

2016 City of Federal Way City Center Planned Action Draft SEIS

Prepared by:



October 2015

Project Title

City of Federal Way City Center Planned Action

Proposed Action and Alternatives

Proposed Action

The action proposed by the City of Federal Way consists of the following by the City of Federal Way City Council:

Adoption of an ordinance renewing the designation of a portion of the City Center subarea as a Planned Action for the purposes of *State Environmental Policy Act (SEPA)* compliance, pursuant to RCW 43.21C.440 and WAC 197-11-164. The Planned Action designation would apply to proposed residential, commercial, office, hotel, and other development within the development envelope analyzed in this SEIS. The Planned Action designation would apply to development that occurs through the end of year 2025.

Action Alternative

Alternative 1, the 2025 Action Alternative, includes an increase in land use in a portion of the City Center subarea in accordance with the amounts listed in the Planned Action Area development envelope.

No Action Alternative

Alternative 2, the 2025 No Action Alternative, includes an increase in land use in the City Center subarea assuming the level of growth established in the *Federal Way Comprehensive Plan*.

City Center Planned Action EIS

The City of Federal Way completed an Environmental Impact Statement (EIS) on the City Center Planned Action in 2006. This 2016 Planned Action Supplemental EIS incorporates by reference and supplements the analysis contained in the 2006 City Center Planned Action EIS and the four Addenda to the 2006 EIS.

Location

The Planned Action project area is located in the City Center subarea of the City of Federal Way, bounded on the north by South 312th Street, on the south by South 324th Street, on the west by Pacific Highway South, and on the east primarily by 23rd Avenue South. Additional area is located east of 23rd Avenue South, bordered on the north by South 317th Street and on the south by South 319th Place.

Proponent

City of Federal Way

Date of Implementation

2016-2025 – With market driven phased development following necessary permit approvals.

Lead Agency

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Responsible Official

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Required Approvals

Planned Action Ordinance Adoption

SEIS Authors and Principal Contributors

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Public Comment

Affected agencies, tribes, and members of the public are invited to comment on this Draft SEIS. Comments may be provided in writing or verbally. Written comments should be directed to the contact person address identified above.

During the comment period, a public meeting regarding the Draft SEIS will be held on November 9, 2015, 4:30-6:30 p.m., Council Chambers, Federal Way City Hall, 33325 8th Avenue South.

Date of Draft SEIS Issuance

October 16, 2015

Date Comments Due

November 16, 2015

Draft SEIS Purchase Price

CD copies may be purchased for \$10.00 at the Federal Way City Hall Permit Center, 33325 8th Avenue South, Federal Way.

Previous Environmental Documents

- *City of Federal Way City Center Planned Action Draft Environmental Impact Statement (EIS)*, issued June 2006
- *City of Federal Way City Center Planned Action Final Environmental Impact Statement (EIS)*, issued September 2006
 - Addendum #1, issued February 2008
 - Addendum #2, issued April 2010
 - Addendum #3, issued November 2010
 - Addendum #4, issued November 2014

Location of Background Information

City of Federal Way Community Development Department
See the Lead Agency and Responsible Official address listed above (available Monday-Friday 8:00am-5:00pm).

ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENT

Adoption for (check appropriate box): DNS EIS other

Description of current proposal: 2016 City of Federal Way City Center Planned Action SEIS

Adoption of an ordinance renewing the designation of a portion of the City Center subarea as a Planned Action for the purposes of *State Environmental Policy Act* (SEPA) compliance, pursuant to RCW 43.21C.440 and WAC 197-11-164. The Planned Action designation would apply to proposed residential, commercial, office, hotel, and other development within the development envelope analyzed in this SEIS. The Planned Action designation would apply to development that occurs through the end of year 2025. This action also includes procedural text amendments to the *Federal Way Revised Code* (FWRC) Title 14 (Environmental Policy) Section 14.15.130 (City Center Planned Action) related to the Planned Action designation and process.

Proponent: City of Federal Way

Location of current proposal: The Planned Action project area is located in the City Center subarea of the City of Federal Way, bounded on the north by South 312th Street, on the south by South 324th Street, on the west by Pacific Highway South, and on the east primarily by 23rd Avenue South. Additional area is located east of 23rd Avenue South, bordered on the north by South 317th Street and on the south by South 319th Place.

Title of document being adopted: *City of Federal Way City Center Planned Action Draft Environmental Impact Statement* (EIS), issued June 2006; *City of Federal Way City Center Planned Action Final Environmental Impact Statement* (EIS), issued September 2006; Addendum #1, issued February 2008; Addendum #2, issued April 2010; Addendum #3, issued November 2010; and Addendum #4, issued November 2014.

Agency that prepared document being adopted: City of Federal Way

Date adopted document was prepared: 2006, 2008, 2010, and 2014 (see above)

Description of document (or portion) being adopted: 2006 Planned Action EIS and Addenda.

If the document being adopted has been challenged (WAC 197-11-630), please describe: N/A

The document is available to be read at (place/time): City of Federal Way Community Development Department, 33325 8th Avenue South, Federal Way; Monday-Friday 8:00am-5:00pm

We have identified and adopted this document as being appropriate for this proposal after independent review. The document meets our environmental review needs for the current proposal and will accompany the proposal to the decision maker.

Name of agency adopting document: City of Federal Way

Contact person: Stacey Welsh, AICP, Senior Planner **Phone:** 253.835.2634

Responsible official: Michael A. Morales

Position/title: Community Development Director **Phone:** 253.835.2612

Address: 33325 8th Avenue South, Federal Way, WA 98003

Date: October 16, 2015

Signature: _____



**2016 City of Federal Way
City Center Planned Action
Draft SEIS**

Prepared by:

City of Federal Way
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October 2015

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Appendix 2. Draft Transportation Impact Analysis

1.1 Introduction

This chapter summarizes information contained in this Planned Action Supplemental Environmental Impact Statement (SEIS). It contains a summary of the alternatives, significant impacts, mitigation measures, and significant unavoidable adverse impacts. This summary is intentionally brief; the reader should consult individual sections of this SEIS for detailed information concerning the affected environment, impacts, and mitigation measures.

1.2 Proposed Action and Location

Proposed Action

The Proposed Action consists of two related elements:

Adoption of an ordinance renewing the designation of a portion of the City Center subarea as a Planned Action for the purposes of *State Environmental Policy Act* (SEPA) compliance, pursuant to RCW 43.21C.440 and WAC 197-11-164. The Planned Action designation would apply to proposed residential, commercial, office, hotel, and other development within the development envelope analyzed in this SEIS. The Planned Action designation would apply to development that occurs through the end of year 2025.

This action also includes procedural text amendments to the *Federal Way Revised Code* (FWRC) Title 14 (Environmental Policy) Section 14.15.130 (City Center Planned Action) related to the Planned Action designation and process. These changes are not expected to have an environmental impact.

Location

The Planned Action project area is located in the City Center subarea of the City of Federal Way, bounded on the north by South 312th Street, on the south by South 324th Street, on the west by Pacific Highway South, and on the east primarily by 23rd Avenue South. Additional area is located east of 23rd Avenue South, bordered on the north by South 317th Street and on the south by South 319th Place.

1.3 Description of Alternatives

Alternative 1 (Action)

Alternative 1, the 2025 Action Alternative, includes an increase in land use in a portion of the City Center subarea in accordance with the amounts listed in the Planned Action Area development envelope.

Alternative 2 (No Action)

Alternative 2, the 2025 No Action Alternative, includes an increase in land use in the City Center subarea assuming the level of growth established in *the Federal Way Comprehensive Plan*.

1.4 Summary of Potential Impacts and Mitigation Measures

Table 1-1 provides a summary of the environmental impacts for each element of the environment evaluated in Chapter 3 of the Draft SEIS. For a complete discussion of the elements of the environment considered in this Draft SEIS, please refer to Chapter 3.

1.5 Issues to Be Resolved

Adoption of a Planned Action Ordinance supports development and re-development of the area to a more intensive mixed-use downtown consistent with the vision of the *Federal Way Comprehensive Plan*. The key environmental issue facing decision makers is the impact of additional traffic on area roadways and mitigating measures to address such impacts.

1.6 Significant Unavoidable Adverse Impacts

Transportation

Development of the Planned Action area would generate additional traffic volumes on the area's roadways. Increases in traffic congestion at some intersections and/or along some corridors will result in significant, unavoidable, adverse impacts on the area's transportation system. However, the increased capacity associated with improvement projects would adequately mitigate undesired impacts. The proposed mixed-use land use pattern, on-site improvements, and TDM actions, along with high levels of transit service, may further reduce vehicle trips; thereby, further mitigating impacts on the transportation system.

Table 1-1. Summary of Potential Impacts of Proposed Action and No Action Alternative

| Proposed Action | Alternative 1 Action | Alternative 2 No Action |
|--|----------------------|--|
| 3.2 Land Use | | |
| Land Use Patterns | | |
| New development through 2025 | | |
| Retail space: | 475,000 sf | 672,000 sf |
| Office space: | 400,000 sf | 262,000 sf |
| Hotel rooms: | 600 | 0 |
| Residential units: | 2,400 | 1,671 |
| <i>Impacts Common to All Alternatives</i> | | |
| Land use patterns will intensify and the mix of uses will increase. Over time, the scale of buildings may also increase as new development occurs and building heights are maximized along with density consistent with the zoning code. | | |
| Land Use Compatibility | | |
| <i>Impacts Common to All Alternatives</i> | | |
| Land use compatibility impacts could result under any of the alternatives. As vacant land is developed and other properties are redeveloped, uses that are currently separated and buffered from each other will be required to co-exist in closer proximity. The potential for conflict between uses with differing activity levels will increase as development results in a diversity and mix of uses in the project area. Neighborhoods around the edges of the project area with lower intensity uses, such as single and multi-family residential areas, could experience impacts. | | |
| Population, Employment Housing | | |
| <i>Impacts Common to All Alternatives</i> | | |
| A greater amount of housing and lodging would result from Alternative 1. The new employment population would have an emphasis on office and retail employment. New office/services jobs would remain the largest employment group. | | Compared to the action alternative, Alternative 2 would result in less residential and employment population. Over half of the new employment created under Alternative 2 would be in the retail sector. |
| <i>Impacts Common to All Alternatives</i> | | |
| Under all alternatives future residential and employment populations will increase, though at different amounts. | | |
| Mitigation Measures | | |
| Existing development standards along the edges of the Planned Action area appear to be adequate to allow for a compatible transition from more intensive to less intensive uses. However, as development occurs, this transition area should be evaluated to confirm that long-term land use compatibility impacts are not being created. If necessary, new development standards for edge areas should be considered. Techniques could include site and building lighting limits and requirements for landscaping, noise control, and other measures. | | |

| Proposed Action | Alternative 1 Action | Alternative 2 No Action |
|---|---|---|
| 3.4 Transportation | | |
| Traffic Operations Impact | None of the intersections are anticipated to be deficient based on the City's traffic operations standards with programmed improvements. | |
| Parking Requirements | At full buildout, the cumulative parking requirement (existing plus new) for the Planned Action area would be approximately 14,830 stalls. The Action Alternative requires 1,878 more stalls than the No Action Alternative. | At full buildout, the cumulative parking requirement (existing plus new) for the Planned Action area would be approximately 12,952 stalls. |
| Trip Generation | During the AM peak hour, nearly 1,892 trips would be added. Total AM peak hour traffic growth resulting from Alternative 1 would be approximately 3,617 trips. During the PM peak hour, an additional nearly 2,147 trips would be added. Total PM peak hour traffic growth resulting from Alternative 1 would be approximately 6,792 trips. | During the AM peak hour, nearly 1,315 trips would be added. Total AM peak hour traffic growth resulting from Alternative 2 would be approximately 3,040 trips. During the PM peak hour, an additional nearly 2,274 trips would be added. Total PM peak hour traffic growth resulting from Alternative 2 would be approximately 6,919 trips. |
| <i>Impacts Common to All Alternatives</i> | | |
| Traffic Safety | Probability of traffic collisions would increase with additional traffic. | |
| Transit Service | Ridership demand at the Federal Way Transit Center may increase with increased development in the project area. | |
| Pedestrian & Bicycle Mobility | The alternatives along with the proposed bicycle and pedestrian facilities highlighted in the <i>Bicycle and Pedestrian Master Plan</i> will increase safety and encourage walking and bicycling as a mode of transportation in and around the City Center. | |
| Mitigation Measures | | |
| Roadway Network | Both the No Action and Action Alternatives would increase the density and activity within the Planned Action area. The increased density could increase traffic congestion; however, these increases may be offset by reduced vehicle travel demand resulting from mixed-use development, improvements to pedestrian facilities, and improved transit services. Based on the level of service (LOS) analysis, no additional roadway capacity improvements are needed. Development within the Planned Action area will be required to pay the required traffic impact fee as prescribed in FWRC 19.91 and the adopted City fee schedule. | |
| Parking | Additional parking spaces will be required on site for both the No Action and Action Alternatives. These spaces may be provided on site or as part of parking garages assumed as part of the Planned Action area development. Parking requirements will be determined as each development is submitted. The number of parking spaces required could be reduced through shared parking arrangements or transportation demand management. | |
| Additional mitigation | Additional improvements could be required to meet the expected travel demand on area roadways associated with the proposed development in the project area. Development will need to meet the requirements of applicable codes at the time of application. Requirements might include the dedication of right-of-way, installing curbs, gutters, and sidewalks, and drainage improvements. Additional mitigation may be required for individual development applications within the project area to reduce area traffic impacts or improve on-site circulation and to meet City and State requirements for Commute Trip Reduction and Transportation Demand Management. | |

| Proposed | Alternative 1 Action | Alternative 2 No Action |
|---|---|--|
| 3.5 Public Services | | |
| Police Level of Service (LOS) | Expected residential and employment growth will result in an increased need of approximately 13 officers by 2025 to maintain the current LOS. | Expected residential and employment growth will result in an increased need of approximately 9.7 officers by 2025 to maintain the current LOS. |
| Parks and Recreation LOS | Additional residents will result in an increased demand for 70.6 acres of new parkland in the City to maintain the current LOS. | Additional residents will result in an increased demand for 49.2 acres of new parkland in the City to maintain the current LOS. |
| <i>Impacts Common to All Alternatives</i> | | |
| Construction activity in the Planned Action area may affect the response times of emergency vehicles. | | |
| Fire | Over the long term, future development will result in an incremental increase in calls for emergency service and future traffic growth may impact response time. South King Fire & Rescue reports it is positioned to provide service for the growth. | |
| Mitigation Measures | | |
| Coordinate with Police and South King Fire & Rescue during final design, construction, and operation of future development to ensure reliable emergency access is maintained. Reduce public safety impacts thru adherence to crime prevention through environmental design (CPTED) design standards. Provide emergency service providers with advanced notice of construction schedules and any planned street closures or blockages. Avoid or minimize street closures or blockages during construction to avoid potential impact to emergency response times. Coordinate with the Parks, Recreation, & Cultural Services Department to identify opportunities for increased recreational open space for general public use throughout the project area, and within new development proposals. | | |
| 3.6 Utilities | | |
| Impacts Common to all Alternatives | | |
| Water and Sanitary Sewer Service | There is adequate water flow available and with the downtown sewer trunk upgrade, there is adequate wastewater collection and treatment capacity at the Lakota Plant for these alternatives. | |
| Energy | Construction activities could result in disruption of service, with the need to relocate service lines, and other construction related impacts. Over the long term, development under either alternative will increase demand for energy. Puget Sound Energy (PSE) indicates it has planned for growth and reports adequate capacity to serve the increased demand. | |
| Telecommunication | Increased residential and employment population will increase use of and demand for services. Providers indicate they have adequate capacity. | |
| Mitigation Measures | | |
| Ensure that all new development complies with local, state, and federal standards for energy conservation. Encourage drought-tolerant landscaping (xeriscaping) for new development. Encourage new development to incorporate appropriate water conservation measures into their operations. Plan with service providers to minimize impacts of utility relocations (equipment procurement times, relocate in advance of construction, etc.). Inform utility customers of any planned temporary service disruptions. Coordinate with all utility companies on the design of the new services and connections. | | |

Chapter 2

Description of the Proposal and Alternative

2.1 Introduction

Overview of the Proposed Action

The 2006 EIS covered analysis of the Planned Action development envelope through the year 2014. In the intervening years, the Great Recession (2007-2009) resulted in significant job loss statewide and across the country. Significant reductions in residential and commercial development have persisted for years. Recovery has been slow and has affected previous development projections considerably. Taking into account development trends in a recovering economy, revisions have been made to the development envelope contained in the 2006 EIS.

In addition, an extended timeline is more realistic for the development envelope to be built. Therefore, the SEIS analyzes a revised development envelope through the end of year 2025. In the 2006 EIS the Planned Action area was divided into three “blocks” for analysis. This SEIS does not utilize that same analysis format, rather the entire Planned Action area is reviewed as a whole unit.

The action proposed by the City of Federal Way consists of the following:

Adoption of an ordinance renewing the designation of a portion of the City Center subarea as a Planned Action for the purposes of *State Environmental Policy Act* (SEPA) compliance, pursuant to RCW 43.21C.440 and WAC 197-11-164. The Planned Action designation would apply to proposed residential, commercial, office, hotel, and other development within the development envelope analyzed in this SEIS. The total development envelope analyzed in this SEIS is summarized in Table 2-1. The project area is shown in Figure 1.

Table 2-1. Planned Action Development Envelope

| Uses | Development Envelope |
|-------------|----------------------|
| Retail | 475,000 sf |
| Office | 400,000 sf |
| Lodging | 600 rooms |
| Residential | 2,400 units |

Source: City of Federal Way, 2015

The Planned Action designation would apply to development that occurs through the end of year 2025.

This action also includes procedural text amendments to the *Federal Way Revised Code* (FWRC) Title 14 (Environmental Policy) Section 14.15.130 (City Center Planned Action) related to the Planned Action designation and process. These changes are not expected to have an environmental impact and are not discussed further in this SEIS.

Figure 1: Planned Action Area



Legend
[Red Outline] Planned Action SEPA Area

City Center Element



Scale:
0 500 1,000
Feet

This map is intended for use as a graphical representation. The City of Federal Way makes no warranty as to its accuracy.

Although the Planned Action designation would not apply to development proposals outside of the Planned Action area, the environmental analysis conducted in this SEIS could be used to help achieve SEPA compliance for such proposals. WAC 197-11-600 provides the criteria and procedure for use of existing environmental documents for SEPA compliance.

Background

The *Federal Way Comprehensive Plan* lays out a long-range vision for the future of Federal Way. The comprehensive plan went through a major update in 2015, including updates to portions of Chapter 7, which addresses the City Center subarea. The City Center contains approximately 414 acres and is bound by South 312th Street, South 324th Street, Interstate 5, 11th Place South, and 13th Avenue South.

The future vision for the City Center states, “the concept is to redevelop the City Center and create a compact urban community and vibrant center of activity. The crux of the strategy is to promote a compact urban center with connections between where we live, work, and recreate, and to create an urban environment that is amenable to walking, bicycling, and transit.”

In support of this vision, the principal purposes of the City Center chapter are to:

- Create an identifiable downtown that is the social and economic focus of the City;
- Strengthen the City as a whole by providing for long-term growth in employment and housing;
- Promote housing opportunities close to employment, shopping, and transit;
- Support development of an extensive regional/high capacity transit system;
- Reduce dependency on automobiles;
- Consume less land with urban development;
- Maximize the benefit of public investment in infrastructure and services;
- Reduce costs of and time required for permitting;
- Provide a central gathering place for the community; and
- Improve the quality of urban design for all developments.

The City Center chapter contains a number of policies intended to help achieve these goals. City Center Policy CCP5 specifically addresses the intent to prepare a Planned Action EIS for the City Center area. The policy states that the City should “[u]tilize the SEPA Planned Action to provide streamlined permit review in the City Center in order to accelerate progress towards meeting the vision.”

This SEIS proposal is intended to support the principal purposes of the City Center Chapter and to specifically implement Policy CCP5.

Objectives of the Proposal

The Proposed Action is intended to achieve the following objectives:

- Support the principal objectives of the City Center Chapter of the comprehensive plan, particularly those that promote a more intensive urban style of development in the City Center and the reduction in costs and time required for permitting.
- Fulfill the direction of City Center Policy CCP5.
- Provide an incentive to development proposals that are consistent with the overall intent of the City Center vision.
- Provide greater certainty to potential developers, City decision-makers, and the general public regarding the future development pattern and likely impacts of future development in the City Center area.

2.2 Planned Action Process

Planned Action Overview

WAC 197-11-164 defines a Planned Action. The City proposes to renew the designation of a portion of the City Center subarea as a Planned Action, pursuant to SEPA and implementing rules. As shown in Figure 1, the project area is bounded on the north by South 312th Street, on the south by South 324th Street, on the west by Pacific Highway South, and on the east primarily by 23rd Avenue South. Additional area is located east of 23rd Avenue South, bordered on the north by South 317th Street and on the south by South 319th Place. Federal Way will follow applicable procedures, described generally below, to review proposed projects within the project area through the land use review process associated with each project to determine their impacts and impose any appropriate development conditions.

Planned Action EIS

The significant environmental impacts of projects designated as Planned Actions must be identified and adequately analyzed in an EIS (WAC 197-11-164). The *City of Federal Way City Center Planned Action Environmental Impact Statement* (EIS) was issued in 2006. Subsequently, four Addenda to the 2006 EIS have been issued. This Planned Action Supplemental EIS features an update to the transportation analysis for the Planned Action area, in addition to updated information in the land use, public services, and utilities sections.

Planned Action Ordinance

According to WAC 197-11-168, the ordinance designating the Planned Action shall:

1. Describe the type(s) of project action being designated as a Planned Action;
2. Describe how the Planned Action meets the criteria in WAC 197-11-164 (including specific reference to the EIS that addresses any significant environmental impacts of the planned action);

3. Include a finding that the environmental impacts of the Planned Action have been identified and adequately addressed in the EIS, subject to project review under WAC 197-11-172; and
4. Identify any specific mitigation measures other than applicable development regulations that must be applied to a project for it to qualify as the Planned Action.

A Planned Action Ordinance was adopted in 2007 via Ordinance No. 07-547, which included a Planned Action Mitigation Document as Exhibit B. Following the completion of this SEIS process, the City of Federal Way will renew the Planned Action designation by ordinance in 2016.

2.3 Environmental Review

City Center Planned Action Environmental Impact Statement (EIS)

The City of Federal Way completed the *City of Federal Way City Center Planned Action Environmental Impact Statement (EIS)* in 2006. Elements of the environment that were considered in the EIS include air quality, land use, aesthetics, light and glare, transportation, public services, and utilities. This Planned Action Supplemental EIS incorporates by reference and supplements the analysis contained in the 2006 *City of Federal Way City Center Planned Action Draft & Final Environmental Impact Statements*, along with the four Addenda to the 2006 EIS that have been issued.

2.4 Proposed Action and Alternative

Overview

This SEIS evaluates two alternative land use scenarios for the Planned Action area. Alternative 1 (Action) assumes the maximum development identified in Table 2-2. Alternative 2 (No Action) assumes the level of growth established in the comprehensive plan as detailed in Table 2-3.

Alternative 1

Land Use. The proposed land use pattern would create a dense, mixed-use downtown with a greater distribution of growth among the different types of development (retail, office, lodging, and residential). The emphasis is on more office, lodging, and residential development downtown than in Alternative 2. Parking would be provided on a project-by-project basis in accordance with *Federal Way Revised Code* requirements. The total amount of new development anticipated for the Planned Action area under the action alternative is shown in Table 2-2.

**Table 2-2. Alternative 1 (Action)
New Development Through 2025**

| Uses | Total |
|-------------|-------------|
| Retail | 475,000 sf |
| Office | 400,000 sf |
| Lodging | 600 rooms |
| Residential | 2,400 units |

Source: City of Federal Way, 2015

Alternative 2

Land Use. As described in the comprehensive plan, the land use pattern in the City Center project area would be characterized by an intensively developed urban core that includes mixed use, office, retail, and residential development. The emphasis is on the continuation of retail development and addition of residential as the primary focus of growth. Parking would be provided on a project-by-project basis in accordance with *Federal Way Revised Code* requirements. The total amount of new development for the Planned Action area under the no action alternative is shown in Table 2-3.

Overall, anticipated growth under this alternative would be approximately 141 percent of that anticipated for retail development, 65 percent of that anticipated for office development, 0 percent for lodging, and 70 percent of that anticipated for residential development under the action alternative.

**Table 2-3. Alternative 2 (No Action)
New Development Through 2025**

| Uses | Total |
|-------------|-------------|
| Retail | 672,000 sf |
| Office | 262,000 sf |
| Lodging | 0 rooms |
| Residential | 1,671 units |

Source: City of Federal Way and Fehr & Peers, 2015

2.5 Benefits and Disadvantages of Delaying the Proposed Action

The Proposed Action includes adoption of a Planned Action Ordinance for future development in the City Center subarea. There is no benefit to delaying the implementation of the renewal of the Proposed Action. If the growth itself in the Planned Action area is delayed, that would delay the potential impacts identified in this SEIS, including potential land use conflicts, changes to visual character, increased traffic congestion, and increased demand for public services and utilities. This delay could be considered environmentally beneficial in the short-term.

Delay of development would not allow the benefits of establishing a walkable City Center (as discussed in the City's comprehensive plan) to be realized. Delay would not allow new development and associated review processes to benefit from the analysis developed through the Planned Action process. Delaying the extension of the Planned Action impedes permit processing efficiency. Environmental Impact Statements prepared for planned actions more effectively review cumulative effects than individual SEPA reviews.

2.6 Major Issues to be Resolved

Adoption of a Planned Action Ordinance would support development and re-development of the area to a more intensive mixed-use character consistent with the comprehensive plan. The key environmental issue facing decision-makers is the impact of additional traffic on area roadways and mitigating measures to address such impacts.

Chapter 3

Affected Environment, Impacts and Mitigation Measures

3.1 Air Quality

The 2006 EIS stated that ambient carbon monoxide (CO) impacts are expected to decrease in the future. No further analysis of air quality is contained within this SEIS. Mitigation measures pertaining to air quality proposed in the EIS are incorporated by reference.

3.2 Land Use

This section describes the project area's existing land use and analyzes potential impacts resulting from the proposed action and alternative.

Affected Environment

Overview

The City Center project area consists of approximately 215 acres located in downtown Federal Way (see Figure 1). The project area contains a variety of uses, including commercial, office, parking, and multi-family residential uses. Table 3-1 summarizes the existing development in the project area.

Table 3-1. Existing Development Planned Action Project Area

| | Commercial (retail, office, restaurant, services) | Residential | Hotel ¹ |
|--------------|---|-------------|--------------------|
| Total | 1,950,234 sf | 254 units | 230 rooms |

Source: King County Department of Assessments, 2015.

1. Not counted in the commercial sf.

Commercial uses, including freestanding retail stores, hotels, retail centers, and services are the predominant land use. Further description is contained in the 2006 EIS and is not duplicated here.

Surrounding Land Uses

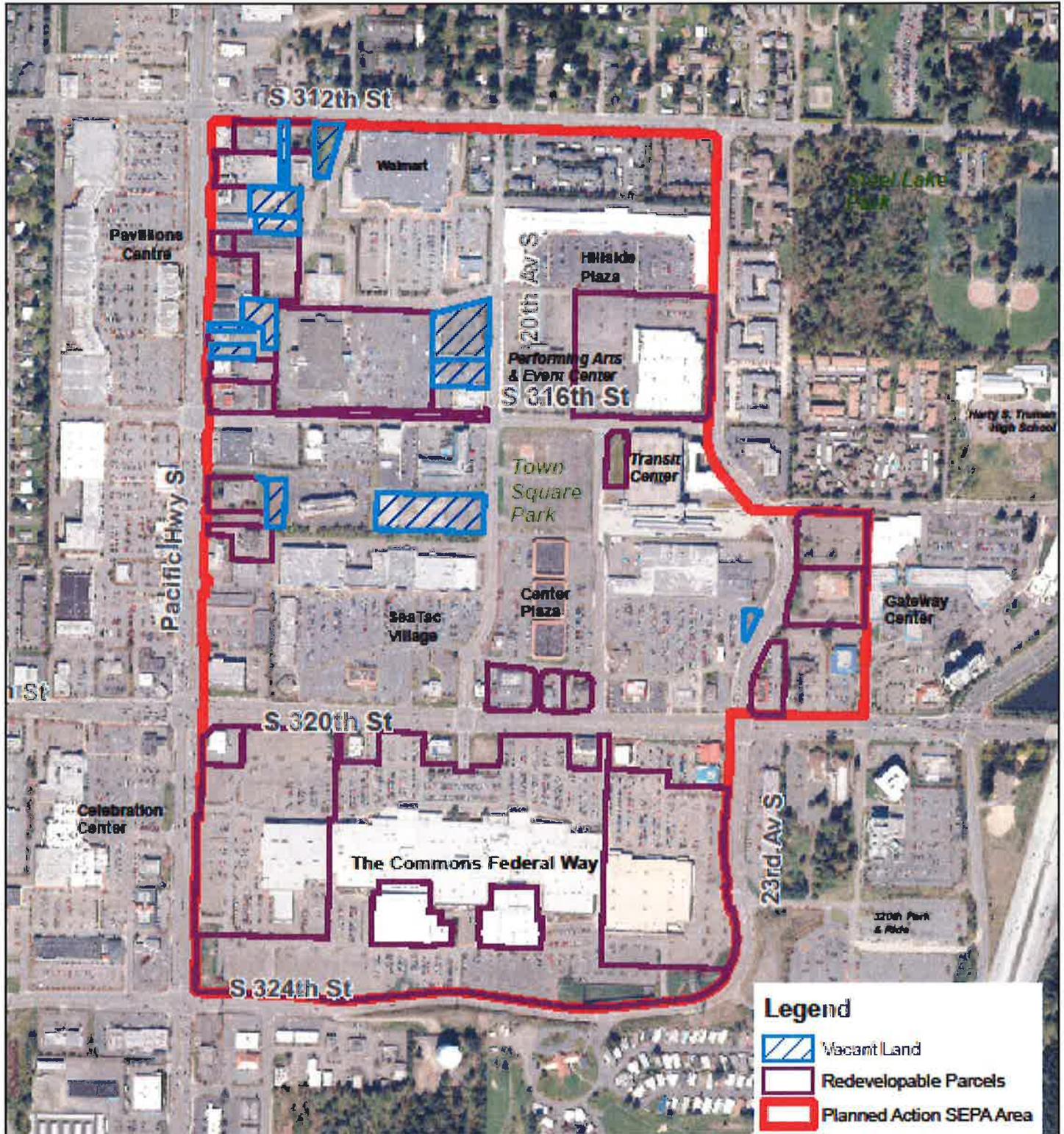
Details on surrounding land uses are contained in the 2006 EIS and are not duplicated here.

Vacant and Redevelopable Land

Vacant Land

Based on a review of the project area and King County Assessor data, approximately seven acres of vacant land exist in the project area. See Figure 2 for the location of these parcels.

Figure 2 : Vacant & Redevelopable Land



Legend

-  Vacant Land
-  Redevelopable Parcels
-  Planned Action SEPA Area

City Center Element



This map is intended for use as a graphical representation. The City of Federal Way makes no warranty as to its accuracy.

Redevelopable Land

The identification of redevelopable land is dependent on a variety of factors, including general and localized economic conditions, perceived market opportunities, and the financial and investment goals of individual property owners. The King County Buildable Lands Report is an analysis, required by the Growth Management Act, which measures capacity to absorb growth in local jurisdictions. For the purpose of this study, jurisdictions in King County were required to establish a methodology for identifying redevelopable land. The approach used by Federal Way compares the value of improvements on a property to the value of the property itself. Properties with relatively low improvement values compared to property values are assumed to be more likely to be redeveloped. In commercial areas, redevelopable properties are identified as those in which the improvement value is 50 percent or less of the property value.

This approach was used to identify redevelopable properties in the project area. A total of 84 acres are identified as redevelopable in the project area. See Figure 2 for the location of these parcels.

A second measure of the redevelopment potential in the project area would be to consider the potential for development of existing paved surface parking areas. Paved parking is a predominant land use in the Planned Action area. Some portion of these parking areas could be reduced or consolidated into structured parking facilities to allow redevelopment of existing parking areas. If existing paved surface parking areas were considered, the amount of redevelopable land would increase significantly.

Based on King County Assessor data, the project area has a combined total of approximately 91 acres of vacant and redevelopable land in the Planned Action area (see Table 3-2).

Table 3-2. Vacant and Redevelopable Land Summary

| Vacant Land¹ | Redevelopable Land² | TOTAL |
|--------------------------------|---------------------------------------|--------------|
| 6.81 acres | 83.82 acres | 90.63 acres |

Source: City of Federal Way, 2015.

1. Based on King County Assessor's data, 2015.
2. King County Buildable Lands Report methodology; using 2015 King County Assessor data.

Land Use Compatibility

Existing Comprehensive Plan Land Use & Zoning Code Designations Community Design Standards

Details on land use compatibility, comprehensive plan land use and zoning code designations, and community design standards are contained in the 2006 EIS and are not duplicated here.

Population, Employment, Housing

For the purpose of this analysis, population and employment estimates are based on assumptions for persons per household and employment density for various commercial uses. These assumptions are summarized below in Table 3-3 and used in the analysis that follows.

Table 3-3. Population and Employment Densities

| Land Use | Density & Conversion Factors |
|---------------------|--|
| Multifamily housing | 2.7 persons per household ¹ |
| Retail | 500 sf per employee ² |
| Office | 250 sf per employee ² |
| Lodging | # rooms/2.36=# employees ³ |

Source: City of Federal Way, 2015

1. Based on City of Federal Way 2015 Comprehensive Plan.
2. Based on PSRC conversion factors.
3. Based on City of Federal Way conversion factor.

Within the project area, housing and residential population is limited to three multifamily complexes, Steel Lake Apartments, Brightwater Apartments, and Senior City. Based on the estimated population in these three projects, the project area contains approximately 686 residents.

The Planned Action area is primarily an employment center and has an estimated employment population of 4,131 (see Table 3-4, below). At present, the largest component is in the retail sector with 3,766 employees, or 91 percent of the total employment population.

Table 3-4. Project Area Existing Employment (# of FTEs)

| Retail | Office/Services | Lodging | TOTAL |
|--------|-----------------|---------|-------|
| 3,766 | 268 | 97 | 4,131 |

Source: City of Federal Way, 2015

Impacts

Land Use Patterns & Population, Employment, Housing

Impacts Common to All Alternatives

Under all alternatives, the land use pattern in the Planned Action area will intensify and the mix of uses will increase. Over time, the scale of buildings may also increase as new development occurs and is built in a manner consistent with the standards allowed under the Federal Way zoning code.

As properties within the Planned Action area redevelop, vacant land, redevelopable, and under-developed land, including surface parking lots, will be utilized. Uses that may be currently separated and buffered from each other will be required to co-exist in closer proximity. Under these circumstances, the potential for land use conflict increases. Land use conflicts can arise when activity levels differ between uses. For example, when noise levels affect adjoining uses, or when building height, bulk, and scale differ greatly between uses. The potential for such conflict will increase with diversity and mix of uses in the Planned Action area. As time goes on; however, the mix of uses will become the norm.

Within the Planned Action area, land use compatibility impacts may occur where intensive redevelopment occurs next to existing lower intensity land uses within the project area. These contrasts will be incremental and short-term. Over the period of the Planned Action designation, the contrast between the older one story structures and the redeveloped properties will diminish as the Planned Action area fully develops.

Around the edges of the Planned Action area, adjoining lower intensity uses, such as single and multi-family residential areas, could also experience impacts. However, for residential areas north of the project area, the current City Center Frame (CC-F) zoning designation has development standards intended to ensure a transition to lower intensity uses. In this area, these development standards should mitigate potential land use compatibility impacts. To the south, existing multi-family development directly adjoins the project area. Potential land use conflicts could result if it is intensively developed in the area near these multi-family residences.

Alternative 1

As shown in Table 2-1, new development through 2025 under Alternative 1 (Action) would introduce a total of 475,000 square feet (sq. ft./sf) of new retail space, 400,000 sf of office space, 600 hotel rooms, and 2,400 residential units. Parking would be provided on a project-by-project basis in accordance with *Federal Way Revised Code* requirements. Existing low scale retail development may be replaced and surface parking areas may be utilized for development.

As shown in Table 3-5, Alternative 1 is expected to generate a total new residential population of 6,480 persons and total new employment population of 2,804. The new employment population would have an emphasis on office and retail employment. New office/services jobs would remain the largest employment group, with 1,600 new employees, or 57 percent of total new employment.

Table 3-5. Alternatives 1 & 2 Population and Employment Projections

| Additional Population | Alt 1 Total | Alt 2 Total |
|------------------------------|--------------------|--------------------|
| Residential | 6,480 | 4,512 |
| Additional Jobs | Alt 1 Total | Alt 2 Total |
| Office/Services | 1,600 | 1,048 |
| Retail | 950 | 1,344 |
| Lodging | 254 | 0 |
| Total New Employment | 2,804 | 2,392 |

Source: City of Federal Way, 2015

Alternative 2

Alternative 2 (No Action) assumes a total increase of 672,000 sf of retail space, 262,000 sf of office space, and 1,671 residential units. Alternative 2 would result in increased development in the project area, but to a lesser degree than Alternative 1.

Table 3-5 identifies the residential and employment population that could result from development under Alternative 2. Compared to the action alternative, Alternative 2 would result in less residential and employment population. Alternative 2 would generate 4,512 new residents and 2,392 new employees, compared to 6,480 new residents and 2,804 new employees under the action alternative. Over half of the new employment created under Alternative 2 would be in the retail sector.

Mitigation Measures

Existing development standards along the edges of the Planned Action area appear to be adequate to allow for a compatible transition from more intensive to less intensive uses. However, as development occurs, this transition area should be evaluated to confirm that long-term land use

compatibility impacts are not being created. If necessary, new development standards for edge areas should be considered. Techniques could include site and building lighting limits, requirements for landscaping, noise control, and other measures.

Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts are anticipated.

3.3 Aesthetics, Light and Glare

The 2006 EIS stated that other than change itself, no significant unavoidable adverse impacts to aesthetics, light, and glare were anticipated. The design standards, guidelines, and mitigation measures, together with the City’s development regulations, are adequate to mitigate the significant adverse impacts anticipated with redevelopment. No further analysis of aesthetics, light, and glare is contained within this SEIS. Mitigation measures pertaining to aesthetics, light, and glare proposed in the 2006 EIS are incorporated by reference.

3.4 Transportation

The purpose of this section is to describe the transportation impacts associated with development under the proposed Planned Action designation in Federal Way’s City Center. This section assesses the expected impacts on the City’s transportation systems, including roadways and intersections, transit, bicycles, and pedestrian facilities, and identifies actions and improvements to mitigate the impacts. The transportation analysis is a summary of the full transportation impact analysis report, included with this document as Appendix 2.

This section summarizes the analysis of the following alternatives:

- **2015 Existing Conditions.**
- **2025 No Action Alternative** includes an increase in land use in the City Center area. It assumes the funded Transportation Improvement Projects would be completed in the study area.
- **2025 Action Alternative** includes an increase in land use over the No Action Alternative for Federal Way’s City Center and the same funded Transportation Improvement Project projects.

The primary difference between the future No Action and Action alternatives is the land use mix. The Action Alternative provides an increase in the amount of office space, residential, and hotel space, with a lesser emphasis on retail. Table 3-6 displays the land use mix by alternative.

Table 3-6. Land Use Mix by Alternative

| | Retail | Office | Residential (units) | Hotel (rooms) |
|------------------|-----------|---------|---------------------|---------------|
| Existing | 1,833,189 | 67,045 | 254 | 230 |
| No Action | 2,505,379 | 329,427 | 1,925 | 230 |
| Action | 2,452,689 | 393,545 | 2,654 | 830 |

Affected Environment

This section summarizes the selection of the study area, existing roadway network, the project area, and existing land use. This section summarizes the findings of the traffic operations of existing intersections and collisions analysis. The existing transit, pedestrian, and bicycle facilities are also described.

Study Area

The study area, which is larger than the Planned Action Area, was developed by using the City's travel demand model to calculate the anticipated vehicle volume increase at intersections. Study intersections were identified for analysis if they met the following conditions:

- *PM Peak Hour:* Intersection is signalized and outside the City Center with an increase of 30 or more vehicle trips and a volume-to-capacity (v/c) ratio over 0.7. All intersections surrounding the City Center area were included in the study area provided they met the City's threshold.
- *AM and Saturday Mid-Day Peak Hours:* Intersection is anticipated to experience an increase of 100 or more vehicle trips. All intersections surrounding the City Center that were included in the PM analysis were included in AM and Saturday analysis.

The study area intersections are presented in Table 3-7. A percentage of total trips generated from the City Center area was used to determine the intersections potentially impacted by the development. More intersections were analyzed during the PM peak hour because vehicle volumes were greater compared to the AM and Saturday Midday peak hours. Also, this provided a more conservative analysis of the overall study area.

Table 3-7. Study Intersections Included in Analyses

| Intersection | PM | AM | Saturday |
|----------------------------------|----|----|----------|
| *S 272 Street & Military Road S | X | X | |
| S 288th Street & Pacific Hwy S | X | X | |
| S 288th Street & Military Road S | X | X | |
| SW 320 Street & 21 Avenue SW | X | X | |
| S 320 Street & 1 Avenue S | X | X | X |
| S 320 Street & I-5 SB Ramp | X | X | X |
| S 320 Street & I-5 NB Ramp | X | X | X |
| S 320 Street & Military Road S | X | X | X |
| SW 336 Street & 21 Avenue SW | X | | |
| S 336 Street & Pacific Hwy S | X | X | X |
| SW 340 Street & Hoyt Road SW | X | | |
| SW Campus Drive & 1 Avenue S | X | | |
| S 348 Street & Pacific Hwy S | X | X | X |
| S 348 Street & SR 161 | X | | X |
| SW 356 Street & 21 Avenue SW | X | | |
| S 356 Street & 1 Avenue S | X | | |
| S 356 Street & Pacific Hwy S | X | X | X |

| Intersection | PM | AM | Saturday |
|---|-----------|-----------|-----------|
| S 356 Street & Enchanted Parkway S | X | | X |
| **S 312 Street & 28 Avenue S | X | X | |
| S 316 Street & Pacific Hwy S | X - CC | X - CC | X - CC |
| S 312 Street & Pacific Hwy S | X - CC | X - CC | X - CC |
| S 320 Street & Pacific Hwy S | X - CC | X - CC | X - CC |
| S 320 Street & 20 Avenue S | X - CC | X - CC | X - CC |
| S 320 Street & 23 Avenue S | X - CC | X - CC | X - CC |
| S 324 Street & Pacific Hwy S | X - CC | X - CC | X - CC |
| Number of Intersections Analyzed | 25 | 18 | 15 |

X: Study area intersection included in analysis

X-CC: denotes City Center intersection included in analysis

* Intersection is located outside of City of Federal Way limits

** Unsignalized Intersection

Existing Roadway Network

The existing street network around the City Center is mostly grid-like with four legged intersections. Interstate-5 (I-5), Pacific Highway / State Route 99 (SR 99), and State Route 161 (SR 161) are in the study area and provide regional access to the north and south. Access ramps to I-5 are provided at 272nd Street, 320th Street, and 348th Street.

I-5 is a limited access facility that provides four general purpose lanes and a high occupancy vehicle lane in each direction. The posted speed limit is 60 miles per hour. Pacific Highway South (SR 99) is a Principal Arterial with five to seven travel lanes, including HOV lanes and turning lanes at intersections. The posted speed limit on SR 99 is 40 mph south of South 304th Street and 45 mph north of South 304th Street. SR 99 provides access to Seattle and SeaTac International Airport to the north and the City of Tacoma to the south. SR 161 provides access to the City of Puyallup. It is a five lane arterial with a posted speed limit ranging from 40 mph to 45 mph.

South 272nd Street is a Principal Arterial that runs east-west and provides the City limits to the north. South 272nd Street provides access to SR 99 at a signalized intersection, as well as ramps to access I-5 northbound and southbound. The roadway has four travel lanes with additional turn lanes.

South 320th Street is a Principal Arterial that runs east-west. The roadway has seven travel lanes in the City Center and five travel lanes outside of the City Center, with additional turning lanes at intersections. The roadway provides access to SR 99 at a signalized intersection and access ramps to I-5 northbound and southbound. South 320th Street between SR 99 and I-5 carries over 35,000 vehicles per day.

South 348th Street is a Principal Arterial that runs east-west; it becomes SW Campus Drive west of 1st Avenue South and SR 18 east of Pacific Highway South. South 348th Street has five travel lanes. SR 18 is a state owned divided highway with two to four lanes in each direction. The roadway provides regional access continuing east through Auburn and northeast to I-90 in Snoqualmie.

Project Area and Existing Land Use

The City Center project area is bounded by South 324th Street to the south, 23rd Avenue South to the east, South 312th Street to the north, and SR 99 to the west. The City Center area is a mix of retail, office, senior housing, multi-family households, and hotels. This area provides the greatest

concentration of shopping and businesses in the City of Federal Way. There are also businesses located on the west side of SR 99 and the area outside of the City Center is mostly residential. The square footage of the City Center is summarized in Table 3-8.

Table 3-8. Existing Land Use

| | Retail (sq ft) | Office (sq ft) | Residential (units) | Hotel (rooms) |
|--------------------------|----------------|----------------|---------------------|---------------|
| 2015 Existing Conditions | 1,833,189 | 67,045 | 254 | 230 |

Corridor Right-of-Way

The *Federal Way Revised Code* Section 1.05.020 defines right-of-way as, “land owned, dedicated or conveyed to the public or a unit of government, used primarily for the movement of vehicles or pedestrians and providing for access to adjacent parcels, with the secondary purpose of providing space for utility lines and appurtenances and other devices and facilities benefiting the public. “Right-of-way” includes, but is not limited to, any street, easement, sidewalk, or portion thereof under the jurisdiction of the city.”

The *Federal Way Comprehensive Plan* provides a network of “City Center” roadways that meet the higher level of amenities for the City Center planning area. The need for wider sidewalks, bicycle lanes, street lighting, and street trees resulted in the City designating specific standards for City Center roadways. Table 3-9 summarizes the required and the typical amounts of right-of-way found on major roadways within the City Center planning area.

Table 3-9. Right-of-Way for Major Area Streets

| Roadway | Required City Center right-of-way | Existing right-of-way |
|----------------------------|-----------------------------------|-----------------------|
| Pacific Highway S (SR 99) | 120 feet | 100-140 feet |
| S 324 th Street | 96 feet | 66 feet |
| S 320 th Street | 100 feet | 100-140 feet |
| S 316 th Street | 74 feet | 60 feet |
| S 312 th Street | 85 feet | 60-85 feet |
| 20 th Avenue S | 60 feet | 60 feet |
| 23 rd Avenue S | 85 feet | 80-82 feet |

Source: King County Assessor 2003

As summarized in Table 3-9, Pacific Highway South, South 324th Street, South 316th Street, South 312th Street, and 23rd Avenue South all have inadequate right-of-way. In addition, the City Center plan calls for a number of internal roadways to create smaller blocks that will improve the grid network and improve the access for pedestrians and vehicles. These internal grid roads require 70 feet of right-of-way with two vehicle lanes, 12 feet of sidewalks, and on-street parking. Right-of-way dedication and street improvements shall be a component of the development submittal phase of a proposed project within the City Center. Additional information on ultimate roadway cross-sections can be found in Map III-4 of the transportation element of the City’s comprehensive plan.

Existing Traffic Operations

Traffic counts were collected in Fall 2014, or July 8, 2015, between 4:00 pm and 6:00 pm, and Wednesday, July 8, 2015, between 6:00 am and 8:00 am. Saturday traffic counts were collected

July 11, 2015, between 11:00 am and 1:00 pm. The analysis of intersections was completed for the highest hour of vehicle traffic for the AM, PM, and Saturday midday peak hours.

In 2015, the City of Federal Way revised their level of service (LOS) standard for intersections. This standard is used to determine whether an intersection is operating at an acceptable condition. The standard provides a volume-to-capacity (v/c) ratio compared to the previous intersection average vehicle delay (also known as level of service or LOS). The current standard states that signalized intersections should have a volume-to-capacity (v/c) ratio less than 1.2 outside of the City Center, or less than 1.0 at any unsignalized intersection. Signalized intersections inside of the City Center should experience an average volume-to-capacity (v/c) ratio of 1.1 or less. An intersection with a volume-to-capacity (v/c) ratio greater than the standard is considered deficient and would require mitigation to bring the intersection into acceptable conditions.

The traffic analysis software, Synchro 8, was used to calculate the volume-to-capacity (v/c) ratios by reporting results using the *Highway Capacity Manual 2000* outputs. The volume-to-capacity (v/c) ratio is determined for intersections using *Highway Capacity Manual 2000* methodology because it provides an overall volume-to-capacity (v/c) ratio for signalized intersections. The unsignalized intersection of South 312th Street and 28th Avenue South was analyzed using *Highway Capacity Manual 2010* methodology, and the approach movement with the highest volume-to-capacity (v/c) ratio is reported.

Table 3-10 summarizes the results of the intersection operations analysis including intersection level of service (LOS), average intersection vehicle delay, and volume-to-capacity (v/c) ratio. None of the intersections were found to be deficient.

The intersection geometries, existing intersection traffic counts, future turning movement forecasts, and level of service (LOS) summaries are found in Appendix 2.

Table 3-10. Existing Conditions Intersection Analysis Results

| Study Intersections | PM Peak Hour | | | AM Peak Hour | | | Saturday Midday Peak Hour | | |
|------------------------------------|--------------|-------|-----------|--------------|-------|-----------|---------------------------|-------|-----------|
| | LOS | Delay | v/c ratio | LOS | Delay | v/c ratio | LOS | Delay | v/c ratio |
| *S 272 Street & Military Road S | D | 48.9 | 0.83 | D | 44.7 | 0.73 | | | |
| S 288th Street & Military Road S | D | 51.7 | 0.74 | D | 39.8 | 0.51 | | | |
| S 288th Street & Pacific Highway S | D | 43.3 | 0.73 | C | 24.6 | 0.48 | | | |
| **S 312 Street & 28 Avenue S | D | 32.3 | 0.93 | A | 8.8 | 0.29 | | | |
| S 320 Street & 1 Avenue S | D | 54.2 | 0.83 | C | 32.9 | 0.62 | C | 33.9 | 0.63 |
| S 320 Street & I-5 NB Ramp | C | 21.6 | 0.66 | B | 11.5 | 0.48 | B | 14.6 | 0.58 |
| S 320 Street & I-5 SB Ramp | C | 30.2 | 0.70 | B | 11.9 | 0.56 | B | 18.4 | 0.69 |
| S 320 Street & Military Road S | D | 53.2 | 0.79 | C | 29.9 | 0.69 | D | 48.5 | 0.67 |
| S 336 Street & Pacific Highway S | D | 53.3 | 0.86 | D | 44.4 | 0.50 | C | 21.7 | 0.51 |
| S 348 Street & Pacific Highway S | E | 64.4 | 0.86 | C | 34.1 | 0.70 | D | 52.9 | 0.89 |
| S 348 Street & SR 161 | E | 72.6 | 0.97 | | | | E | 78.5 | 1.08 |
| S 356 Street & 1 Avenue S | D | 44.9 | 0.91 | | | | | | |
| S 356 Street & Enchanted Parkway S | D | 43.6 | 0.84 | | | | C | 25.7 | 0.62 |
| S 356 Street & Pacific Highway S | D | 53.6 | 0.87 | D | 37.8 | 0.47 | D | 53.2 | 0.80 |
| SW 320 Street & 21 Avenue SW | D | 41.6 | 0.80 | C | 31.4 | 0.52 | | | |

| Study Intersections | PM Peak Hour | | | AM Peak Hour | | | Saturday Midday Peak Hour | | |
|----------------------------------|--------------|-------|-------------|--------------|-------|-------------|---------------------------|-------|-------------|
| | LOS | Delay | v/c ratio | LOS | Delay | v/c ratio | LOS | Delay | v/c ratio |
| SW 336 Street & 21 Avenue SW | D | 49.3 | 0.72 | | | | | | |
| SW 340 Street & Hoyt Road SW | C | 34.6 | 0.76 | | | | | | |
| SW 356 Street & 21 Avenue SW | E | 55.1 | 0.79 | | | | | | |
| SW Campus Drive & 1 Avenue S | D | 42.5 | 0.64 | | | | | | |
| S 312 Street & Pacific Highway S | D | 54.9 | 0.73 | C | 20.3 | 0.39 | D | 42.3 | 0.58 |
| S 316 Street & Pacific Highway S | D | 54.7 | 0.69 | A | 7.8 | 0.22 | C | 28.8 | 0.59 |
| S 320 Street & 20 Avenue S | C | 34.6 | 0.74 | A | 7.7 | 0.32 | D | 36.1 | 0.67 |
| S 320 Street & 23 Avenue S | D | 48.3 | 0.81 | C | 25.3 | 0.53 | C | 30.1 | 0.66 |
| S 320 Street & Pacific Highway S | E | 57.1 | 0.75 | C | 23.1 | 0.47 | D | 37.2 | 0.74 |
| S 324 Street & Pacific Highway S | D | 48.0 | 0.82 | B | 18.1 | 0.32 | D | 35.6 | 0.71 |
| Average v/c City Center | | | 0.76 | | | 0.40 | | | 0.67 |

* Intersection is located outside of City of Federal Way limits

**Unsignalized Intersection

Parking

The existing number of parking stalls in the City Center area reflects the more auto-oriented development pattern of current land uses. Table 3-11 summarizes the number of parking spaces required by City code for each existing land use.

Table 3-11. Existing Parking Requirements

| | Retail | Office | Residential (units) | Hotel (rooms) | Total Spaces Per Code |
|--|-----------------|-----------------|------------------------|------------------|-----------------------------|
| | (sq ft) | (sq ft) | | | |
| City Code | 1 per 300 sq ft | 1 per 300 sq ft | 1.7 per unit | 1 per room | |
| Existing Square Footage | 1,833,189 | 67,045 | 254 | 230 | |
| Existing Parking Requirement per Code | 6,111 | 223 | 432 | 230 | 6,996 |

Data provided by the City estimates that there are approximately 8,960 parking stalls provided in the City Center area. As summarized in Table 3-11, nearly 2,000 additional parking stalls are provided above what existing code requires.

Collision Analysis

Review of historical collision data provides an indication of the location and severity of incidents at intersections and along corridors. Historical analysis is useful in understanding the typical types of collisions that occur at a particular location; however, the data may not be indicative of future collision rates or causes. A number of factors can contribute to collisions including:

- Traffic congestion (ability to maneuver)
- Driver skills (driver age and experience)
- Driver behavior (speeding, aggressiveness, driving while intoxicated)
- Roadway geometrics (sight distance)
- Weather conditions (rain, glare, snow)

- Nature (animals, fallen trees)
- Vehicle condition, equipment, and maintenance (brakes, tires)
- Roadway condition (pavement condition)

Five years of collision data, 2010 through 2014, were analyzed to identify collision trends in the study area. The City requires the identification of high collision intersections and roadway corridors defined as follows:

- A collision rate of more than 1.0 collision per million entering vehicles (MEV) at an intersection.
- A collision rate of more than 10.0 collisions per million vehicle miles (MVM) on a roadway segment. Roadway segments are defined as arterials and principal collectors between and including intersections of collectors and arterials.

Table 3-12 provides the calculated collision rates for the study intersections and roadway segments. Results indicate that three of the 23 intersections and one of the 15 roadway segments could be considered to have high collision rates. The City has either improved or planned to improve these locations to address high collision rates.

Table 3-12. Five-year Collision Rates (2010 – 2014)

| Intersection¹ | Total Collisions | Collision Rate (MEV)² |
|--|-------------------------|---|
| S 288 th Street & Military Road S | 60 | 0.99 |
| S 288 th Street & Pacific Highway S | 47 | 0.55 |
| S 312 Street & 28 Avenue S | 10 | 0.45 |
| S 320 Street & 1 Avenue S | 65 | 0.89 |
| S 320 Street & I-5 NB Ramp | 7 | 0.09 |
| S 320 Street & I-5 SB Ramp | 25 | 0.29 |
| S 336 Street & Pacific Highway S | 62 | 0.68 |
| S 348 Street & Pacific Highway S | 36 | 0.32 |
| S 348 Street & SR 161 | 82 | 0.58 |
| S 356 Street & 1 Avenue S | 21 | 0.38 |
| S 356 Street & Enchanted Parkway S | 24 | 0.39 |
| S 356 Street & Pacific Highway S | 37 | 0.44 |
| SW 320 Street & 21 Avenue SW | 45 | 0.66 |
| SW 336 Street & 21 Avenue SW | 79 | 1.12 |
| SW 340 Street & Hoyt Road SW | 28 | 0.65 |
| SW 356 Street & 21 Avenue SW | 25 | 0.43 |
| SW Campus Drive & 1 Avenue S | 38 | 0.56 |
| S 312 Street & Pacific Highway S | 106 | 1.36 |
| S 316 Street & Pacific Highway S | 57 | 0.86 |
| S 320 Street & 20 Avenue S | 45 | 0.61 |
| S 320 Street & 23 Avenue S | 73 | 0.81 |
| S 320 Street & Pacific Highway S | 125 | 1.09 |
| S 324 Street & Pacific Highway S | 43 | 0.57 |

| Intersection ¹ | Total Collisions | Collision Rate (MEV) ² |
|--|------------------|-----------------------------------|
| Roadway Segment | Total Collisions | Collision Rate (MVM) ² |
| 21 st Avenue SW from SR 509 to S 356 St | 233 | 3.03 |
| 1 st Avenue S from S 312 Street to S 356 St | 191 | 3.73 |
| SR 99 from S 272 Street to S 356 Street | 1006 | 3.87 |
| 20 th Avenue S from S 312 Street to S 320 Street | 50 | 8.94 |
| 23 rd Avenue S from S 312 Street to S 322 Street | 88 | 8.52 |
| 28 th Avenue S from S 312 Street to S 317 Street | 8 | 2.93 |
| S 312 th Street from SR 99 to 28 th Avenue S | 131 | 9.76 |
| S 316 th Street from SR 99 to 23 rd Avenue S | 50 | 11.85 |
| S 317 th Street between 23 rd Avenue S and 28 th Avenue S | 8 | 2.85 |
| S 320 th Street from 1 st Avenue S to Military Rd | 555 | 4.81 |
| SW 320 th Street from Hoyt Road to 1 st Avenue S | 125 | 1.34 |
| S 348 th Street from 1 st Avenue S to I-5 | 182 | 3.12 |
| SW Campus Drive from 21 st Avenue SW to 1 st Avenue S | 173 | 2.71 |
| SW 340 th /336 th Street from Hoyt Road to 21 st Avenue SW | 165 | 4.66 |
| S 356 th Street from 1 st Avenue S to 16 th Avenue S/Enchanted Pkwy | 102 | 4.29 |

Note: Bold values indicate high collision locations, as defined by City standards.

¹ The City does not maintain data for the study intersections at S 272 Street & Military Road S and S 320 Street & Military Road S

² MEV = million entering vehicles; MVM = million vehicle miles

Source: City of Federal Way Collision Database

The City of Federal Way, in general, attributes the majority of collisions to congestion at roadways and intersections. The congestion related delay at intersections can result in driver risk-taking by attempting to reduce wait times. Improving mobility and access to all modes, reducing conflict points, and reducing travel delay may reduce some types of collision along the corridor. The City traffic engineering division monitors collision data and corrects roadway and intersection issues that could contribute to higher collision rates at specific locations.

Transit Services

The Federal Way Transit Center is located within the City Center on South 317th Street between 21st Avenue South and 23rd Avenue South. Within the study area, South 324th Street, South 320th Street, and South 312th Street are used to access the Transit Center. The Transit Center is served by Sound Transit routes 574, 577, and 578; King County Metro routes Rapid Ride A, 179, 181, 182, 183, 187, 193, and 197; and Pierce Transit routes 402, 500, and 501. Bicycle lockers and 1,190 vehicle parking spaces are provided at the Transit Center. The parking lot is heavily used during the weekday. The Transit Center provides direct access to high-occupancy vehicle (HOV) lanes on I-5.

Several bus routes stop in Federal Way, with 3,000 to 3,500 person trips made by public transit service each day. About three percent of peak hour trips within Federal Way are transit trips.

Pedestrian Facilities

The City of Federal Way has pedestrian connectivity with sidewalks on many streets in the study area. The Bonneville Power Administration (BPA) Trail is a paved pedestrian trail that connects

residential areas to parks. Although there are sidewalks connecting the residential area with the City Center, walking is not a popular mode choice to shopping because of the high volume and high speed of vehicles on the roadway network and the relatively long distance between destinations.

Bicycle Facilities

The City’s bicycle network consists of a range of facilities including bike lanes, wide shoulders, and the BPA Trail. The BPA Trail provides a connection for cyclists to the City Center. However, cyclists must cross SR 99, which may be a deterrent. Within the City of Federal Way, cyclists can bike on the sidewalk, except in the City Center where it is prohibited by ordinance. When surveyed as part of the comprehensive plan, residents cited a lack of bicycle infrastructure as the main cycling deterrent.

Future Conditions

This section summarizes the transportation effects within the study area and at the City Center. It includes a summary of the land use assumed for the alternatives and roadway improvement assumptions.

Future Year Land Use

The Action Alternative proposes a mixed use development, which would provide the variety of land uses to create an urban center within Federal Way. The difference between the No Action and Action Alternatives is the land use assumptions in the City Center; the Action Alternative assumes an increase over the No Action alternative. Table 3-13 summarizes the land use quantities for the alternatives. The land use in the rest of the City and the greater Puget Sound Region is the same for both alternatives.

Table 3-13. City Center Land Use Future No Action and Action Alternatives

| | Retail (sq ft) | Office (sq ft) | Residential (units) | Hotel (rooms) |
|------------------|-------------------|-------------------|------------------------|------------------|
| Existing | 1,833,189 | 67,045 | 254 | 230 |
| No Action | 2,505,379 | 329,427 | 1,925 | 230 |
| Action | 2,452,689 | 393,545 | 2,654 | 830 |

Roadway Improvements Assumptions

The City’s *Transportation Improvement Plan* (TIP) highlights funded projects through the year 2040. Ten of the study intersections are expected to have funded planned projects between 2015 and 2025. Table 3-14 summarizes the projects assumed to be constructed by 2025 for both alternatives. Table 3-15 summarizes the specific improvements planned for study intersections.

Table 3-14. Transportation Improvement Projects through 2025

| Project | Location | Description |
|---------|---|--|
| A | 10 th Avenue SW @ SW Campus Drive | Add SB right-turn lane |
| B | SR 99 @ S 312 th Street | Add 2nd left-turn lane NB |
| C | S 304 th Street @ 28 th Avenue S | Add NB right-turn lane, signal |
| D | SW 320 th Street @ 21 st Avenue SW | Add 2nd WB left-turn lane, Interconnect to 26 th Ave SW |
| E | S 312 th Street @ 28 th Avenue S | Add SB right-turn lane |
| F | SW 336 th Way/SW 340 th Street (26 th PI SW to Hoyt Road SW) | Widen to 5 lanes, add signal at 26 th PI SW |

| Project | Location | Description |
|---------|--|--|
| G | SE 509 @ 11 th Place S | Add EB left-turn lane |
| H | S 356 th Street (SR 99 to SR 161) | Widen to 5 lanes |
| I | S 356 th Street @ SR 161 | Add 2nd NB left to SR 161 |
| J | S 320 th Street @ 1 st Avenue South | Add EBL, WBL, WBR, NBT, SBR; widen to 5 lanes N to 316 th or Alternative Measure |
| K | S 320 th Street @ I-5 Bridge Widening | Add HOV lanes, realign ramps in SE quadrant |
| L | SW 344 th Street (12 th Avenue SW to 21 st Avenue SW) | Extend 3 lane principal collector |
| M | S 352 nd Street (SR 99 to SR 161) | Extend 3 lane principal collector |
| N | SR 99: S 340 th Street to S 356 th Street | Construct Arterial HOV lanes, both directions |
| O | Military Rd @ S 342 nd Street | Add northbound left-turn lane at the intersection and a two way left turn lane between S. 340 th Street and S. 342 nd Street |
| P | SR 99 @ S 348 th Street | Add 2nd southbound left turn lane |

Table 3-15. Changes to Study Intersection from TIP

| Intersection | Improvement Description |
|---|--|
| SR 99 @ S 312 th Street | Add 2nd left-turn lane NB |
| SW 320 th Street @ 21 ^s Avenue SW | Add 2nd WB left-turn lane |
| S 312 th Street @ 28 th Avenue S | Add SB right-turn lane |
| SW 340 th Street @ Hoyt Road SW | Add WB lane, separate through and left lane. |
| S 356 th Street @ SR 161 | Add 2nd NB left to SR 161 |
| S 320 th Street @ 1 st Avenue South | Restrict left turns on all approaches |
| S 320 th Street @ I-5 SB | Add through lane on S 320 th Street both directions |
| S 320 th Street @ I-5 NB | Add through lane on S 320 th Street both directions |
| SR 99 @ S 356 th Street | Add northbound through lane |
| SR 99 @ S 348 th Street | Add 2nd southbound left turn lane |

Trip Generation

Trip generation rates for the alternatives were developed using a travel demand forecasting model and Fehr & Peers MainStreet tool. A travel demand forecasting model is a computer model developed to project traffic volumes and patterns based upon land use and the characteristics of the transportation system. The roadway network under study, as well as the land use that generates traffic on that network, is coded into the model. The model projects traffic on the roadway system based on observed traffic data and statistical data that associates typical travelers' tendencies with land use. A model of existing conditions is first created and calibrated according to observed existing traffic volumes and patterns. Once a calibrated model is completed, it can be used to project the traffic volumes and patterns of future land use and transportation network scenarios. The traffic demand model for this study was created using EMME software. Separate Federal Way travel demand model runs were developed for the 2025 No Action and 2025 Action Alternatives to reflect how their land use assumptions would influence travel behavior in the future. The model assumed the same future roadway improvements for both alternatives.

The MainStreet tool was developed to more accurately predict trip generation in mixed use suburban centers such as Federal Way's City Center. MainStreet evaluates whether a reduction rate in new vehicle trips from the Institute of Traffic Engineers (ITE) *Trip Generation Manual*

could be applied. This method supplements the travel demand model by recognizing how built environment variables including density, diversity of land uses, destinations (accessibility), development scale, pedestrian and bicycle design, distance to transit services, and demographics affect travel. Places with higher densities, a rich variety of land uses close to one another, and high quality pedestrian, bicycle, and transit environments have lower vehicle trip generation rates. People have more choices in terms of both the travel mode as well as how far they must travel to reach various destinations.

The level of vehicle trip reduction applied to the City Center varied among the two alternatives, based on the land uses assumed. This approach is consistent with best practices in transportation analysis, as documented by the National Cooperative Highway Research Program (Report 684). Table 3-16 summarizes the trip generation for the two alternatives.

Table 3-16. Trip Generation by Alternative

| | | 2015 Existing | 2025 No Action Alternative | 2025 Action Alternative | Change from 2025 No Action to Action Alternative |
|---------------------|--------------------|---------------|----------------------------|-------------------------|--|
| AM Peak Hour | Retail | 1450 | 1817 | 1789 | -28 |
| | Office | 87 | 388 | 466 | +78 |
| | Hotel | 100 | 93 | 334 | +241 |
| | Residential | 88 | 742 | 1028 | +286 |
| | Total | 1,725 | 3,040 | 3,617 | +577 |
| PM Peak Hour | Retail | 4347 | 5542 | 4923 | -619 |
| | Office | 81 | 371 | 401 | +30 |
| | Hotel | 112 | 105 | 341 | +236 |
| | Residential | 105 | 901 | 1127 | +226 |
| | Total | 4,645 | 6,919 | 6,792 | -127 |

Trip Generation Differences Explained

The 2025 Action Alternative is anticipated to have more trips than the No Action Alternative in the AM peak hour (approximately 580 trips), but fewer trips (approximately 130 trips) in the PM peak hour. The increase in AM peak hour trips results from the increase in land use and lower number of trips occurring within the City Center. The decrease in PM peak hour trips is because more trips occur within the City Center area, which is referred to as the internal capture rate. It indicates that more people choose to walk, bike, or drive between land uses that are within the City Center.

Trip Distribution and Assignment

The trip distribution was based on the EMME Federal Way travel demand model; trip distribution provides an assessment of the number of people traveling to and from the site. The Saturday midday peak hour trip distribution was assumed to be the same as the PM peak hour trip distribution. The trip distribution was similar between the No Action and Action alternatives.

Impacts

This section summarizes the transportation effects within the study area. It describes the project’s impact on traffic operations, safety, transit service, and pedestrian and bicycle mobility.

Traffic Operations Impact

Common to All Alternatives

For the analysis, each of the signalized study intersections was analyzed using a 140 second cycle length in the PM peak hour and Saturday midday peak hour, and a 120 second cycle length for the AM peak hour. This is consistent with the City of Federal Way's *Guidelines for the Preparation of Transportation Impact Analyses* (September 9, 2014).

No Action Alternative

Table 3-17 provides the operations analysis for the No Action Alternative. As summarized in Table 3-17, none of the intersections are anticipated to be deficient based on the City of Federal Way's traffic operations standards.

Table 3-17. 2025 No Action Alternative Operations Analysis

| Study Intersection | PM Peak Hour | | | AM Peak Hour | | | Saturday Midday Peak Hour | | |
|--|--------------|-------|-------------|--------------|-------------|-----------|---------------------------|-------|-------------|
| | LOS | Delay | v/c ratio | LOS | Delay | v/c ratio | LOS | Delay | v/c ratio |
| *S 272 Street & Military Road S | F | 91.0 | 1.11 | D | 49.9 | 0.90 | | | |
| S 288 th Street & Military Road S | E | 65.4 | 0.99 | C | 27.2 | 0.66 | | | |
| S 288 th Street & Pacific Highway S | F | 124.4 | 1.01 | F | 112.4 | 0.94 | | | |
| **S 312 Street & 28 Avenue S | E | 47.1 | 0.97 | C | 18.3 | 0.74 | | | |
| S 320 Street & 1 Avenue S | C | 27.3 | 0.69 | C | 28.9 | 0.72 | C | 22.4 | 0.61 |
| S 320 Street & I-5 NB Ramp | B | 16.9 | 0.61 | C | 22.5 | 0.78 | B | 14.8 | 0.52 |
| S 320 Street & I-5 SB Ramp | D | 42.3 | 0.78 | C | 31.1 | 0.55 | C | 30.8 | 0.75 |
| S 320 Street & Military Road S | E | 65.4 | 0.97 | D | 49.8 | 0.83 | D | 41.2 | 0.70 |
| S 336 Street & Pacific Highway S | E | 59.0 | 1.06 | D | 42.3 | 0.73 | C | 28.7 | 0.63 |
| S 348 Street & Pacific Highway S | F | 91.5 | 1.09 | E | 70.4 | 0.77 | F | 93.6 | 1.13 |
| S 348 Street & SR 161 | F | 87.8 | 1.08 | | | | F | 95.4 | 1.14 |
| S 356 Street & 1 Avenue S | E | 76.7 | 1.09 | | | | | | |
| S 356 Street & Enchanted Parkway S | D | 49.0 | 0.87 | | | | C | 34.7 | 0.76 |
| S 356 Street & Pacific Highway S | E | 67.8 | 1.07 | E | 69.8 | 0.61 | D | 52.7 | 0.87 |
| SW 320 Street & 21 Avenue SW | E | 59.0 | 0.94 | D | 52.5 | 0.95 | | | |
| SW 336 Street & 21 Avenue SW | E | 64.4 | 0.96 | | | | | | |
| SW 340 Street & Hoyt Road SW | D | 44.2 | 0.82 | | | | | | |
| SW 356 Street & 21 Avenue SW | F | 85.4 | 0.96 | | | | | | |
| SW Campus Drive & 1 Avenue S | D | 54.5 | 0.83 | | | | | | |
| S 312 Street & Pacific Highway S | D | 51.4 | 0.86 | D | 39.1 | 0.72 | D | 36.4 | 0.74 |
| S 316 Street & Pacific Highway S | C | 31.0 | 0.79 | B | 14.4 | 0.42 | C | 36.6 | 0.72 |
| S 320 Street & 20 Avenue S | C | 32.7 | 0.81 | B | 19.2 | 0.46 | D | 36.5 | 0.80 |
| S 320 Street & 23 Avenue S | E | 60.3 | 1.00 | D | 39.1 | 0.80 | E | 59.1 | 0.93 |
| S 320 Street & Pacific Highway S | E | 61.7 | 0.94 | E | 55.2 | 0.80 | E | 63.7 | 0.94 |
| S 324 Street & Pacific Highway S | E | 65.1 | 1.01 | C | 25.3 | 0.68 | D | 50.8 | 0.90 |
| Average v/c City Center | | | 0.91 | | 0.68 | | | | 0.85 |

* Intersection is located outside of City of Federal Way limits

**Unsignalized Intersection

Action Alternative

Table 3-18 provides the operations analysis for the Action Alternative. None of the intersections are anticipated to be deficient in the Action Alternative based on Federal Way’s traffic operations standards.

Table 3-18. 2025 Action Alternative Operations Analysis

| Study Intersection | PM Peak Hour | | | AM Peak Hour | | | Saturday Midday Peak Hour | | |
|--|--------------|-------|-------------|--------------|-------|-------------|---------------------------|-------|-------------|
| | LOS | Delay | v/c ratio | LOS | Delay | v/c ratio | LOS | Delay | v/c ratio |
| *S 272 Street & Military Road S | F | 90.6 | 1.11 | D | 50.1 | 0.91 | | | |
| S 288 th Street & Military Road S | E | 64.4 | 0.99 | C | 27.6 | 0.67 | | | |
| S 288 th Street & Pacific Highway S | F | 121.3 | 1.00 | F | 121.2 | 0.96 | | | |
| **S 312 Street & 28 Avenue S | E | 47.4 | 0.97 | C | 18.7 | 0.72 | | | |
| S 320 Street & 1 Avenue S | C | 27.2 | 0.69 | C | 29.0 | 0.73 | C | 24.7 | 0.61 |
| S 320 Street & I-5 NB Ramp | B | 17.6 | 0.60 | C | 22.4 | 0.79 | B | 15.0 | 0.52 |
| S 320 Street & I-5 SB Ramp | C | 33.1 | 0.79 | C | 31.4 | 0.57 | D | 46.6 | 0.79 |
| S 320 Street & Military Road S | E | 65.8 | 0.97 | D | 50.1 | 0.86 | D | 45.4 | 0.70 |
| S 336 Street & Pacific Highway S | E | 57.4 | 1.03 | D | 45.3 | 0.75 | C | 31.4 | 0.62 |
| S 348 Street & Pacific Highway S | F | 95.0 | 1.09 | E | 66.9 | 0.78 | E | 66.7 | 0.94 |
| S 348 Street & SR 161 | F | 88.8 | 1.08 | | | | F | 96.4 | 1.14 |
| S 356 Street & 1 Avenue S | E | 77.1 | 1.10 | | | | | | |
| S 356 Street & Enchanted Parkway S | D | 46.7 | 0.86 | | | | D | 41.2 | 0.75 |
| S 356 Street & Pacific Highway S | E | 66.7 | 1.06 | E | 62.7 | 0.60 | D | 52.5 | 0.87 |
| SW 320 Street & 21 Avenue SW | E | 57.2 | 0.92 | D | 54.8 | 0.99 | | | |
| SW 336 Street & 21 Avenue SW | E | 64.3 | 0.96 | | | | | | |
| SW 340 Street & Hoyt Road SW | D | 43.7 | 0.81 | | | | | | |
| SW 356 Street & 21 Avenue SW | F | 83.5 | 0.95 | | | | | | |
| SW Campus Drive & 1 Avenue S | D | 53.7 | 0.85 | | | | | | |
| S 312 Street & Pacific Highway S | D | 53.5 | 0.88 | D | 38.5 | 0.75 | D | 48.2 | 0.76 |
| S 316 Street & Pacific Highway S | C | 33.7 | 0.81 | B | 16.2 | 0.44 | D | 35.7 | 0.73 |
| S 320 Street & 20 Avenue S | C | 32.1 | 0.82 | C | 22.1 | 0.48 | D | 36.4 | 0.81 |
| S 320 Street & 23 Avenue S | E | 61.4 | 1.00 | D | 41.8 | 0.83 | E | 59.2 | 0.95 |
| S 320 Street & Pacific Highway S | E | 60.5 | 0.95 | E | 60.8 | 0.83 | E | 59.0 | 0.93 |
| S 324 Street & Pacific Highway S | E | 59.3 | 1.00 | C | 24.8 | 0.68 | D | 50.1 | 0.89 |
| Average v/c City Center | | | 0.92 | | | 0.70 | | | 0.86 |

* Intersection is located outside of City of Federal Way limits

**Unsignalized Intersection

The operations analysis shows that the Future No Action and Future Action result in very similar impact on the study intersections.

Future Parking Requirements

Common to All Alternatives

As summarized in Table 3-19, both the No Action and Action Alternatives would require additional parking spaces per code requirements for new development. These increases assume

full development of the City Center. Almost 15,000 parking spaces would be required to meet the proposed Action Alternative. The number of parking spaces represents the City’s parking code requirements. Parking would be provided on a project-by-project basis in accordance with *Federal Way Revised Code* requirements.

Table 3-19. Future Parking Requirements

| | Retail (sq ft) | Office (sq ft) | Residential (units) | Hotel (rooms) | Total Parking Spaces per Code |
|--|-------------------|-------------------|------------------------|------------------|-------------------------------------|
| City Code Requirement | 1 per 300 sq ft | 1 per 300 sq ft | 1.7 per unit | 1 per room | |
| Action Land Use | 2,452,689 | 393,545 | 2,654 | 830 | |
| Action Parking Spaces Needed | 8,176 | 1,312 | 4,512 | 830 | 14,830 |
| No Action Land use | 2,505,379 | 329,427 | 1,925 | 230 | |
| No Action Parking Spaces Needed | 8,351 | 1,098 | 3,273 | 230 | 12,952 |

Traffic Safety Impact

Common to All Alternatives

The *Federal Way Comprehensive Plan* identifies that congestion is a common contributing factor to vehicle collisions. As the amount of traffic increases within the area, the probability of traffic collisions would be expected to increase as well. Congestion is a primary factor in collision rates.

Both the Action and No Action Alternatives would increase the total vehicle volume of vehicles at the high collision locations identified in Table 3-12. Compared to the No Action Alternative, the Action Alternative would result in fewer added trips during the PM peak hour, the period of highest traffic congestion during a typical day. The Alternatives also make up only a small portion of the entering trips for the surrounding intersections. In addition, roadway improvements designed to reduce congestion may lower congestion associated collisions.

Transit Service Impact

Common to All Alternatives

In the next ten years, demand for transit service in the City Center is expected to increase with the increase in jobs and households. Transit demand is to be addressed as part of the City’s comprehensive plan. The City has identified SR 99 and South 320th Street, along with 21st Avenue SW and 16th Avenue South as transit priority corridors.

Action Alternative

For this alternative, the increase in households and office space compared to the No Action Alternative is anticipated to increase demand for transit service in the City Center.

Pedestrian and Bicycle Mobility Impact

Common to All Alternatives

The land use mix for the No Action and Action alternatives encourages walking and bicycling in and around the City Center. The City’s *Bicycle and Pedestrian Master Plan* adopted in March 2012 highlights planned bicycle and pedestrian facilities in the City. All roads within the City Center either have an existing sidewalk or have been identified as a location for proposed sidewalks.

Some roads around the City Center, including South 324th Street, South 308th Street, and 11th Place South, have been identified as locations for future bicycle facilities.

The alternatives, along with the proposed bicycle and pedestrian facilities highlighted in the *Bicycle and Pedestrian Master Plan*, will increase safety and encourage walking and bicycling as a mode of transportation in and around the City Center.

Mitigation

This section summarizes the proposed mitigation anticipated to be required beyond the roadway improvements assumed to be constructed by 2025.

Existing Roadway Network

Both the No Action and Action Alternatives would increase the density and activity within the Federal Way City Center area. The increased density could increase traffic congestion; however, these increases may be offset by reduced vehicle travel demand resulting from mixed-use development, improvements to pedestrian facilities, and improved transit services. Based on the level of service (LOS) analysis, no additional roadway capacity improvements are needed.

Parking

Additional parking spaces will be required on site for both the No Action and Action Alternatives. These spaces may be provided on the site or as part of parking garages assumed as part of the City Center development. The number of parking spaces required could be reduced through shared parking arrangements or transportation demand management programs. This reduction could vary from 10 percent to 20 percent based on the effectiveness and robustness of the programs implemented.

Additional Mitigation

The mitigation identified in this section is focused on additional improvements that could be required to meet the expected travel demand on area roadways associated with the proposed development in the project area.

Development will need to meet the requirements of applicable codes at the time of application. Such requirements might include the dedication of right-of-way; installing curbs, gutters, and sidewalks; drainage improvements; and other requirements of the City. Additional mitigation may be required for individual development applications within the project area to reduce area traffic impacts, or improve on-site circulation and to meet City and State requirements for Commute Trip Reduction and Transportation Demand Management. Actions to be considered include:

On-Site Improvements – Driveway and circulation action/improvements to minimize impact on area roadways. Actions may include management of access points, traffic control measures, construction of internal roadways, pedestrian and bicycle improvements, and connections to adjacent developments.

Non-Motorized Mode Improvements – Mitigation may be required per site specific and land use development proposals to address pedestrian, bicycle, and transit improvements to support the plans, policies, and goals as noted within the City's comprehensive plan transportation element.

Grid Roadway Development – Part of the City Center Plan is to develop a number of internal roadways to create smaller blocks that will improve the grid network and improve the access for pedestrians and vehicles. Right-of-way dedication and street improvements shall be a component of the development submittal phase of a proposed project within the project area. Roadways within the project area must meet specific “City Center” design standards as specified in the City’s comprehensive plan transportation element.

Right-of-Way Dedication – Right-of-way dedication and frontage improvements may be required in conjunction with proposed developments. Roadways within the project area must meet specific “City Center” design standards as specified in the City’s comprehensive plan transportation element.

Transportation Demand Management (TDM) – TDM actions can be used to reduce the impact of the project and as a mitigation action. These actions may include provision of transit passes to tenants and employees, ridesharing programs, priority carpool parking, and guaranteed ride home programs. TDM actions are designed to primarily address commute trips and may not be applicable as mitigation for all developments. The *Federal Way Comprehensive Plan* summarizes TDM alternatives by their functional grouping and potential effectiveness, implementation difficulties, and expected cost effectiveness. These strategies include: Telecommuting; Parking Management and Pricing; Flexible Work Schedule; Rideshare programs; Traveler Information; Public Relations; and Marketing.

Following is a list of recommended mitigation measures that can be considered in conjunction with individual development projects within the project area:

1. Encourage voluntary expansion of the CTR Program to employers of less than 100 employees. The encouragement by employers may be as diverse as subsidized bus passes, car pool space priority, bike racks, shower facilities, van pools, car pool information access, telecommuting, variable work hours, etc.
2. Encourage the formation and expansion of area-wide ride-sharing programs. Such programs operate with little direct cost to the City and are highly cost effective.
3. Support the enhancement of Park and Ride facilities and transit centers to supplement the regional system, either directly through physical development or enhancements, or indirectly through development conditions where employer vans are required to shuttle employees to Park and Ride facilities or transit centers.
4. Facilitate enhancements to the HOV system. This may include the dedication of property for HOV lanes, construction of arterial HOV lanes within existing City right-of-way, and priority treatments for buses at traffic signals. At the very least, where feasible, opportunities to enhance access to the state system of HOV lanes should be considered.
5. Achieve increased densities and mix of uses to support public transportation, decrease trip generation and parking impacts.
6. Encourage facilities (shelters, loading spaces, etc.) to accommodate City Center shuttle service in association with development projects, together with enhanced pedestrian and bicycle access and security.

7. Improve pedestrian and bicycle access to bus routes and transit centers. This can be a requirement of subdivision, development, and redevelopment. The City may need to acquire easements and construct trail connections. Development incentives could be granted for providing such amenities that are pedestrian, bike, and transit friendly. While bicycle, pedestrian, and bus transit services and facilities may be desirable for other reasons; they should not be looked on as highly cost-effective strategies to the exclusion of those actions listed above.

Neighborhood Traffic Control – Development within the project area may be required to include actions to reduce the impact of cut through traffic on residential areas. Examples of neighborhood traffic control actions include: turn restrictions, speed controls, traffic enforcement, and parking restrictions.

Parking – Mitigation actions that reduce the parking requirements within the project area should be encouraged. Examples include shared parking, employee parking programs, parking time restrictions, and paid parking programs. Shared parking strategies focus on looking at opportunities where adjacent uses have parking demand profiles that can support the sharing of a smaller amount of parking spaces. For example, an office building with an 8 am to 5 pm demand could share its parking with evening dominated uses such as restaurants or a cinema. A parking demand study, which shows the hourly parking demand profiles for adjacent uses and the potential for joint parking opportunities within a mixed-use development, can be used to reduce the number of parking spaces.

In addition, contained in the above TDM mitigation are strategies that overlap with parking mitigation plans for development. A development may propose a plan and management system to the City for approval upon submittal of the development permit. Those items may contain the following in support of the City of Federal Way and state Commute Trip Reduction (CTR) requirements:

Alternative Mode Support Measures

Public education and promotion may increase the effectiveness of these other strategies up to three percent.

Area-Wide Ride Matching Services – May result in a 0.1-3.6% reduction in vehicle miles traveled (VMT) and an up to 2.5% VMT reduction in transit services. Reductions in parking required may be calculated on the basis of these lower trip-generation rates.

Vanpool Service – May result in an up to 8.3% in commute VMT, as well as a reduction in transit and vanpool fares up to 2.5%. Reductions in parking required may be calculated on the basis of these lower trip-generation rates.

Non-Motorized Modes Plan and Implementation – May result in an up to 0-2% regional VMT reduction. Reductions in parking required may be calculated on the basis of these lower trip-generation rates.

HOV Facilities – May result in an up to 1.5% VMT reduction and 0.2% vehicle trip reduction. Reductions in parking required may be calculated on the basis of these lower trip-generation rates.

On Site Development of Park and Ride Program – May result in up to 0-0.5% VMT reduction. Reductions in parking required may be calculated on the basis of these lower trip-generation rates.

Employer-Based TDM Measures

Parking Mitigation -- Monetary incentives may result in an up to 8-18% trip reduction at site. Reductions in parking required may be calculated on the basis of these lower trip-generation rates.

Alternative Work Schedules – May result in as much as a 1% regional VMT reduction. Reductions in parking required may be calculated on the basis of these lower trip generation rates.

Commute Support Programs – May result in up to 0.1-2.0% regional VMT reduction. Reductions in parking required may be calculated on the basis of these lower trip generation rates.

Parking Management – May result in up to a 20 to 30% reduction in SOV trips to/from the site. Reductions in parking required may be calculated on the basis of these lower trip-generation rates.

Telecommuting – Up to 10% commute VMT reduction. Reductions in parking required may be calculated on the basis of these lower trip-generation rates.

Other Strategies

Parking Tax – May result in up to a 1 to 5% reduction in regional VMT and trip generation, but requires City Council and/or legislative action. Reductions in parking required may be calculated on the basis of these lower trip-generation rates.

Development Parking Impact Mitigation – Requires City Council approval to allow for payment of parking-mitigation funds towards long term investments in structured parking solutions in lieu of full parking requirement. Reductions in parking required may be calculated on the basis of these lower trip-generation rates.

Mixed Land Use/Jobs Housing Balance – May result in VMT reductions up to 10%. Parking stall credit is given based on overlapping shared usage of mixed facility, per City code provisions.

Transit-Oriented and Pedestrian-Friendly Design – Site and building design that encourages transit usage and/or walking may reduce overall parking requirement. Requires design review and staff approval.

Employment Center Density – Achievement of sufficient density within the City Center to constitute a regional employment center may reduce SOV work trips to individual development projects by up to 50%. Parking stall reductions may also apply to developments.

Other Parking Management Plans – May mitigate 1 to 5% region-wide VMT, provided enforcement issues are addressed in the mitigation plan.

Traffic Impact Fee

Under 2006 EIS Addendum #3 (November 2010), the traffic impact fee (TIF) program (adopted by Council under Ordinance 09-627 and codified into code under FWRC 19.91), was to replace the established pro-rata mitigation fee per PM vehicle trip identified in Exhibit B to Ordinance 07-547, the Planned Action adoption ordinance.

Development within the Planned Action area will be required to pay the required traffic impact fee as prescribed in FWRC 19.91 and the adopted City fee schedule. This practice complies with the state's *Growth Management Act (GMA)* intent that new growth would pay a proportionate share of the cost of new facilities needed to serve the new growth, and also mitigate the adverse impact of future development within the Planned Action area. The traffic impact fee is collected and spent for system improvements included within the list of transportation capital facilities in the City's comprehensive plan transportation element.

Significant Unavoidable Adverse Impacts

Development of the Planned Action area would generate additional traffic volumes on the area's roadways. Increases in traffic congestion at some intersections and/or along some corridors will result in significant, unavoidable, adverse impacts on the area's transportation system. However, the increased capacity associated with improvement projects would adequately mitigate undesired impacts. The proposed mixed-use land use pattern, on-site improvements, and TDM actions, along with high levels of transit service, may further reduce vehicle trips; thereby, further mitigating impacts on the transportation system.

3.5 Public Services

This section of the Draft SEIS describes existing conditions, potential impacts, mitigating measures, and impacts that the proposal and alternative may have on public services. The public services analyzed in this chapter include police, fire, emergency medical service (EMS), and parks and recreation.

Affected Environment

Police

In September 2015, the Federal Way Police Department had 152 full-time employees consisting of 123 sworn officers and 29 civilian positions. Police coverage for each 24-hour period is divided into three shifts. The City of Federal Way is divided into four patrol sectors. Sector 4 serves the Planned Action project area. Minimum staffing levels are seven officers and one supervisor per shift from 0000 hours (midnight) to 1400 hours, and nine officers and one supervisor from 1400 hours to 0000 hours (Commander Arbuthnot, 2015). Three officers are assigned to The Commons at Federal Way full-time.

Call data for the first six months of 2015 showed a total of 35,658 calls for service Citywide, with 2,108 calls originating from the City Center, approximately 6 percent of total calls.

The goal for the Federal Way Police Department is to respond to Emergency and Priority 1 calls in 3-5 minutes, Priority 2 calls in 7-10 minutes, Priority 3 calls in 15-17 minutes, and Priority 4 calls in 28-30 minutes.¹ Data shows that throughout Federal Way in 2014 response time goals

¹ *Priority E – Emergency*: Highest priority-confirmed hazard that could result in extensive loss of life and/or property. It represents the greatest danger for officers responding to an immediate danger (e.g. bank robbery in progress, shooting, carjacking with weapon).

Priority 1: Represents a potential hazard that could result in the loss of life and/or property. Officers responding may be at risk or seriously jeopardized (e.g. bank holdup alarm, assault with weapon, bomb or explosive device found, robbery or assault in progress).

Priority 2: Represents minimal hazard with considerably less potential for loss of life and/or property. Minimal risk to responding officers (e.g. injury accident, auto theft or burglary in progress).

were being achieved or exceeded for emergency calls: Emergency calls, 3.62 minutes; Priority 1 calls, 6.18 minutes; Priority 2 calls, 14.88 minutes; Priority 3 calls, 23.02 minutes; and Priority 4 calls, 39.64 minutes.

Uniform Crime Reporting (UCR)/National Incident Base Reporting System (NIBRS) crimes are reported to both the FBI and State of Washington. These crimes include murder/manslaughter, rape, robbery, felony assaults, burglaries, auto theft, felony theft, and arson. In 2014, larceny was the most prevalent crime citywide and within the City Center, followed by auto theft, burglary, and robbery.

Calls for Service (CFS) data is compiled according to reporting districts (RDs). The RDs do not correspond exactly to boundaries in the project area. However, the project area is primarily served by RD 48, RD 74, and RD 76.

The top 5 categories of calls for Reporting District (RD) 48 in for the first six months of 2015 include: shoplifting, traffic stop, theft report, extra patrol, and suspicious subject. The top 5 categories of calls for RD 74 in the first six months of 2015 include: traffic stop, shoplift in progress, unwanted subject, welfare check, and commercial alarm. The top 5 categories of calls for RD 76 in the first six months of 2015 include: shoplift in progress, extra patrol, follow-up request, subject stop, and welfare check. Table 3-20 shows the breakdown of the major crime reported for the project area: RD48, RD74, and RD76.

Table 3-20. Crime Statistics in City Center Project Area

| Crime Type | 2010 | | 2011 | | 2012* | | 2013* | | 2014* | |
|-------------------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|
| | City Center | City |
| Homicide | 0 | 5 | 1 | 3 | 0 | 3 | 0 | 6 | 0 | 4 |
| Rape | 0 | 50 | 3 | 35 | 0 | 43 | 0 | 38 | 2 | 62 |
| Robbery | 8 | 152 | 5 | 111 | 3 | 107 | 6 | 108 | 13 | 135 |
| Felony Assault | 3 | 118 | 4 | 96 | 3 | 152 | 2 | 134 | 4 | 148 |
| Burglary | 13 | 828 | 9 | 700 | 11 | 932 | 11 | 884 | 13 | 838 |
| Auto Theft | 48 | 741 | 50 | 669 | 37 | 811 | 45 | 786 | 45 | 866 |
| Larceny | 699 | 3,141 | 638 | 2,884 | 545 | 3,420 | 682 | 3,593 | 887 | 3,912 |
| Arson | 0 | 11 | 0 | 11 | 0 | 9 | 0 | 7 | 0 | 13 |
| Total | 771 | 5,046 | 710 | 4,509 | 599 | 5,477 | 746 | 5,556 | 964 | 5,978 |
| % in City Center | 15.30% | | 15.75% | | 10.94% | | 13.42% | | 16.13% | |

*NIBRS: National Incident Base Reporting System
Source: Federal Way Police Department, 2015

Priority 3: Represents low hazard, non-life threatening situation with minimal risk of property loss (e.g. non-injury vehicle accident, verbal dispute, drug activity, signal malfunction, suspicious person or vehicle).

Priority 4: Represents cold calls (e.g. abandoned vehicle, animal complaint, firework complaints, illegal dumping, lost/found property, traffic complaints).

Table 3-21 compares the citywide data for the three main reporting districts in the project area. As shown, 10.8 percent of collisions, 2.5 percent of traffic stops, and 1.1 percent of DUI arrests occurred within the City Center project area.

Table 3-21. Traffic Enforcement Activity 1/1/15-6/30/15

| Type of Activity | Citywide # of calls | RD76 | | RD74 | | RD48 | |
|------------------|------------------------|------------|-----|------------|-----|------------|-----|
| | | # of calls | % | # of calls | % | # of calls | % |
| Collisions | 1,089 | 14 | 1.3 | 9 | 0.8 | 95 | 8.7 |
| Traffic Stops | 7,540 | 19 | 0.3 | 40 | 0.5 | 128 | 1.7 |
| DUI Arrests | 91 | 0 | 0 | 0 | 0 | 1 | 1.1 |

Source: Federal Way Police Department, 2015.

Fire and EMS

The Planned Action area is served by South King Fire & Rescue, which is governed by an elected board of five Fire Commissioners. SKF&R's services include:

- Emergency response for fire, emergency medical, rescue, marine, and hazardous materials incidents.
- Fire prevention services include public education, engineering, code enforcement, and fire investigation.
- Support divisions include administration; finance; fleet and facilities maintenance and repair; information technology; and firefighter training.

Parks and Recreation

When the City of Federal Way incorporated in 1990, there were approximately eight acres of parkland available per 1,000 population. Since that time, the City has purchased additional property and developed new facilities. As of 2012, the City was providing 12.52 acres of parkland per 1,000 population, compared to an adopted level of service of 10.9 acres of parkland per 1,000 population. The City currently provides 1,141.13 acres of parkland, with 601.7 acres developed for recreational use areas and 539.43 acres undeveloped.

Parks near the Planned Action area include Steel Lake and Celebration Park. Steel Lake Park is located just to the northeast. Celebration Park is located just southwest, at 11th Place South and South 324th Street. These parks are within walking distance of the City Center and they serve as regional facilities in addition to serving local needs.

Town Square Park is located within the Planned Action area. Opened in July 2014, Town Square Park is Federal Way's first downtown park. Town Square is Federal Way's gathering space for special events, movies in the park, concerts, and a wide range of recreational activities. Phase I of the park featured a large open lawn area for play activities; full and half-size basketball courts; large-size and regular chess board play; and barbecues and picnic tables.

Phase II improvements include installation of a larger lawn, a children's play area, spray park, restrooms, basketball courts, and a walking path. Construction began in summer 2015, with the park re-opening scheduled for summer 2016. The Performing Arts and Event Center will be constructed to the north of Town Square Park.

Impacts

Impacts Common to All Alternatives

Police

During construction phases of future development, construction activity in the City Center project area may affect the response times of emergency vehicles. Currently, the Federal Way Police Department staffs 1.4 officers per 1,000 population. Future development will result in an incremental increase in calls for emergency service. Under Alternative 2 (No Action) approximately 4,512 additional residents and 2,392 additional employees can be expected in the area by 2025. Based on the residential population alone, this will result in an increased need of approximately 6.4 officers by 2025 to maintain the current LOS. If employment population is also considered, Alternative 2 would result in a need for a total of approximately 9.7 officers by 2025.

Under Alternative 1 development projections, an additional 6,480 residents and 2,804 additional employees can be expected in the project area by 2025. Based on the additional residential population alone, this will result in an increased need of approximately 9 officers by 2025 to maintain the current LOS. If employment population is also considered, a total of approximately 13 officers would be required. Therefore, Alternative 1 results in the greatest need for additional officers between 2015-2025.

Alternative 1 will generate the greatest demand for police services and will also generate the greatest amount of development and supportive tax base to provide revenues to support increased police staffing. Assuming that some of these additional revenues are provided for police protection, the Federal Way Police Department concludes that it will have adequate existing and planned capacity to meet the increased demand under either of the alternatives (Andy J. Hwang, Federal Way Police Department, 2015). With coordination and planning, no significant impacts are expected to result from the proposal or alternative.

Fire and EMS

During construction phases of future development, construction activity in the Planned Action area may affect the response times of emergency vehicles.

Over the long term, future development will result in an incremental increase in calls for emergency service and future traffic growth may impact the response time of emergency vehicles. The magnitude of the increment would depend on the type and rate of the development and related transportation system improvements. South King Fire & Rescue is positioned to provide service for this growth, and it is expected that future development will provide the funding necessary for SKF&R to meet the increased service demands. SKF&R does not anticipate any significant impacts to result from the proposal or alternatives.

Parks and Recreation

Development of the action alternative will result in an additional 6,480 new residents in the City Center project area. The additional residents will result in an increased demand for 70.6 acres of new parkland according to the City's 2012 level of service goal of 10.9 acres per 1,000 population. Under Alternative 2, the 4,512 new residents would result in an increased demand for approximately 49.2 acres of parkland.

Mitigation Measures

Impacts to public services from development under the Planned Action designation would not be significant. However, measures can be taken to prevent or further minimize environmental consequences to public services and utilities. Recommended mitigating measures include:

- Coordinate with the Police Department and South King Fire & Rescue during final design, construction, and operation of future development to ensure reliable emergency access is maintained.
- Coordinate with the Parks, Recreation & Cultural Services Department to identify opportunities for increased recreational open space for general public use throughout the project area, and within new development proposals.
- Reduce public safety impacts thru adherence to crime prevention through environmental design (CPTED) design standards.
- Provide emergency service providers with advanced notice of construction schedules and any planned street closures or blockages.
- Avoid or minimize street closures or blockages during construction to avoid potential impact to emergency response times.

Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts to public services are anticipated.

3.6 Utilities

This section of the Draft SEIS describes existing conditions, potential impacts, mitigating measures, and impacts that the proposal and alternative may have on utilities: water and sewer, energy (electricity, natural gas), and telecommunications.

Affected Environment

Water

Lakehaven Utility District provides domestic water for most of the City, including the Planned Action area. The primary sources of domestic water include treated surface water from the Second Supply Project (SSP) and four aquifer systems that underlie the City. The water system includes 450 miles of mainline, 3 SSP flow control facilities, 25 production wells, 3 booster pump stations, 9 interties with adjacent water purveyors, and 12 water storage tanks with a storage capacity of 31.35 million gallons. The average daily demand is approximately 10 million gallons per day (MGD).

The *Lakehaven 2014-2020 Water System Plan Update* (WSPU) sets forth projected facility needs and standards. It is based on growth projections developed by the local governments served by the District. In the case of Federal Way, the WSPU is based on growth projections contained in the City's comprehensive plan. The WSPU meets or exceeds South King Fire & Rescue's fire flow requirements for new development. Water service is extended to new development through one of four methods: connection to existing mains; utility local improvement districts (ULID); developer extension agreement; or temporary water service agreement.

Table 3-22 shows estimated usage demands per land use activity type. Long-term water and sewer use averages for equivalent residential unit demands are trending downward from 255 gpd and 220 gpd respectively. Lakehaven Development Engineering uses 255 gpd (water) and 220 gpd (sewer) for connection charge calculations.

Table 3-22. Water and Sewer Service Demand Estimates

| Type of Use | Estimated Usage Units (Residential Equivalent) | Equivalent Peak Water Demand (per day) | Equivalent Sewer Discharge |
|-------------|--|--|----------------------------|
| Residential | 1 residential equivalent (2.45 persons) | 255 gallons per day (gpd) | 220 |
| Restaurant | 3 per 1,000sf | 765 gpd per 1,000sf | 660 per 1,000sf |
| Retail | 0.2 per 1,000sf | 51 gpd per 1,000sf | 44 per 1,000sf |
| Office | 0.3 per 1,000sf | 77 gpd per 1,000sf | 66 per 1,000sf |

Source: Lakehaven Utility District, 2015

The City Center is divided by two water pressure zones. Pressure Zone 578, located primarily north of South 320th Street, provides pressures at the ground level of between 33 and 74 psi. Pressure Zone 538, located mostly south of South 320th Street, ranges between 42 and 53 psi. Depending on building height, building booster pumps should be considered. Water flow to the City Center is supported by large 12 inch and 16 inch mains, and each pressure zone has a storage tank within the City Center area. The water distribution system is ample for a typical urban commercial center. The pressure boundary allows large water consumption in one area (i.e., north of 320th) not to affect water pressure to other areas (i.e., south of 320th).

A portion of the District’s water supply and storage program includes development of Aquifer Storage and Recovery (ASR). This program includes the use of the District’s largest groundwater source (Redondo Milton Channel Aquifer – “RMC”) and treated SSP water for artificial recharge of the Mirror Lake Aquifer (MLA) during the winter months. This seasonal recharge would allow increased groundwater pumping during the peak summer months. Approximately 9.4 billion gallons of water could be recovered from the MLA when the aquifer is full. In addition, the District’s proposed water reclamation program includes enhancing groundwater recharge by infiltrating reclaimed water to maintain groundwater levels in the RMC and mitigate potential impacts of ASR.

Lakehaven has identified goals and objectives to: maintain their water systems and water quality to the highest level of service and at the least level required by applicable regulations; participate in conservation efforts to maximize existing water supply resources and develop new water resources; and install new water distribution systems as necessary to serve the existing and future population within the District.

Sewer

The Lakehaven Utility District also provides sewer service to the City of Federal Way, including the City Center project area. The sanitary sewer system is comprised of three major components: the trunk and collection system; the pump station system; and the wastewater treatment plants. The trunk and collection system collects wastewater from drainage basins and conveys it to the treatment plant primarily by gravity flow. In areas where use of gravity flow is not possible, pump stations and force mains, and low-pressure sewer mains are used to pump the sewage to a location where gravity flow can be used.

The 2009 District’s *Comprehensive Wastewater System Plan* is currently being updated. The sewer system includes approximately 350 miles of mainline, 28 pump stations, and two secondary wastewater treatment plants. The system is divided into 2 primary basins (Lakota and Redondo) and 57 sub-basins. The wastewater generated within the City Center area is within the largest

basin known as Lakota. Wastewater from the City Center area flows directly to the Lakota Plant, designed for a peak month flow of 10 million gallons per day (MGD). Currently flows are averaging 5.37 MGD and no expansions are expected until 2021 (Lakchaven, 2015).

Demand for sanitary sewer service is based on future population and employment forecasts. Population forecasts are presented by drainage basin and are based on the adopted land use plans of the various jurisdictions within which the District operates. In the case of Federal Way, forecasts are based on the City's comprehensive plan. In the Federal Way area, approximately 220 gallons per day is equal to one equivalent residential unit (ERU) of sewer flow discharged into the system.

The District develops a capital improvement projects (CIP) summary as a part of the annual District budget process. The CIP lists individual capital projects for the succeeding 10-year time frame and prioritizes projects according to the system needs. The District has started upgrading its existing 12 inch sewer trunk line within the City Center to 30 inch to handle future increased flows within the City Center area.

Electricity

Federal Way is served mostly by Puget Sound Energy (PSE), a private electric utility. Electricity is produced elsewhere and transported to switching stations in Kent and Renton through high-voltage transmission lines. PSE provides electrical service to approximately 39,700 electric customers in Federal Way. Also within the City are several 115 kV transmission lines and a number of neighborhood distribution substations.

PSE's Integrated Resource Plan (IRP) is updated and filed with the Washington Utilities and Transportation Commission every two years. The current plan, which was submitted in May of 2013, details the energy resources needed to reliably meet customers' wintertime, peak-hour electric demand over the next 20 years. The plan, which will be updated in the fall of 2015, forecasted that PSE would have to acquire approximately 4,900 megawatts of new power-supply capacity by 2033. This resource need is driven mainly by expiring purchased-power contracts and expected population and economic growth in the Puget Sound region. The IRP suggests that roughly half of the utility's long-term electric resource need can be met by energy efficiency and the renewal of transmission contracts. The IPR stated that the rest of PSE's gap in long-term power resources is likely to be met most economically with added natural gas-fired resources.

The capacity of individual electric lines depends on voltage, diameter of the wire, and the clearance to objects below the line. To meet this demand, some new transmission lines and substations will need to be constructed, as well as existing ones rebuilt and/or maintained. Utility work is sometimes needed to comply with federal system reliability regulations. Specific construction that is anticipated includes the following:

- Expand Marine View substation to accommodate a new 115kV line that will improve reliability through an automatic switching scheme.
- As electric loads increase, a new 115kV transmission line will be necessary from the Christopher substation to the 115kV line that serves the Weyerhaeuser substation. This line would continue to the intersection of Enchanted Parkway South and Military Road South.

Increases in the electric demand on the Weyerhaeuser campus and surrounding area may require additional substations in any combination of the Five Mile Lake, Enchanted Parkway, or Weyerhaeuser substation areas.

Natural Gas

It is estimated that Puget Sound Energy (PSE) currently serves over 18,880 natural gas customers within the City of Federal Way.

PSE Gas System Integrity-Maintenance Planning has several DuPont manufactured main and service piping and STW main replacements planned for 2015. There are not any major projects planned in 2015 at this time, but new projects can be developed in the future at any time due to:

1. New or replacement of existing facilities to increase capacity requirements due to new building construction and conversion from alternate fuels.
2. Main replacement to facilitate improved maintenance of facilities.
3. Replacement or relocation of facilities due to municipal and state projects.

Telecommunications

Telecommunications in Federal Way include both land based and wireless telephone services, internet service, and cable and satellite TV. CenturyLink and Comcast provide land-based telephone, cable TV service, and internet service. There are also several wireless telephone providers and voice over internet providers (VoIP). Direct TV and Dish Network provide satellite television services.

Telephone System

CenturyLink and Comcast deliver land based telephone service throughout the City. Comcast also provides digital phone service (VoIP), while CenturyLink provides digital phone service only to its business customers. Their facilities are constructed overhead and in some cases underground.

Every telecommunications company operating in this state is required by law to provide adequate telecommunications services on demand in compliance with RCW 80.36.090 and Washington Utilities and Transportation Commission (WUTC) regulations. Accordingly, CenturyLink will provide facilities, upon reasonable notice, to accommodate whatever growth pattern occurs within the City. Due to advances in technology, additional capacity is easily and quickly added to the system.

Wireless Networks

Federal Way is currently served with a number of wireless service providers including AT&T, Sprint, T-Mobile, and Verizon. Wireless technologies use a line-of-sight radio signal transmitted and received by antennas. Therefore, it is not possible to underground the antennas or structures on which the antennas are mounted. Antennas and ancillary equipment are located on freestanding poles and towers and on existing structures and buildings. City code regulates their siting.

The Federal Communications Commission (FCC) regulates the cellular telephone industry to ensure that their operation does not interfere with AM/FM radio and cable television transmissions. Capacity is a function of frequency of use, the number of sites in a geographic area, and the number of customers. Cellular facilities are located throughout the City.

Like the non-cellular telephone companies, wireless companies expand services in response to growth. For this reason, companies closely analyze market demand to determine expansions into new service areas. Cellular technology is constantly advancing so capacity is frequently expanded through technological advances at existing sites.

Internet Service

Various companies provide internet service by telephone, cable, wireless, and satellite. As the City constructs or reconstructs streets, it is providing conduits to assist in the installation of fiber optic communication systems.

Cable Television

Cable television service in the City is provided by Comcast, CenturyLink, Direct TV, and Dish Network. Comcast and CenturyLink utilize cable and fiber optic technologies and Direct TV and Dish Network utilize satellite technologies.

Cable television installations are made to new subscribers (either to new dwelling units, or to a much smaller degree, to residences who have not opted for cable before) at published rates; provided they are less than 125 feet from a distribution or feeder line.

Connections requiring longer runs are charged on a time and material basis. Most public work considerations, such as tree trimming, work in the right-of-way, restoration of property, and so on, are covered in the City of Federal Way Master Cable Television Ordinance and Franchise Agreements with cable television providers.

Impacts

Impacts Common to All Alternatives

Water and Sanitary Sewer Service

According to Lakehaven, there is adequate water flow available for either alternative, and with the downtown sewer trunk upgrade, there is adequate wastewater collection and treatment capacity at the Lakota Plant for these alternatives.

Ongoing maintenance of conveyance and distribution lines will be necessary. No conflicts with proposed plans, policies, or regulations are expected. Other than completion of the downtown sewer trunk upgrade, no additional capacity would be required.

Energy

Electricity – During construction phases of the proposal and alternatives, construction activity could result in disruption of service, the need to relocate service lines, and other construction related impacts. These impacts will occur over a short time period and are not anticipated to result in significant impacts to the area.

Over the long term, development will increase demand for energy. Future residential demand is likely to increase significantly as residential development increases from the current 254 units to the planned 2,400 units.

Natural Gas – Under the action alternative, future residential development could increase to 2,400 new units. Commercial use varies widely, but could be expected to increase significantly if all new development under the proposal were to occur.

As noted previously, Puget Sound Energy has planned for growth and reports adequate capacity to serve increased demand. Significant impacts are not anticipated.

Telecommunication

Over the long term, the increased residential and employment population will increase the use of and demand for telecommunication products. Service providers have adequate capacity and do not anticipate significant impacts in the provision of service.

Mitigation Measures

Water and Sanitary Sewer Service

- Ensure that all new development complies with local, state, and federal standards for energy conservation.
- Encourage drought-tolerant landscaping (xeriscaping) for new development.
- Encourage new development to incorporate appropriate water conservation measures into their operations.

Utilities

- Plan with service providers to minimize impacts of utility relocations (equipment procurement times, relocate in advance of construction, etc.).
- Inform utility customers of any planned temporary service disruptions.
- Coordinate with all utility companies on the design of the new services and connections.

Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts are anticipated.

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