



# Chapter 5 - Transportation Element

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## INTRODUCTION

The Transportation Element helps to define a system of highways, roads, and paths that will provide access to the community compatible with its overall needs and priorities. The Transportation Element must reconcile the potential conflicting demands of freight mobility, pedestrian access, tourist traffic, local traffic, highway improvements and trail improvements. Many transportation systems emphasize automotive travel, and Enumclaw, with three state highways traversing the community, is no exception. The Transportation Element, however, strives to emphasize the importance of pedestrians and bicycles, creating a network of transportation-related improvements and policies to ensure that highway traffic can coexist with the community's need for a safe and comfortable pedestrian environment. The Transportation Element also addresses issues and ideas related to circulation and the interaction between transportation and land use. The availability of transportation facilities and resources is a major factor in determining land use development patterns. Similarly, the use of land influences the need and location for new or expanded transportation facilities, as well as ongoing repair and maintenance of existing facilities. A conscious effort is made to ensure a coordinated planning effort between land use (Chapter 4) and transportation (Chapter 5) to ensure an effective and efficient integrated urban system.

The Growth Management Act (GMA) requires that transportation facilities be in place (or funded) by the time new development requires them. This is considered a concurrency requirement, which reinforces the interdependence of land use and transportation facilities. The GMA also authorizes local agencies to charge transportation impact fees to help fund new facilities needed to support growth.

## GOALS AND POLICIES

The goals and policies below were developed to clearly articulate the long-term vision of the City's transportation system for the future. These goals and policies were developed to align and support goals and policies from other parts of the City's Comprehensive Plan. Goals are high-level statements that articulate key parts of the City's overall vision while policies identify the general actions that help implement the goals.

### MULTIMODAL SYSTEM

**Goal T-1: Provide a balanced, multimodal transportation system that supports the safe and efficient movement of people and goods.**

#### Policies

- 1.1. *Make transportation system decisions and investments in a manner consistent with local and regional plans.*
- 1.2. *Provide for the needs of drivers, public transportation vehicles and patrons, bicyclists, and pedestrians of all ages and abilities in the planning, programming, design, construction, reconstruction, operations, and maintenance of the City's transportation system.*
- 1.3. *Update the roadway design standards to provide consistency for the development community, increase roadway safety, and align roadway designs with street character and traffic volumes.*
- 1.4. *Apply the street functional classification system and roadway design standards in the construction of new or upgraded transportation infrastructure.*
- 1.5. *Coordinate with federal, state, regional and local agencies to improve state highways SR 169, SR 164, and SR 410 to urban standards in accordance with adopted plans.*
- 1.6. *Promote and improve motorized and*



non-motorized connections throughout the community.

1.7. Maintain and enhance the City’s street grid to promote improved access and circulation.

1.8. Minimize cul-de-sacs and other forms of dead-end streets except where appropriate to mitigate community concerns and/or needs.

1.9. Require adequate right of way dedication and associated improvements as part of new development.

1.10. Provide development incentives for the installation of elements that encourage transit, pedestrian, and bicycle usage.

1.11. Consider the use of traffic calming measures to discourage diversion of traffic from the state highways and other major arterials onto local neighborhood streets.

1.12. Involve the public in transportation related decisions.

1.13. Encourage planning and development of park and ride lots.

**SYSTEM PRESERVATION**

**Goal T-2: Preserve, maintain, and operate the existing transportation system in a safe, functional and satisfactory condition.**

**Policies**

2.1. Protect the investment in the existing and future street system and associated facilities (e.g., sidewalks, transit stops, landscaping) through an ongoing street maintenance and preservation program.

2.2. Improve the efficiency of traffic flow in the arterial network by monitoring traffic, upgrading traffic control devices, and using traffic management techniques.

2.3. Design, operate, and regulate access to

all streets and state routes to improve safety and effectiveness of the system.

2.4. Implement cost-effective transportation designs and improvements that use existing facilities to the greatest extent possible.

2.5. Coordinate with federal, state, regional, and other local agencies to protect the operation of the transportation system in time of emergency, disaster, or security events.

**NON-MOTORIZED TRANSPORTATION**

**Goal T-3: Provide a safe and well connected system of pedestrian and bicycle facilities.**

**Policies**

3.1. Accommodate the needs of bicyclists and pedestrians in the design and construction of all future transportation improvements.

3.2. Develop a safe and convenient environment for walking and bicycling.

3.3. Prepare a map illustrating desired safe walking routes to assist in prioritizing on- and off-street improvements to the pedestrian system.

3.4. Develop a combined comprehensive trails and bicycle master plan.

3.5. Identify specific transportation system improvements to facilitate pedestrian, and bicycle use and movement in school, park, civic, and commercial areas.

3.6. Ensure that signs, pavement markings, pedestrian crossings, and curb ramps are established and maintained to provide a high degree of safety and accessibility for pedestrians and bicyclists.

3.7. Support the use of utility and transportation corridors, or other public rights-of-way, both inside and outside the City for non-motorized purposes.

3.8. Coordinate with the Enumclaw School District to evaluate needs for bus stops and school walking



routes and respond with appropriate actions.

3.9. Support and enforce laws that are designed to provide safety for pedestrians, bicyclists and people with mobility disabilities.

3.10. Continue to actively pursue construction of the Foothills Trail crossing of the White River.

## **SUSTAINABILITY AND DESIGN**

**Goal T-4: Develop transportation solutions that align with local land uses, enhance the environment, provide options for people with special needs, and support transportation options.**

### **Policies**

4.1. Design transportation facilities to fit within the context of the built or natural environments in which they are located, with special emphasis on preserving neighborhood character.

4.2. Create comprehensive roadway design standards used in the construction or reconstruction of the City's transportation infrastructure.

4.3. Encourage effective public transportation links with regional public transportation providers to serve commuters into metropolitan centers in King and Pierce counties.

4.4. Consider measures that encourage and support the use of transit, ridesharing, and non-motorized travel.

4.5. Minimize the negative impacts of transportation improvement projects on low-income, minority, and special needs populations.

4.6. Ensure mobility choices for people with special transportation needs, including persons with disabilities, the elderly, the young, and low-income populations.

4.7. Encourage transportation investments that provide and encourage alternatives to single-occupancy vehicle travel and increase travel options.

4.8. Consider the negative effects of transportation infrastructure and operations on the climate and natural environment consistent with the City's most recent adopted greenhouse gas policy.

4.9. Support the development and implementation of a transportation system that is energy efficient and improves system performance.

4.10. Encourage the use of shared parking lots that serve groups of businesses or minimize the number of access points to arterials and collectors.

4.11. Develop standards for private streets in subdivisions that will allow gated communities in areas that are not necessary for the future connectivity and continuation of the City's street grid.

4.12. Develop Railroad Street as a pedestrian promenade between SR 410/Roosevelt Avenue and Washington Avenue to support Downtown events and pedestrian connectivity between the Foothills Trail and Downtown.

4.13. Continue to lobby the Washington State Legislature to keep Cayuse and Chinook Passes open in winter.

## **FINANCING**

**Goal T-5: Invest in transportation systems to meet current and future capital, maintenance, and operational needs.**

### **Policies**

5.1. Annually maintain the Transportation Improvement Program (TIP) to balance the estimated expenditures with available revenues.

5.2. Balance financing of transportation improvements between existing and future users based on the principle of proportional benefit.

5.3. Actively pursue grants individually or with other agencies to help fund transportation projects



to support the maintenance, operations, and upgrading of the transportation system.

5.4. Regularly review and update the Transportation Impact Fee (TIF) schedule and monitor the program to illustrate how it is being used to support growth.

5.5. Establish LOS D or better for all signalized and controlled intersections during the weekday peak hour.

5.6. Establish LOS E or better for all other intersections and apply the standard to each approach or separate traffic movement.

5.7. Consider establishing multimodal level of service (LOS) standards and a supporting concurrency program to align with the multi-county planning policies which require LOS standards based upon the movement of people and goods.

5.8. Monitor the operation of the transportation system to determine whether the level of service standards and concurrency requirements are being met. If concurrency cannot be demonstrated, the City shall reassess the Land Use and Transportation Elements and make modifications as necessary.

5.9. The following Transportation facilities should have the highest funding priority:

a. Facilities necessary to keep Levels of Service from falling below established minimum standards;

b. Facilities necessary to serve areas experiencing significant development activity;

c. Improvements that complete gaps, increase safety and mobility and are unlikely to occur as a result of new development; and

d. Pedestrian improvements indicated on the safe walking route/ priority pedestrian route map.

5.10 Actively lobby the Washington State Department of Transportation (WSDOT) and legislature to uphold its responsibility to make improvements and provide funding to Enumclaw

for transportation improvements on SR 169, SR 164 and SR 410 to stimulate economic development, improve safety and enhance the quality of life in the community.

5.11 Discourage the use of Roundabouts on state highways and major arterials within the City Limits.

5.12 Where feasible, encourage creativity in traffic design to ensure access to local businesses.

## EXISTING TRANSPORTATION SYSTEM INVENTORY

The City’s transportation system consists of various facilities including streets and highways, pedestrian and bicycle facilities, and transit service. The existing transportation system was inventoried in conjunction with the update to the Transportation Element.

### 3.1 STREET AND HIGHWAY SYSTEM

The street system within the older section of Enumclaw aligns in a grid paralleling the old railroad line that once ran through the City. Streets extending from the downtown core change orientation to parallel existing township and section lines. As a result, the downtown street grid is skewed from the rest of the roadways within the City and UGA. The downtown street grid is spaced at about 250 feet between roadways. Newer areas of the City were developed with cul-de-sacs and a strict hierarchy of streets. Several intersections within the City are signalized and all are located along state highways 164, 169, and 410.

The Enumclaw street system has four functional classes of streets: Major Arterials, Minor Arterials, Collector Streets, and Local Streets. The functional



classification of a street designates the planning, design, funding, maintenance, and operation for that roadway.

### **3.1.1 Major Arterials**

Major arterials are roadways that connect major community centers and facilities, and are often constructed with limited direct access to abutting land uses. Major arterials carry the highest traffic volumes and provide the greatest mobility in the roadway network by limiting access, providing traffic control devices, and posting higher speed limits. Transit routes are generally located on major arterials, as are transfer centers and park-and-ride lots. Major arterials may service any level of traffic volume, up to full utilization of the road capacity. Within the City of Enumclaw many major arterials are also state highways.

SR 164, SR 169 and SR 410 connect the City to the regional freeway network and adjacent cities like Black Diamond, Auburn and Buckley. These routes are owned and maintained by the Washington State Department of Transportation (WSDOT) but operations are coordinated with the City. Both SR 164 and SR 169 have been identified by WSDOT as Highways of Statewide Significance (HSS). SR 410 is an NHS route and the Puget Sound Regional Council (PSRC) has identified SR 410 as a Highway of Regional Significance.

#### ***State Highways***

**SR 410** is a major arterial running east-west through the southern portion of the City. In the summer months SR 410 is a route to Yakima and eastern Washington via Cayuse and Chinook passes, and a recreational access to Mt. Rainier National Park. In the winter months Cayuse and Chinook Passes are closed to through traffic and SR 410 primarily serves as a recreational access to Crystal Mountain ski

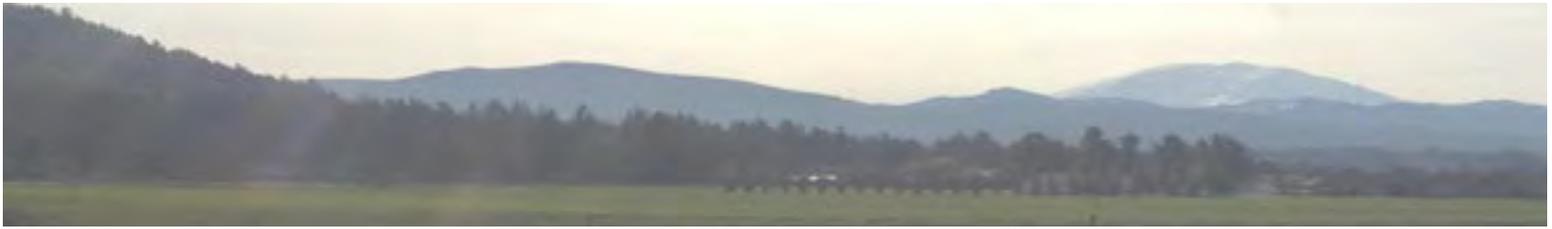
resort and Sno-Park trailheads. It connects the cities of Buckley, Bonney Lake, Sumner, and Puyallup, and serves commuter traffic to employment centers in Tacoma. There are traffic signals at the intersections with Warner Avenue, Garrett Street, Griffin Avenue (SR 164), Watson Street N, and Farman Street N. The speed limit is 40 mph from Buckley Bridge over the White River to the east City limits and is two to four lanes wide with left-turn pockets at major intersections. The Enumclaw SR 410 Corridor Study (completed in 2010) has taken a comprehensive evaluation of the highway corridor through the City.

**SR 164** is a major arterial running east-west from SR 18 in Auburn to SR 410 in Enumclaw. Through the study area, it is SE 436th Street/SE 436th Way within King County and Griffin Avenue within the City limits. SR 164 serves commuter traffic to employment centers in the Auburn area. The roadway also serves event traffic to the White River Amphitheatre on the Muckleshoot Indian Reservation and to the Muckleshoot Casino. SR 164 is a two lane roadway with traffic signals at the intersections with 244th Avenue SE, Porter Street (SR 169), Cole Street, Garrett Street, and SR 410.

**SR 169**, also known as Porter Street within City limits and 264th Avenue SE adjacent to the city limits, is a major arterial running north-south from SR 164 to the communities of Black Diamond, Maple Valley, and Renton. It serves commuter traffic to Renton and employment centers along the I-405 corridor. It is a two-lane arterial with a traffic signal where it intersects with SR 164.

#### ***Other Major Arterials***

**244th Avenue SE** is a major arterial running north-south along the west side of the City. It serves as a connection to State Highways SR 164 and SR 410



and serves as a de-facto bypass along the west side of the City. The road is generally two lanes wide with a center turn lane provided at key intersections. All roadways intersecting with the 244th Avenue SE are two-way stop controlled.

### 3.1.2 Minor Arterials

Minor arterials (sometimes also referred to as secondary arterials) are roadways that connect with and augment major arterials. Minor arterials provide densely populated areas easy access to major arterials and provide a greater level of access to abutting properties. Minor arterials connect with other arterial and collector streets extending into the urban area, and serve less concentrated traffic-generating areas, such as neighborhood shopping centers and schools. Minor arterials may serve as boundaries to neighborhoods and collect traffic from collector streets. Minor arterials also carry transit traffic. Minor arterials may serve any level of traffic volume, but should not be over utilized.

Minor arterial streets in the study area include Farman Street, Semanski Street (SR 410 to Griffin Avenue), Roosevelt Avenue (244th Avenue SE to Cole Street), Warner Avenue (244th Avenue SE to Blake Street), Garrett Street, and segments of Battersby Avenue, Porter Street and Stevenson Avenue downtown.

The typical minor arterial has two lanes varying in width from 10 to 11 feet per lane. Traffic is predominantly controlled with stop signs along abutting streets. On-street parking is allowed along many sections of minor arterials within the city limits. The speed limits within the city limits may range between 25 to 35 mph.

Cole Street is a key downtown street serving as the city's main street. The street has been improved for pedestrians with a "curbless" design between

Stevenson Avenue and Marshall Avenue which can be closed for festivals and other community events. The street has a 24-foot wide, two-lane roadway with parallel parking along a majority of the street's length. This street is more urban in nature, with slower vehicle travel, pedestrians, and parallel street parking.

### 3.1.3 Collector Streets

Collectors are roadways that provide easy movement within neighborhoods, and they connect two or more neighborhoods or commercial areas while also providing a high degree of property access within a localized area. These roadways "collect" traffic from local neighborhoods and distribute it to higher classification roadways. Additionally, collectors provide direct services to residential areas, local parks, churches and areas with similar land uses. Collectors provide the link between local access streets and larger arterials.

Collector streets within the study area include Harding Street, McHugh Avenue/SE 432nd Street, Cole Street/268th Avenue SE (North of McHugh), Kibler Avenue, Battersby Avenue/SE 440th Street, Blake Street, Watson Street N, Warner/SE 456th Street, Garrett Street, Washington Street, and Division Street. An additional designated collector street will be Dickson Avenue after it is connected to SR 410 between Watson Street N and Roosevelt Avenue. Most of the collector streets are two-lane undivided streets with stop control along abutting streets. Existing Pavement widths varies from 10 to 13 feet per lane. Parking is allowed along most sections of collector streets.

### 3.1.4 Local Streets

The remaining streets are local access streets. They provide access between residential or business areas



and the arterials. They generally have two travel lanes and 25 mph speed limits. Street widths vary from 18 feet in more rural areas to 32 feet in built-up sections of the City. Curb and gutter sections exist in the City and are bordered by planting strips and sidewalks. Where a local access street joins an arterial, there is usually stop-sign control. Traffic control signs are generally not needed on low-volume intersections of local streets.

### 3.2 TRAFFIC VOLUMES

Average daily traffic volumes on SR 410 range from 8,300 vehicles per day (vpd) near the east city limits to approximately 14,000 vpd near the south city limits. Traffic volumes vary during the day, with peaks occurring in the AM period (generally between 7 and 8 a.m.) and the PM period (generally between 4 and 6 p.m.). The PM peak is generally assumed to be about 10 percent of the average daily traffic (ADT).

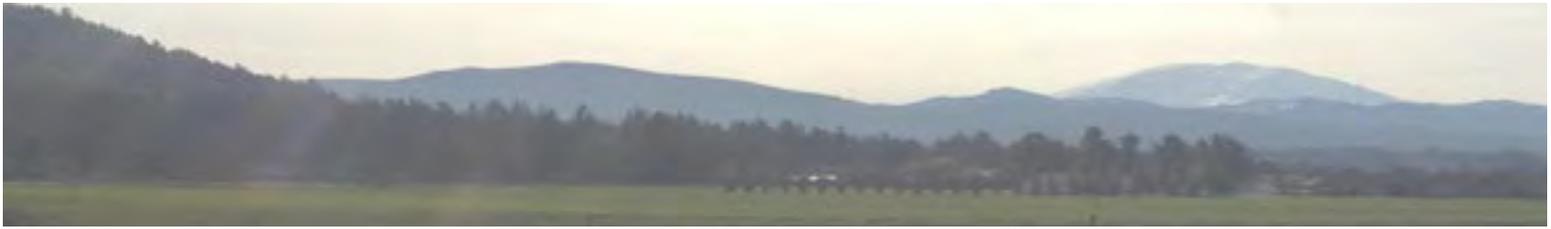
Roadway	Location	2003	2014	Change
SR 164	W of 244th Ave SE	975	1,005	3%
	E of 244th Ave SE	790	910	15%
	W of SR 169	995	890	-11%
	E of SR 169	965	825	-15%
	W of SR 410	685	725	6%
SR 169 <sup>1</sup>	N of SR 164	930	710	-24%
SR 410	E of Farman Street	190	225	18%
	W of Farman Street	590	570	-3%
	E of SR 164	1,020	905	-11%
	W of SR 164	835	725	-13%

<sup>1</sup> Traffic count from 2009, which is the most recent data available.

Since 2003, PM peak hour traffic volumes on SR 410 have generally decreased, with segments adjacent to Downtown experiencing an 11 to 13 percent drop in volumes. The only segment of SR 410 with an increase in traffic volumes is the segment on the eastern edge of the city where traffic volumes are lower than other parts of SR 410.

SR 164 experienced PM peak hour volume increases and decreases depending on location. The single count location on SR 169, located north of SR 164 has the largest decrease in traffic volumes, dropping by nearly one quarter from 2003.

Of the 10 locations where a historical comparison is



available, six experienced a decrease in PM peak hour volumes, and four experienced an increase. There are many contributing factors that influence traffic volumes and it is difficult to say the exact reasons for the increases and decreases, except to highlight the actual differences in traffic volumes are not particularly significant over a 11 to 12-year period.

**3.3 LEVEL OF SERVICE STANDARDS**

Traffic volumes from 2014 were used to evaluate traffic operations in and around Enumclaw at major intersections. These intersections were selected in consultation with City staff after reviewing available data and past corridor studies. Traffic operations were evaluated based on the Level of Service (LOS) methodologies of the Highway Capacity Manual (HCM) (Transportation Research Board, 2010). The HCM is a nationally recognized and locally accepted method of measuring traffic flow and congestion. LOS criteria (Table 2 and Table 3) range from LOS A, indicating minimal vehicle delays, to LOS F, indicating significant vehicle delays. At signalized intersections, LOS is defined in terms of average delay per vehicle.

At unsignalized intersections, LOS is measured in terms of the average delay per vehicle and is typically reported for the worst traffic movement instead of for the whole intersection. Roundabout LOS is generally reported based on HCM 2010 signalized delay thresholds. Roundabout control intersection LOS is expressed using the V/C ratio, where a V/C ratio greater than 1.0 would exceed the capacity of the roundabout. Delay and queues are also used to inform roundabout operations. LOS descriptions are shown in Table 2 and Table 3.

**Table 2 - Level of Service Criteria for Signalized Intersections and Roundabouts**

Level of Service	Average Control Delay (seconds/vehicle)	General Description
A	≤10	Free Flow
B	>10 – 20	Stable Flow (slight delays)
C	>20 – 35	Stable flow (acceptable delays)
D	>35 – 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before
E	>55 – 80	Unstable flow (intolerable delay)
F	>80	Forced flow (congested and queues fail to clear)

Source: *Highway Capacity Manual 2010*, Transportation Research Board, 2010.

Unsignalized intersection LOS criteria can be further reduced into two intersection types: all-way stop and two-way stop control. All-way stop control intersection LOS is expressed in terms of the weighted average control delay of the overall intersection. Two-way stop-controlled intersection LOS is defined in terms of the average control delay for each minor-street movement (or shared movement) as well as major-street left-turns. This approach is used because major-street through vehicles are assumed



to experience zero delay. Table 3 shows LOS criteria for unsignalized intersections.

**Table 3 - Level of Service Criteria for Unsignalized Intersections**

Level of Service	Average Control Delay (seconds/vehicle)
A	0 – 10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F	>50

Source: *Highway Capacity Manual 2010*, Transportation Research Board, 2010.

There are four organizations with jurisdiction in the study area which set LOS standards. They include the City, King County, PSRC, and WSDOT. The LOS standards vary for City roadways, County roadways, and State facilities depending on their intersection type or roadway classification. The LOS standards set by each organization are summarized below:

- City of Enumclaw
  - o LOS D for signalized intersections
  - o LOS E for unsignalized intersections
- King County
  - o LOS E for roadways in unincorporated areas surrounding the City

- WSDOT/PSRC
  - o LOS D for Highways of Statewide Significance in urban areas
  - o LOS C for Highways of Statewide Significance in rural areas
  - o LOS D for Highways of Regional Significance, Tier 2

Both SR 164 and SR 169 are identified by WSDOT as Highways of Statewide Significance (HSS). While SR 410 was not identified as a HSS, the Puget Sound Regional Council (PSRC) has identified SR 410 as a Tier 2 Regionally Significant State Highway (RSSH). SR 410 is also part of the National Highway System west of its intersection with SR 164 (Griffin Avenue).

The City has adopted a standard of LOS D for signalized intersections and LOS E at unsignalized intersections. The LOS D standard is consistent with the recently adopted Puget Sound Regional Council (PSRC) LOS tier 2 standards for regionally significant state highways in King County.

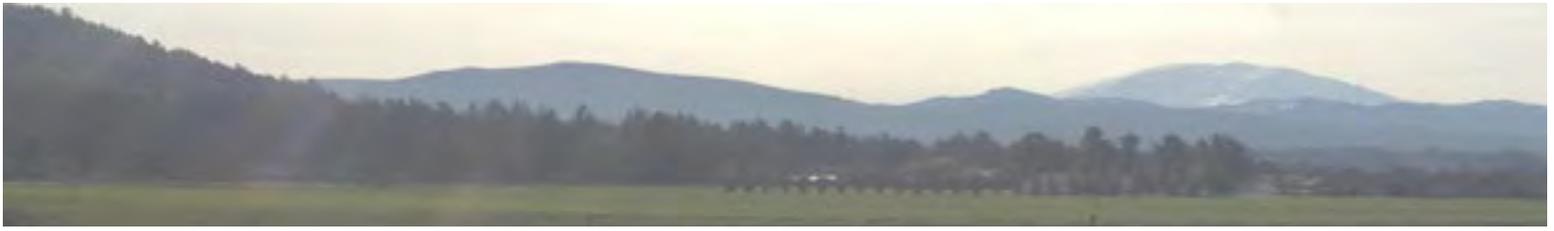
1 Comprehensive Plan, City of Enumclaw (2003).

2 Comprehensive Plan, King County (2012), p7-16.

3 Level of Service Standards for Washington State Highways, WSDOT (2010).

### 3.4 TRAFFIC OPERATIONS

Intersection traffic operations evaluate the performance of signalized and stop-controlled intersections according to the industry standards set by the HCM 2010. Weekday PM peak-hour traffic operations were evaluated at the study intersections using Synchro 8.0 software. The weekday PM peak-hour intersection operations were selected due to the higher traffic volumes that occur during that time period for a single hour between 4 and 6 p.m.



The existing level of service for signalized and unsignalized intersections in the study area is shown on Figure 1. This represents the 2014 existing conditions and provides a basis to compare with the forecast traffic operations in 2035.

As shown, the intersection of SR 410 and 244th Avenue SE is operating below the adopted LOS D per PSRC for regional highways of statewide significance. Existing 2014 PM peak hour LOS, including delay, and the worst movement for two-way stop-controlled intersections is summarized in Table 4.

Generally, the traffic operations of all intersections have remained similar to the previous results in the 2003 Transportation Element. A few intersections showed slight changes but no specific trends are observed. Although some intersections in the downtown district saw an improvement in LOS (decreased delay) while others saw a slight increase in delay. This suggests that overall traffic is not increasing or decreasing, but that the changing LOS may be due to shifting travel patterns.





Table 4 Signalized Intersections		2003		2014 Existing	
		Control	LOS <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>3</sup>
SR 410/SR 164/Griffin Ave	Signal	C	C	21	-
SR 410/Farman St N/284th Ave SE	Signal	B	B	10	-
SR 410/Garrett St	Signal	B	B	10	-
SR 410/Warner Ave	Signal	C	B	16	-
SR 164/Griffin Ave/SR 169/Porter St	Signal	A	B	14	-
SR 164/SE 436th Way/244th Ave SE	Signal	B	C	21	-
SR 164/Griffin Ave/Cole St	Signal	B	B	13	-
Garrett St/SR 164/Griffin Ave	Signal	C	B	11	-
SR 410/Watson St N <sup>5</sup>	Signal	C	A	5	-
Unsignalized Intersections		2003		2014 Existing	
		Control	LOS <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>3</sup>
SR 410/244th Ave SE	Side-street stop	F	F	>50	SB
SR 410/Blake St	Side-street stop	D	C	21	NB
SR 410/Cole St	Side-street stop	B	C	19	SB
SR 169/Porter St/Battersby Ave	Side-street stop	C	C	18	WB
SR 164/Griffin Ave/Semanski St	Side-street stop	B	C	17	NB
Cole St/Battersby Ave	Side-street stop	B	B	13	SB
Cole St/Roosevelt Ave	All-way stop	C	C	15	-
Cole St/Stevenson Ave	All-way stop	C	B	11	-
Garrett St/Battersby Ave	Side-street stop	(X)	B	12	NB
Roosevelt Ave/244th Ave SE	Side-street stop	C	D	30	WB
Roosevelt Ave/Semanski St	All-way stop	B	A	9	-
Warner Ave/244th Ave SE	Side-street stop	B	C	21	WB
Warner Ave/Semanski St	Side-street stop	C	B	15	WB

<sup>1</sup> Level of service, based on HCM 2000 methodology.  
<sup>2</sup> Level of service, based on HCM 2010 methodology.  
<sup>3</sup> Average delay in seconds per vehicle.  
<sup>4</sup> WM = worst movement where NB = northbound, EB = eastbound, SB = southbound, WB = westbound.  
<sup>5</sup> (X) was not evaluated in 2003.  
<sup>6</sup> Unsignalized in 2003.



As shown in Table 4, the LOS results show relatively similar delays when compared with 2003 traffic operations. One notable improvement in LOS occurred at the intersection of SR 410 and Watson Street N. In 2003, this intersection was not signalized. With signal installation the LOS improved from LOS C in 2003 to LOS A in 2014.

### 3.5 TRAFFIC SAFETY

A review of citywide collision records was completed to identify potential safety issues for vehicles, pedestrians, and cyclists. The traffic safety analysis included collision data for a five-year period from January 1, 2009 through December 31, 2013. This information was provided by WSDOT for SR 164, SR 169, SR 410, and all roadways within city limits.

Table 5 and summarize collision rates and the total number of collisions at both intersections and at non-intersection locations along roadway segments.

A total of 542 collisions over the five-year period were recorded. Of these, 116 of the collisions were associated with a possible injury, 52 with an evident injury, and 14 with a serious injury. In addition, two fatalities were reported with both occurring on SR 410. One fatality involved two vehicles, with one vehicle failing to yield; slush or snow on the roadway was identified as a potential contributing factor. The second fatality involved a pedestrian and occurred on SR 410 just north of Warner Avenue. Poor visibility or lighting and driver inattention were identified as potential contributing factors.

#### 3.5.1 Intersection Collisions

The vast majority of collisions involved people

traveling in vehicles; however, while collisions involving people on foot or bike represents only four percent of all collisions, nine percent of injury collisions and one of the two fatal collisions involved people walking or biking.

Table 5 summarizes intersection collision data and collision rates based on the average number of collisions per year and entering vehicle volumes at those intersections. Typically, any intersection with a collision rate greater than 1.0 collision per million entering vehicles (MEV) should be monitored closely to determine if safety improvements may be warranted.



**Table 5 - Intersection Collision Data and Rates**

Intersection	Total Collisions	Injury Collisions	Fatal Collisions	Total Average Annual Collisions	Entering Vehicles per Day	Collision Rate (per mev)	Historic Collision Rate
<b>Signalized</b>							
SR 164/SE 436th Way/244th Ave SE	26	9	0	5.2	16,300	0.87	0.73
SR 164/Griffin Ave/SR 169/Porter St	15	8	0	3	14,700	0.56	0.45
SR 164/Griffin Ave/Cole St	6	1	0	1.2	11,700	0.28	0.28
SR 410/SR 164/Griffin Ave	15	4	0	3	13,250	0.62	0.69
SR 410/Farman St N/284th Ave SE	7	0	0	1.4	6,800	0.56	1.81
SR 410/Warner Ave	17	6	0	3.4	15,250	0.61	0.59
<b>Unsignalized</b>							
SR 164/Griffin Ave/Semanski St	3	0	0	0.6	11,550	0.14	0.28
SR 169/Porter St/SE 432nd St/McHugh Ave	3	1	0	0.6	7,600	0.22	0.07
SR 169/Porter St/SE 416th St <sup>3</sup>	9	5	0	1.8	NA	0	1.02
SR 410/244th Ave SE	12	8	0	2.4	18,950	0.35	0.25
SR 410/Cole St	4	1	0	0.8	13,400	0.16	0.39
SR 410/Semanski St	5	3	1	1	14,310	0.19	NA <sup>2</sup>
SR 410/Monroe Ave/Mountain Villa Dr	14	3	0	2.8	13,000	0.59	0.68
Cole St/Battersby Ave	13	6	0	2.6	5,010	1.42	NA <sup>2</sup>
Semanski St/Warner Ave	12	2	0	2.4	6,280	1.05	NA <sup>2</sup>

Source: WSDOT Traffic Collision Data (2009 to 2013)  
 1. Annual collisions per million entering vehicles per year.  
 2. Historical crash data not available.  
 3. Traffic counts not available.



To provide meaningful comparison, collisions along state highway segments are typically analyzed in terms of collisions per million vehicle miles (MVM) traveled. No universally accepted guidelines exist for identifying hazards based on accident rates for state highway segments alone. However, the collision rates along most of the state highway roadway segments within the City have declined or are still low compared to other segments within the City, see Table 6.

Both segments of SR 164 saw a drop in collision rate compared to historical rates, especially between SR 169 and SR 410 where the crash rate saw a reduction of more than 80 percent.

The only roadway segment with a notable increase in the crash rate is the segment on SR 410 between Cole Street and SR 164. This roadway segment is the most urban segment along SR 410 in the City. Nine of the fifteen collisions along this segment were rear-end collisions. Contributing factors primarily included following too closely or exceeding a reasonably safe speed. Four of the collisions were angle collisions with contributing factors that included inattention and not granting the right-of-way to oncoming vehicles. Recent channelization improvements along this segment of highway are anticipated to result in reduced crash rates.

<b>Table 6 - Segment Collision Data and Rates</b>								
Roadway Segment	Total Collisions	Injury Collisions	Fatal Collisions	Average Annual Collisions	Average Weekday Traffic (vpd) <sup>1</sup>	Segment Length (miles)	Collision Rate (per mvm) <sup>2</sup>	Historic Collision Rate
SR 164 (228th Ave SE to SR 169)	25	6	0	5	9,350	2.2	0.67	1.63
SR 164 (SR 169 to SR 410)	6	3	0	1.2	7,750	0.61	0.7	3.76
SR 169 (SR 164 to SE 432nd St)	9	2	0	1.8	7,100	0.67	1.04	1.01
SR 169 (SE 432nd St to SE 416th St)	8	4	0	1.6	8,100	1	0.54	0.96
SR 410 (244th Ave SE to Cole St)	19	10	1	3.8	13,500	1.68	0.46	0.25
SR 410 (Cole St to SR 164)	15	1	0	3	7,250	0.68	1.673	1.25
SR 410 (SR 164 to Farman St N)	4	2	0	0.8	7,375	0.82	0.36	0.88

Source: WSDOT Traffic Collision Data (2009 to 2013)

1. Vehicles per day
2. Million vehicle miles
3. Recent channelization improvements along this segment of highway are anticipated to result in reduced crash rates.



**3.6 FREIGHT SYSTEM**

The movement of freight and goods is an important function of Enumclaw’s transportation system, particularly along the state highways that pass through the City. WSDOT classifies freight routes by the annual tonnage that the road carries. This classification is documented in WSDOT’s Freight and Goods Transportation System, most recently updated in 2013.

SR 410 is classified as a T2 freight corridor (4 to 10 million annual tons), with SR 164, SR 169, and 244th Avenue SE classified as T3 freight corridors (300,000 to 4 million annual tons). Other streets, particularly minor arterials and in some cases collector streets are used for local circulation and freight access.

**3.7 NON-MOTORIZED TRANSPORTATION SYSTEM**

Enumclaw’s road system provides access for people on foot, bike or other modes primarily with sidewalks and off-street trails. The downtown core, which has a dense grid paralleling the old railroad right-of-way, has a fairly complete sidewalk network. Newer subdivisions also provide sidewalks on a consistent basis; however, there are some areas missing sidewalks, primarily to the north and east of downtown.

The Foothills Trail radiates outwards from downtown Enumclaw connecting to Veteran’s Memorial Park on the south and Washington Avenue and 1st Street on the north. The Enumclaw Trails Master Plan developed goals and objectives that are incorporated into the Parks and Recreation Chapter of the Comprehensive Plan.

**3.8 TRANSIT SYSTEM**

King County Metro provides transit service between Enumclaw, Black Diamond, Maple Valley, Renton, and Auburn. Transit service to Downtown Seattle is provided by Sounder Commuter Rail which can be accessed by a timed transfer at the Auburn Station. King County Metro maintains current route and schedule information. Transit routes primarily serve Griffin Avenue, Cole Street, Porter Street, Roosevelt Avenue, and Semanski Street with demand area response transit (DART) service available throughout adjacent areas of Enumclaw. DART service will deviate from its route to pick up or drop off passengers closer to their destination based on advance request. Service is geared towards commuters as well as those who rely on transit service.

- **DART Route 907** provides weekday midday service to and from Enumclaw, Black Diamond, Maple Valley and Renton. Connections to other routes are available at the Renton Transit Center.
- **Metro Route 186 and DART Route 915** provides weekday and Saturday service to the Auburn Commuter Rail Station, southeast Auburn, Muckleshoot Reservation, and Enumclaw. Bus arrivals are coordinated with the Sounder Commuter rail schedule. Connections to other bus routes are also available at the Auburn Station.

The Farmers Park Park-and-Ride lot (25 parking spaces) is located at the SR 164/228th Avenue SE intersection northwest of the Enumclaw and is served by Metro Route 186 and DART 915 with direct service to Auburn Station. The Sacred Heart Church Park-and-Ride lot (40 spaces) is located at 1614 Farrelly Street, southwest of the Griffin Avenue/Farrelly Street intersection, and is served by Metro Route 186



and DART 915.

In 2014, daily transit boardings for DART Route 907 was approximately 100 passengers, Route 186 was approximately 200 passengers, and DART Route 915 was approximately 100 passengers.

ADA Paratransit service provides next-day, shared rides on ACCESS Transportation within 3/4 of a mile on either side of non-commuter fixed route bus service (Route 186) during the times and on the days those routes are operating. Eligible individuals can also travel to adjoining counties on the days and times their paratransit service operates, bring a personal care attendant (if such a need is documented during the eligibility determination process), and bring one companion (more companions can ride on a space available basis).

### **3.9 AIR, RAIL, AND WATER TRANSPORTATION FACILITIES**

Like many other historic towns in the Cascade Foothills, Enumclaw was founded in the age of the railroad. Although the rails have since been replaced with the Foothills Trail, which extends along the historic route of the railroad tracks, the city's street grid still reveals this historic legacy.

The Enumclaw Airport (FAA Identifier WA77) is a small private field with access off of 244th Avenue SE. Based on FAA data the field has a turf/gravel surface and primarily serves local single-engine aircraft. The field accommodates approximately 120 aircraft operations a week.

There are no water transportation facilities within city limits.

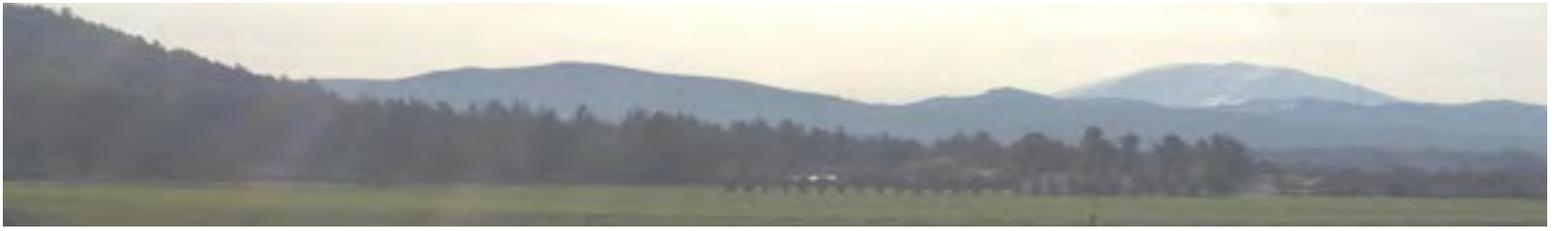
## **4. TRAVEL FORECASTING AND ALTERNATIVES ANALYSIS**

Forecasting travel demand helps to define the future needs of the transportation system to support the land use plan which is based on a 2035 horizon year. Forecast travel demand is based on the forecast land use allocated to planning districts. The planning districts are defined geographies that contain a mix of land uses and generate trip estimates based on population and employment forecasts. The aggregation of those trips provides planners with an estimate of total travel demand on the City's transportation system.

### **4.1 FORECAST TRAVEL CONDITIONS**

Future land use allocations are based on projected changes to population and employment types and densities within City limits, the unincorporated UGA, and adjacent areas consistent with local comprehensive plans. Future forecasts must incorporate growth in travel demand to develop a picture consistent with neighboring jurisdictions and regional growth strategies.

Travel demands external to the City are based on regional population and employment forecasts. PSRC maintains land use targets for large geographies, called Forecast Analysis Zones (FAZs), which were used to estimate regional travel demand. Total 2035 housing and employment forecasts were based on and are consistent with those adopted for the City in the King County Countywide Planning Policies (2012). These housing and employment forecasts are also consistent with the City's land use plan.

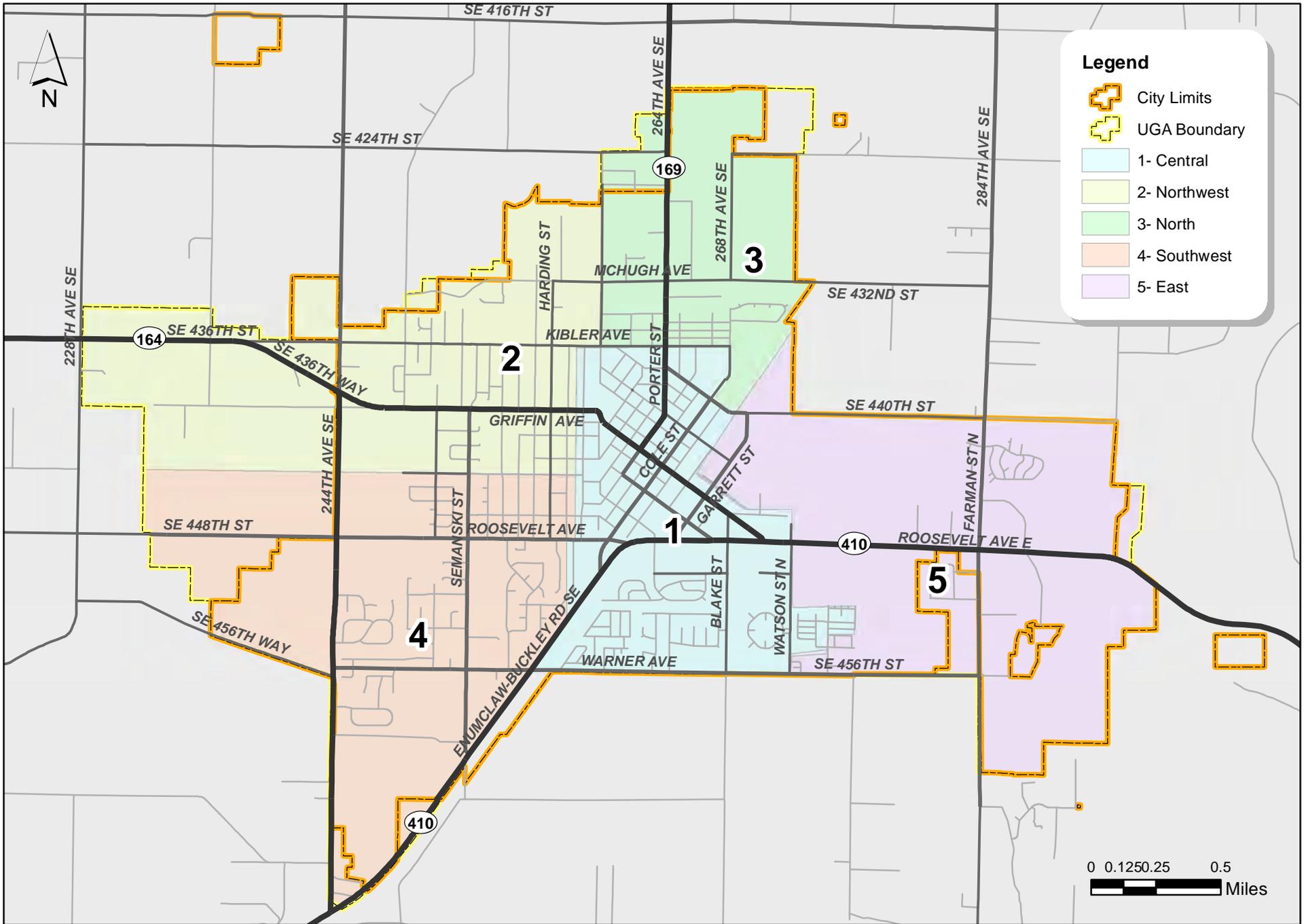


The City of Enumclaw was further divided into several smaller geographies that represent land use planning districts in the City. The land use forecast for each of the districts was developed for planning purposes. Figure 2 shows the size, boundary, and location of each district, generally defined as follows:

- **District 1: Central** - this area represents the core commercial area of Enumclaw with dense commercial and retail development;
- **District 2: Northwest** - this area encompasses primarily residential uses including schools and churches, with small mixed-use commercial area;
- **District 3: North** - this area encompasses primarily residential uses including schools and churches, with limited retail services;
- **District 4: Southwest** - this area is more rural in nature. Much of the district consists of farmland in the west with limited residential and related uses in the east; and
- **District 5: East** - this area is primarily rural in nature with large swaths of farmland; however, planned residential development on the south side of SR 410 will significantly increase the number of residential dwellings in this district. A limited amount of commercial and retail development currently exists along the east side of the district.

The allocation of future land use growth to planning districts results in new trips generated on the roadway network. Travel demand forecasts were developed by district based on housing and employment targets from PSRC for 2035. The employment and housing forecasts used are larger than PSRC forecasts, but less than zoned capacity to ensure travel demand forecasts are conservative and represent the most traffic reasonably expected.

Vehicle trips were then distributed to the roadway network based on existing travel patterns and the location of future development.



## Planning Districts



## 4.2 LAND USE FORECAST

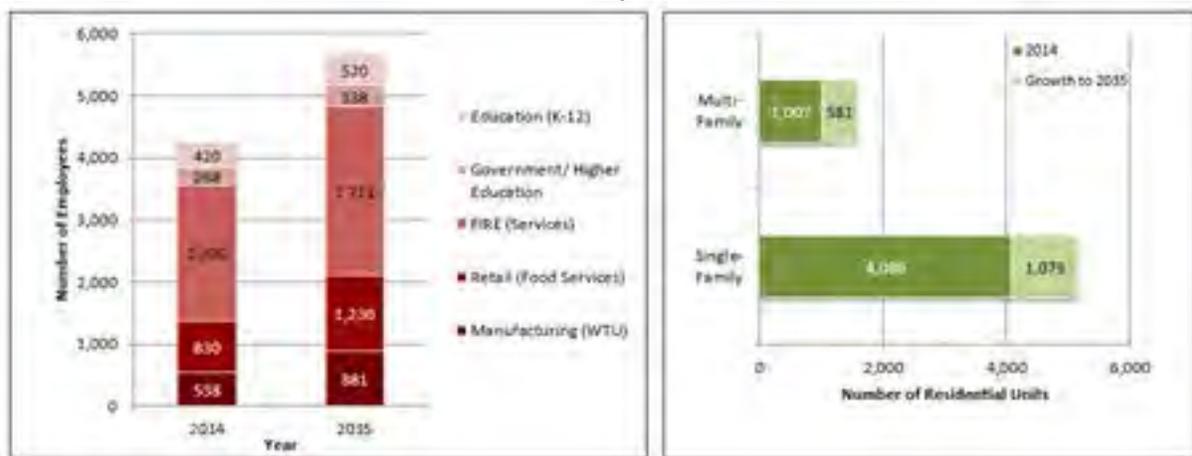
Land use forecasts within the City show an overall increase in the number of households (i.e. available housing units regardless of occupancy) and employees between 2014 and 2035. The City is anticipated to increase by approximately 1,656 households and 1,700 jobs. These values are higher than the minimum target totals required by the King County Countywide Planning Policies and represent the expected growth in the City. Figure 3 shows the existing and forecast land use for the City and UGA. The expected growth is used to determine the improvements necessary to serve the growth expected given the amount of vacant land and planned future land uses. It does not reflect a target, but is an estimate for the purpose of planning future improvements to ensure that the City’s transportation system will be sufficient to serve the future land use envisioned in the land use element.

**Figure 3 - Existing (2014) and Forecast (2035) Change in Housing and Employment**

The expected housing growth assumes an addition of 581 multi-family units and 1,075 single-family units. Multi-family units include assisted living facilities, senior communities, apartments (regular and senior) and mixed use developments. Land use policies encourage development of senior communities and assisted living facilities. All sectors of employment are expected to grow with the largest growth occurring in the manufacturing and retail sectors.

The largest growth in the City for housing and employment is expected to occur in the East planning district. This district has large residential developments planned for the areas along Roosevelt Avenue (SR 410). It is also an area of the City with some of the largest available developable land. Other districts are planning to have growth in housing and employment relative to the size of existing land uses and vacant land in each district. Table 7 summarizes the household and employment growth for all planning districts in the City and UGA.

4 Current Population Survey (CPS) – Definitions. US Census Bureau. Available at: [www.census.gov/cps/about/cpsdef.html](http://www.census.gov/cps/about/cpsdef.html)  
 5 Comprehensive Plan Land Use Element, (City of Enumclaw, 2015).



Source: City of Enumclaw, 2015



**Table 7 - Change in 2010 and 2035 Forecast Land Use by District 6**

Planning Districts	Households (dwelling units)				Employment (employees)			
	2014	2035	Difference	% Change	2014	2035	Difference	% Change
1 - Central	1,651	1,914	263	16%	2,699	2,980	281	10%
2 - Northwest	1,020	1,230	210	21%	425	768	343	81%
3 - North	683	903	220	32%	129	164	35	27%
4 - Southwest	1,409	1,619	210	15%	371	456	85	23%
5 - East	330	1,083	753	228%	784	1,742	958	122%
<b>Total</b>	<b>5,093</b>	<b>6,749</b>	<b>1,656</b>	<b>33%</b>	<b>4,408</b>	<b>6,110</b>	<b>1,702</b>	<b>39%</b>

Source: City of Enumclaw, 2015

**4.3 PLANNED IMPROVEMENTS**

Typically, fully funded transportation system improvements are included in the level of service analysis to establish future baseline conditions for the Transportation Plan. This provides a basis to identify future deficiencies. No committed capacity improvements, defined as improvements anticipated to be funded by 2035, were identified within the study area or assumed in the future baseline network.

**4.4 LEVEL OF SERVICE STANDARDS**

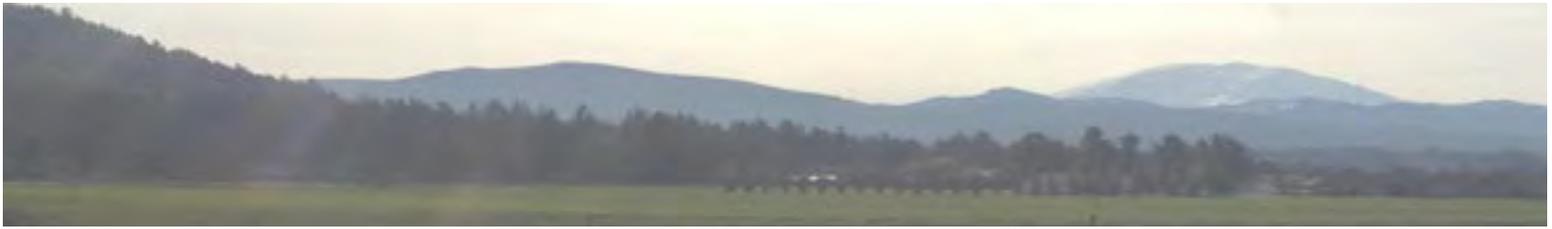
The level of service standards are discussed in Section 3.3. Forecast levels of service in the study area are provided to identify potential future deficiencies in the roadway system. Potential improvements are also identified in Section 5.

6. LandUse Targets Maintenance Release 1(PSRC, 2014)

**4.5 2035 TRAFFIC OPERATIONS**

As forecast land use growth occurs, traffic volumes are expected to increase and may shift from current travel patterns. The connection between land use and transportation generally means the amount of travel tends to increase as community population and employment opportunities expand. Traffic volumes in the City of Enumclaw have historically experienced low growth, suggesting that traffic volumes in the City have remained relatively constant from 2003. However, travel patterns have changed during the same period. For example, daily traffic accessing SR 410 has shifted to using Semanski Street instead of 244th Avenue SE, potentially due to poor operations at the SR 410/244th Avenue SE intersection.

Trip generation rates from the Trip Generation Manual (Institute of Transportation Engineers, 2010) were used to estimate growth in vehicle traffic based on the land use forecasts for each planning



district. Growth in traffic volumes from 2014 to 2035 was calculated based on the changes from existing to forecast land uses as calculated for each land use type. Forecast traffic volumes were distributed to the roadway network and assigned to each study intersection to provide an estimate of the future travel demand in the City.

The evaluation of the forecast traffic volumes includes an analysis of key intersections within the study area. The intersections included in the forecast evaluation are the same locations evaluated with the Highway Capacity Manual (2010) methodology described in Section 3.4.

The 2035 forecast traffic volumes for two transportation network conditions were analyzed: (1) baseline conditions, and (2) with improvements. The baseline analysis was used to identify capacity and mobility improvements summarized in Section 5. The “with improvements” analysis confirmed whether the long-term project list addressed any specific LOS deficiency.

The resulting 2035 level of service for all study intersections is shown on Table 8. Where the baseline analysis identified an LOS issue, a subsequent LOS analysis was conducted for that specific intersection assuming the improvement identified in the project list. A comparison of 2014 to 2035 level of service is shown in Table 8.





**Table 8 – 2014 and 2035 Intersection PM Peak Hour Level of Service**

Signalized Intersections	Control	2014 Existing			2035 Future		
		LOS <sup>1</sup>	Delay <sup>2</sup>	WM <sup>3</sup>	LOS <sup>1</sup>	Delay <sup>2</sup>	WM <sup>3</sup>
SR 410/SR 164/Griffin Ave	Signal	C	21	-	C	34	-
SR 410/Farman St N/284th Ave SE	Signal	B	10	-	B	13	-
SR 410/Garrett St	Signal	B	10	-	B	10	-
SR 410/Warner Ave	Signal	B	16	-	C	25	-
SR 164/Watson St N	Signal	A	5	-	A	7	-
SR 164/Griffin Ave/SR 169/Porter St	Signal	B	14	-	B	15	-
SR 164/SE 436th Way/244th Ave SE	Signal	C	21	-	D	54	-
SR 164/Griffin Ave/Cole St	Signal	B	13	-	B	14	-
SR 164/Griffin Ave/Garrett St	Signal	B	11	-	B	11	-
<b>Unsignalized Intersections</b>							
SR 410/244th Ave SE	Side-street stop	F	>80	SB	F [F]	>80 [>80]	SB
SR 410/Blake St	Side-street stop	C	21	NB	F [C]	>80 [22]	NB
SR 410/Cole St	Side-street stop	C	19	SB	D	28	SB
SR 169/Porter St/Battersby Ave	Side-street stop	C	18	WB	D	26	WB
SR 164/Griffin Ave/Semanski St	Side-street stop	C	17	NB	D	28	NB
Cole St/Battersby Ave	Side-street stop	B	13	SB	C	16	SB
Cole St/Roosevelt Ave	All-way stop	C	15	-	C	19	-
Cole St/Stevenson Ave	All-way stop	B	11	-	B	13	-
Garrett St/Battersby Ave	Side-street stop	B	12	NB	B	14	NB
Roosevelt Ave/244th Ave SE	Side-street stop	D	30	WB	F [A]	>80 [6]	WB
Roosevelt Ave/Semanski St	All-way stop	A	9	-	B	10	-
Warner Ave/244th Ave SE	Side-street stop	C	21	WB	D	34	WB
Warner Ave/Semanski St	Side-street stop	B	15	WB	C	18	WB
1. Level of service, based on HCM 2010 methodology. 2. Average delay in seconds per vehicle. 3. WM = worst movement where NB = northbound, EB = eastbound, SB = southbound, WB = westbound. 4. [X] denotes LOS and delay with project improvements							



As shown on Table 8, the majority of study intersections in the City will continue to operate acceptably at LOS D or better during the PM peak period. Note that there may be locations that will operate poorly at other times of the day, such as in the morning or around school dismissal times, and therefore are not accounted for in the PM peak period analysis.

Two intersections inside the city limits, and one adjacent to the unincorporated urban growth boundary (on SR 410 at 244th Avenue SE) would degrade below current LOS standards. Projects that would bring these intersections up to standard are described in detail in Section 5.

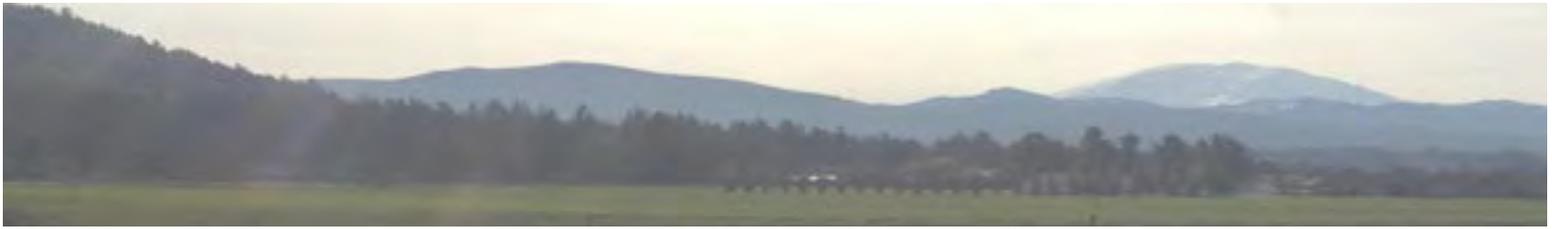
There are three intersections in the City that show notable changes to intersection LOS or do not meet adopted level of service standards, and one additional intersection that is close to falling below adopted LOS standards; they include:

- **SR 410/Blake Street** – This intersection operates at LOS C under existing conditions and is forecast to operate at LOS F in 2035. The stop-controlled northbound minor leg experiences increased delays, with the majority of the traffic turning left onto SR 410. The additional traffic volume on SR 410 reduces the number of gaps for vehicles on Blake Street to turn onto the highway. The side street traffic volumes on Blake Street are relatively low compared to the overall traffic at the intersection. Projects have been identified that would bring this intersection up to standard and are identified in Section 5.
- **244th Avenue SE/Roosevelt Avenue** – This intersection operates at LOS D under existing conditions and LOS F under 2035 forecast conditions. The intersection is stop-controlled on

Roosevelt Avenue and traffic attempting to access 244th Avenue SE experiences increased delays due to limited gaps in through traffic. The westbound left-turn movement is forecast to experience increased delays and would result in a sub-standard LOS. Projects have been identified that would bring this intersection up to standard and are identified in Section 5.

- **SR 410/244th Avenue SE** – This intersection operates at LOS F under existing conditions and would continue to do so in 2035. The through traffic on SR 410 does not provide enough gaps to allow the southbound traffic to enter the intersection, creating increased delay and long vehicle queues. As described previously, based on the observed change in traffic volumes, vehicles may be diverting from this roadway to utilize Semanski Road to access SR 410. Projects to improve this intersection were reviewed as part of the SR 410 Corridor Study and again as part of this analysis, but absent additional widening to the highway, are not able to address the LOS issue. Since the intersection is outside the City and its UGA, the City is not required to address this LOS deficiency in its Transportation Element.
- **244th Avenue SE/SR 164** – This intersection would be expected to experience increased delay, such that it is within a few seconds of falling below the LOS D standard. The 244th Avenue SE corridor experienced a large increase in traffic traveling to and from SR 410. This intersection is included for potential future improvements in Section 5.

All but one of the intersections described above are stop-controlled intersections that intersect corridors with heavy traffic volumes. This causes the minor movements to experience a greater amount of delay due to a lack of gaps in traffic. Notably, four of the five intersections that are not meeting



the current LOS standard or close to not meeting the LOS standard are located along 244th Avenue SE. The traffic counts suggest that volumes have shifted from this roadway, but also that it seems to be a common way to access SR 410.

### 5. TRANSPORTATION SYSTEM PLAN

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

The following sections highlight these improvement projects and include tables that summarize project information such as project ID, location, description, and relative priority. Projects are organized alphabetically by location. Although projects are presented separately, many projects are related and can be completed in tandem. Projects are ranked by relative priority based on their level of importance as compared to projects of the same type.

A number of projects on state or county facilities have been included to ensure they are identified and communicated. Additionally, improvements to transit service, which would be provided by a transit agency, are also identified. However, funding for these

projects is the responsibility of those agencies as City funds have not been allocated towards them.

### 5.1 CORRIDOR IMPROVEMENT PLANS

WSDOT and the City of Enumclaw have completed corridor studies for the three state highways in the City since the last update of the Transportation Element in 2003. The studies evaluated each of the corridors in detail to identify short- and long-term capital investments to address safety, non-motorized, and capacity needs to serve the local communities and the demands of entire region. The recommended projects identified in those studies have been integrated into the transportation systems plan, and comprise a large portion of the future infrastructure needs within the City. The following provides a brief overview of each study effort.

The **SR 164 Corridor Planning Study** was completed in 2009 by WSDOT and provides recommendations to address identified existing and emerging safety, mobility, and preservation needs on a fifteen-mile stretch of the highway from Auburn to Enumclaw. The preliminary project costs for the improvements identified in the study total more than \$148 million in 2005 dollars. A Corridor Working Group, which the City of Enumclaw participated in, developed the vision and overall project goals for the study that led to the final project recommendations. The improvements identified for the Enumclaw portion of the corridor have been integrated into the City’s long-term transportation project list.

The **SR 169 Route Development Plan (RDP)** was completed in 2007 by WSDOT and identified a set of recommended improvements that should be implemented over the next 20 years along the 25-mile corridor between Renton and Enumclaw. The RDP and the list of projects was developed through



the work of a Corridor Working Group (CWG). The CWG was made up of local city, county, regional, and state partner agencies responsible for guiding the study effort, including representatives from the City of Enumclaw. The project list identifies over \$210 million worth of investments in 2005 dollars. The responsibility for implementing the improvements could fall to WSDOT, or the local, or regional governments, and in some instances, private developers. The improvements identified for the Enumclaw portion of the corridor have been integrated into the City's long-term transportation project list.

The SR 410 Corridor Study was initiated by the City of Enumclaw and examined the existing and future conditions of the corridor through the City and its Urban Growth Area. The study recommended improvements for both motorized and non-motorized users, and prepared several preliminary design concepts for the various segments of SR 410 and its major intersections. The study is a guidebook for future growth, possible improvements, streetscaping elements, and design standards along the SR 410 corridor. The study began in 2005 and was finalized, published and adopted by the Enumclaw City Council on June 28th, 2010 by Resolution No. 1388.

## **5.2 FUNCTIONAL CLASSIFICATION SYSTEM**

The roadway functional classification system shown on Figure 5 identifies the hierarchy of each roadway in the transportation system. The functional classification of a roadway is typically based on the types of trips that occur on it, the basic purpose for which it was designed, and the amount of traffic it carries. Higher classifications (e.g., freeways, major arterials) provide a high degree of mobility with greater traffic volumes, generally at higher

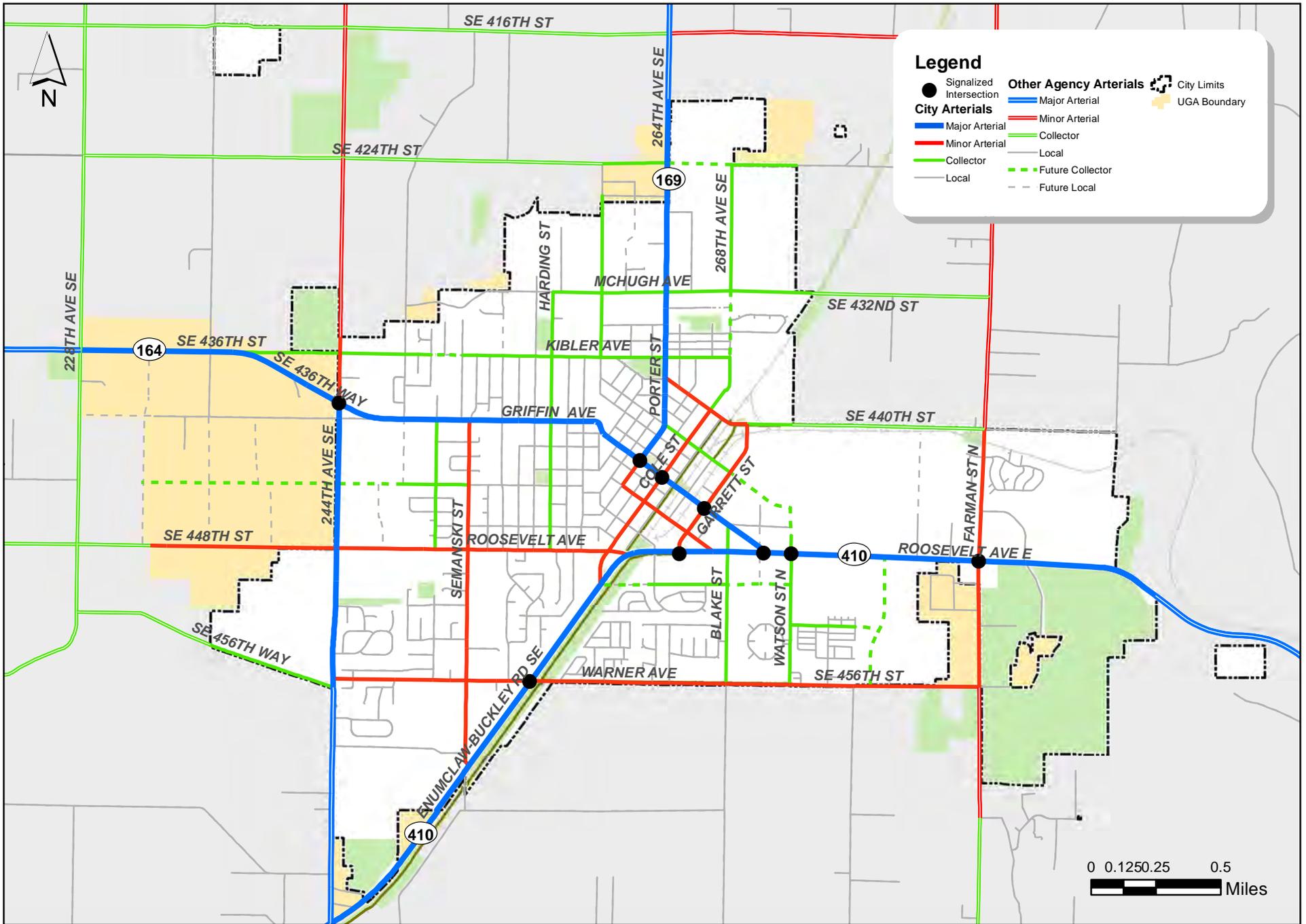
speeds, and should have limited access to adjacent land uses. Lower classifications (e.g., local access streets) provide greater access to adjacent land and are not intended to serve through traffic, carrying lower volumes of traffic at lower speeds. Collectors balance the function between mobility and access.

Based on state law, cities are required to adopt a roadway functional classification system that is consistent with state and federal guidelines. Each local jurisdiction is responsible for defining its transportation system into, at a minimum, three functional classifications: major arterial, minor (secondary) arterial, and collector. All other roadways are assumed to be local streets.

## **5.3 ROADWAY DESIGN STANDARDS**

The City should work to develop roadway design standards to ensure consistency of roadway design and clarity of required improvements when development is proposed. City design standards should consider safety, convenience, aesthetics, proper drainage, and economical maintenance of the system. The standards include items such as right-of-way needs, pavement width, type and width of pedestrian and bicycle facilities, and roadway and intersection radii.

The standards should provide adequate facilities to meet the mobility and safety needs of the community, as well as comply with storm water management, sensitive areas, and other regulations. The standards will assist design professionals and developers for all new and reconstructed roadways and right-of-way facilities, both public and private, within the City.



# Functional Classification System



**5.4 TRANSPORTATION PROGRAMS**

Transportation programs include ongoing investments necessary to maintain and sustain the transportation system. These investments are planned on a programmatic level with many improvement projects combined into a single program, with improvements implemented over a multi-year period.

include upgrading traffic signals and implementing Intelligent Transportation Systems (ITS), which could encompass modifications to vehicle detection and coordinated signal timing.

<b>Table 9 - Transportation Programs</b>						
<b>Responsible Agency</b>	<b>ID</b>	<b>Project Location</b>	<b>Project Limits</b>	<b>Project Description</b>	<b>Relative Priority</b>	<b>Cost<sup>1</sup> (\$1,000)</b>
City	P1	Pavement Maintenance	Citywide	Roadway maintenance (snow removal, striping, etc.)	High	N/A <sup>2</sup>
City	P2	Transportation Benefit District	Citywide	Roadway preservation and repairs	High	N/A <sup>2</sup>
1. Project costs in \$1,000s of dollars (2015\$)						
2. Annual program with no specific project cost identified						

**5.5 CAPACITY AND FREIGHT PROJECTS**

Capacity and freight projects include improvements that increase the capacity of the roadway network and bring roadways up to design standards that improve the movement of freight. Intersection improvements include upgrading intersections through added turn lanes or modifications to traffic controls. The best type of traffic control depends on a variety of conditions including vehicles volumes, turning movements, intersection layout, right-of-way constraints, non-motorized users, and other factors. Where applicable, improvements may also

Roundabouts are generally explored at intersections with high turning volumes, irregular designs, or right-of-way constraints along approaches. They have been proven to increase safety and reduce collision rates, especially fatal and injury collisions. Compared to signalized intersections, roundabouts can also provide cost savings over the life of the intersection due to lower operations and maintenance costs.

The projects were generally identified through a review of the previous Transportation Element as well as the SR 164, SR 169 and SR 410 corridor study documents. High priority projects include those



## Chapter 5 - Transportation Element

needed to address existing or future LOS issues. Capacity and freight projects are shown in Table 10. The location of capacity, corridor upgrades, and non-motorized projects are shown in Figure 4 and Figure 5 depending on whether the City or State would be responsible for implementing the project.

Planning level cost estimates were prepared for each project based on typical per unit costs, by type of roadway and scope of the improvement. Where costs had been calculated as part of past or ongoing studies or design projects, they were used instead. The cost estimate does not include potential right-of-way acquisition needs.



Table 10 - Capacity and Freight Projects						
Responsible Agency	ID	Project Location	Project Limits	Project Description	Relative Priority	Cost <sup>1</sup> (\$1,000)
City	C1	236th Ave SE	SE 440th St to SE 448th St	Construct new two-lane collector street	Low	\$4,180
City	C2	244th Ave SE	Roosevelt Ave/244th Ave SE	Intersection improvements when warranted	High	\$270
City	C3	Bondgard Ave E	Mt. Peak St N to Suntop Blvd N (future roadway)	Complete two-lane collector connection	Low	\$740
City	C4	Cole St	Battersby Ave/ Cole St	Intersection improvements when warranted	Low	\$300
City	C5	Dickson Ave	SR 410 to Mountain Villa Drive	Improvements per SR 410 Corridor Study	Low	\$1,810
City	C6	Dickson Ave	Blake St to Watson St N	Complete two-lane collector connection, and reconstruct to collector street standards	Low	\$2,340
City	C7	Elmont Ave	Highpoint St to west UGA boundary	Construct new two-lane collector street	Low	\$2,310
City	C8	Roosevelt Ave	Cole St/ Roosevelt Ave	Improvements per SR 410 Corridor Study	Medium	\$630
City	C9	Semanski St/Warner Ave	Semanski St/ Warner Ave	Intersection improvements to address school related impacts	High	\$320
City	C10	Suntop Blvd N	SR 410 to Warner Ave	Construct new roadway and intersection improvements per SR 410 Corridor Study	Medium	N/A <sup>2</sup>
City	C11	Washington Ave/Watson St N	Garrett St to Watson St N	Construct new two-lane collector street connection	Low	\$2,820

# Chapter 5 - Transportation Element



Responsible Agency	ID	Project Location	Project Limits	Project Description	Relative Priority	Cost <sup>2</sup> (\$1,000)
State	C12	SR 164	228th Ave SE to west city limits	Widen corridor and upgrade to major arterial standards	High	\$13,560
City	C13	SR 164	Blake St/SR 410	Improvements per SR 410 Corridor Study	Medium	\$1,060
City	C14	SR 164 and Garret St	SR 164/Garrett St	Upgrade signal	Medium	\$1,730
State	C15	SR 169	Washington Ave to McHugh Ave	Install two way left turn lane	Medium	\$70
State	C16	SR 169	McHugh Ave	Intersection improvements when warranted	Low	\$310
State	C17	SR 169	Battersby Ave or Kibler Ave	Intersection improvements when warranted	Low	\$310
State	C18	SR 169 and SR 164	Porter St & Griffin Ave	Intersection improvements to facilitate freight	High	\$1,340
State	C19	SR 410 - Segment 1	244th Ave SE to Roosevelt St	Improvements per SR 410 Corridor Study	Low	TBD <sup>3</sup>
State	C20	SR 410 - Segment 1	Warner Ave/SR 410	Improvements per SR 410 Corridor Study	Low	\$1,640
State	C21	SR 410 - Segment 1	244th Ave SE/ SR 410	Improvements per SR 410 Corridor Study	High	\$1,360
State	C22	SR 410 - Segment 2	Roosevelt St to Cole St	Improvements per SR 410 Corridor Study	Low	\$300
State	C23	SR 410 - Segment 2	Griffin Ave (SR 164)/ SR 410	Improvements per SR 410 Corridor Study	Low	\$1,240



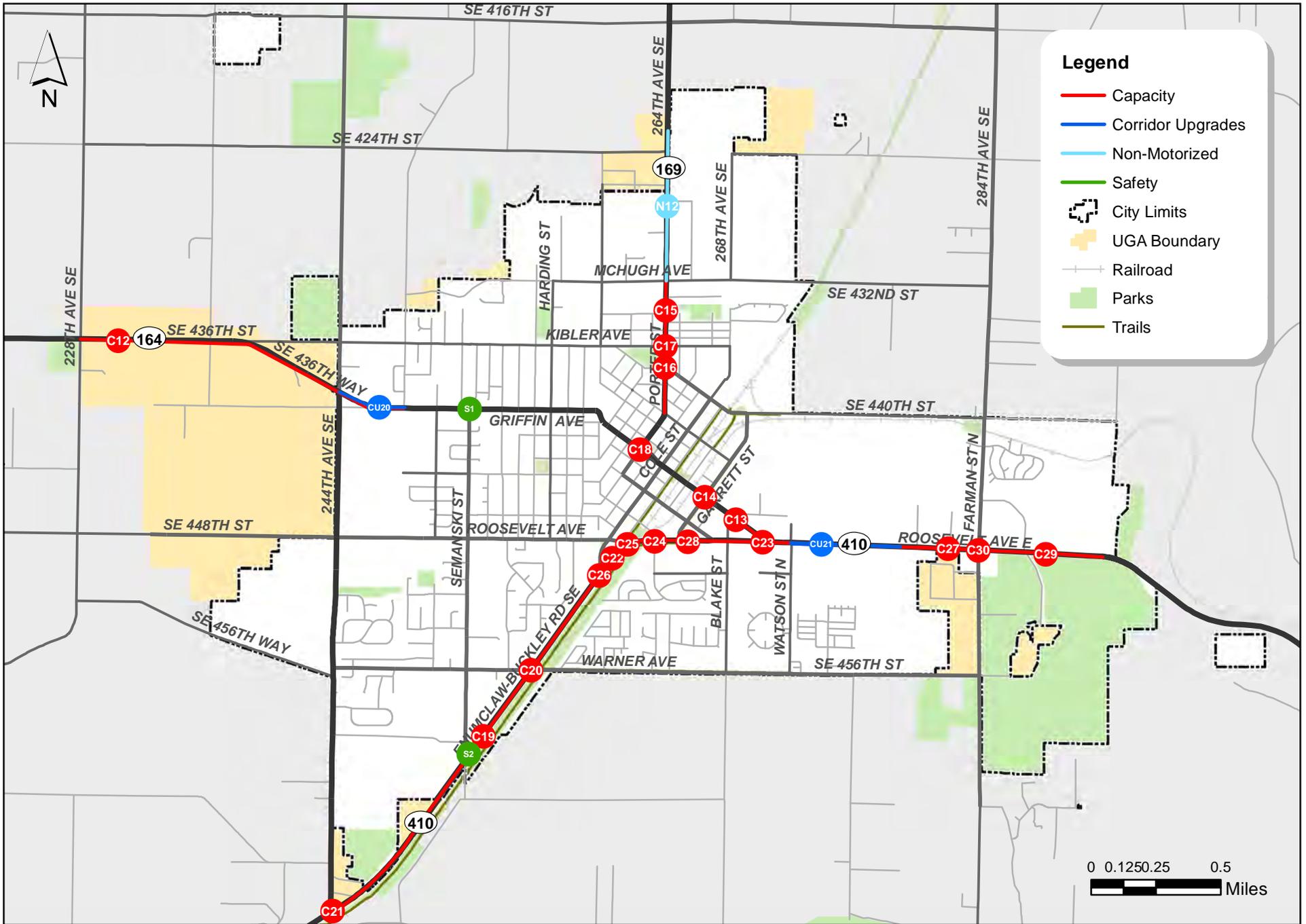
State	C24	SR 410 - Segment 2	Monroe Ave/Mt. Villa Dr/SR 410	Improvements per SR 410 Corridor Study	Low	\$470
State	C25	SR 410 - Segment 2	Roosevelt Ave/ SR 410	Improvements per SR 410 Corridor Study	High	\$210
State	C26	SR 410 - Segment 2	SR 410/Cole St	Improvements per SR 410 Corridor Study	High	\$1,510
State	C27	SR 410 - Segment 3	Commerce St to Farman St N	Improvements per SR 410 Corridor Study	Medium	TBD <sup>3</sup>
State	C28	SR 410 - Segment 3	Commerce St to Watson St	Improvements per SR 410 Corridor Study	Low	TBD <sup>3</sup>
State	C29	SR 410 - Segment 3	Farman St N to east city limits	Improvements per SR 410 Corridor Study	Low	TBD <sup>3</sup>
State	C30	SR 410 - Segment 3	Farman St N/SR 410	Improvements per SR 410 Corridor Study	Low	\$1,080

1. Project costs in \$1,000s of dollars (2015)

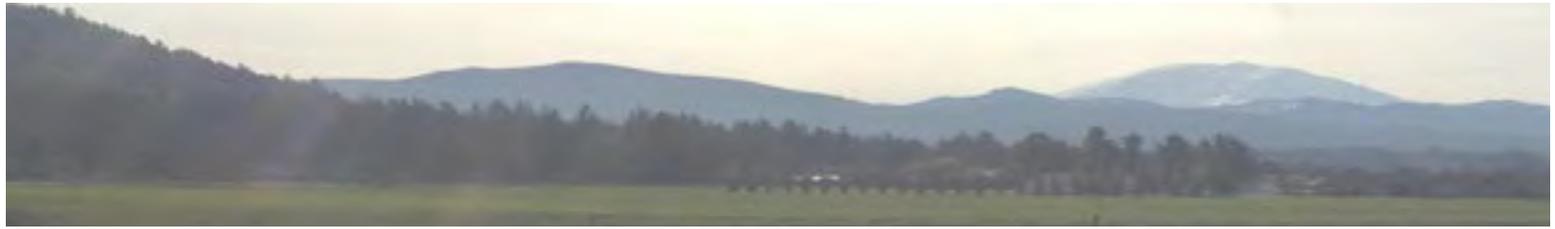
2. Project to be constructed as part of new development

3. Project likely to be completed in smaller segments as part of new development; cost estimates to be determined at the time of implementation





# Transportation System Improvements - State



### 5.6 CORRIDOR UPGRADES

Corridor Upgrades include modifying roadways to current City roadway design standards and incorporating multimodal improvements to more safely serve high traffic volumes and non-motorized travel. A number of roadways in the City have been identified for upgrades and prioritized based on those projects required to meet future travel needs. Corridor upgrades are primarily targeted major arterials, minor arterials, and collector streets where vehicle speeds and volumes are larger and heavy vehicles are more likely to use. Corridor upgrade projects are shown in Table 11. Project CU9 is not included on Figure 4 since it is a local roadway project.

### 5.7 NON-MOTORIZED TRANSPORTATION SYSTEM

Active Transportation improvements add pedestrian and bicycle facilities to roadways or construct off-street multiuse pathways to complete gaps in the existing non-motorized network. These projects provide alternative methods of travel and recreational opportunities. Projects were compiled from the previous Transportation Element, corridor master plans, and the City’s Parks and Open Space Plan (2014). Non-motorized projects are shown in Table 12.

Table 11 - Corridor Upgrade Projects



Responsible Agency	ID	Project Location	Project Limits	Project Description	Relative Priority	Cost <sup>1</sup> (\$1,000)
City	CU1	244th Ave SE	Hamilton Place to Roosevelt Ave	Reconstruct to major arterial standards (both sides) and construct trail per Parks and Open Space Plan	High	\$3,200
City	CU2	244th Ave SE	SR 410 to SE 463rd St	Reconstruct to major arterial standards (east side)	Medium	\$7,820
City	CU3	244th Ave SE	Roosevelt to SR 164	Reconstruct to major arterial standards (both sides) and construct trail (east side) per Parks and Open Space Plan	High	\$8,420
City	CU4	244th Ave SE	SR 164 to 1400' North City Limits	Reconstruct to minor arterial standards and construct trail per Parks and Open Space Plan	Low	\$3,110
City	CU5	Blake St	SR 410 to Warner Ave	Improve to collector street standards	Medium	\$4,360
City	CU6	Blake St	SR 164 to SR 410	Improve to collector street standards	Medium	\$810
City	CU7	Commerce St	SR 410 to Battersby Ave	Reconstruct to collector street standards	Low	\$4,120
City	CU8	Dickson Ave	Mountain Villa Drive to Blake St	Reconstruct to collector street standards	Medium	\$2,320
City	CU9	Elmont Ave	Semanski St to Lafromboise St	Reconstruct to local roadway standards	Medium	\$3,890
City	CU10	Kibler Ave	Carbon Ridge to Gossard St	Reconstruct to collector street standards	Low	\$890
City	CU11	Kibler Ave	Gossard St to Harding St	Reconstruct to collector street standards	High	\$3,170
City	CU12	Lincoln Ave	Semanski St to Lafromboise St	Reconstruct to local roadway standards	Low	\$3,860
City	CU13	McHugh Ave	Harding St to Porter St	Improve to collector street standards	Medium	\$2,060
City	CU14	McHugh Ave	Porter St to Cole St (aligned)	Improve to collector street standards	High	\$2,210
City	CU15	Nielsen Ave	Lafromboise St to Porter St to Monroe Ave	Reconstruct to local roadway standards	Medium	\$860
City	CU16	Roosevelt Ave	244th Ave SE to Semanski St	Reconstruct to minor arterial standards	Low	\$6,110
City	CU17	Warner Ave	Berninger St to Blake St	Reconstruct to collector street standards and construct trail per Parks and Open Space Plan	Low	\$2,330
City	CU18	Warner Ave	Watson St N to 276th Ave SE	Reconstruct to collector street standards and construct trail per Parks and Open Space Plan	High	\$1,090
City / County	CU19	Warner Ave	276th Ave SE to Farman St N	Reconstruct to collector street standards and construct trail per Parks and Open Space Plan	Medium	\$4,390
State	CU20	SR 164	244th Ave SE to Highpoint St	Upgrade to major arterial standards	Medium	\$4,700
State	CU21	SR 410	Watson St N to Sunton Blvd N N	Improvements per SR 410 Corridor Study	Low	TBD <sup>2</sup>

1. Project costs in \$1,000s of dollars (2013\$)

2. Project likely to be completed in smaller segments as part of new development; cost estimates to be determined at the time of implementation.

# Chapter 5 - Transportation Element



Responsible Agency	ID	Project Location	Project Limits	Project Description	Relative Priority	Cost <sup>1</sup> (\$1,000)
City	N1	228th Ave SE	SE 438th St to SE 440th St	Construct trail per Parks and Open Space Plan	Low	\$60
City	N2	Battersby Ave	Watson St N (align) to Farman St N	Construct shared use pathway per Parks and Open Space Plan	Medium	\$360
City	N3	Division St	Kibler Ave to McHugh Ave	Construct sidewalk on both sides of the roadway	Medium	\$620
City	N4	Farman St N	SR 410 to Battersby Ave	Construct shared use pathway (west side) per Parks and Open Space Plan	Medium	\$270
City	N5	Farman St N	Warner Ave E to SR 410	Trail improvements (east side) per Parks and Open Space Plan	Low	\$250
City	N6	Foothills Trail	Battersby Ave to SE 432nd St	Construct shared use pathway per Parks and Open Space Plan	High	\$430
City	N7	SR 164	Farrelly St to Laframboise St	Construct pedestrian improvements when warranted	High	\$480
City	N8	Battersby Ave/SE 440th St	228th Ave SE to 244th Ave SE	Construct trail per Parks and Open Space Plan	Low	\$520
City	N9	Foothills Trail	Warner Ave to Roosevelt Ave	Install lighting for the Foothills Trail	Low	\$270
City	N10	Washington Ave	Cole St to Railroad St	Construct improvements on both sides of the roadway	High	\$130
City	N11	Watson St N	Warner Ave to SR 410	Construct improvements on both sides of the roadway	High	\$810
State	N12	SR 169	McHugh Ave to Thunder Mountain Middle School	Pedestrian improvements per SR 169 Corridor Study	High	\$390

1. Project costs in \$1,000s of dollars (2015\$)



### 5.8 SAFETY PROJECTS

Improving safety of the transportation system is an important goal. A variety of projects, many of which are included in other project categories, help to improve the safety of the transportation system. For example, new traffic signals can make it safer for vehicles to turn or pedestrians to cross the street. The projects in Table 13 were included primarily for the purpose of improving transportation safety.

needs populations such as seniors, people with disabilities, and people with a low income or those who do not own a car. For these populations, transit service may be their only method to travel to medical appointments, access services, access educational opportunities, complete errands, or socialize.

**Table 13 - Safety Projects**

Responsible Agency	ID	Project Name	Project Limits	Project Description	Relative Priority	Cost <sup>1</sup> (\$1,000)
State	S1	SR 164	Semanski St/ SR 164	Signalize intersection when warranted	Medium	\$350
State	S2	SR 410	Semanski St/ SR 410	Improvements per SR 410 Corridor Study	Low	\$1,480

1. Project costs in \$1,000s of dollars (2015\$)

### 5.9 TRANSIT SYSTEM

Transit provides a range of benefits and as the Puget Sound region continues to grow the value of transit will also grow. Since the end of the Great Recession congestion into and out of regional employment centers has grown significantly, increasing travel times and reducing reliability. Transit provides an alternative to some commuters with shorter travel times, cheaper travel, and a more pleasant and productive commute.

Projects that improve transit service to Enumclaw, as well as projects that improve access to regional high capacity transit such as Park & Rides have been identified. Non-motorized improvements to bus stops within the city have also been identified. Improved transit service to and within Enumclaw including increased commuter service, increased span of service (nights and weekends), and increased frequency of service are all desirable. Some of these objectives can likely be accomplished through Metro’s Alternative Service Program.

Transit also provides critical lifeline access to special



These projects were identified through a review of current planning efforts and ongoing programs such as Sound Transit 3, Metro’s Long Range Plan, Metro’s Service Guidelines Taskforce, Metro’s Alternative Services Program and PSRC’s Human Services Transportation Plan. Since transit service is provided by other agencies the City of Enumclaw should actively engage transit partners to advocate for these projects when funding decisions are being made. Transit projects are shown in Table 14.

**Table 14 - Transit Projects**

Responsible Agency	ID	Project Name	Project Limits	Project Description	Relative Priority	Cost (\$1,000)
King County Metro	T1	Transit Service	Citywide	Improved transit service	High	N/A <sup>2</sup>
King County Metro/Sound Transit	T2	Park & Ride Access	Regional	Improve access to transit service	High	N/A <sup>2</sup>
1. Project costs in \$1,000s of dollars (2015\$)						
2. Transit operating or capital cost, therefore no project cost was identified						

and reduce fuel consumption. In 2006, the Legislature adopted changes to the CTR law to make the program more effective, efficient, and targeted. The modified program focuses on UGAs and congested highway corridors.

The City has three employers with 100 or more employees working a shift beginning between 6 and 9 AM, and are therefore required to implement CTR policies. These employers can implement TDM measures such as carpool matching, transit pass subsidies, and bicycle parking to discourage employees from commuting alone.

**5.10 TRANSPORTATION DEMAND MANAGEMENT**

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

The Washington State Legislature passed the Commute Trip Reduction (CTR) Law in 1991, with goals to improve air quality, reduce traffic congestion,

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

- Ridesharing - Employers can develop and maintain a database of home addresses to facilitate carpool and vanpool matching between employees working on the same site. Employers can also provide financial incentives or reserved parking spaces for carpool and vanpool vehicles;



- Flexible Work Schedules – Flexible work hour schedules allow employees to adjust start/end times to accommodate carpools, vanpools, or transit options. Alternative work schedules can also be used to reduce the number of days an employee commutes during peak travel periods. These programs help reduce the need for adding capacity to highways and arterials, and reduce the levels of peak hour congestion;
- Transit Incentives – Employers can provide free or reduced-rate transit passes to all employees;
- Telecommuting – The use of telecommunications technology can allow some employees to work from home, reducing the need for travel to and from a work site for some work days; and
- Secured Bicycle Parking and Showers – Secured bicycle parking could be provided in the vicinity of major employment centers, preferably in a covered, weather-protected area. Shower facilities at work sites are also desirable to encourage commuting by bicycle.

**5.11 AIR, RAIL, AND WATER TRANSPORTATION FACILITIES**

No improvements to the air, rail, and water transportation system have been identified. Investments that ease the travel of freight through the City have been included in many of the projects along the state highways.

**6. FINANCE AND IMPLEMENTATION PROGRAM**

The transportation improvement projects must be funded and implemented to meet existing and future travel demands in and around the City of Enumclaw. A summary of project costs and a strategy for funding the projects over the life of the plan are presented. Often a variety of local, regional, state, and federal

funding sources are used to finance transportation improvement projects.

**6.1 PROJECT COST SUMMARY**

The total cost of the capital transportation improvement projects is summarized in Table 15 based on planning level cost estimates. A total of \$118.9 million (2016 dollars) would be needed to fully fund the capital improvements. However, of these costs, it is estimated approximately \$30.7 million in projects are needed to support the City’s land use plan and meet regional and local level-of-service standards. The remaining \$88.2 million are projects that will not likely to be implemented within the 20-year life of the plan without additional outside revenues.

**Table 15 - Capital Project Cost Summary**

Improvement Category	Costs <sup>1</sup>
Capacity and Freight Projects	\$41,910,000
Corridor Upgrade Projects	\$70,540,000
Non-motorized Projects	\$4,590,000
Safety Projects	\$1,830,000
	<i>Subtotal</i> \$118,870,000
Funded in the Transportation Element (Needed to Support the Land Use Element)	\$30,680,000
Unfunded Projects (Not Needed to Support the Land Use Element)	\$88,190,000
1. Planning level costs in 2016 dollars.	

**6.2 FUNDING STRATEGY**



## Chapter 5 - Transportation Element

Implementation of the Transportation Element involves several strategies. One strategy includes coordinating with other agencies to build support and construct the transportation improvement projects, such as improvements to state highways, the regional trail system and commuter transit service. Another strategy includes the pursuit of grant funding, which will be especially critical in the implementation of safety and operational improvements along SR 410, SR 164, and SR 169 and completion of non-motorized projects.

The City will review and regularly update its Transportation Impact Fee (TIF) program and other development review processes to assure that the impacts of growth are mitigated and transportation improvements are completed concurrent with new development. Finally, if expected funding for improvements to meet future transportation needs is found to be inadequate and the City will not be able to meet adopted level of service (LOS) standards, then the City will need to pursue options as laid out under the Reassessment Strategy.

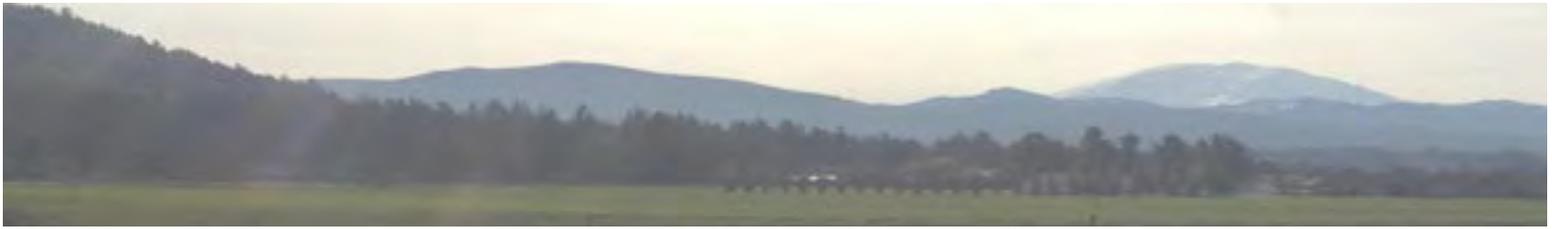
The potential funding sources for each of the improvement projects was identified to estimate needed revenues by category. For example, grants or other agency funding was generally assumed to be a greater share of the revenues for funding improvements on the state highways than on the local arterial improvements. While, it is unlikely that implementation of the Transportation Element projects will actually match the City's funding assumptions at a project-by-project level, this process does provide for a reasonable estimate of anticipated revenues needed for the overall capital improvement program. It also establishes a level of funding needed through traffic impact fees and other developer mitigation. Table 16 summarizes the anticipated sources of revenues needed to fund the

identified capital improvements.



**Table 16 – Capital Project Funding Strategy Summary**

Source	2016 to 2035 Revenues (2016 \$)
<b>City Funding</b>	
Real Estate Excise Tax (REET)	\$4,500,000
Motor Vehicle Fuel Tax <sup>1</sup>	\$0
General Fund <sup>1</sup>	\$0
	<i>Subtotal \$4,500,000</i>
<b>Grants and Other Agency Funding</b>	
Federal, State, or Other Grants	\$13,385,000
Transportation Benefit District (TBD) <sup>2</sup>	\$0
	<i>Subtotal \$13,385,000</i>
<b>Development Funding</b>	
Traffic Impact Fees <sup>3</sup>	\$5,000,000
Other Developer Mitigation <sup>4</sup>	\$7,860,000
	<i>Subtotal \$12,860,000</i>
<b>Total Estimated Revenues</b>	<b>\$30,745,000</b>
1. General fund and MVFT revenue assumed to be allocated to administration and maintenance	3. Traffic impact fee revenues based on estimated growth related costs of capital improvements.
2. TBD funding is assumed to be restricted to pavement maintenance and rehabilitation activities only. Per TBD formation Ordinance 2524, additional transportation improvement projects may only be funded after compliance with the provisions of RCW 36.73.050(2).	4. Enumclaw developer funding beyond traffic impact fees. Could include frontage improvements, local improvement districts, reimbursement agreement, or other similar funding program. Assume that all, or part of, improvements are constructed or right-of-way dedicated as a condition of development.



**6.2.1 Local Funding**

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

**6.2.2 Transportation Impact Fee Program**

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

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

TIFs can only be used to help fund improvements that are needed to serve new growth. The impact fees are assessed on new development activity and are based upon the number of new trips a development generates. Trip rates are based upon the Institute of

Transportation Engineers Trip Generation Manual. In some circumstances developers can construct improvements concurrent with development activity and earn credits to offset impact fees.

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

**6.2.3 Transportation Benefit District**

In 2013 the City established a Transportation Benefit District (TBD) to provide a dedicated funding stream for road maintenance. The TBD is funded through a \$20 vehicle license fee and 0.1% sales tax increase with funds directed towards the City’s pavement management program. The TBD boundaries are identical to the city limits and TBD revenue is listed under the Annual Pavement Maintenance Program. The TBD is required to issue an annual report indicating the status of projects and finances.

**6.2.4 Regional Coordination**

Enumclaw’s transportation system serves both local and regional travel needs, with a significant amount of the capital program focusing on improvements to the state highways. The City will closely coordinate with WSDOT to implement improvements identified along SR 410, SR 164 and SR 169.

Improvements to each corridor have been identified though past studies completed by WSDOT and the City. Without WSDOT as a partner in assisting the City in funding improvements to the state highways, the City is unable to put a high priority on improvements



along the highways since the projects also serve significant levels of regional traffic and the project's cost more than the City can reasonably fund on its own.

Regular coordination with the Puget Sound Regional Council to review the effect of regional LOS standards on Highways of Statewide Significance (SR 164 and SR 169) and Regionally Significant State Highways (SR 410) should be a priority. Timely and regular coordination will allow consideration for changes in regional travel growth, employment, and economic development as well as funding the identified state highway improvements.

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1. <http://www.cityofenumclaw.net/documentcenter/view/341>
  2. <http://www.cityofenumclaw.net/257/TBD>

### 6.2.5 Grants

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

The City will work through TIB, PSRC, and WSDOT to pursue grants for specific projects. Projects to improve the state highways are candidates for TIB and some federal grant programs managed through WSDOT. Another good source of grant revenue is the PSRC Rural Town Centers and Corridors (RTCC) program, which was created in 2003 to assist rural communities in implementing town center and corridor improvements. The City has been successful in receiving grants through the RTCC program in the

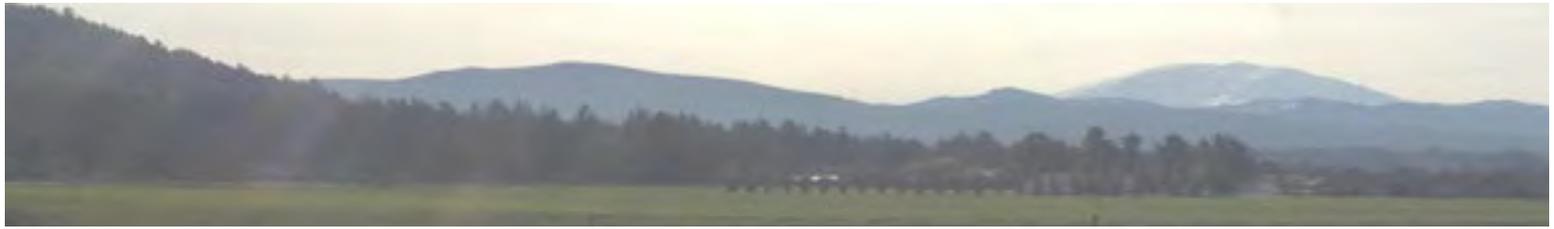
past and will continue pursuing funds to implement the remaining state highway projects. Finally, grants to enhance pedestrian and bicycle facilities are largely through either TIB, WSDOT pedestrian/bicycle program, or the Safe Routes to Schools program.

### 6.3 CONCURRENCY MANAGEMENT AND DEVELOPMENT REVIEW

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

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

The City requires payment of TIFs to help fund growth related improvements, both long-term and short-term needs. Projects that result in an adverse impact are required to fund or implement mitigation measures that reduce the impact below a level of significance and/or meet the LOS standard. The City provides credits where developers are required to construct improvements whose costs are included in the TIF program.



## Chapter 5 - Transportation Element

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

### 6.4 REASSESSMENT STRATEGY

The implementation strategy to complete the identified capital projects are largely based on revenue from grants and TIFs. The City may be able to shift revenues from other funding programs to address specific needs as yearly budgets are prepared. In addition, the City is committed to reassessing its transportation needs and funding sources each year as part of the annual Six-Year TIP. This allows the City to match the shorter-term improvement projects with available funding. In order to maintain the vitality of the City's transportation system, the City should adhere to the following principles as it implements the project list:

- The City will balance improvement costs with available revenues when developing the annual Six-Year TIP;
- Review project design during the development review process to determine whether costs could be reduced through reasonable changes in scope or deviations from roadway design standards;
- Coordinate and partner with WSDOT and other agencies to aggressively pursue grants from state, federal, and regional agencies to help fund and implement improvements along SR 164, SR 169 and SR 410;
- Work with regional and local agencies to develop multi-agency grant applications for projects that serve regional travel;
- Review TIF revenues on a regular basis

to determine whether the impact fees should be adjusted to account for project cost increases and/or decreases in grants or cost sharing; and

- If the actions above are not sufficient, consider changes in the LOS standards and/or limit the rate of growth.



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