersections, and inappropriate signal timing.
- LOS F is characterized by urban street flow at extremely low speeds, typically one-third to onefourth of the FFS. Intersection congestion is likely critical at signalized locations, with high delays, high volumes, and extensive queuing.

CITY LOS STANDARDS AND CURRENT LOS

It is necessary to define LOS standards for transportation facilities to enforce the concurrency requirements of the GMA. If development causes a facility to degrade below a defined LOS standard, concurrency requires that the development make improvement to restore operations to the LOS standard or better, or the permit for that development be denied.

Auburn defines unsatisfactory LOS as: an unacceptable increase in hazard or unacceptable decrease in safety on a roadway; an accelerated deterioration of the street pavement condition or the proposed regular use of a street not designated as a truck route for truck movements that can reasonably result in accelerated deterioration of the street pavement (typically addressed through the payment of the truck impact fee); an unacceptable impact on geometric design conditions at an intersection where two truck routes meet on the City arterial and collector network; an increase in congestion which constitutes an unacceptable adverse environmental impact under the State Environmental Policy Act; or the inability of a facility to meet the adopted LOS standard.

The City uses corridor LOS as its primary measurement of transportation system impacts. The City corridors typically used for analyzing LOS are shown in Map 2-5, although the City may require analysis of a different segment in order to assess the full LOS impacts. All arterials and collectors in Auburn have designated LOS standards. The LOS standard for these corridors is primarily LOS D with the exception of some corridors that may operate as LOS E or F.

While the City uses a weekday PM peak hour based LOS system, weekday AM peak hour LOS impacts may be required to be analyzed in situations where unique conditions are likely to result in a LOS deficiency during the weekday AM peak hour.

Table 2-1 identifies Auburn's LOS Standards, as well as the 2014 corridor LOS. As indicated in the table, LOS was calculated for many of Auburn's street corridors using traffic count data collected during 2014.



Table 2-1 Corridor Level of Service – Existing 2014 Weekday PM Peak Hour

LOS 2014 LOS						LOS
ID	Corridor	From	То	Standard*	NB/EB	SB/WB
1	Auburn Way N	15th St NE	S 277th St	E	С	С
2	Auburn Way N	E Main St	15th St NE	E	D	D
3	Auburn Way S	E Main St	M St SE	F	С	D
4	Auburn Way S	M St SE	Academy Dr. SE	D	В	С
5	M St/Harvey	Auburn Way N	E Main St	E	D	D
6	M St/Harvey	E Main St	Auburn Way S	E	D	С
8	37th St NE/NW	West Valley Hwy	Auburn Way N	E	С	С
9	15th St NE/NW	West Valley Hwy	Auburn Way N	F**	D	D
10	Auburn Ave/A St	6th St SE	E Valley Access Rd	D	В	С
11	Main St	West Valley Hwy	R St	D	D	D
12	15th St SW	West Valley Hwy	C St SW	E	D	D
13	C St SW	Ellingson Rd	SR-18	D	В	С
14	West Valley Hwy	37th St NE	15th St NE	E	В	С
15	S 277th St	Frontage Rd	L St NE	E	С	С
16	R St SE/Kersey Way	Howard Rd	Lake Tapps Pkwy	D	В	В
17	Lake Tapps Pkwy	East Valley Hwy	Kersey Way SE	D	С	С
18	A St NW/B St NW	3rd St NW	S 277th St	D	С	В
19	8th St NE/Lea Hill Rd	Harvey Rd	124th Ave SE	E	С	В
22	SE 312th St/132nd Ave SE	124th Ave SE	SR-18	D	В	В
25	105th PI SE/SE 320th St	Lea Hill Rd	124th Ave SE	D	Α	С
26	Lakeland Hills Way SE	Lake Tapps Pkwy	A St SE	E	D	С
27	29th St SE/Riverwalk Dr.	A St SE	Auburn Way S	D	D	С
31	3rd St SW/Cross St	C St	Auburn Way S	F	F	E
33	41st St SE/Ellingson Rd	A St SE	C St SE	F	F	F
35	West Valley Hwy	15th St NW	15th St SW	E	D	E
* Corridor segments within Downtown Auburn may operate at LOS E in accordance with the Auburn Downtown Plan. All other arterial and collector corridors must operate at LOS D or better, unless otherwise indicated. ** Total travel time in the eastbound direction cannot exceed 1,000 seconds for this corridor to meet LOS standards.						

As shown in the table, each of the corridor segments currently meets LOS standards adopted by the City as part of this plan. The LOS standards for several corridors have been revised downwards in recognition that a number of corridors are considered to be built out by the City due to Rigtht-of-Way constraints, impact to existing development, and project costs. For example, eastbound Cross Street and both eastbound and westbound 41st Street SE, all of which currently operate at LOS F. The poor operations on these segments can be attributed to their short length, closely spaced signalized intersections, and limited storage lengths, combined with high volumes of turning traffic.

In the majority of cases it is the traffic operations at the intersections along a corridor which limit the capacity of the corridor, rather than the capacity of the roadway segments between intersections. This is especially true along corridors with closely spaced intersections, such as Cross Street and 41st Street SE, and corridors where two principal arterial roads intersect, such as Auburn Way S and M Street SE. Along other corridors where the number of intersections is limited and the distances between them are greater, the corridor LOS may not identify a bottleneck at one or more of the intersections along the overall corridor. An example of this is along the Kersey Way corridor, where the overall corridor



operates at LOS B, but the intersection with 29th Street SE operates at LOS D, with the highest delays and longest vehicle queue associated with southbound traffic on Kersey Way.

STATE HIGHWAY LOS

Amendments to the GMA in 1998 added new requirements for local jurisdictions to address stateowned transportation facilities, as well as local transportation system needs in their comprehensive plans (RCW 47.06.140). House Bill 1487, adopted by the Washington State Legislature in 1998, requires that the transportation element of local comprehensive plans include the LOS standards for Highways of Statewide Significance (HSS). HB 1487 clarified that the concurrency requirement of the GMA does not apply to HSS or other transportation facilities and services of statewide significance. HB 1487 also requires local jurisdictions to estimate traffic impacts to state-owned facilities resulting from land use assumptions in the Comprehensive Plan.

THE WSDOT STANDARD

WSDOT has identified a LOS D standard for all urban Highways of Statewide Significance (HSS) according to the State Highway System Plan (HSP). All state highways within the City of Auburn, including SR-18, SR-167, and SR-164 are classified as urban Highways of Statewide Significance, and therefore have a LOS D standard.

LAND USE/TRANSPORTATION RELATIONSHIP

Land use and the transportation system are intertwined, each influencing the development of the other. Therefore, it is necessary to evaluate how the future transportation system can be improved to best support both existing and proposed land-uses.

In 2003 Auburn was designated as a Regional Growth Center by the Puget Sound Regional Council as part of the Vision 2040 plan. Designated regional growth centers are identified for housing and employment growth, as well as being eligible for regional transportation funding.

A broad overview of Auburn's Comprehensive Plan land use map's more intensive land use designations shows industrial (light and heavy) designations in the west side of the valley floor portion of the City, extensive commercial development (light and heavy) located along Auburn Way N, Auburn Way S, and A Street SE, and sizable heavy commercial designated areas near the SR-18 and 15th Street SW interchange (The Outlet Collection) and between 15th Street NW and 37th Street NW (Emerald Downs). Downtown Auburn is near the geographic center of the City, located generally east of the Interurban Trail, north of SR-18, west of F Street SE/NE, and south of 3rd Street NW/NE and 4th Street NE. Residential development generally exists along the east side of the valley floor and the surrounding hillsides of West Hill, Lea Hill, and Lakeland Hills. A major land use activity in Lea Hill to the east includes the Green River College located on SE 320th Street.

As with many cities in South King and North Pierce counties, especially those along the SR-167 corridor, the local land use plan is characterized by a predominance of industrial land use designations. The land use element identifies "Industrial" as the City's second most predominant zoning designation (residential being first). Consequently, the City's land use plan establishes a development pattern that has traffic generated by these industrial uses directed towards the State Highway System.

Another key feature in the Comprehensive Plan land use element is a "Heavy Commercial" designation at 15th Street SW, adjacent to SR-167 and SR-18. This commercial designation is the site



of The Outlet Collection. The Outlet Collection attracts customers on a regional basis and impacts use of the State Highway System, even more than the downtown, or the commercial development along Auburn Way and A Street SE. The same can also be said for Auburn Way N to the north of downtown which serves as an auto mall, which attracts both local and regional traffic.

Downtown Auburn contains a mix of land-uses including residential, commercial and industrial uses. Commercial uses in the Downtown are focused along Main Street, Auburn Way and A Street SE_a and tend to serve more local needs. Historically, this commercial development has served predominantly local needs. However, the presence of the Auburn Station, Multi Care, City Hall, and recent andproposed new development projects, combined with regulations and policies that encourage transit oriented developments, downtown commercial development will serve a broader range of needs in the future. Downtown Auburn also has the City'res most robust non-motorized infrastructure, including both extensive pedestrian and bicycle facilities. This provides the opportunity for both residents and employees to rely on proximate transit services at the Auburn Station, combined with a robust nonmotorized transportation system for a portion of their transportation needs. The goal of this plan is to continue to grow and expand the non-motorized transportation system to provide the same transportation choices throughout the City.

The City's Comprehensive Plan land use map focuses residential development in the eastern portion of the valley and in the West Hill, Lea Hill, and the Lakeland Hills area. Access to the State Highway System in Lea Hill is limited to SR-18 at SE 304th Street. Future impacts on the State Highway System in the Lea Hill area will primarily be commuter traffic due to the predominance of residential compre-hensive plan designations in that area, and continued growth of Green River College. The development of Lakeland Hills will also principally result in increased commuter traffic.

Future impacts to the State Highway System can generally be gauged by projected arterial link ADT volumes at or near state highway ramps. This is, at best, only a general estimate since not all traffic passing through these street segments is utilizing the State Highway System. Further, traffic using the arterial segment may be originating from outside Auburn, and may therefore not result from assumptions in Auburn's land use plan.

Several city arterials connect directly to SR-167 and SR-18. Some examples include C Street SW, West Valley Highway, and Auburn Way South connections with SR-18, and 15th Street NW and 15th Street SW connections with SR-167. These streets are among the most heavily used in the City, a function of their relationship to the State Highway System. SR-164 is also within the city limits. Year 2013 average daily traffic (ADT) volumes along SR-164 range from a low of 21,700 near the eastern city boundary up to 35,900 along Auburn Way South near SR-18. These volumes are forecast to continue to increase over the next 20 years. However, the growth is limited by the capacity of the roadway.

The State Highway System also impacts the City's local street system. A "pass-through" traffic pattern results in significant traffic volume increases on the local arterial street system. For example, many of Auburn's weekday PM peak hour trips are work to home trips originating *outside* of the Auburn area and destined for residential areas *outside* of Auburn, including Pierce County and the Enumclaw Plateau. This traffic exits state routes and travels through Auburn to avoid congestion on the State Highway System. This is evidenced by increases in traffic counts within the City that clearly exceed that which might be expected through anticipated growth and development patterns outlined in the



City's land use plan, such as at SR-164 at the eastern City limit. The City may implement measures that encourage local traffic movements and discourage pass-through trips.

2.3 Future Street System

METHODOLOGY FOR EVALUATING FUTURE SYSTEM

TRAVEL FORECASTS

HOUSING AND EMPLOYMENT GROWTH

Auburn has grown rapidly during the past decade, and housing and employment are expected to continue to increase significantly by 2035, with the population reaching approximately 95,000 residents, as shown in Figure 2-1. Much of the housing growth will come from higher density re- development in the downtown area and the rapidly growing Lakeland Hills and Lea Hill areas.





TRAFFIC GROWTH

The City of Auburn relies on traffic forecasts using the VISUM travel demand model, which is based upon the land use plan and assumptions found in the land use element of the Comprehensive Plan. Puget Sound Regional Council (PSRC) household and employment forecasts are also used. The model is calibrated to include existing land uses and local knowledge, including large traffic generators such as Boeing, the Outlet Collection, Emerald Downs, Muckleshoot Casino, and White River Amphitheater.

Areas outside of the current city limits that are expected to significantly impact the City transportation system are included in the model. The model enables the City to conduct traffic forecasts for all arterial and collector streets based upon a number of if-then development and land use scenarios.

The more dramatic traffic increases are often caused by development outside the City, especially along the roadways serving the Enumclaw Plateau. Other areas of major traffic increase include A Street SE, M Street SE, and the West Valley Highway.

In order to address the growing traffic volumes and congestion levels on city streets, traffic operations were evaluated for a near term horizon year of 2022 and a long term horizon year of 2035. This approach was taken to help identify which improvement projects need to be included in the Transportation Improvement Program (TIP) to accommodate short term growth, vs. those longer term projects which are needed to accommodate additional growth forecast to occur between 2022 and 2035.

FUTURE 2022 CONDITIONS

City Projects

The current TIP, adopted during 20152019, identifies programmed projects for the years 202016 to 20212025. Therefore, the analysis of 2022 traffic operations includes City projects which would increase capacity along both roadway segments and at intersections which are anticipated to be constructed by 2022. The included projects are listed in Table 2-2 and illustrated on Map 2-6. This includes a project programmed in the TIP that is not included in the travel demand model: a new crossing of the BNSF Rail yard between SR-18 and 41st Street SE (TIP #12). This is discussed in more detail in the Future System Recommendations section of this chapter and may be included in future updates to this plan. The TIP also includes non-capacity projects such as non-motorized and preservation projects. The City's ADA transition plan also identifies non-motorized improvements. In addition, non-motorized improvement projects are discussed in Chapter 3, Non-Motorized Transportation.

Regional Transportation Projects

In addition to the City of Auburn projects identified above, a number of regional transportation projects are planned to be completed, predominantly WSDOT projects planned for the freeway system. However, none of these projects are anticipated to be completed by 2022.

Additional Projects

In addition to the projects identified in Map 2-6, four intersections outside of the City were identified as potential level-of-service concerns during the plan development. While the following intersections have not been analyzed in detail because they are situated outside of Auburn's jurisdiction, they should be evaluated by the appropriate jurisdiction and programmed for improvements as needed:



- 51st Avenue S/S 316th Street (King County)
- S 321st Street/46th Place (King County)
- S 321st Street/Peasley Canyon Road (King County)
- West Valley Hwy/Peasley Canyon Rd (WSDOT)

As mitigation for an adjacent development project located within the City of Auburn, the eastbound stop-controlled S 316th Street approach to 51st Avenue S is being widened to provide separate left- and right-turn lanes. This improvement was required to mitigate a development related impact to LOS at this intersection. The same development project also identified a traffic operations impact at the S 321st Street intersection with 46th Place S. As mitigation for that impact the development dedicated ROW to the City to allow the 46th Place S approach to S 321st Street to be realigned to the east to create two offset "T" intersections. This project is included in the City of Auburn TIP (TIP #9) and included in Table 2-2 below.



Table 2-2. Future Capacity Projects and Cost Estimates – 2022

Map No.	Location (corridor and segment)	Description	Total Cost (2015 dollars)				
City Pr	City Projects Included in the 2022 Analysis						
1	Auburn Way S Dogwood St SE to Fir St SE	U-Turns, pedestrian improvements, and access control	\$1.75M				
2	I Street NE Corridor 45th St NE to S 277th St	Construct 5 lane arterial	\$6.75M				
3	S 277th Street AWN to Green River Bridge	Widen to 5 lanes total and install a Class 1 trail	\$8.3M				
4	A Street NW Phase 2 W. Main St to 3rd St NW	Construct multi-lane arterial	\$3.15M				
5	F Street SE 4th St SE to Auburn Way S	Pedestrian, Bicycle and Vehicular Access Improvements	\$2.5M				
6	M Street NE E Main St to 4th St NE	Widen to 4 lanes	\$1.5M				
7	8th Street NE Pike St NE to R St NE	Add EB lane to south side of 8th Street NE	\$1.45M				
8	49th Street NE Auburn Way N to I St NE	Construct multi-lane arterial connection	\$3.35M				
9	46th Place S Realignment S 321st St and 46th Pl S	Realign 46th Place S to the east to create two new T intersections	\$825K				
10	124th Ave SE Corridor SE 318th St to SE 312th St	Widen to 4 lanes and bike lanes	\$4M				
11	SE 320th Street 116th Ave SE to 122nd Ave SE	Roundabout, Bike lanes, and safety improvements	\$4.64M				
12	Auburn Way S Muckleshoot Plaza to Dogwood St SE	Additional turn lanes and vehicle storage, access control, and non-motorized improvements.	\$2.9M				



City Pr	City Projects Included in the 2022 Analysis (Continued)					
13	W Valley Highway Improvements 15th St NW to W Main St	Roadway widening, re- channelization, non-motorized improvements and ITS upgrades	\$3.7M			
14	W Main Street W Valley Hwy to Interurban Trail	Re-channelization, non-motorized improvements, ITS upgrades	\$4.45M			
15	Auburn Way S Fir St SE to Hemlock St SE	Widen to 5-lanes, signalize Hemlock St SE	\$4.6M			
16	M Street SE Corridor 8th St SE to Auburn Way S.	Construct multi-lane corridor	\$6.7M			
17	Lea Hill Road Segment 1 R St NE to 105th PI SE	Widen to 2 lanes each direction including widening of the Green River Bridge. Includes bike lanes and sidewalks.	\$13M			
18	Lea Hill Road Segment 2 105th PI SE to 112th Ave SE	Widen corridor to include 2 eastbound lanes, bike lanes and sidewalks.	\$12M			
19	Lea Hill Road Segment 3 112th Ave SE to 124th Ave SE	Widen corridor to include 2 eastbound lanes, bike lanes and sidewalks.	\$4M			
20	W Valley Highway SR-18 to 15th St SW	Re-channelization, non-motorized improvements, ITS upgrades	\$3M			
21	R Street SE 17th St SE to M St SE	Construct a new roadway connection	\$10M			
22	M Street SE at 12th Street SE	Install a new traffic signal	\$625K			
23	M Street SE at 29th Street SE	Install a new traffic signal	\$450K			



City Projects Included in the 2022 Analysis (Continued)					
24	124th Avenue SE at SE 284th Street	Safety and capacity improvements	\$700K		
25	Lake Tapps Parkway Lakeland Hills Way to E Valley Hwy	Add ITS system	\$1M		
26	29th Street SE at R street SE	Increase intersection capacity	\$1.8M		
27	A Street SE at 37th Street SE	Install a traffic signal and southbound u-turn for future access management	\$935K		
28	I Street NE at 22nd Street NE	Construct a new roundabout	\$1.4M		
Subtotal for City Projects \$109M					

Non-City Projects included in the 2022 Analysis				
51st Avenue S 288th Street	Add signal			

2022 Levels of Service

Weekday PM peak hour levels of service were calculated for 2022 conditions using the same methodology used to calculate the 2014 levels of service shown previously. The same corridors were analyzed in both cases. The 2022 levels of service account for the growth forecast to occur between 2014 and 2022 and the capacity improvement projects identified above. The 2022 levels of service are shown in Table 2-3. Is should be noted that without the projects shown in Table 2-2, the traffic operations presented in Table 2-3 would be significantly worse, with a number of corridors operating below adopted LOS standards.



Table 2-3.	Corridor LOS	- Future 2022	Weekday PM	Peak Hour
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				1.08	2022	LOS
ID	Corridor	From	То	Standard*	EB/NB	SB/WB
1	Auburn Way N	15th St NE	S 277th St	E	С	D
2	Auburn Way N	E Main St	15th St NE	E	D	D
3	Auburn Way S	E Main St	M St SE	F	С	E
4	Auburn Way S	M St SE	Academy Dr. SE	D	С	С
5	M St/Harvey Rd	Auburn Way N	E Main St	E	D	D
6	M St/Harvey Rd	E Main St	Auburn Way S	E	D	D
8	37th St NE/NW	West Valley Hwy	Auburn Way N	E	С	С
9	15th St NE/NW	West Valley Hwy	Auburn Way N	F**	D	D
10	Auburn Ave/A St	6th St SE	E Valley Access Rd	D	С	С
11	Main St	West Valley Hwy	R St	D	С	D
12	15th St SW	West Valley Hwy	C St SW	E	D	D
13	C St SW	Ellingson Rd	SR-18	D	В	D
14	West Valley Hwy	37th St NE	15th St NE	E	В	С
15	S 277th St	Frontage Rd	L St NE	E	С	С
16	R St SE/Kersey Way	Howard Rd	Lake Tapps Pkwy	D	В	С
17	Lake Tapps Pkwy	East Valley Hwy	Kersey Way SE	D	С	С
18	A St NW/B St NW	3rd St NW	S 277th St	D	С	В
19	8th St NE/Lea Hill Rd	Harvey Rd	124th Ave SE	E	С	В
22	SE 312th St/132nd Ave SE	124th Ave SE	SR-18	D	В	В
25	105th PI SE/SE 320th St	Lea Hill Rd	124th Ave SE	D	В	В
26	Lakeland Hills Way SE	Lake Tapps Pkwy	A St SE	E	D	D
27	29th St SE/Riverwalk Dr.	A St SE	Auburn Way S	D	С	С
31	3rd St SW/Cross St	C St	Auburn Way S	F	E	E
33	41st St SE/Ellingson Rd	A St SE	C St SE	F	F	F
35	West Valley Hwy	15th St NW	15th St SW	E	D	С
* Corridor segments within Downtown Auburn may operate at LOS E in accordance with the Auburn Downtown Plan. All other arterial and collector corridors must operate at LOS D or better, unless otherwise indicated. ** Total travel time in the eastbound direction cannot exceed 1,000 seconds for this corridor to meet LOS standards.						

As shown in the table, all of the evaluated corridors would meet the revised LOS standards in 2022 with the inclusion of the improvements identified above. However, the following segments are forecast to operate at LOS F in 2022:

- Southbound Auburn Way S between E Main St and M St SE;
- Eastbound 41st Street SE between A St SE and C St SW; and
- Westbound 41st Street SE between A St SE and C St SW.

In order to improve traffic operations along these corridor segments additional improvements beyond those already included in this analysis are required. A review of the segment of Auburn Way S between E Main St and M St SE shows that traffic operations through the SR-18 interchange and at the intersection with M St SE cause the overall corridor segment to degrade to LOS E. The interchange area is constrained by the existing SR-18 overpass, the configuration of the SR-18 on- and off-ramps, and the close spacing of the ramp intersections which provide limited vehicle storage. As a result the ability to increase capacity along this section of the corridor is limited. It is possible that the construction of the new eastbound off-ramp from SR-18 to SR-164 in the vicinity of the Muckleshoot



Casino could draw traffic away from this area; however the scope of this project has not yet been determined so it was not accounted for in this analysis. It may also be appropriate, as with certain other corridor sections, for the City to consider changing the LOS standard for this corridor to reflect that the existing corridor is built-out and further improvements are neither desirable nor cost effective.

Similar circumstances exist for Corridor #33, 41st Street SE/Ellingson Road. This corridor is forecast to operate at LOS F in both the eastbound and westbound directions in 2022. This corridor is constrained by the BNSF bridge, the close spacing of the C Street SW and A Street SE signalized intersections, and the limited storage space between the two intersections. Providing additional capacity would likely require the BNSF bridge to be reconstructed, an expensive proposition, with a limited increase in capacity. It is possible that other capacity projects may reduce traffic volumes on this by constructing additional capacity on alternate routes. These include include the crossing of the BNSF rail yard to the north which would provide another east-west connection across southern Auburn, and the completion of the improvements to Stewart Road to the south<u>and</u>, including the replacement of the White River bridge, which would provide additional capacity between SR-167 and the Lakeland Hills area. The BNSF rail yard crossing project is included as project #12 in the TIP, however construction is shown beyond 2021, so this project was not included in the analysis of 2022 conditions. Completion of the Stewart Road capacity improvements are being planned by the Cities of Sumner and Pacific. The City of Auburn supports these improvements, and has programmed the project in the TIP as project #73, which will provide the City of Pacific with some funds to support construction of their portion of the project. Construction of these improvements is not anticipated until beyond 2022, so this was not accounted for in this analysis. Another potential option could be to revise the LOS standard for this corridor to reflect that the existing corridor is built-out and further improvements may not be cost effective.

The transportation system can be compared to a three legged stool in terms of the improvement strategies which are available to reduce congestion. The three options are to construct improvements to add capacity, make better use of the existing infrastructure which is available, and to manage demand. The analysis presented above accounts for the construction of additional capacity, and making better use of the available capacity through expansion of ITS infrastructure and the optimization of signal timing. The analysis does not account for demand management strategies which could result in improvements to traffic operations through the use:

- Road Pricing
- Parking Management and Parking Pricing
- Car Sharing
- Pay-as-You-Drive Insurance
- Ridesharing and HOV Lanes
- Transit Incentives
- Transit and non-motorized Improvements
- Telework, compressed work week, off-peak schedule

Many of these solutions have been implemented at the state level, with additional consideration being given to expanding the options which are currently in use.



Decisions need to be made regarding how these three potential congestion management tools are balanced to provide the most cost effective solutions. It is unlikely that the City will be able to implement all of the capacity projects documented above by 2022 due to the cost of the project portfolio being in excess of available funding. Therefore, the focus should be on the most cost effective projects which reduce congestion at locations where it is a recurrent problem, and improving the efficiency of the existing system. Transportation system management and transportation demand management are included in the future system recommendations section at the end of this chapter.

FUTURE 2035 CONDITIONS

City Projects

In addition to the projects identified above which were included in the 2022 analysis, a number of additional projects were included in the analysis of 2035 conditions. These additional projects include those which are included in the TIP but which are not anticipated to be constructed until beyond 2022, and the longer term projects included in the previous Comprehensive Transportation Plan. The included projects are listed in Table 2-4 and illustrated on Map 2-6.

This includes a project programmed in the TIP that is not included in the model: the crossing of the BNSF Rail yard. This is discussed in more detail in the Future System Recommendations section of this chapter and will likely be included in future model runs and updates to this plan.

Regional Transportation Projects

In addition to the City of Auburn projects identified above, a number of regional transportation projects were included in the development of the forecast volumes. These are predominantly WSDOT projects planned for the freeway system. Table 2-4 summarizes the included projects, along with planning level cost estimates.

Additional Projects

Another future project with significant area-wide impacts is the addition of the Auburn Bypass connecting SR-18 to SR-164. A draft *Bypass Feasibility Report* (September 2009) was prepared in partnership with WSDOT, the City of Auburn, the Muckleshoot Indian Tribe, and other regional partners. While a preferred alternative for the bypass has not yet been developed, the Washington State Legislature included funding in the 2015 transportation budget for the design and construction of this new connection. It is anticipated that the new roadway will include an eastbound off-ramp from SR-18 to SR-164 in the vicinity of the Muckleshoot Casino, no additional details regarding the project have been determined. Therefore, this was not accounted for in the traffic forecasts. The impacts of this project will be identified and mitigated as part of the process to determine the ultimate alignment. The project will be included in future updates of the Comprehensive Transportation Plan.



Table 2-4. Future Capacity Projects and Cost Estimates – 2035

Map No.	Location (corridor and segment)	Description	Total Cost (2015 dollars)			
Additic	Additional City Projects Included in the 2035 Analysis					
29	SR-164 Hemlock St SE to Academy Dr SE	Widen road to two lanes each direction plus a center two-way left turn lane. Upgrade the intersection of Auburn Way South and Dogwood Street to accommodate Bypass traffic.	\$61M			
30	R Street Bypass M St SE to SR-18	Construct a new bypass road	\$6.2M			
31	SE 304th Street 112th Avenue SE	Add signal and NB left turn lane. Include sidewalks and bike lanes both sides.	\$1.3M			
32	124th Ave SE & SE 320th St Intersection Improvements SE 318th St to SE 320th St	Construct intersection improvements at the entrance to Green River College.	\$1.85M			
33	A Street Loop A St SW to A St SE	Add one-way (EB) road with unsignalized free right turn at A Street SE. Include sidewalks both sides of new road.	\$1.7M			
34	SE 284th/SE 288th St 124th Ave SE to 132nd Ave SE	Construct new collector linking 284th Street at 124th Ave. to 288th Street at 132nd Ave. Road will be one lane each direction with bike lanes and sidewalks.	\$7.7M			
35	51st Avenue S 296th S	Provide protected SB left turn phase and signal and SB left turn lane; Include bike lanes and sidewalks on all legs	\$1.4M			
36	D Street NW 37th Street NW to 44th Street NW	Construct 4 lane arterial	\$6M			



Subtotal for City Projects

\$87M

Additional City Projects NOT Accounted for in the 2035 Analysis				
35	51st Avenue S 296th S	Provide protected SB left turn phase and signal and SB left turn lane; Include bike lanes and sidewalks on all legs	\$1.4M	
37	BNSF Yard Grade Separation TBD	Construct road across BNSF yard	\$32M	
38	Auburn Way S Bypass Riverwalk Dr to SR-18 at R St SE	Construct an Auburn Way S Bypass between Riverwalk Dr and R St SE with new connection to SR-18	\$60M	

Non-City Projects included in the 2035 Analysis			
SR-167 I-405 to SR-509	From I-405 to SR-18, add one NB and one SB general purpose lane; From SR-18 to SR-161, add one NB HOT lane and one SB HOT lane; Add direct NB/SB HOV/HOT lane connection ramps between SR-167 & I-405; Add NB and SB auxiliary lanes between I-405 and S 180th Street; Add NB and SB auxiliary lanes between SR-516 and S 277th Street; Extend SR-167 from SR-161 to SR-509.		
SR-18 at SR-167	Complete ramp from EB SR-18 to SB SR-167 and eliminate SR-18 access from West Valley Highway near Peasley Canyon.		
SR-167 15th Street NW to 8th Street E	Add HOV lane each direction		
Stewart Road SR-167 to East Valley Highway	Widen to 2 lanes each direction and center turn lane in the Cities of Sumner and Pacific. Includes widening of the White River bridge.		



2035 Levels of Service

Weekday PM peak hour levels of service were calculated for 2035 conditions using the same methodology used to calculate both the 2014 and 2022 levels of service. The 2035 levels of service account for the growth forecast to occur by 2035 and the capacity improvement projects identified above. The 2035 levels of service are shown in Table 2-5. As shown in the table, all of the evaluated As shown in the table, all of the evaluated corridors would meet the revised LOS standards in 2035 with the inclusion of the improvements identified above. However, the following additional corridor segments would operate at LOS E or F in 2035:2035:

- Southbound Auburn Way N between S 277th St and 15th St NE;
- Southbound Auburn Way S between E Main St and M St SE;
- Northbound M St between E Main St and Auburn Way S;
- Eastbound 37th St between W Valley Hwy and Auburn Way N;
- Westbound 15th St SW between W Valley Hwy and C St SW;
- Southbound Lakeland Hill Way SE between Lake Tapps Pkwy and A St SE;
- Eastbound 3rd St SW/Cross St between C St and Auburn Way S;
- Westbound 3rd St SW/Cross St between C St and Auburn Way S; and
- Westbound 41st Street SE between A St SE and C St SE.

In addition, there are two locations where corridors would operate at improvement levels of service in 2035 relative to 2022 conditions:

- Eastbound 41st Street SE between A St SE and C St SE, which would improve from LOS F to LOS E, the result of the improvements identified above, combined with the planned improvements to the Stewart Road corridor and SR-167 which would attract traffic currently using the 41st Street SE/Ellingson Road corridor to access A Street/East Valley Highway to the south.
- Southbound West Valley Highway between 15th Street NW and 15th Street SW, which would improve from LOS D to LOS C. This is also likely to improvements to SR-167, which would reduce the use of West Valley Highway as a parallel bypass route.



				1.06	2035	LOS
ID	Corridor	From	То	Standard*	NB/EB	SB/WB
1	Auburn Way N	15th St NE	S 277th St	E	D	E
2	Auburn Way N	E Main St	15th St NE	E	D	D
3	Auburn Way S	E Main St	M St SE	F	С	F
4	Auburn Way S	M St SE	Academy Dr. SE	D	D	С
5	M St/Harvey Rd	Auburn Way N	E Main St	E	D	E
6	M St	E Main St	Auburn Way S	E	E	D
8	37th St NE/NW	West Valley Hwy	Auburn Way N	E	E	С
9	15th St NE/NW	West Valley Hwy	Auburn Way N	F**	E	E
10	Auburn Ave/A St	6th St SE	E Valley Access Rd	D	С	С
11	Main St	West Valley Hwy	R St	D	D	D
12	15th St SW	West Valley Hwy	C St SW	E	D	E
13	C St SW	Ellingson Rd	SR-18	D	С	D
14	West Valley Hwy	37th St NE	15th St NE	E	В	С
15	S 277th St	Frontage Rd	L St NE	E	E	С
16	R St SE/Kersey Way	Howard Rd	Lake Tapps Pkwy	D	В	С
17	Lake Tapps Pkwy	East Valley Hwy	Kersey Way SE	D	С	С
18	A St NW/B St NW	3rd St NW	S 277th St	D	С	С
19	8th St NE/Lea Hill Rd	Harvey Rd	124th Ave SE	E	С	В
22	SE 312th St/132nd Ave SE	124th Ave SE	SR-18	D	В	В
25	105th PI SE/SE 320th St	Lea Hill Rd	124th Ave SE	D	С	С
26	Lakeland Hills Way SE	Lake Tapps Pkwy	A St SE	E	D	E
27	29th St SE/Riverwalk Dr.	A St SE	Auburn Way S	D	С	С
31	3rd St SW/Cross St	C St	Auburn Way S	F	F	F
33	41st St SE/Ellingson Rd	A St SE	C St SE	F	Е	F
35	West Valley Hwy	15th St NW	15th St SW	E	С	С
* Corridor segments within Downtown Auburn may operate at LOS E in accordance with the Auburn Downtown Plan. All other arterial and collector corridors must operate at LOS D or better, unless otherwise indicated. ** Total travel time in the eastbound direction cannot exceed 1,000 seconds for this corridor to meet LOS standards.						

Table 2-5. Corridor Levels of Service - Future 2035 Weekday PM Peak Hour

To improve traffic operations along the corridor segments which are forecast to operate at LOS E and F in 2035, additional improvements beyond those already included in this analysis are required. However, it may not be cost effective to construct the additional capacity needed along all of these corridor segments. It may, however, be possible to improve traffic operations at key intersections along these corridors to reduce congestions.

The City, and the broader region, will need to identify strategies and adopt policies, including transportation demand management, transportation system management, and public-private partnerships, to be able to manage congestion while reaching projected growth targets.



FUTURE SYSTEM RECOMMENDATIONS

FUTURE STREET IMPROVEMENTS

The proposed future street plan consists of a combination of city street and regional transportation improvements, described in Table 2-

3 and shown in Map 2-6. The City cannot adequately solve traffic congestion by making City street improvements alone. Partnerships with WSDOT, King and Pierce Counties, and other agencies are essential to implementing the future street system in Auburn. The following actions are proposed:



West Main Street, Downtown Auburn

- 1. Implement street projects prioritized in the City's TIP and CFP;
- 2. Program and seek additional funding for street capacity projects not currently identified in the TIP and CFP;
- 3. Work collaboratively with WSDOT and other partner agencies to implement roadway improvements to the regional highway network; and
- 4. Work to implement TSM, TDM and non-motorized improvements.

DOWNTOWN CIRCULATION PLAN

Auburn's Downtown is undergoing considerable growth and transition to a higher density, mixed-use town center. Major redevelopment, including the Trek Building and Merrill Gardens mixed-use projects is occurring to the south of Main Street.

The transformation of downtown Auburn will include many changes to the public right of way and streetscape. The *Downtown Circulation Plan* will accommodate the many types of travelers that will be using downtown streets including pedestrians, bicyclists, transit users, truck operators, and personal vehicle users. An improved pedestrian and bicycle environment will need to be designed into the fabric of downtown Auburn. At the same time, there are several major north south corridors which traverse the downtown, so accommodation for high traffic volumes and the potential repercussions of modifying the existing street system will need to be considered in the development of the *Downtown Circulation Plan*.

ENVIRONMENTAL PARK DISTRICT

In the vicinity of the Environmental Park, to the west of downtown Auburn, the City is evaluating the use of low impact roads and projects that add sidewalks, trails, and additional connectivity between Clay Street and Western Avenue. This area will be examined in more detail for transportation improvements as the concept for the Environmental Park District is further refined.

41st Street SE/Ellingson Road between A St SE and C St SW

The area around 41st Street SE/Ellingson Road between A Street SE and C Street SW continues to be a bottleneck for Auburn drivers, especially with additional development in the Lakeland Hills PUD and the Pierce County cities to the south. The close spacing of these two intersections, coupled with the



numerous business and residential accesses in the area warrant a more in depth study of the area. This study will likely also include the entire A Street SE and C Street SW corridors, and an evaluation of the BNSF rail yard crossing projects discussed below.

BNSF RAIL YARD CROSSING

The City has identified the need for a new east/west grade separated crossing of the BNSF rail yard between C Street SW and A Street NE.

There are a variety of criteria that the City will consider to determine the alignment of the crossing, including potential development of the BNSF property as a multi-modal rail yard, commercial development on Auburn Way S and A Street SE, re-development of the GSA property, funding feasibility, neighborhood impacts, transportation impacts, and engineering feasibility. The crossing project was not accounted for in the 2035 traffic model. Therefore, it is difficult to access the specific impacts of the crossing project. However, it is anticipated that the project could significantly improve east-west mobility in southern Auburn, relieving the existing bottlenecks at 3rd Street SE and 41st Street SE, by providing an additional alternative for the residential neighborhoods to the east of the rail yard to connect with the commercial and retail land-uses and SR-167 to the west of the yard. One potential impact of the crossing project, depending on the alignment selected, could be an increase in traffic through the Terminal Park neighborhood.

AUBURN BYPASS

Another future project with significant area-wide impacts is the addition of the Auburn Bypass connecting SR-18 to SR-164. A draft *Bypass Feasibility Report* (September 2009) was prepared in partnership with WSDOT, the City of Auburn, the Muckleshoot Indian Tribe, and other regional partners. While a preferred alternative for the bypass has not yet been developed, the Washington State Legislature included funding in the 2015 transportation budget for the design and construction of this new connection. It is anticipated that the new roadway will include an eastbound off-ramp from SR-18 to SR-164 in the vicinity of the Muckleshoot Casino, no additional details regarding the project have been determined. Therefore, this was not accounted for in the traffic forecasts. The impacts of this project will be identified and mitigated as part of the process to determine the ultimate alignment. The project will be included in future updates of the Comprehensive Transportation Plan.

TRANSPORTATION SYSTEM MANAGEMENT

Transportation system management (TSM) techniques, which make more efficient use of the existing transportation facilities, can reduce the need for costly system capacity expansion projects. These techniques can also be used to improve LOS when travel corridors reach adopted LOS standards. TSM techniques used by the City include:

- Re-channelization/restriping, adding turn lanes, adding /increasing number of through lanes;
- Signal interconnect and optimization;
- Turn movement restrictions;
- Access Management; and
- Intelligent Transportation Systems (ITS).

The City will continue to use these TSM techniques to maximize the efficiency of the existing street network. Of the various TSM strategies available, the City continues to invest in and expand its ITS infrastructure as a cost effective means of increasing system capacity. The ITS system enables the City



to change traffic signals in real-time, thereby accommodating unexpected increases in traffic or traffic obstacles such as event related traffic and collisions. For example, ITS has proven to be a useful tool in helping to manage the impact of event traffic traveling south on Auburn Way South, often during the PM peak, to the White River Amphitheatre. The City will continue to roll out ITS capabilities on corridors around the City, as referenced in Map 2-7 and detailed in the ITS policies included in Chapter 5.

In addition to TSM strategies, the City strives to provide viable alternatives for travelers, to ensure freedom of choice among several transportation modes, including transit, biking and walking as alternatives to the automobile. The City will prioritize the development of pedestrian-friendly environments such as bicycle routes and pedestrian paths as the non-motorized system expands.

TRANSPORTATION DEMAND MANAGEMENT

Reducing congestion includes strategies to reduce demands on the transportation system. The State of Washington emphasized the importance of transportation demand management (TDM) by adopting a Commute Trip Reduction law. That law requires all major employers, with over 100 employees arriving between the hours of 6:00 and 9:00 AM, to develop programs and strategies to reduce the number of commuter automobile trips made by their employees. Transportation demand management reduces demand on the street system. While TDM and TSM employ a different suite of strategies, they share many of the same benefits. Both increase the efficiency of the transportation system, reduce the need for costly capacity expansions, help improve LOS, and contribute to an enhanced quality of life for those who use and benefit from the transportation system. TDM strategies include:

- ride-sharing through vanpools and carpools;
- preferential parking for high-occupancy vehicles;
- car sharing programs;
- transit use incentives;
- parking management to discourage single occupant vehicle (SOV) travel;
- telecommuting;
- alternative work schedules to compress the work week or shift the commute outside the typical commute hours; and
- urban design encouraging non-motorized travel through design features.

The City of Auburn will continue to encourage drivers of single occupancy vehicles to consider alternate modes of travel such as carpools, vanpools, transit, non-motorized travel, and alternative work schedules, and has identified mode split goals for the Regional Growth Center. The goals were developed in consideration of the current mode splits for the Auburn Regional Growth Center, the current mode splits for all of the designated Regional Growth Centers, and the 2040 mode split targets identified by PSRC for all of the designated Regional Growth Centers. The existing and 2035 mode split goals for the Auburn Regional Growth Center are summarized in Table 2-6.



Mode	2010 Existing	2035
SOV	81%	56%
HOV	8%	8%
Transit	6%	27%
Bike	2%	4%
Walk	3%	5%

Table 2-6. Regional Growth Center Mode Split Goals

The mode split goals for the Regional Growth Center reflect the desire to significantly reduce automobile travel as a share of work trips, with the most significant increase in the share of trips by transit. The reduction in the vehicle mode split will be the result of the right mix of land-use changes, transportation investments, and roadway pricing tools. Additionally, factors such as shifting demographic trends, preferences, and technology may contribute to mode shifts above and beyond the identified goals.

STREET MAINTENANCE & REHABILITATION

The City is responsible for maintaining the physical structure of the roadway system. However, pavement maintenance is expensive, and adequate funding is generally not available. Recognizing this dilemma, Auburn residents approved Proposition 1, the "Save Our Streets" (SOS) Program, in November 2004. The SOS program created a dedicated local street fund for repair, rehabilitation, and maintenance of local roadways from property tax revenues. In 2013, after the original programs tax increases ended, the City Council modified the funding source for this program to be from sales tax on construction.

The City has created a similar program to fund the repair and maintenance of arterials and collector streets. The program is funded through a one percent utility tax. While the available funding through this program is limited, which makes prioritizing projects challenging, the City has been able to maximize the value of the available funds by using them to leverage grant funds, enabling significantly more arterial and collector street repair and maintenance to be completed.



Local Residential Street Before SOS Rebuild



Local Residential Street After SOS Rebuild



NEIGHBORHOOD NEEDS

Transportation systems and facilities can impact adjacent neighborhoods. Potential impacts result from increased traffic resulting from drivers seeking alternate routes to congested arterials, in an effort to save time. These impacts can include higher vehicle speeds resulting in potential safety concerns, and associated air and noise pollution. Neighborhoods throughout the City are concerned with these traffic impacts and want to discourage cut-through traffic.

City policies discourage through traffic in neighborhoods. The City also has a traffic calming program that addresses the pedestrian, bicycle, and automobile traffic safety concerns that impact neighborhoods. The traffic calming program is a community-based program with the goal of identifying potential problems and development of solutions to help mitigate these impacts. The program raises public awareness of traffic safety issues and ways that people can help minimize traffic problems in their own neighborhoods.

As part of its adopted Traffic Calming Program the City conducts approximately 50 multi -day radar studies of streets in local neighborhoods annually. These studies help target increased Police enforcement efforts, and may result in signage changes such as permanent "Your Speed Is" radar feedback signs In other locations where they are recommended by the traffic engineer, physical traffic calming such as speed cushions were have been installed.

INTERGOVERNMENTAL COORDINATION

The Growth Management Act (RCW 36.70A.070) provides that comprehensive plans should include a discussion of intergovernmental coordination efforts, including "an assessment of the impacts of the transportation plan and land use assumptions on the transportation systems of adjacent jurisdictions." Auburn works closely with neighboring cities, the Muckleshoot Indian Tribe, and state and regional agencies to ensure coordinated efforts are made in developing all modes of the transportation system.

Chapter 2. The Street System













Map 2-3

Source: City of Auburn GIS Department









Printed On: 10/26/2015 Map ID: 4682







CHAPTER 3.

NON-MOTORIZED TRANSPORTATION

Non-motorized transportation is an integral component of Auburn's transportation system. Non-motorized travel includes walking and, bicycling, and equestrian travel. The City seeks to enhance the non-motorized travel environment both for recreational travel and trips that might otherwise be taken via a car or bus in order to improve mobility and environmental health.

The City recognizes that the evolution of the



Riding on the Interurban Trail

transportation system has prioritized the automobile as the primary travel mode. A side effect of this process has been the erosion of conditions favorable to non-motorized travel. This chapter seeks to redress the balance by enhancing conditions in which non-motorized modes are a realistic and attractive travel option.

Planning and developing a strong non-motorized network supports several state and national acts including Washington's Growth Management Act, Commute Trip Reduction Act, the federal Clean Air Act, the Americans with Disabilities Act (ADA), MAP 21 (Federal Surface Transportation Bill) and its successors. Supporting the non-motorized system helps ensure compliance with these initiatives and the healthy community principles espoused by PSRC through Vision 2040. It also increases funding opportunities for City projects. Improving the non-motorized system also helps address the findings of the citywide Health Impact Assessment process, which recommended that the City improve sidewalk connectivity, improve the pedestrian environment, eliminate natural and man-made mobility barriers for pedestrian and bicyclists, improve transit access, improve traffic safety, pedestrian safety and personal security.

This chapter is divided into three-two_subsections: pedestrian travel_and, bicycle travel, and equestrian travel. Each subsection contains an assessment of existing conditions and needs, followed by guidelines for development of the future system.

3.1 Pedestrian Travel

As a Regional Growth Center, the City encourages transportation planning that emerges from a clear land-use plan based on a community vision and the values expressed in Imagine Auburn. In this vision, Auburn supports higher density housing in the downtown; neighborhood commercial districts; and landscaped, pedestrian-oriented street and sidewalk design. This pattern of development reinforces a positive pedestrian environment.





New Pedestrian Crossing at Green River College on S 320th Street

NEEDS ASSESSMENT

Auburn has many assets, which contribute to a welcoming pedestrian environment, most notably a pedestrian-scaled downtown and an extensive network of trails. The needs assessment highlights these existing assets and identifies improvement needs.

EXISTING PEDESTRIAN ENVIRONMENT

As a whole, Auburn's urban fabric in the downtown has remained intact and supports a positive pedestrian environment. Businesses, shops, and single-family homes front streets with sidewalks and

street trees. However, some of the older sections of sidewalks need repair or replacement.

Since adoption of the 2009 Transportation Plan, there have been sidewalk, ADA and lighting improvements to Main Street, S Division Street Promenade, City Hall Plaza and Plaza Park and behind the shops on East Main Street. New growth in the downtown core has or will result in the development of multi - story residential and office buildings and senior housing, helping renew the pedestrian infrastructure and creating a need for continued effort to maintain and improve the sidewalk system. In addition, the Sounder commuter rail station and transit hub at West Main Street and C Street SW provide pedestrians more options for connecting to regional destinations. These improvements contribute to a more hospitable environment for pedestrians. The city has an annual sidewalk repair program which focuses on ADA improvements, responding to complaints, repairing identified hazards, and improving areas with high pedestrian use.

Commercial development outside the downtown exists primarily along arterials and is dominated by strip development and auto-oriented businesses. Although sidewalks are provided on most arterials, pedestrians may feel exposed to the traffic. Surface parking lots border the sidewalks, and driveways interrupt the continuity of the sidewalk system. The heavy volumes of vehicular traffic and wide streets along arterials, such as Auburn Way, pose a barrier for pedestrians walking along or crossing the roadway.

Sidewalk Inventory

A sidewalk inventory was conducted as part of the Plan update in 2005. A subsequent inventory was conducted in 2008 to collect sidewalk data for the West Hill and Lea Hill where a large scale annexation into the City took place in 2007. The inventory is continuously updated based on aerial photography and GIS data as improvements are completed. The inventory identifies sidewalks in the City, and rated their condition. This inventory continues to serve as a guide to help the City identify problem areas and program improvements according to prioritization guidelines, outlined later in this chapter.

The older residential neighborhoods tend to have sidewalks on both sides of the street, but they vary widely in condition and construction standards. Some residential areas, such as southwest Lea Hill, were built under King County's jurisdiction and sidewalk construction was not required. Breaks in the sidewalk network require pedestrians to maneuver around parked cars, into private



yards, or into the street. In newer neighborhoods such as Lakeland Hills, sidewalks built to the city standards applicable at the time of their construction are provided on both sides of the street.

The sidewalk survey of the Lea Hill and West Hill annexation areas revealed a sporadic and often disconnected sidewalk system. Several of the newer residential developments have sidewalks, but many of the older residential areas and arterial streets are missing large segments of sidewalk, resulting in an inconsistent pedestrian environment. Map 3-1 illustrates the existing and proposed sidewalk network within the City.

Trail Network

Auburn's developing trail network provides local and regional connections for both recreational use and commuting. <u>Currently T</u>the <u>only</u> regional trails that have been developed include the Interurban <u>Trail</u> and portions of the Green River and White River Trails. The Lakeland Hills Trail network provides connections to neighborhood parks, community center, and to the City of Sumner via a tunnel under the BNSF railway. Map 3-2 illustrates the existing and proposed trail network within the City.

SCHOOL ACCESSIBILITY

School safety is a major concern for parents, students, the school districts, and the City alike. The Auburn School District, working with an advisory committee, has established a safe walking area for each elementary and middle school based on the presence of sidewalks, walking paths, and safe neighborhood streets, as well as the availability of safe street crossings and the traffic conditions in the surrounding neighborhoods. All routes within the safe walking areas are designated as 'Safe Routes to School'. Occasionally, individual schools will notify parents and students of preferred walking routes within each area.

Since the last major update of the comprehensive plan the following Safe Walking Routes improvements have been made throughout Auburn;

- School Zone Flashing Beacons were installed at all elementary and middle schools.
- Rectangular Rapid Flashing Warning Beacons were installed at the existing crosswalk at E St NE and 4th St NE for Washington Elementary.
- A new crosswalk with warning signage and ADA pedestrian ramps was installed at K St SE & 23rd St SE for Pioneer Elementary. This also improved drainage on the street.
- Rainier Middle School received improved crosswalks, signage, and ADA pedestrian ramps
 along 116th Ave SE.
- Lea Hill Elementary received 600 feet of sidewalk, curb and gutter, and ADA pedestrian ramps on the south side of SE 312th Street as well as pedestrian push buttons and countdown pedestrian signal heads at the intersection of SE 312th Street and 124th Ave SE.
- The new Auburn High School created all new sidewalk and crosswalks with bulb outson both East Main Street and 4th Street NE.
- New crosswalks with warning signage, ADA pedestrian ramps, and curb bulb outs were added at Terminal Park Elementary.



• New curb, gutter, ADA pedestrian ramps and pavement was constructed on H St SE between 17th and 21st St SE for Olympic Middle School.

Some of these improvements were made possible by a Safe Routes to School grant. The flashing beacons have been funded through a combination of grant programs and City resources.

Despite the progress that has been made over the past several years, there are still areas of need. The following needs were identified to enhance and improve the safety for school children in and around the school safe walking areas.

The City will continue to work with the School District to identify gaps in the walking boundaries around each schools.

Since the last comprehensive plan update in 2015, the following improvements were completed: "list here"

Pioneer Elementary School

Curb & gutter, sidewalks and ADA ramps along K St SE between 21st St SE and 25th St SE.

Cascade Middle School

The crossing at M Street NE and 24th Street NE experiences heavy traffic. The City and school district continue to cooperate to increase the safety of this crossing near the school.

Dick Scobee Elementary School

The City will continue to coordinate with the School District in exploring ways to improve access to surrounding neighborhoods to increase the school's designated safe walking area.

Terminal Park Elementary School

Curb gutter, sidewalks, and ADA ramps along B St SE between 12th St SE and 17th St SE.

Evergreen Heights Elementary School

Curb, gutter, sidewalks, and roadway improvementsalong S 316th between 51st Ave S and the easternboundary of the school. This includes access and circulation improvements to the school and intersection improvements at 56th Ave S.

Hazelwood Elementary School

Sidewalk and ADA curb ramp improvements along SE 304th Street between 112th Ave SE and 116th-Ave SE and along 118th Ave SE from SE 304th to the north.

Lea Hill Elementary School

Sidewalks and ADA ramps along both sides of 124th Ave SE between SE 304th St and SE 312th St.



Mountain View High School

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Route to School between SE 284th St and SE 304th St, and along 132nd Ave SE between SE 288th St and SE 299th St.

Riverside High School & Ilalko Elementary