

## **CITY OF MAPLE VALLEY, WASHINGTON**

### **ORDINANCE NO. 0-11-471**

#### **AN ORDINANCE OF THE CITY OF MAPLE VALLEY, WASHINGTON, TO UPDATE THE COMPREHENSIVE PLAN BY AMENDING THE TRANSPORTATION ELEMENT, LAND USE ELEMENT, CAPITAL FACILITIES AND PUBLIC SERVICES ELEMENT TO REFLECT POLICY DIRECTION AND GUIDE DEVELOPMENT OF THE CITY.**

WHEREAS, the State Growth Management Act requires and allows periodic review, and if necessary, revision of the Comprehensive Plan; and

WHEREAS, The City of Maple Valley wishes to amend its Comprehensive Plan, to address additions, corrections and updates to the Transportation Element, Land Use Element and Capital Facilities and Public Services Element; and

WHEREAS, the City of Maple Valley encouraged public participation in the review of the draft Transportation Element amendments that included a public hearing before the Planning Commission on June 15, 2011 and before the City Council on September 26, 2011; and

WHEREAS, the City of Maple Valley encouraged public participation in the review of the draft Land Use Element amendments that included a public hearing before the Planning Commission on November 17, 2010 and before the City Council on September 26, 2011; and

WHEREAS, the City of Maple Valley encouraged public participation in the review of the draft Capital Facilities and Public Services Element amendments that included a public hearing before the Planning Commission on February 16, 2011 and before the City Council on September 26, 2011; and

WHEREAS, the City of Maple Valley submitted the draft Land Use Element to the Washington State Department of Commerce on January 14, 2011 and received no comments; and,

WHEREAS, the City of Maple Valley submitted the draft Capital Facilities and Public Services Element to the Washington State Department of Commerce on February 16, 2011 and received no comments; and,

WHEREAS, the City of Maple Valley submitted the draft Transportation Element to the Washington State Department of Commerce on June 15, 2011 and received no comments; and,

WHEREAS, the City of Maple Valley issued a SEPA threshold determination of non-significance (DNS) and adoption of existing environmental documents for the Land Use Element on January 11, 2011; and

WHEREAS, the City of Maple Valley issued a SEPA threshold determination of non-significance (DNS) and adoption of existing environmental documents for the Capital Facilities and Public Services Element on February 22, 2011; and

WHEREAS, the City of Maple Valley issued a SEPA threshold determination of non-significance (DNS) and adoption of existing environmental documents for the Transportation Element on September 6, 2011; and

WHEREAS, the City Planning Commission made recommendations to adopt amendments to the Capital Facilities and Public Services Element and the Land Use Element on March 16, 2011; and

WHEREAS, the City Planning Commission made a recommendation to adopt an updated and amended Transportation Element on July 16, 2011; and

WHEREAS, after considering the recommendation of the Planning Commission, and testimony and comments submitted to the City Council at the public hearing on September 26, 2011 the Council requested certain amendments to the Transportation Element which were introduced to the City Council for consideration on October 3, 2011; and

WHEREAS, the City of Maple Valley has complied with all State procedural requirements of the Growth Management Act and the State Environmental Policy Act, and desires to adopt amendments to the Land Use Element, Capital Facilities and Public Services Element, and Transportation Element.

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MAPLE VALLEY, WASHINGTON, DO ORDAIN AS FOLLOWS:**

**Section 1. 2011 Comprehensive Plan Amendments.**

- A. The City of Maple Valley hereby amends the Transportation Element of the City of Maple Valley Comprehensive Plan to read as set forth in **Exhibit A**, which is attached hereto and incorporated herein by this reference as if set forth in full.
- B. The City of Maple Valley hereby amends the Land Use Element of the City of Maple Valley Comprehensive Plan to read as set forth in **Exhibit B**, which is attached hereto and incorporated herein by this reference as if set forth in full.
- C. The City of Maple Valley hereby amends the Capital Facilities & Public Services Element of the City of Maple Valley Comprehensive Plan to read as forth in **Exhibit C**, which is attached hereto and incorporated herein by this reference as if set forth in full.
- D. Copies of Exhibits A, B and C will be filed with the City Clerk and referenced under Clerk's Receiving No. \_\_\_\_\_.

**Section 2. Severability.** Should any section, paragraph, sentence, clause or phrase of this ordinance, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this ordinance be pre-empted by State or federal law

or regulation, such decision or pre-emption shall not affect the validity of the remaining portions of this ordinance or its application to other persons or circumstances.

**Section 3. Effective Date.** This ordinance or its summary shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after the date of publication.

**ADOPTED BY THE CITY COUNCIL ON THIS 10th DAY OF OCTOBER, 2011.**

CITY OF MAPLE VALLEY

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Noel T. Gerken, Mayor

ATTEST:

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Shaunna Lee-Rice, City Clerk

APPROVED AS TO FORM:

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Christy A. Todd, City Attorney

Date of Publication: October 18, 2011

Effective Date: October 22, 2011

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# TRANSPORTATION ELEMENT

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## TABLE of CONTENTS

INTRODUCTION.....	3
GROWTH MANAGEMENT ACT.....	3
STUDY AREA.....	3
GOAL.....	5
POLICIES.....	5
EXISTING TRANSPORTATION SYSTEM INVENTORY.....	12
ROADWAY SYSTEM AND TRAFFIC CONTROLS.....	12
TRAFFIC VOLUMES.....	14
TRAFFIC OPERATIONS.....	17
TRAFFIC SAFETY.....	19
NON-MOTORIZED FACILITIES.....	23
TRAVEL FORECASTING AND ALTERNATIVE ANALYSIS.....	25
LAND USE ASSUMPTIONS.....	25
TRAVEL FORECASTING MODEL.....	29
BASELINE ANALYSIS.....	30
ALTERNATIVES ANALYSIS.....	30
TRAFFIC FORECASTS.....	32
LEVEL OF SERVICE STANDARDS.....	35
FUTURE TRAFFIC OPERATIONS.....	38
TRANSPORTATION SYSTEMS PLAN.....	42
STREETS AND HIGHWAYS.....	42
PUBLIC TRANSIT AND TRANSPORTATION DEMAND MANAGEMENT.....	53
NON-MOTORIZED FACILITIES.....	55
WATERBORNE, RAIL, AND AIR TRANSPORTATION.....	55
FINANCE AND IMPLEMENTATION PROGRAM.....	56
FINANCING PROGRAM.....	56
FUNDING STRATEGY.....	57
REASSESSMENT STRATEGY.....	60
IMPLEMENTATION PROGRAM.....	60
CONSISTENCY WITH OTHER AGENCIES.....	63
WSDOT.....	63
PSRC.....	64
KING COUNTY.....	65
KING COUNTY METRO TRANSIT.....	65
CITY OF COVINGTON.....	65
CITY OF BLACK DIAMOND.....	66

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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**LIST of FIGURES**

	FOLLOWS/ PAGE
FIGURE T-1 STUDY AREA.....	4
FIGURE T-2 EXISTING (2010) STREET SYSTEM.....	13
FIGURE T-3 EXISTING (2010) DAILY & PM PEAK HOUR TRAFFIC VOLUMES.....	15
FIGURE T-4 EXISTING (2010) INTERSECTION LEVELS OF SERVICE.....	18
FIGURE T-5 CITY LAND USE GROWTH BY DISTRICT (2010 TO 2030).....	27
FIGURE T-6 FUTURE (2030) DAILY & PM PEAK HOUR TRAFFIC VOLUMES.....	34
FIGURE T-7 FUTURE (2030) PM PEAK HOUR INTERSECTION LEVELS OF SERVICE.....	41
FIGURE T-8 CITY FUNCTIONAL CLASSIFICATION SYSTEM.....	44
FIGURE T-9 TRANSPORTATION IMPROVEMENT PROJECTS.....	51

**LIST of TABLES**

	FOLLOWS/ PAGE
TABLE T-1 HISTORICAL WEEKDAY PM PEAK HOUR TRAFFIC VOLUME COMPARISONS AND DAILY VOLUMES.....	16
TABLE T-2 2010 WEEKDAY PM PEAK HOUR LOS AT STUDY INTERSECTIONS.....	19
TABLE T-3 ACCIDENT HISTORY FOR MAJOR INTERSECTIONS (2006 TO 2009).....	20
TABLE T-4 ACCIDENT HISTORY FOR HIGHWAY SEGMENTS (2006 TO 2009).....	21
TABLE T-5 AVERAGE ACCIDENT RATES BY FUNCTIONAL CLASSIFICATION.....	21
TABLE T-6 MAPLE VALLEY TRANSIT SERVICE CHARACTERISTICS.....	22
TABLE T-7 MAPLE VALLEY TRANSIT AND PARK-AND-RIDE USE STATISTICS.....	23
TABLE T-8 STUDY AREA LAND USE AND SOCIO-ECONOMIC DATA (2010 TO 2030).....	26
TABLE T-9 CITY LAND USE AND SOCIO-ECONOMIC DATA (2010 TO 2030).....	26
TABLE T-10 TRANSPORTATION ALTERNATIVES EVALUATED.....	31
TABLE T-11 2030 WEEKDAY PM PEAK HOUR CONCURRENCY LOS.....	38
TABLE T-12 2030 WEEKDAY PM PEAK HOUR LOS AT NON-CONCURRENCY INTERSECTIONS.....	39
TABLE T-13 FUNCTIONAL CLASSIFICATION DEFINITIONS.....	45
TABLE T-14 TRANSPORTATION IMPROVEMENT PROJECTS.....	48
TABLE T-15 CAPITAL PROJECT COST SUMMARY.....	56
TABLE T-16 FINANCING STRATEGY SUMMARY.....	57

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

---

INTRODUCTION

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The Transportation Element provides the link between the Land Use Element and the transportation facilities and services needed to support growth during the next twenty years. This is accomplished by identifying capacity, operational, and safety improvements along City roadways and also by addressing multimodal needs such as transit, pedestrian, and bicycle facilities. The Transportation Element reflects the interdependence of transportation and land use and is influenced by choices made as part of the Land Use Element. Conversely, land uses are similarly influenced by choices and policies made in the Transportation Element.

The Transportation Element is a key component of the City’s Comprehensive Plan and works hand-in-hand with other Comprehensive Plan elements. It identifies the City of Maple Valley’s goals and policies for transportation as well as the City’s future transportation system and facilities, level-of-service (LOS) standards, and concurrency monitoring system. Future land uses proposed as part of the Land Use Element are used to develop transportation strategies and to identify necessary transportation facilities (roadways, sidewalks, trails, bike lanes, etc.). Similarly, the Capital Facilities Element and the City’s ongoing Transportation Improvement Program (TIP) present more-specific facility recommendations based on the Transportation Element.

**GROWTH MANAGEMENT ACT**

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The Transportation Element was developed in accordance with the Washington State Growth Management Act (GMA). The GMA requires that the following topics be addressed within the Transportation Plan:

- ® Land use assumptions used in estimating travel demand
- ® An inventory of existing transportation facilities and services
- ® LOS standards to gauge the performance of the system
- ® Identification of actions and requirements needed to bring existing facilities and services up to standard
- ® Forecasts of future traffic based on the land use plan
- ® Identification of improvements and programs needed to address current and future transportation system deficiencies, including Transportation Demand Management strategies
- ® A realistic multi-year financing plan that is balanced with the adopted level of service standards and the land use element
- ® An explanation of intergovernmental coordination and regional consistency.

Local transportation elements must also include the following:

- ® State-owned transportation facilities in the transportation inventory
- ® The LOS for state-owned transportation facilities
- ® Identification and assessment of GMA concurrency and the applicability to highways of statewide significance
- ® An estimate of the impacts to state-owned transportation facilities resulting from local land use assumptions

**STUDY AREA**

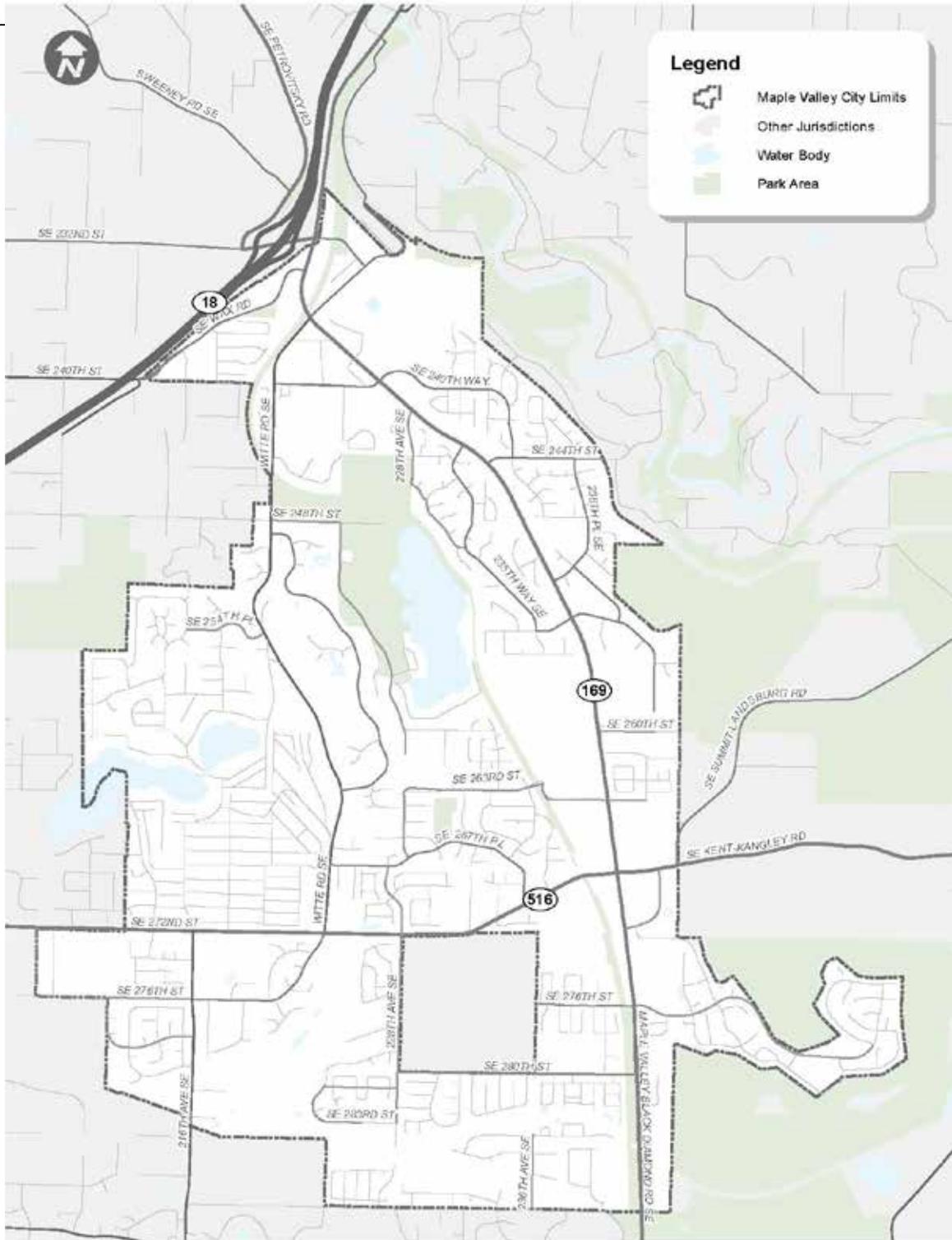
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The study area includes all of the area within Maple Valley city limits and its Urban Growth Area (UGA). The UGA has been delineated with King County, consistent with the requirements of its the GMA. The transportation planning study area is shown in Figure T-1. The City lies adjacent to the UGAs of the City of Covington (west) and the City of Black Diamond (south). Unincorporated areas of King County surround portions of Maple Valley, and sections of the city limits are used to define portions of the regional Urban/Rural Boundary between urban and rural lands.

EXHIBIT "A" ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan



**Study Area**

Maple Valley Transportation Element

FIGURE

**T-1**

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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GOALS AND POLICIES

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The City has identified an overall goal and supporting policies to ensure that the Transportation Element can be effectively implemented. The goal and policies provide a framework for decision making related to transportation issues. They will be used in implementing transportation projects and programs, reviewing new land use development applications, and supporting other City planning processes.

**GOAL**

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*To provide for a safe, efficient, integrated, and sustainable multimodal transportation system that supports the City’s Comprehensive Plan Vision, the Land Use Element and is consistent with regional transportation objectives.*

**POLICIES**

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**Regional Transportation Framework**

- T-P1 Support the development of a balanced regional transportation system and work with federal, state, regional and local agencies to develop the City’s transportation system, financing strategy, and land use plan that helps achieve regional mobility goals.
- T-P2 Coordinate with the Puget Sound Regional Council (PSRC), state, and other regional and local agencies to plan, implement, and operate a highly efficient, multimodal transportation system that supports the regional growth strategy.
- T-P3 Coordinate infrastructure planning and financing with other agencies to ensure that these plans are consistent with the regional mobility goals and land use plans.
- T-P4 Develop and implement non-motorized transportation systems, such as bicycle and pedestrian facilities and connections, which are consistent with regional non-motorized plans as well as coordinate with adjacent jurisdictions and King County Parks Department to ensure the interconnectedness of the local trail system.
- T-P5 Coordinate with federal, state, regional, and other local agencies to protect the operation of the transportation system in time of an emergency or disaster.
- T-P6 Coordinate with federal, state and regional agencies to secure the funding necessary to improve SR 169 and SR 516 to urban standards in accordance with adopted plans.

**Local Transportation System**

- T-P7 Develop the City’s transportation system to serve existing and future land uses and promote economic growth.
- T-P8 Provide for the needs of drivers, public transportation vehicles and patrons, bicyclists, and pedestrians of all ages and abilities in the planning, programming, design, construction, reconstruction, retrofit, operations, and maintenance of the City’s transportation system.
- T-P9 Implement transportation improvement projects and programs to develop a safe and efficient multimodal transportation system, while minimizing the negative impacts to low-income, minority, and special needs populations.
- T-P10 Promote the mobility of goods and people and seek to ensure multimodal transportation options which are consistent with the City’s Vision.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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- T-P11 Promote connectivity by creating multiple access points and definitive circulation systems.
- T-P12 Involve the public in identifying transportation system needs and the planning, design, and implementation of transportation facilities, programs, and services.
- T-P13 Adopt a six-year Transportation Improvement Program (TIP) to support implementation of City transportation improvement projects and programming of revenues.
- T-P14 Preserve and acquire rights-of-way to implement the Transportation Element.
- T-P15 Apply a street functional classification system which identifies a street hierarchy and is consistent with the City's roadway design standards.
- T-P16 Design, operate, and regulate access along arterials to improve safety and operations, accommodate and facilitate through traffic, and connect with regional facilities. Where appropriate, work with the Washington State Department of Transportation (WSDOT) to accomplish these actions.
- T-P17 Work with WSDOT and adjacent jurisdictions to discourage diversion of traffic from arterials onto local streets.
- T-P18 Consider use of traffic calming measures to discourage cut-through traffic in residential areas, while maintaining the street grid for access and circulation.
- T-P19 Encourage and promote the inter-connection of streets and non-motorized connections. Allow cul-de-sacs only where topography, parcel size, or other factors do not provide a practical alternative. Where cul-de-sacs are allowed, provide for non-motorized connections, where practical.
- T-P20 Accommodate emergency vehicle access on public streets.
- T-P21 Protect the investment in the existing and future street system and associated facilities (e.g., sidewalks, transit stops, landscaping) through an ongoing street maintenance and preservation program as well as incorporating the concept of “Complete Streets” as supported by the National Complete Streets Coalition.
- T-P22 Work with local utility providers to ensure that future roadway improvements are coordinated and timed to occur concurrently with utility improvement needs to the maximum extent possible.

**Level of Service and Concurrency Review**

- T-P23 Establish LOS D or better for concurrency review based on a weighted average delay of key intersections during the weekday PM peak hour. The average delay at each intersection would be calculated using the *Highway Capacity Manual, 2000* methodologies. The weighted average is based on the sum of total delays at the group of concurrency intersections divided by the sum of the total entering volumes for the same intersections. The following intersections will be evaluated under concurrency:

North Maple Valley (4 intersections): SR 169 @ 231st St; @ Wax Rd; @ Witte Rd; @ 240th St

South Maple Valley (3 intersections): SR 516 @ SR 169; @ Witte Rd; @ 216th Ave

- T-P24 Establish the following level of service standards for other intersections in the City using the *Highway Capacity Manual, 2000* methodologies:

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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- ® **Signalized, Roundabout, and All-way Stop Controlled Intersections.** The LOS standard for all non-concurrency signalized, roundabout, and all-way stop controlled intersections within the City limits shall be LOS D, except for the Witte Road / SE 248th Street intersection which shall be LOS E. The LOS standard will be evaluated based on the average performance of all approaches.
- ® **Two-way, Stop Controlled, Unsignalized Intersections.** The LOS standard for all two-way, stop controlled, unsignalized intersections within the City limits shall be LOS D and be applied to each approach or separate traffic movement at an intersection. For intersections on SR 169, Kent-Kangley Road and Witte Road the LOS standard shall be LOS D for the major arterial legs and LOS E for each access leg. On a case-by-case basis the City may allow the level of service for traffic movements from the minor street at a two-way, stop controlled intersection to operate below the adopted standard if the Public Works Director (or designee) determines that no significant safety or operational impact will result. As appropriate, mitigation will be identified and required to address potential impacts to safety or operations. Potential installation of traffic signals or other traffic control devices at these locations shall be based on the *Manual on Uniform Traffic Control Devices*, the Transportation Element, and sound engineering practices.

T-P25 Adopt and implement development regulations and a transportation concurrency management program based on the adopted level of service standards.

T-P26 Monitor the operation of the transportation system to determine whether the level of service standards and concurrency requirements are being met. If concurrency cannot be demonstrated, the City shall reassess the Land Use and Transportation Elements and make modifications to ensure that concurrency requirements can be reasonably met.

**Non-Motorized Transportation**

T-P27 Implement non-motorized transportation facilities and services consistent with policies and strategies in the Non-Motorized Plan; Comprehensive Plan; Road Standards; Design Review Guidelines; Development Standards; and Parks, Recreation, Cultural and Human Services Plan.

T-P28 Apply applicable WSDOT design standards in constructing new facilities and retrofitting existing City transportation facilities that address the needs of pedestrians and bicyclists along state highways.

T-P29 Employ Design Guidelines for Off-Street Facilities included in the Non-Motorized Transportation Plan and geometric design guidelines from the Maple Valley Parks, Recreation, Cultural and Human Services Plan for walking and bicycling facilities that are not part of the general purpose roadway system.

T-P30 Develop a map of Maple Valley’s bicycle routes and trail system and make it available on the City web page and at the Maple Valley Chamber of Commerce and other information outlets.

T-P31 Condition proposed new developments to ensure convenient walking and bicycling systems that are attractive, safe, provide system continuity, and provide access to transit and other destinations, as appropriate.

T-P32 Ensure that signs, pavement markings, pedestrian crossings, and wheelchair ramps are established and maintained to provide a high degree of safety and accessibility for pedestrians and bicyclists.

T-P33 Encourage or require, as appropriate, the provision of accessories, such as parking at trailheads, disabled parking, bicycle racks, bus stops, rider shelters, bike carriers on transit buses and other devices that facilitate transfers to, from and between alternative modes of travel.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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- T-P34 Support the use of utility and transportation corridors both inside and outside the City for non-motorized goals and purposes.
- T-P35 Confer regularly with officials from Tahoma and Kent School Districts to evaluate changing needs for bus stops and school walking routes and respond with appropriate actions.
- T-P36 Preserve existing soft-surface trails for corridors within the City.
- T-P37 Support workshops or clinics to teach safe cycling to school age children.
- T-P38 Support and enforce laws that are designed to provide safety for pedestrians, bicyclists and people with mobility disabilities.
- T-P39 Develop and implement a system of signs that builds upon the City’s streetscape and furniture theme to mark trails and non-motorized routes.

**Transit and Travel Demand Management**

- T-P40 Consider measures that encourage and support the use of transit, ridesharing, transportation demand management, and non-motorized travel.
- T-P41 Work with King County Metro Transit and Sound Transit to enhance transit service to Maple Valley and surrounding communities and to ensure that public transportation is a viable option.
- T-P42 Support development of an integrated, multimodal, regional transportation system that serves the needs of Maple Valley and which provides alternatives to the drive-alone commute. Work with regional transit providers to develop and operate a regional system that is efficient and easy to use.
- T-P43 Work with WSDOT and other study partners in determining the feasibility of rail transit service along the existing BNSF line. If determined to be feasible, work with state, regional, and local agencies to fund and implement such service.
- T-P44 Encourage and support transit services and facilities that meet the needs of persons with disabilities, the elderly, the young, low income populations, and people with special needs.
- T-P45 Support and promote commute trip reduction (CTR) programs, telecommuting, electronic communications, variable work weeks, flextime, and a variety of transportation demand management (TDM) strategies aimed at reducing the number and length of car trips and increasing the efficiency of the transportation system.
- T-P46 Implement programs that are consistent with countywide and regional mode-spilt goals and policies for reducing single-occupancy vehicle travel.
- T-P47 Work with King County Metro, Sound Transit, WSDOT and other agencies to locate, construct and operate park-and-ride and park-and-pool lots to serve the City and southeast King County.
- T-P48 Coordinate with transit providers to locate and develop bus stops, shelters, expand existing Park and Ride lots as well as work with King County to facilitate the expansion of the Park and Ride lot north of the City limits at 231<sup>st</sup> Street SE and SR 169, and other amenities to serve the City and incorporate them in the design and construction of transportation improvement projects.

**Parking**

- T-P49 Require appropriate levels of parking for all land uses, consistent with the City’s Vision.
- T-P50 Establish minimum and maximum levels of parking that should be provided for commercial uses.
- T-P51 Establish the appropriate role and design of parking facilities for commercial uses to provide parking opportunities but which do not promote excessive drive-alone trips.
- T-P52 Provide for and encourage use of shared parking facilities.
- T-P53 Develop regulatory incentives for reduced parking requirements based upon provisions for multimodal facilities and transportation services.
- T-P54 Encourage installation of parking to accommodate electric vehicle charging stations in private and public developments.

**Land Use and Economic Development**

- T-P55 Provide adequate transportation facilities and services to promote and support economic development and accommodate anticipated growth.
- T-P56 Provide transit, walking, and bicycling opportunities to enable mobility concurrent with new growth and reduce dependency on single-occupancy vehicle travel.
- T-P57 Encourage shorter vehicle trips, access to transit, and travel by bicycle and pedestrian modes through encouraging a mix of complementary land uses throughout Maple Valley.
- T-P58 Reduce vehicle trip generation by locating commercial activities and other uses in a manner which combines vehicle trips and decreases overall parking demands.
- T-P59 Design and construct transportation facilities to safely and efficiently support the movement of regional and local freight.

**Environmental Quality & Sustainability**

- T-P60 Identify, evaluate, and fully consider environmental impacts of transportation facilities and operations. Pursue transportation projects, programs and investment strategies consistent with noise reduction, air quality and water quality objectives.
- T-P61 Support the development and implementation of a transportation system that is energy efficient and improves system performance.
- T-P62 Develop the transportation system that minimizes the negative impacts to human health and promotes a healthy community.
- T-P63 Coordinate with county, regional, state, and federal agencies air quality standards to ensure that the City’s transportation projects and programs conform to state and federal law.
- T-P64 Consider strategies to address air quality standards and reduce green-house gas emissions such as promoting compact development, efficiently managing the operation of the transportation system, implementing Transportation Demand Management programs, and expand local employment growth in order to reduce vehicle miles traveled leading to lower impacts on air quality.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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- T-P65 Participate in efforts by county, regional, and state agencies to improve programs and management strategies designed to prevent and reduce contamination of street runoff and storm water.
- T-P66 Participate in efforts by WSDOT and public transportation providers to identify, design, and incorporate noise mitigation measures into existing and planned traffic and transit operations and capital improvements.
- T-P67 Review proposed roadway corridors for potential impacts to identified critical areas and identify reasonable alternatives to these proposed alignments, avoid such alignments, and mitigate and minimize impacts.
- T-P68 Promote use of low impact development (LID) and best management practice (BMP) techniques in the planning, design, and construction of transportation system improvements.
- T-P69 Design transportation facilities to fit within the context of the built or natural environments in which they are located.
- T-P70 Promote the accommodation and develop standards for electric vehicle charging / battery exchange stations.

**Financing**

- T-P71 Pursue and implement transportation financing methods, such as transportation benefit districts or user fees (as allowed by state law), to support ongoing maintenance, preservation, and operation of the City’s transportation system.
- T-P72 Ensure that new development pays a proportionate share of the costs of transportation facilities needed to support growth. New development may contribute to the costs of needed improvements through: SEPA-based mitigation, traffic impact fees, frontage improvements, local improvement districts, and other means allowed by State and local laws.
- T-P73 Structure developer impact fees to ensure that new development contributes its fair share of the resources needed to mitigate the impact on transportation facilities, as allowed under State law.
- T-P74 Continue to work with Black Diamond, Covington, and King County to mitigate transportation impacts of development on Maple Valley and vice versa.
- T-P75 Continue to develop partnerships with WSDOT, King County, Metro Transit, and local agencies to define and fund improvement projects and programs.
- T-P76 Actively pursue grants individually or with other agencies to help fund transportation projects to support the maintenance, operations, and upgrading of the transportation system.
- T-P77 Use other City revenues to leverage against other funding opportunities.
- T-P78 Use funds from the Storm Water Management Fee to help pay for the costs of water quality facilities that are constructed as part of the transportation improvement projects.
- T-P79 Evaluate project design strategies that can reduce costs of transportation improvements or provide for phasing of improvements to spread the costs over time.
- T-P80 Balance the estimated expenditures in the City’s annual Six-Year Transportation Improvement Program (TIP) with available revenues.

EXHIBIT "A" ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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- T-P81 Periodically review longer range transportation funding options and consider changes in the level of service standard or land use element if sufficient funding is not available.

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EXISTING TRANSPORTATION SYSTEM INVENTORY

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The City’s transportation system consists of various transportation facilities, including state highways, arterials, local streets, transit services and facilities, and pedestrian and bicycle facilities. The existing transportation system was inventoried in conjunction with the update of the Transportation Element. The inventory covers the street system, traffic controls, traffic volumes, traffic operations, traffic safety, transit service, and pedestrian and bicycle facilities.

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**ROADWAY SYSTEM AND TRAFFIC CONTROLS**

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The following summarizes the existing roadway system including roadway geometry and locations of signalized and roundabout controlled intersections. Several intersections within the City are signalized, with most of them located along the state highways. Figure T-2 shows the existing street system as well as signalized and roundabout controlled intersections within the City.

**Arterials**

Arterials are the major streets that connect Maple Valley with the region, while also serving important intra-city connections. These roads provide for the majority of vehicular travel within the City. These arterial routes create the transportation foundation the City street network is built upon.

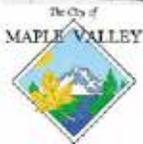
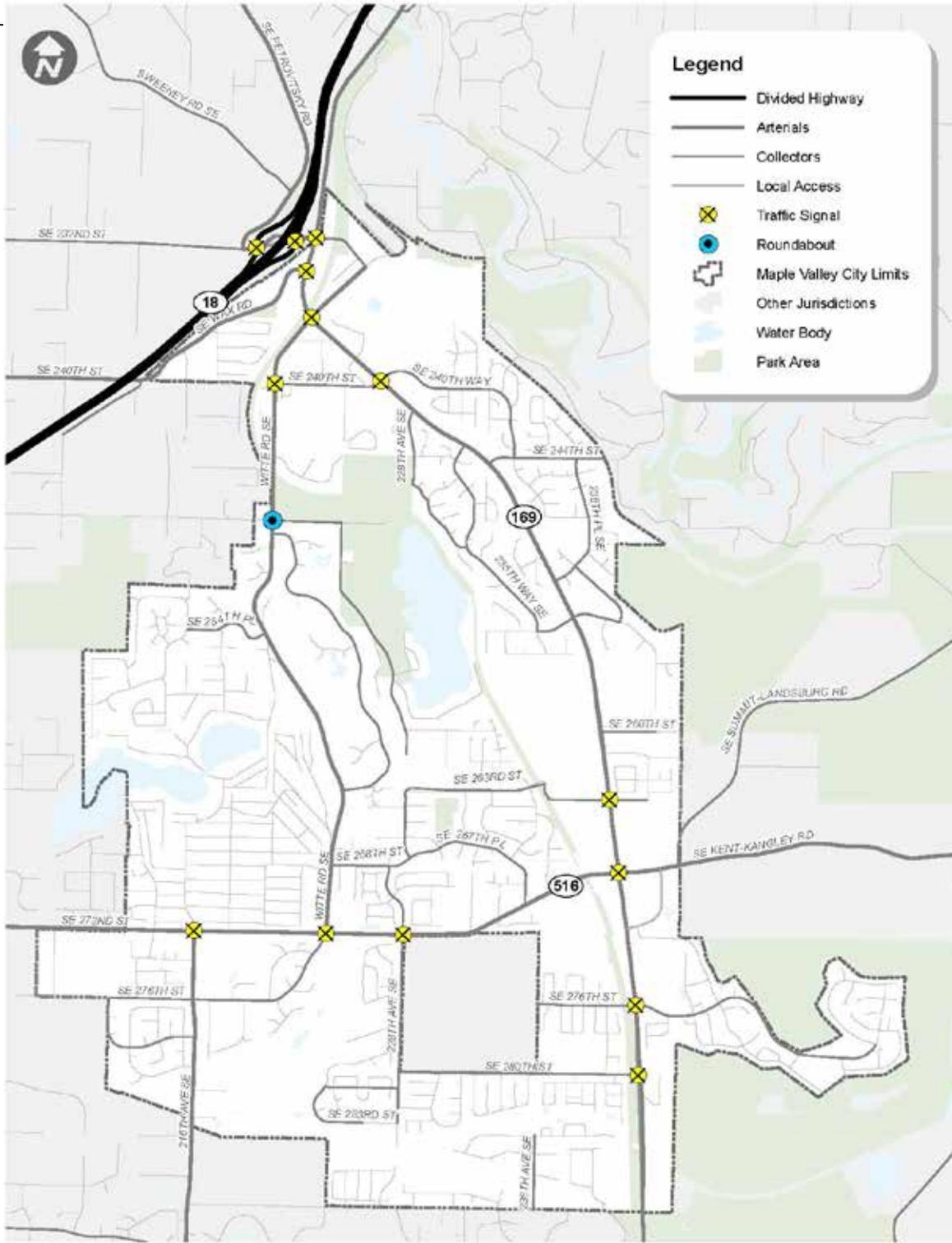
**SR 169** (Renton-Maple Valley Road SE, Maple Valley-Black Diamond Road SE) links Maple Valley to Renton to the north and Black Diamond to the south. SR 169 is primarily a two-lane road through Maple Valley with a 45 to 50 mph speed limit. However, speeds reduce to (35 and 40 mph) and the roadway widens (four to five lanes) near the commercial areas of “Wilderness Village” and “Four Corners.” Traffic signals control SR 169 intersections at SE 231st Street, SE Wax Rd, Witte Road SE, SE 240th Street, SE 264th Street, SR 516, SE 276th Street, and SE 280th Street. It is classified as a Highway of Statewide Significance (HSS) by the Washington State Legislature.

**Kent-Kangley Road** (SR 516, SE 272nd Street) links Maple Valley to Covington to the west and rural King County to the east. Kent-Kangley Road is a two lane road with turn-lane pockets at major intersections. West of SR 169, it has a posted speed limit of 45 mph. East of SR 169, it has a posted speed limit of 50 mph. Traffic signals control SR 516 intersections at 216th Avenue SE, Witte Road SE, 228th Avenue SE, and SR 169. SR 516 is classified as a Highway of Regional Significance (HRS) by PSRC.

**SR 18**, which borders the City, is a controlled access divided highway linking Maple Valley to Covington, Auburn and Interstate 5 to the west and Interstate 90 to the east. The SR 18/SE 232nd Street interchange coupled with the nearby SR 169/SE 231st Street intersection act as the primary northern gateway to the City. Traffic signals control both SR 18 ramp intersections with SE 232nd Street. It is classified as a Highway of Statewide Significance (HSS) by the Washington State Legislature.

**Witte Road SE** is a two to three lane roadway with a 35 mph speed limit. Witte Road SE provides north-south access through the western portion of the City which is primarily comprised of residential land uses. Traffic signals control intersections at SR 169, SE 240th Street, and SR 516. A roundabout has been installed at the intersection with SE 248th Street.

**SE Wax Road** is a two to three lane roadway with a 35 mph speed limit providing regional access to King County and Covington to the west. Within Maple Valley, the only traffic signal along SE Wax Road is located at the intersection with SR 169.



**Existing (2010) Street System**  
Maple Valley Transportation Element

**FIGURE T-2**

ADOPTED OCTOBER 13, 2011

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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**216th Avenue SE** is a two-lane north-south link in the southwest area of the City. This roadway links SR 516 to residential areas and Black Diamond to the south. The speed limit is 35 mph and a traffic signal is located at the SR 516 intersection.

**Collector Streets**

Collector streets direct traffic from neighborhoods to the arterial system. Collectors can provide a higher level of direct access than arterials. Collector streets generally have two travel lanes and 30 to 25 mph speed limits. Examples of streets designated as collectors are SE 240th Street, SE 244th Street, SE 248th Street, SE 264th Street, SE 276th Street, SE 280th Street, and 228th Avenue SE.

**Local Access Streets**

Local business and neighborhood access streets serve local abutting land uses and neighborhood traffic. All Maple Valley public streets not classified as arterials or collectors are considered local access streets. These local streets generally have two travel lanes and 25 mph speed limits.

**TRAFFIC VOLUMES**

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PM peak hour traffic volumes were collected early in 2010 at the study intersections. Using factors from 2004 daily and PM peak hour counts, 2010 daily volumes were estimated. Figure T-3 shows existing traffic volumes within the City. Table T-1 summarizes the rates of growth along Maple Valley’s major corridors compared to 2004 PM peak hour traffic volumes.

As shown in Table T-1, some of the largest traffic increases since 2004 were in the north end of the City, along the Witte Road corridor, and in the Four Corners area. SE 231st Street and SE Wax Road had increases of 24 percent and 19 percent, respectively. SR 169 north of Witte Road SE had increases of 9 to 11 percent. The Witte Road SE corridor had increases around 9 percent. SR 169 south of SR 516 had increases over 15 percent. SR 516 volumes generally decreased around 15 percent.

There are several factors that have contributed to the traffic volume changes since the 2004 Transportation Plan was completed. Several transportation projects were completed: SR 18 widening, Four Corners and SR 169 improvements, and SR 516/228th Avenue SE traffic signal. Other considerations were ongoing development in the southern parts of the City, and the impacts the economy had on travel behavior and development patterns. In addition, sections of SR 169 south of SE 240 Street and SR 516 west of the City are generally constrained meaning roadway capacities limit any major additional growth in traffic volumes.



EXHIBIT "A" ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

**Table T-1  
Historical Weekday PM Peak Hour Traffic Volume Comparisons and Daily Volumes**

Roadway	Location <sup>2</sup>	PM Peak Hour Volumes <sup>1</sup>		Total Daily Volume <sup>3</sup>	
		Percent Growth (2004 to 2010)	Total Volume		
<b>NORTH-SOUTH ROADWAYS</b>					
SR 169	n/o SE 231st St	+6%	1,900	24,100	
	n/o SE Wax Rd	+9%	2,650	33,200	
	n/o Witte Rd SE	+11%	3,050	38,000	
	n/o SE 240th St	+1%	1,700	21,500	
	n/o SE 244th St	+5%	1,750	21,500	
	s/o SE 244th St	+3%	1,450	18,700	
	n/o SR 516	+3%	1,450	17,800	
	s/o SR 516	+21%	1,450	18,500	
	n/o SE 276th St	+15%	1,500	18,300	
	n/o SE 280th St	0%	1,200	15,000	
	s/o SE 280th St	-11%	950	11,800	
	Witte Rd SE	s/o SR 169	+6%	1,250	15,900
		s/o SE 240th St	+9%	1,400	14,700
n/o SE 254th Pl		+10%	1,200	11,700	
s/o SE 254th Pl		+9%	1,000	10,700	
n/o SE 268th St		+9%	1,000	9,400	
n/o SR 516		-7%	750	8,600	
<b>EAST-WEST ROADWAYS</b>					
SR 516	w/o 216th Ave SE	+2%	1,600	19,800	
	w/o Witte Rd SE	+5%	1,300	16,200	
	w/o 228th Ave SE	-11%	1,150	13,100	
	e/o 228th Ave SE	-17%	950	12,100	
	e/o SR 169	-15%	1,050	12,900	
	w/o SR 169	-13%	1,000	12,200	
SE 231st St	w/o SR 169	+24%	1,700	21,100	
SE Wax Rd	w/o SR 169	+19%	1,000	10,200	

1. 2010 PM peak hour volumes based on turning movement counts collected in February 2010. Volumes from 2004 based on counts conducted as part of the 2004 Transportation Element.
2. n/o = north of; s/o = south of; e/o = east of; w/o = west of
3. Daily volumes based on 2010 PM peak hour counts, and on daily-to-peak factors from 2004 daily and 2004 PM peak hour counts.

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## TRAFFIC OPERATIONS

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Traffic volumes were used to evaluate existing traffic operations in Maple Valley. Traffic operations analysis provides a quantitative method for evaluating existing and future transportation alternatives. The City’s operational standard is presented along with the analysis methodology. A discussion of existing traffic operations is also provided.

### Analysis Methodology

Traffic operations were evaluated for the existing year (2010) based upon the level of service (LOS) methodologies of the *Highway Capacity Manual* (HCM) (Transportation Research Board, 2000). The HCM is a nationally recognized and locally accepted method of measuring traffic flow and congestion. Criteria range from LOS A, indicating free-flow conditions with minimal vehicle delays, to LOS F, indicating extreme congestion with significant vehicle delays. At signalized intersections, LOS is defined in terms of average delay per vehicle. The procedures also calculates a volume-to-capacity (v/c) ratio; a v/c ratio of 1.0 or greater represents an intersection at its theoretical capacity. At un-signalized intersections, LOS is measured in terms of the average delay per vehicle and is typically reported for the worst traffic movement instead of for the whole intersection.

Intersection LOS analysis was performed for major intersections within the study area based on 2010 conditions. Intersections were selected based upon location and likelihood that they might be impacted by future growth. Twenty-one intersections were identified for analysis, four more than studied previously in 2004. Turning movement counts collected in February 2010 were used in this analysis.

### LOS Results

Table T-2 summarizes the LOS results, delay, v/c ratio, and worst movements at the study intersections for 2004 and 2010. The LOS results are also illustrated on Figure T-4. During 2010 conditions, only the study intersection of SR 169/SE 271st Street does not meet the City’s LOS standard. The delays at this intersection are due to the high volume of traffic along SR 169.

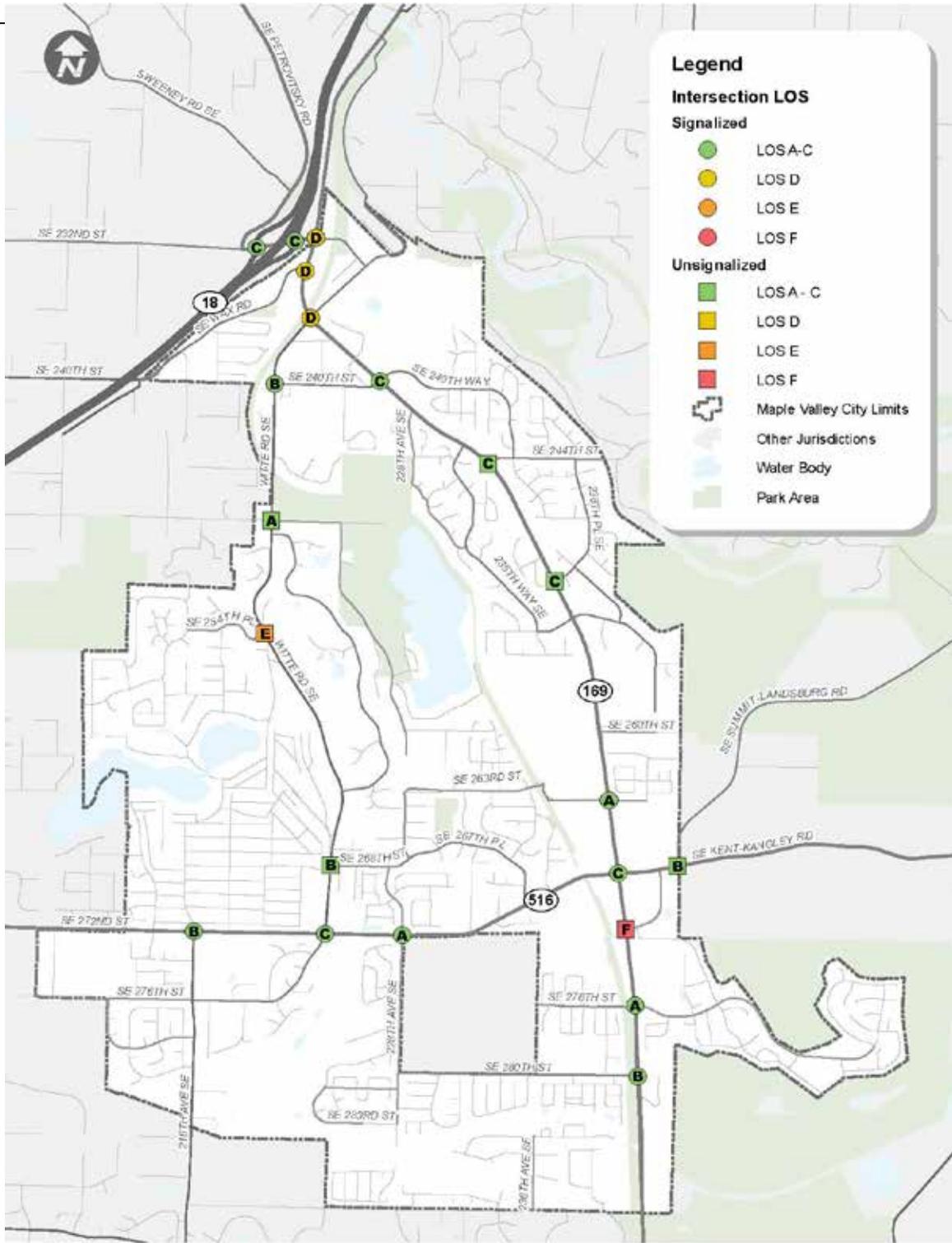
Corresponding to traffic volume growth, intersection LOS has degraded with higher traffic volumes and improved where volumes have decreased since 2004. In the northern parts of the City, intersections have dropped from C to D, or B to C. In the Four Corners area, the SR 169/SR 516 intersection has improved due to additional north-south travel lanes at the intersection. Increases in corridor volumes along Witte Road SE have generally degraded intersection LOS at unsignalized intersections. However, a roundabout has been constructed at the intersection with SE 248th Street to improve safety and operations at that location.

The roundabout at the Witte Road SE/SE 248th Street intersection is shown to be operating at LOS A in 2010. While the roundabout was completed in 2011, it was analyzed and incorporated into the existing LOS results using the latest available traffic counts that were collected in 2010. Before completion of the roundabout, the intersection was two-way stop controlled and operated at LOS E.

EXHIBIT "A" ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan



Existing (2010) Intersection Levels of Service

Maple Valley Transportation Element

FIGURE

T-4

ADOPTED OCTOBER 10, 2011

EXHIBIT "A" ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

**Table T-2  
2010 Weekday PM Peak Hour LOS at Study Intersections**

<b>Intersection</b>		<b>2004 PM Peak Hour<sup>1</sup></b>				<b>2010 PM Peak Hour</b>		
<b>Major Rd</b>	<b>Minor Rd</b>	<b>Control<sup>2</sup></b>	<b>LOS<sup>3</sup></b>	<b>Delay<sup>4</sup></b>	<b>v/c<sup>5</sup> or WM<sup>6</sup></b>	<b>LOS</b>	<b>Delay</b>	<b>v/c or WM</b>
SR 169	SE 231st St	Signal	C	33	0.59	D	36	0.68
SR 169	SE Wax Rd	Signal	C	26	0.69	D	38	0.82
SR 169	Witte Rd SE	Signal	D	45	0.78	D	55	0.82
SR 169	SE 240th St	Signal	B	16	0.65	C	32	0.76
SR 169	SE 244th St	TWSC	C	21	WBL	C	24	WBL
SR 169	SE 251st St	TWSC		NA <sup>8</sup>		C	16	WB
SR 169	SE 264th St	Signal		NA <sup>8</sup>		A	5	0.40
SR 169	SR 516	Signal	D	44	0.79	C	29	0.64
SR 169	SE 271st St	TWSC		NA <sup>8</sup>		F	>200	WBL
SR 169	SE 276th St	Signal	A	4	0.46	A	9	0.49
SR 169	SE 280th St	Signal	A	8	0.50	B	11	0.46
SR 516	216th Ave SE	Signal	B	14	0.69	B	15	0.67
SR 516	Witte Rd SE	Signal	C	34	0.79	C	29	0.62
SR 516	228th Ave SE	Signal <sup>7</sup>	C	19	NBL	A	7	0.43
Witte Rd SE	SE 240th St	Signal	A	6	0.53	B	12	0.62
Witte Rd SE	SE 248th St	Round <sup>9</sup>	E	45	EB	A	5	0.71
Witte Rd SE	SE 254th Pl	TWSC	D	28	EB	E	40	EB
Witte Rd SE	SE 268th St	TWSC	B	14	WB	B	14	WB
SE 231st St	SR 18 NB Ramps	Signal	B	13	0.28	C	23	0.42
SE 231st St	SR 18 SB Ramps	Signal	B	19	0.34	C	31	0.61
SE Kent-Kangley Rd	Summit-Landsburg Rd SE	TWSC		NA <sup>8</sup>		B	12	SB

1. Level of service evaluated as part of 2004 Transportation Plan update. Four intersections were not previously evaluated in 2004.
2. Intersection traffic control: "Signal" is traffic signal; "TWSC" has stop signs on minor approach; "Round" is a roundabout.
3. Level of service (A to F), Level of service analysis based on 2000 *Highway Capacity Manual* methodology.
4. Average delay in seconds per vehicle
5. Volume-to-capacity ratio (For signalized intersections, level of service reflects intersection operations as a whole)
6. Worst movement (For unsignalized intersections, level of service reflects operations for worst movement only)
7. Intersection was un-signalized in 2004.
8. Not available. Intersection not evaluated in 2004.
9. The roundabout was completed in 2011.

**TRAFFIC SAFETY**

Historical accident data along both SR 169 and SR 516 were provided by WSDOT for the four-year period from 2006 to 2009 (the most recent data available in 2010). The summary of reported accidents along each state highway is shown in Tables T-3 and T-4. In addition, no accidents resulting in fatalities were reported within the City of Maple Valley during the analysis time period.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

**Intersection Safety Analysis**

Table T-3 summarizes the accident history at major intersections along the SR 169 and SR 516 corridors. The majority of accidents at intersections along the northern sections of SR 169 and the western sections of SR 516 are rear-end collisions. These collisions are likely caused by frequent stop and go traffic during the peak hours. Within the Four Corner Subarea, driveway accidents are common as vehicles pull in and out of the numerous business driveways. Typically any intersection with an accident rate greater than one accident per million entering vehicles (MEV) should be monitored closely to determine if improvements could be made to improve safety. The City reconstructed and widened the SR 169/SR 516 intersection which helped reduce its accident rate from 1.6 to 1.2. The intersections of SE 231st Street/SR 169 and SE 240th Street/SR 169 also had accident rates higher than 1.0 per MEV. These intersections have had a steady increase in traffic volumes since the 2004 accident data sets.

**Table T-3  
Accident History for Major Intersections (2006 to 2009)**

<b>Intersection</b>	<b>Total # of Accidents</b>	<b>Average Accidents per Year (2010)</b>	<b>Average Accidents per Year (2004)<sup>1</sup></b>	<b>Accidents per MEV<sup>2</sup> (2010)</b>	<b>Accidents per MEV<sup>2</sup> (2004)<sup>1</sup></b>	<b>Accident Type (Majority)</b>
SE 231st Street / SR 169	52	17.3	12.5	1.5	0.8	Rear-End
SE Wax Road / SR 169	34	11.3	10.5	0.9	0.6	Rear-End
Witte Road SE / SR 169	13	4.3	10.3	0.4	0.7	Rear-End
SE 240th Street / Witte Road SE	3	1.0	NA	0.2	NA	Rear-End
SE 240th Street / SR 169	24	8.0	1.3	1.1	0.2	Rear-End
SR 516 / 216th Ave SE	13	4.3	6.0	0.7	0.9	Rear-End
SR 516 / Witte Road SE	18	6.0	6.0	0.9	0.9	Rear-End
SR 516 / 228th Avenue SE	4	1.3	4.7	0.3	0.9	Rear-End
SR 516 / SR 169	33	11.0	16.0	1.2	1.6	Rear-End
SE 271st Street / SR 169	8	2.7	2.3	0.4	0.4	Enter at Angle
SE 280th Street / SR 169	6	2.0	0.3	0.5	0.1	Rear-End
SE 244th Street / SR 169	2	0.7	1.3	0.1	0.2	Rear-End
SE 264th Street / SR 169	5	1.7	2.8	0.3	0.5	Rear-End
SE 248th Street / Witte Road SE	9	3.0	NA	0.6	NA	Rear-End
SE 254th Place / Witte Road SE	1	0.3	NA	0.1	NA	Rear-End
SE 268th Street / Witte Road SE	6	2.0	NA	0.6	NA	Rear-End
SE 231st Street / SR 18 NB Ramps	5	1.7	NA	0.2	NA	Rear-End
SE 231st Street / SR 18 SB Ramps	14	4.7	NA	0.7	NA	Enter at Angle
SE Kent-Kangley Rd / Summit-Landsburg Rd SE	2	0.7	NA	0.2	NA	Opposite Dir.
SE 276th Street / SR 169	5	1.7	1.0	0.3	0.2	Enter at Angle

Source: WSDOT Historical Accident Records (2006 - 2009)

1. “NA” means intersection not evaluated in 2004
2. Accidents per million entering vehicles

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

**Roadway Safety Analysis**

The average number of accidents a year and associated accident rates were analyzed for both the SR 169 and SR 516 corridors to identify highway segments with potential safety issues. The results of the highway segment analysis are summarized in Table T-4. The highway segments listed in Table T-4 vary in length and traffic volume. To provide meaningful comparison, accidents along highway segments are typically analyzed in terms of accidents per million vehicle miles (acc/mvm) traveled. No universally accepted guidelines exist for identifying hazards based on accident rates for highway segments alone; however, WSDOT publishes average accident rates by roadway classification. Table T-6 lists the average accident rates for highway segments based on functional classification.

**Table T-4  
Accident History for Highway Segments (2006 to 2009)**

Segment	MP	Total # of Accidents	Average Accidents per Year (2010)	Average Accidents per Year (2004)	Accidents per MVM <sup>1</sup> (2010)	Accidents per MVM <sup>1</sup> (2004)	Accident Type (Majority)
SR 169 South (City Limits - SR 516)	10.19 - 11.44	13	4.3	6.8	0.6	1.0	Driveway access
SR 169 Central (SR 516 - SE 240th St)	11.45 - 13.53	23	7.7	30.0	0.6	2.1	Rear-End
SR 169 North (SE 240th St - City Limits)	13.54 - 14.12	14	4.7	36.8	1.3	2.9	Rear-End
SR 516 (within City)	14.42 - 16.22	38	12.7	30.3	1.9	3.1	Rear-End

Source: WSDOT Historical accident Records (2006 - 2009)

1. Accidents per million vehicle miles

The historical accident data and existing highway classifications obtained from the WSDOT indicate that all highway segments along SR 169 are below the average accident rate for similar state facilities. The WSDOT State Highway Log (2009) classifies SR 169 as an urban principal arterial through Maple Valley and SR 516 as an urban minor arterial. While SR 516 has the highest accident rate of the highway segments listed in Table T-4, it is below the average rate for the urban minor arterial category shown in Table T-5. Overall, the roadway safety data does not identify any high accident locations in need of immediate improvement.

**Table T-5  
Average Accident Rates by Functional Classification**

Functional Classification	WSDOT Rural Arterial (Accidents/MVM) <sup>1</sup>	WSDOT Urban Arterial (Accidents/MVM) <sup>1</sup>
Principal or Major Arterial	1.06	2.19
Minor or Secondary Arterial	1.14	2.98
Collector Arterial	1.82	Not Reported

Source: 2009 Washington State Highway Accident Report (For Northwest Region)

1. Annual accidents per million vehicle miles

**Pedestrian/Bike**

Between 2006 and 2009, only one reported accident along the SR 169 corridor involved a pedestrian or bicyclist. A bicycle accident occurred along SR 169 south of the SE 244th Street intersection (MP 12.87), where a vehicle traveling northbound collided with a bicyclist. No other pedestrian or bicycle related accidents were reported.

**TRANSIT AND PUBLIC TRANSPORTATION**

Maple Valley transit and public transportation facilities are operated by King County Metro Transit and include bus transit, carpooling and vanpooling, and a park-and-ride lot. The regional, multi-county transit agency, Sound Transit, does not provide service to Maple Valley, but can be accessed in the Cities of Kent and Renton.

**Bus Service**

As of December 2010, three transit routes provide weekday service to the Maple Valley area. Two of these routes provide direct regional service to Renton and Seattle. The third route provides local service between Kent and Maple Valley’s Four Corners area. However, Metro Transit only offers weekend service in Maple Valley along route 168. Transit service characteristics are summarized in Tables T-6 and T-7.

**Table T-6  
Maple Valley Transit Service Characteristics**

Route #	Scheduled Daily Trips	Service Span (Daily)	Headway (Approx.)
149	9 ( Weekday NB ) 6 (Weekday SB)	NB: 7:30 a.m. - 8:30 p.m. SB: 6:30 a.m. - 4:30 p.m.	90 minutes
143	5 ( Weekday NB & SB )	NB: 5:30 a.m. - 8:30 a.m. SB: 4:00 p.m. - 7:00 p.m.	20 minutes
168	33 ( Weekday WB & EB )	WB: 4:30 a.m. – 10:40 p.m. EB: 5:30 a.m. – 12:30 a.m.	30 to 60 minutes

1. Source: <http://metro.kingcounty.gov> (2010)

*Route 149*

Metro route 149 provides direct service between the Renton Park-and-Ride and the City of Enumclaw via SR 169 during weekdays. The route operates from 5:30 am to 8:30 p.m. (excluding the peak hour times that Route 143 replaces Route 149) and only on weekdays. Headways are approximately 90 minutes. Average total daily ridership is approximately 110 persons per day, based on 2010 data.

*Route 143*

During peak weekday time periods, Metro route 143 replaces route 149 and extends service north to the City of Seattle. It provides direct service between Seattle and the City of Black Diamond via SR 169. The route operates five northbound morning trips and five afternoon southbound trips (See Table T-6) with headways at approximately 20 minutes. Average total daily ridership in 2010 was approximately 490 persons per day.

*Route 168*

Route 168 operates between the City of Kent and Maple Valley’s Four Corners area. Headways range from approximately 30 to 60 minutes. Route 168 also provides weekend service. In the City of Kent, Route 168 provides a direct connection to a Sounder commuter rail station. This route serves an average of 1,380 persons per day in 2010.

**Maple Valley Park-and-Ride Lot**

Metro Transit maintains the Maple Valley Park-and-Ride located northwest of the SE 231st Street/SR 169 intersection. Both routes 143 and 149 serve this park-and-ride. The park-and-ride facility has capacity for 122 spaces, which on average have been historically filled near or above 90 percent occupancy by 9:00 a.m. on weekdays as shown in Table T-7.

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

**Vanpool/Carpooling Service**

To reduce the traffic volumes on Maple Valley roadways, Metro Transit offers tools to encourage carpooling and vanpooling. Carpooling and vanpooling arrangements vary in cost and complexity depending on the number of persons involved. More information can be found on Metro Transit’s website (<http://metro.kingcounty.gov/>)

**Regional Transit Service**

Maple Valley lies outside the boundary of the Regional Transit Authority boundaries. As a result, no additional service is currently scheduled for Maple Valley by Sound Transit. Regional express bus service is provided through the Cities of Kent and Renton via SR 167, and commuter rail service is provided via Kent and the City of Tukwila. Commuter rail operates during morning and evening peak hours between Lakewood (south of Tacoma in Pierce County) and Everett via Seattle. Both services provide links to high-capacity regional public transportation systems.

WSDOT and other partner agencies have completed the Southeast King County Commuter Rail Study which evaluated the feasibility of commuter rail service along the existing BNSF Stampede Pass rail corridor that bisects the southern part of the City. The study recommends completing a next phase of the project that will include more rigorous planning, environmental, and engineering analyses to verify and refine the findings of the completed study.

**Table T-7  
Maple Valley Transit and Park-and-Ride Use Statistics**

<b>Average Total Daily Bus Ridership (persons)</b>			
<b>Metro Route #</b>	<b>#149</b>	<b>#143</b>	<b>#168</b>
Fall 2006	100	500	1,030
Fall 2007	100	450	1,130
Fall 2008	130	560	1,160
Fall 2009	110	490	1,380

<b>Average Park-and-Ride Occupancy</b>		
<b>Year<sup>1</sup></b>	<b>Demand (vehicles)</b>	<b>Percent Occupancy<sup>2</sup></b>
2006	90	74%
2007	104	85%
2008	120	98%
2009	103	84%

Source: King County Metro Transit, December 2010.

1. Park-and-Ride lots surveyed quarterly.
2. Occupancy based on 122-stall parking supply.

**NON-MOTORIZED FACILITIES**

The City has major regional non-motorized trails near or within the City limits that act as “arterials” for non-motorized travel. The Cedar River Trail follows the Cedar River from the City of Renton upriver past the northern boundaries of Maple Valley to the community of Landsburg. At Maple Valley the trail intersects the Green-To-Cedar Rivers Trail, which runs through central Maple Valley along Lake Wilderness Park and continues south to the Four Corners area. There are numerous access points along each trail.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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In the commercial areas such as Wilderness Village and Four Corners, sidewalks are present along most streets. Outside of these areas, formal pedestrian and bicycle transportation facilities are limited to residential developments constructed in the past 10 years or recent street improvement projects. The City has committed a portion of their annual budget to implement spot non-motorized improvements. Portions of planned major street projects also include elements to improve non-motorized facilities.

More details on adopted City plans for pedestrian and bicycle facilities are provided in the *Maple Valley Non-motorized Transportation Plan* (July, 2004). An update of the plan is likely to be initiated in the next few years as funding becomes available, at which time a full inventory of the non-motorized system will be completed.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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TRAVEL FORECASTING AND ALTERNATIVE ANALYSIS

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The Transportation Systems Plan portion of the Transportation Element is partially developed based on the evaluation of the existing transportation system. The analysis of the existing transportation system identified locations with current operational, safety, and alternative transportation mode deficiencies.

To provide a framework for future transportation system needs, the plan must also consider the transportation needs of future growth. The Growth Management Act (GMA) requires that the transportation planning horizon be at least ten years in the future. The City of Maple Valley selected a 2030 horizon year for the plan. Year 2030 provides a long range look at the transportation system needed to support anticipated growth in the City and other communities in Southeast King County. Travel forecasts have been developed and analysis has been conducted for average weekday conditions during the PM peak hour. The weekday PM peak hour generally has the highest overall traffic volumes in the community and thus provides the basis for identifying capacity related improvement needs.

The primary analysis of 2030 travel forecasts was initially based on the following travel forecasting assumptions:

- ® Improvement projects in the City of Maple Valley's 2011-2016 Transportation Improvement Plan (TIP).
- ® Improvement projects in TIPs from adjacent jurisdictions.
- ® Puget Sound Regional Council's Transportation 2040 Plan compilation of regional projects.
- ® City of Maple Valley existing and future land use data.
- ® Land use forecasts from adjacent jurisdictions.

Based on these assumptions, travel forecasts were developed using Maple Valley's travel demand model. The model is a tool that is used to convert existing and future land uses into traffic volumes. Alternative roadway and intersection projects were then evaluated in order to understand the effect they would have on travel patterns within the study area and their ability to resolve existing and future capacity deficiencies. The following provides an overview of the land use assumptions, travel demand model, and the alternatives analysis used in preparing the travel forecasts. The resulting travel forecasts are then presented. The travel forecasts provide a technical basis for identifying the transportation improvement projects in the transportation systems plan.

### LAND USE ASSUMPTIONS

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A strong relationship exists between land uses and the transportation facilities necessary to provide mobility within the community. Land use and transportation influence one another. Future transportation improvements recommended in the Transportation Systems Plan have been defined to support the Land Use Plan.

The base year (2010) and forecast year (2030) land use totals were compiled or estimated from a variety of sources, including data from PSRC and the King County Assessor. These data sets were supplemented with local agency information and GIS datasets from the Cities of Maple Valley, Covington, and Black Diamond.

Table T-8 summarizes the 2010 and 2030 total households and employment within the study area. The study area includes areas surrounding the City, which have been referred to as subareas. These subareas are based on the boundaries of the transportation analysis zones (TAZs) within the City's travel demand model. The subareas were defined to help in understanding general land use assumptions used in the development of the travel forecasts. The subareas include both neighboring cities, as well as unincorporated King County. Subareas one through three encompass the communities of Maple Valley, Covington, and Black Diamond. The remaining subareas encompass parts of Renton, Kent, Auburn, and unincorporated King County. The subareas provide a summary of existing and forecast land use growth within the study area.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

**Table T-8**  
**Study Area Land Use and Socio-Economic Data (2010 to 2030)**

Land Use Subareas <sup>1</sup>	Total Households <sup>2</sup>			Total Employment <sup>3</sup>		
	2010	2030	Annual Growth (2010-2030)	2010	2030	Annual Growth (2010-2030)
1. City of Maple Valley	7,914	11,075	1.7%	2,776	7,596	5.2%
2. Covington Area	6,493	11,155	2.7%	3,815	6,611	2.8%
3. Black Diamond Area <sup>4</sup>	2,243	9,496	7.5%	684	3,956	9.2%
4. SW King County Area	4,313	8,323	3.3%	898	1,451	2.4%
5. Kent/Auburn Area	19,562	23,477	0.9%	5,417	8,362	2.2%
6. NW County Area	3,151	3,953	1.1%	1,188	1,884	2.3%
7. North County Area	2,050	2,884	1.7%	732	515	-1.7%
8. East County Area	2,535	5,112	3.6%	688	1,755	4.8%
9. Renton Area	14,807	18,985	1.3%	5,496	10,672	3.4%
<b>Study Area Total</b>	<b>63,068</b>	<b>94,460</b>	<b>2.0%</b>	<b>21,694</b>	<b>42,802</b>	<b>3.5%</b>

SOURCE: Data sets provided by PSRC, King County Assessor, and the Cities of Maple Valley, Covington, and Black Diamond

1. Land use subareas are based on aggregations of study area TAZ data
2. Dwelling units
3. Number of employees
4. Based on the major development plans for Lawson Hills and The Villages

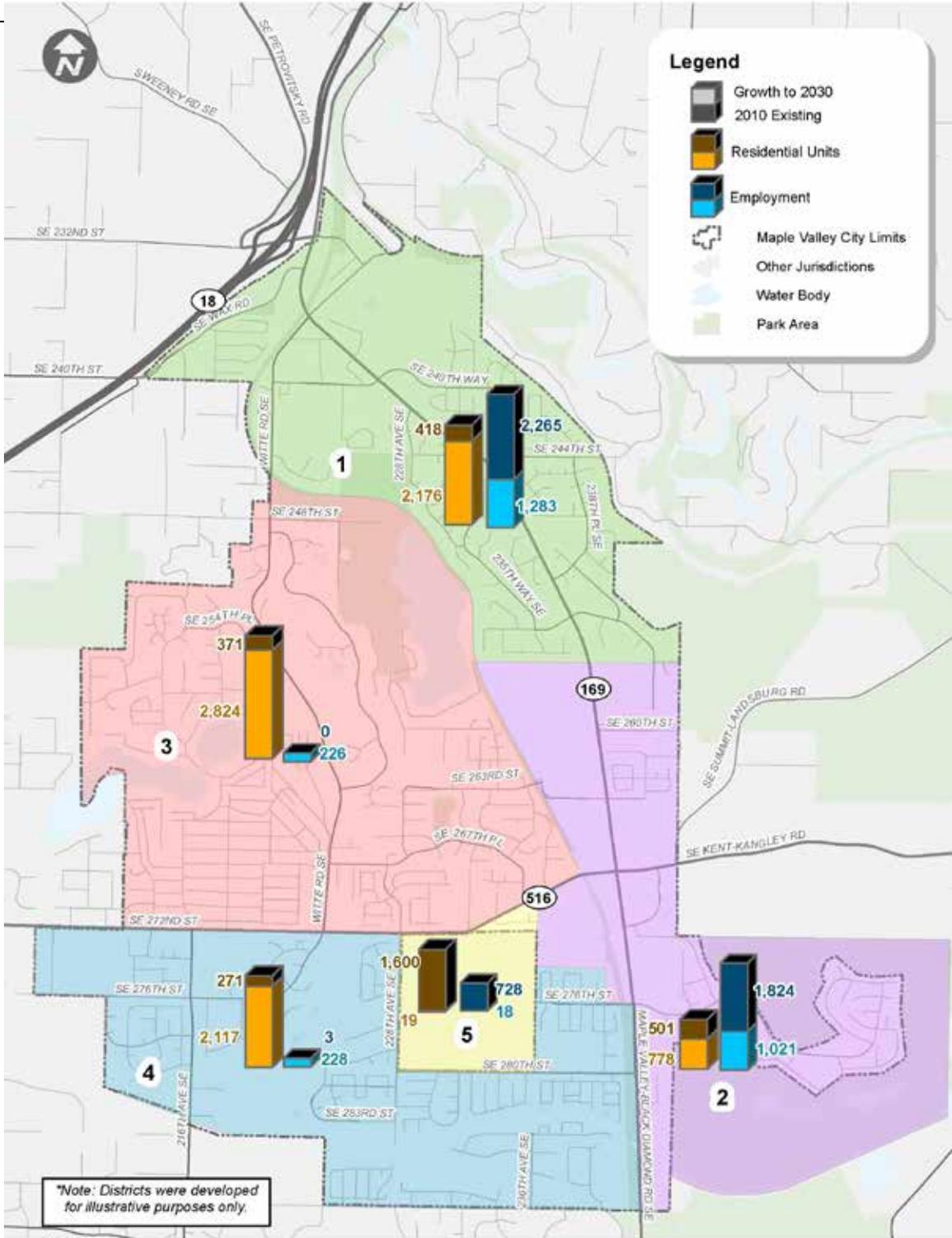
Table T-9 and Figure T-5 illustrate land use growth in five districts within the City. A more detailed land use table was prepared that summarizes the data by TAZ, which was then incorporated into the City’s travel demand model. While the forecast land use data is for year 2030, it is based upon the existing City Land Use Element and allocated growth targets. The 2030 land use forecasts have been interpolated from 2022 to 2030 based on an updated GIS inventory of buildable lands within the City.

**Table T-9**  
**City Land Use and Socio-Economic Data (2010 to 2030)**

Land Use Summary Districts <sup>1</sup>	Total Households <sup>2</sup>			Total Employment <sup>3</sup>		
	2010	2030	Annual Growth (2010-2030)	2010	2030	Annual Growth (2010-2030)
1. North SR 169 Corridor	2,176	2,594	0.9%	1,283	3,548	5.2%
2. Four Corners	778	1,279	2.5%	1,021	2,845	5.3%
3. Witte Road Corridor	2,824	3,195	0.6%	226	226	0.0%
4. South City Area	2,117	2,388	0.6%	228	231	0.1%
5. Summit Place <sup>4</sup>	19	1,619	24.9%	18	746	20.5%
<b>City Total</b>	<b>7,914</b>	<b>11,075</b>	<b>1.7%</b>	<b>2,776</b>	<b>7,596</b>	<b>5.2%</b>

SOURCE: City of Maple Valley

1. See Figure T-5. Land use districts are based on aggregations of study area TAZ data. Districts were developed for illustrative purposes only.
2. Dwelling units
3. Number of employees
4. Based on the Joint Plan for Summit Place adopted by King County and the City of Maple Valley in 2010



City Land Use Growth by District (2010 to 2030)

Maple Valley Transportation Element

FIGURE

T-5

ADOPTED OCTOBER 10, 2011

### Household Growth Key Findings

The following summarizes key findings of the household growth.

- ® The full study area, including the City of Maple Valley, is estimated to grow by more than 31,300 dwelling units by 2030, representing an annual growth of 2.0 percent.
- ® Approximately 7,900 dwelling units were in the City in 2010.
- ® Within the City, the number of housing units is forecast to grow by more than 3,100 dwelling units, an annual growth of 1.7 percent between 2010 and 2030. This is a smaller rate of growth than is projected for most of the surrounding communities.
- ® In the Covington area, the number of housing units is forecast to grow by more than 4,600 dwelling units, an annual growth of 2.7 percent between 2010 and 2030.
- ® In the Black Diamond area, the number of housing units is forecast to grow significantly by more than 7,200 dwelling units, an annual growth of 7.5 percent between 2010 and 2030.
- ® In surrounding unincorporated areas of King County, household growth is estimated to grow annually between 1.1 to 3.6 percent.

### Employment Growth Key Findings

The following summarizes key findings of the employment growth.

- ® 3.5% growth in employment within model study area.
- ® Total employment within the City is expected to more than double by 2030, from approximately 2,780 to 7,600 employees. This represents an annual rate of 5.2 percent.
- ® A majority of the growth in employment is projected to be in the retail (increase of 2,160 employees) and service (increase of 2,340 employees) categories.
- ® Growth in employment outside of the City is also estimated to double in the next 20 years. The large employment growth in the overall study area results in more than 21,000 new jobs by 2030.
- ® The City of Covington is estimated to continue to grow and attract jobs at a 2.8 percent annual rate.
- ® The City of Black Diamond is estimated to add over 2,200 jobs mostly in the service categories. This represents an annual rate of 9.2 percent from 2010 conditions.

### Summit Place

Summit Place refers to the development of the “donut hole” which is currently owned by King County. The area today includes a golf course and road maintenance facility. A small neighborhood is also included in the district on the north side of the County property, just south of SR 516. King County and the City of Maple Valley formed an interlocal agreement to adopt a Joint Plan for Summit Place in 2010. Preliminary development concepts suggest adding 1,600 new homes and new commercial businesses that could include up to 730 new employees. The growth in households represents approximately half of the new homes expected in the City over the next 20 years, and the employment growth is approximately 15 percent of the expected growth in employees.

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### City of Black Diamond

The land use growth expected to occur in the City of Black Diamond is an important consideration in developing the land use forecasts for Maple Valley. The land use growth assumed for Black Diamond is consistent with the major development plans for Lawson Hills and The Villages, two master planned communities that have been approved. As part of the development plans, two Environmental Impact Statements (EIS) were prepared by the City of Black Diamond that provided detailed land use data for each planned development. The information contained within each EIS was integrated into the Maple Valley travel demand model and is accounted for in the land use assumptions. The number of households and employees is expected to grow between 7 to 9 percent annually in the Black Diamond area due to these anticipated developments. To improve consistency between Black Diamond and Maple Valley planning efforts, the travel demand model forecasts were further refined to match the net new vehicle trips generated by the proposed development.

### TRAVEL FORECASTING MODEL

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A travel demand forecasting model was developed to assist in defining future transportation system needs. The model was constructed as part of the Transportation Element update. It is based on the City’s previous model, but has been updated to reflect current conditions and forecast land use projections. The model uses the VISUM software package and forecasts weekday PM peak hour traffic volumes based on the 2030 land use forecasts. The model study area includes Black Diamond, Covington, and parts of Kent and unincorporated King County.

The model was calibrated to match existing base year traffic volumes (2010) and then used to develop a baseline 2030 traffic forecast. City, County, and State transportation improvement projects likely to be funded and built by 2030 were included in the future baseline model. The improvements were defined based on local agency Transportation Improvement Programs and the PSRC’s Transportation 2040 Plan compilation of regional projects. The baseline projects were input into the travel demand model and the 2030 baseline forecasts were prepared. The 2030 baseline travel forecasts were used to determine where future operational and capacity deficiencies were likely to occur. A brief description of the baseline transportation projects are listed below.

#### Baseline Transportation Projects

- ® **SR 169** from Witte Road SE to 228th Avenue SE – Construct second southbound lane
- ® **Witte Road SE** from SE 244th Place to SE 249th Place – Widen roadway, add sidewalks, and construct roundabout at SE 248th Street intersection
- ® **SE 231st Street Extension** from Witte Road SE to SE 240th Way – Construct 3-lane collector
- ® **SR 169/SE 244th Street** intersection – Install traffic signal
- ® **SR 516** from Wax Road to 192nd Avenue SE – Widen roadway to 5 lanes
- ® **SR 516** from 160th Avenue SE to 164th Avenue SE – Add turn lanes and modify traffic signals
- ® **SR 18** from Issaquah-Hobart Road to I-90 – Construct 4-lane divided highway
- ® **Four Corners** area circulation roadways – Construct local streets per anticipated development
- ® **Summit Place** area circulation roadways – Construct local streets per anticipated development

- ® **Black Diamond** area roadway improvements – Construct street improvements per anticipated developments and City of Black Diamond plans

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## **BASELINE ANALYSIS**

The future baseline traffic analysis identified the need for transportation improvements throughout the City. Due to the residential and employment growth assumed to occur in the City, and the growth that is expected in Black Diamond, traffic volumes are estimated to increase significantly on the major corridors in the City such as SR 169, SR 516, Witte Road, and 216th Avenue SE. While the baseline improvement projects were assumed to be in place by 2030, the traffic forecasting and operations analysis highlighted the need to consider additional transportation investments throughout the City.

To address the issues identified in the baseline traffic analysis, improvement alternatives were identified by City staff. The improvement alternatives were evaluated using the City’s travel demand model to determine whether the projects addressed the future deficiencies identified in the baseline analysis. The results of the alternatives analyses were used in developing a recommended 2030 transportation network with improvements.

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## **ALTERNATIVES ANALYSIS**

Several proposed roadway connections and major highway widening projects were defined and added to the future baseline model. Separate model scenarios were created for the alternatives in order to evaluate the shifts in traffic and levels of service due to the proposed roadway connections or widening projects. The alternatives analysis used the 2030 baseline model as a starting point. Results from each alternative model scenario were reviewed in order to understand whether the proposed projects:

- ® Provided congestion relief along adjoining roadways and at intersections;
- ® Attracted a significant amount of vehicle trips to justify the need for the roadway;
- ® Reduced impacts on non-arterials; and
- ® Supported future growth within the City.

Table T-10 outlines how the alternatives analysis was organized. Four major areas or corridors of the City were evaluated:

1. Witte Road SE spot improvements.
2. City areas north of SE 244th Street such as SR 169, SE 240th Street, Wax Road.
3. SR 169 corridor from Witte Road SE to SE 280th Street.
4. SR 516 corridor including SE 271st Street Extension concepts and 216th Avenue SE improvements.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

**Table T-10  
Transportation Alternatives Evaluated**

<b>Location</b>	<b>Improvements Evaluated</b>	<b>Recommendations</b>
<b>Witte Rd Spot Improvements</b>	1) SE 254th Pl and 220th Ave SE	Reconfigure intersections to improve operations and safety
	2) SE 268th St	Install median merge lane
<b>North City Connections</b>	1) SR 169 third southbound lane from SE Wax Rd to Witte Rd SE	Maintain existing SR 169 cross-section (no third southbound lane). This assumes SE 240th St Connection is built.
	2) Witte Rd improvements east of SR 169	Improve Witte Rd/SR 169 intersection (evaluate turn restrictions, new turn lanes)
	3) SE 231st St Connection from Witte Rd SE to SE 240th St	Provide new connection. Further study needed to determine specific intersection needs and alignments at each end of the connection.
	4) SE 240th St Extension from Witte Rd SE to Wax Rd SE	Extend the roadway from Witte Rd to Wax Rd.
<b>SR 169 Corridor</b>	1) Widen SR 169 to 5 lanes, from Witte Rd SE to SE 264th St.	Widen to 5 lanes (or 4 lanes with left-turn pockets).
	2) Widen SR 169 to 5 lanes, from SR 516 to south City limits.	Widen to 5 lanes (or 4 lanes with left-turn pockets) to SE 280th St.
<b>SR 516 Corridor</b>	1) Widen SR 516 to 5 lanes, from City of Covington to 228th Ave SE	Widen to 5 lanes to 216th Ave SE. Widen to only 3 lanes between 216th Ave SE and 228th Ave SE. Reconfigure Witte Rd SE intersection to improve operations.
	2) Widen SR 516 to 5 lanes, from 228th Ave SE to SR 169	Widen to only 3 lanes between 228th Ave SE and SR 169.
	3) Provide SE 271st Extension at Four Corners	Shorten extension (236th Pl SE connection). Provide internal connection to Summit Place for local circulation.

**Witte Road Spot Improvements**

The intersections of Witte Road SE with SE 254th Place, 220th Avenue SE, and SE 268th Street currently have some alignment and safety concerns. Concepts were identified that improved intersection operations, addressed future volume demands, improved safety, and did not require significant traffic controls (such as a traffic signal or roundabout). These improvements have been carried forward into the plan project list.

**North City Connections**

The improvements evaluated in the northern area of the City included two new road connections, further widening of SR 169 north of Witte Road SE, and spot improvements at the SR 169/Witte Road SE intersection. The new SE 231st Street Connection will serve new development east of the Wilderness Village commercial area and create another north-south collector street. The specific alignment is dependent on developments in the area, and the intersection designs at either end of the corridor will need more detailed analysis once the alignment is identified.

The SE 240th Street Extension, adding a third southbound lane along SR 169, and spot improvements at the SR 169/Witte Road SE intersection all address future congestion along SR 169 between SE Wax Road and Witte Road SE. One way to address the issue is to add additional capacity along SR 169 (third southbound lane). Alternatively,

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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the SE 240th Street Extension draws traffic volumes away from this segment of SR 169. The spot improvements at the SR 169/Witte Road SE intersection (turning restrictions) also reduce traffic bottlenecks along this section.

The SE 231st Street Connection, SE 240th Street Extension, and further intersection improvements to the SR 169/Witte Road SE intersection were all carried forward into the plan project list.

**SR 169 Corridor**

Two major improvements along SR 169 were evaluated as part of the alternatives analysis. The improvements included widening SR 169 to five lanes from SR 516 northward and widening SR 169 to five lanes south of SR 516 to the City limits. The analysis included various widening scenarios, such as only adding an additional lane in one direction or reducing the overall extents of the widening. In addition, the baseline condition evaluated the impacts of no further widening than that proposed in the City’s Six-Year TIP. Assuming no further widening of SR 169 south of SE 240th Street, the modeling results indicated regional traffic demands would shift to parallel collector and local streets, impacting neighborhoods and increasing congestion along Witte Road SE. The analysis highlighted the need for a five-lane cross-section between Witte Road SE and SE 264th Street. The widening analysis south of SR 516 indicated a five-lane facility should be extended to SE 280th Street, but would not need to be extended south to the City limits.

SR 169 widening between SE 240th Street and SE 280th Street was carried forward into the transportation systems plan. The widening was divided into multiple projects that could be implemented over time as funding is available.

**SR 516 Corridor**

Similar to SR 169, additional widening along the SR 516 corridor was evaluated from the western City limits to SR 169. In addition, the potential extension of SE 271st Street was integrated into the alternatives analysis to identify how it might change the overall needs along SR 516. Ultimately, the future traffic demand suggested either five lanes or the SE 271st Street Extension was needed on the section of the corridor east of 228th Avenue SE.

On the west section of the corridor, the model indicated that widening SR 516 beyond a three-lane facility was entirely dependent on whether SR 516 was widened to five-lanes through the City of Covington. If it was widened to five-lanes, the modeling indicated the logical terminus of the five-lane widening would be at 216th Avenue SE. A significant amount of future demand is forecasted to use 216th Avenue SE, therefore only three-lanes are necessary along SR 516 to the east.

The SE 271st Street Extension, SR 516 widening to five-lanes between the western City limits and 216th Avenue SE, and SR 516 widening to three-lanes between 216th Avenue SE and 236th Place SE (terminus of the SE 271st Street Extension) were all carried forward into the transportation systems plan project list.

**TRAFFIC FORECASTS**

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The results of the alternatives analysis were used to develop the framework for the recommended transportation network and ultimately the transportation systems plan. A recommended transportation network model scenario was created to estimate forecast 2030 traffic volumes within the City. The resulting 2030 daily and PM peak hour traffic forecasts are shown in Figure T-6.

In general, forecast PM peak hour traffic volumes on SR 169 are expected to increase significantly with the widening of SR 169 to a five-lane highway through the City. Along SR 169, forecast traffic volumes are expected to increase by 80 percent due to the added capacity of widening it the corridor to five lanes west of 216th Avenue SE and the increased land use in Four Corners and Black Diamond.

EXHIBIT "A" ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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Traffic volumes on Witte Road SE are forecasted to grow moderately partially due to the completion of the SE 240th Street Extension. Along 216th Avenue SE, south of SR 516, the forecast traffic volumes will continue to increase in the future due primarily to growth in Black Diamond.



EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

The Four Corners area is estimated to have a significant increase in traffic volumes. New circulation roadways in the area provide alternatives to the state highways. The new SE 271st Street Extension is expected to attract over 500 vehicles in the future, enough to avoid widening SR 516 to five lanes east of 216th Avenue SE. The circulation roadways will help relieve future congestion at the SR 169/SR 516 intersection and reduce the need to widen the intersection beyond five lanes on each approach.

The resulting traffic forecasts were evaluated using the City’s traffic operations model to identify the resulting levels of service (LOS).

**LEVEL OF SERVICE STANDARDS**

LOS standards establish the basis for the concurrency requirements in the GMA, while also being used to evaluate impacts as part of the State Environmental Protection Act (SEPA). Agencies are required to “adopt and enforce ordinances which prohibit development approval if the development causes the level of service on a transportation facility to decline below the standards adopted in the transportation element of the comprehensive plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with development” (RCW 36.70A.070(6)(b)). Therefore, setting the LOS standard is an essential component of regulating development and identifying planned improvements for inclusion in the Transportation Element.

**Level of Service Definitions**

Level of service is both a qualitative and quantitative measure of roadway and intersection operations. Level of service uses an “A” to “F” scale to define the operation of roadways and intersections as follows:

**LOS A:** Primarily free flow traffic operations at average travel speeds. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delays at signalized intersections are minimal.

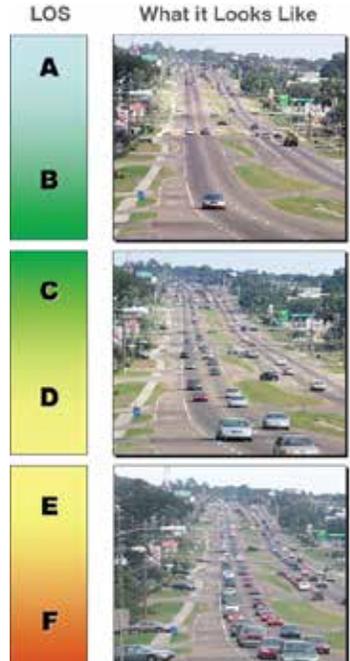
**LOS B:** Reasonably unimpeded traffic flow operations at average travel speeds. The ability to maneuver within the traffic stream is only slightly restricted and control delays at signalized intersections are not significant.

**LOS C:** Stable traffic flow operations. However, ability to maneuver and change lanes may be more restricted than in LOS B, and longer queues, adverse signal coordination, or both may contribute to lower than average travel speeds.

**LOS D:** Small increases in traffic flow may cause substantial increases in approach delays and, hence decreases in speed. This may be due to adverse signal progression, poor signal timing, high volumes, or some combination of these factors.

**LOS E:** Significant delays in traffic flow operations and lower operating speeds. Conditions are caused by some combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and poor signal timing.

**LOS F:** Traffic flow operations at extremely low speeds. Intersection congestion is likely at critical signalized intersections, with high delays, high volumes, and extensive vehicle queuing.



If expected funding for improvements to meet future transportation needs is found to be inadequate and the City will not be able to meet their adopted LOS standard, then the City may pursue one or more of the following options:

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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- ® Lower the LOS standard for the system or for portions of the system that cannot be improved without a significant expenditure;
- ® Revise the City’s current land use element to reduce density or intensity of development so that the LOS standard can be met; or,
- ® Phase or restrict development to allow more time for the necessary transportation improvements to be completed.

**State Highway Level of Service Standards**

The City of Maple Valley is served by SR 169 and SR 516. SR 169 is classified as a Highway of Statewide Significance (HSS). Per WSDOT’s Highway Systems Plan, the LOS standards for HSS facilities are set forth by State law. State law sets LOS D for HSS facilities in urban areas and LOS C for HSS facilities in rural areas. Since SR 169 is located within the Maple Valley urban area, the LOS D standard applies. GMA concurrency requirements do not apply to HSS facilities, per State legislation.

SR 516 is a State Highway of Regional Significance. The level of service standard for regionally significant state highways in the central Puget Sound region is set by PSRC in consultation with WSDOT and the region’s cities and counties. PSRC has established LOS D for SR 516 between SR 169 in Maple Valley and SR 515 in Kent. PSRC notes that it will measure the level of service for regionally significant state highways on a one-hour PM peak period basis. Furthermore, PSRC notes that local agencies will need to decide whether to apply concurrency to state highways of regional significance.

**City of Maple Valley Level of Service Standards**

The baseline traffic analysis showed the primary areas of congestion and capacity deficiencies within Maple Valley are expected along the SR 169, SR 516, and Witte Road corridors. The SR 169 and SR 516 corridors serve regional travel in addition to serving as primary travel corridors for Maple Valley. The alternatives analysis illustrated a need for significant improvements to both SR 169 and SR 516. In order to move these projects forward, significant new funding will be required from local, regional, and state sources. Individual intersections along these state highways will likely fall below the LOS D standards set by the State and PSRC prior to the City obtaining adequate regional and local funding for the needed improvements.

To address these concerns, the City has redefined its level of service standards. The City’s new standards are divided into two parts. The first part is based on the weighted average level of service of key intersections along the two state highways. This will be used for concurrency review and monitoring of overall traffic operations. The second part of the level of service standard covers all other intersections in the City.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

*Concurrency Level of Service Standards*

The City has identified two groups of intersections on SR 169 and SR 516 as being the most critical in the overall operation of its transportation system. These include intersections in the north part of the City along SR 169 and in the south part of the City along SR 516.

North Concurrency Intersections

- SR 169 @ 231st Street
- SR 169 @ Wax Road
- SR 169 @ Witte Road
- SR 169 @ 240th Street

South Concurrency Intersections

- SR 516 @ SR 169
- SR 516 @ Witte Road
- SR 516 @ 216th Avenue

The City has established a standard of LOS D, based on the weighted average delay per vehicle, for the north and south groups of intersections. The levels of service for each individual intersection are calculated for the weekday PM peak hour using the *Highway Capacity Manual, 2000* signalized intersection control delay methodology. The weighted average is calculated by summing the total delays at the group of concurrency intersections and then dividing by the sum of the total entering volumes for the same intersections. The weighted average is computed using the following equation for each concurrency group:

$$\text{Weighted Average} = \frac{\sum_{i=1}^n (d * \text{TEV})_i}{\sum_{i=1}^n \text{TEV}_i}$$

where

- d = average delay in seconds per vehicle for each intersection
- TEV = total entering volume for each intersection
- i = concurrency intersection

The use of the weighted average delay for these groups of intersections provides an overall measure of how these two key state highways are operating. The methodology allows one or more of the intersections in each group to operate below LOS D, while still maintaining an overall average of LOS D or better.

*Other Intersection Level of Service Standards*

In addition to the use of a LOS standard based on the weighted average delay for the seven state highway intersections, the City also has established level of service standards for all other intersections (including other intersections along the state highways) in the City. The City will apply these standards to the weekday PM peak hour and to other time periods as appropriate based on the type and location of development.

**Signalized, Roundabout, and All-way Stop Controlled Intersections:** LOS D or better, except for the Witte Road / SE 248th Street intersection which shall be LOS E, based on the average performance of all traffic movements at the intersection consistent with the methodologies in the *Highway Capacity Manual, 2000*.

**Two-way, Stop Controlled, Unsignalized Intersections:** LOS D or better; except for two-way, stop controlled, unsignalized intersections with SR 169, SR 516, or Witte Road which is LOS E for the side street approaches. The LOS is based on the average delay per vehicle for each approach or separate traffic movement at the intersection using the methodologies in the *Highway Capacity Manual, 2000*. On a case-by-case basis the City may allow the

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

level of service for traffic movements from the minor street at a two-way, stop controlled intersection to operate below the adopted standard if the Public Works Director (or designee) determines that no significant safety or operational impacts will result. As appropriate, mitigation will be identified and required to address potential impacts to safety or operations. Potential installation of traffic signals or other traffic control devices at these locations shall be based on the *Manual on Uniform Traffic Control Devices (MUTCD)*, the Transportation Element, and sound engineering practices. This allowance within the level of service standards is needed because the installation of a traffic signal or other traffic control device may not be warranted per the *MUTCD* or desirable based on the proximity of other current or planned traffic controls as identified in the Transportation Element.

**FUTURE TRAFFIC OPERATIONS**

2030 forecast traffic volumes for two transportation network conditions were analyzed: (1) baseline improvement projects only, and (2) with plan improvements. The results of the future baseline LOS analysis were used to develop the framework for the recommended transportation network, and ultimately, the long-term project list. The analysis provides a summary of future traffic operations with and without the long-term improvement projects, which are summarized in the transportation systems plan section of the Transportation Element.

The LOS analysis was conducted for the 2030 horizon year similar to the analysis conducted for the existing traffic conditions, but also included a review of the concurrency LOS measure. Tables T-11, T-12, and Figure T-7 summarize the forecast intersection operations for baseline and with improvement scenarios during the average weekday PM peak hour.

**Table T-11  
2030 Weekday PM Peak Hour Concurrency LOS**

Intersection	2030 Baseline				2030 With Improvements			
	Ctrl <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>3</sup>	v/c <sup>4</sup>	Ctrl	LOS	Delay	v/c
<u>North Concurrency Intersections</u>								
SR 169/ SE 231st St	Signal	D	51	0.87	Signal	E	68	0.95
SR 169/ SE Wax Rd	Signal	F	106	1.23	Signal	C	28	0.84
SR 169/ Witte Rd SE	Signal	F	92	1.06	Signal	B	20	0.83
SR 169/ SE 240th St	Signal	F	128	1.24	Signal	E	61	1.00
<b>Weighted Average<sup>5</sup></b>		<b>F</b>	<b>93</b>	<b>1.09</b>		<b>D</b>	<b>47</b>	<b>0.91</b>
<u>South Concurrency Intersections</u>								
SR 169/ SR 516	Signal	E	79	0.92	Signal	D	52	0.95
SR 516/ Witte Rd SE	Signal	D	53	0.87	Signal	D	43	0.93
SR 516/ 216th Ave SE	Signal	C	32	0.88	Signal	D	42	0.99
<b>Weighted Average<sup>5</sup></b>		<b>E</b>	<b>60</b>	<b>0.90</b>		<b>D</b>	<b>46</b>	<b>0.96</b>

1. Intersection control: “Signal” is traffic signal; “Stop” has stop signs on minor street; “Round” is roundabout intersections.  
 2. Level of Service, based on 2000 *Highway Capacity Manual* methodology.  
 3. Average delay in seconds per vehicle.  
 4. Volume-to-capacity ratio reported for signalized and roundabout intersections.  
 5. Weighted average is calculated by summing the total delays at the group of concurrency intersections and then dividing by the sum of the total entering volumes for the same intersections.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

As shown in Table T-11, the weighted average intersection LOS for the North and South Concurrency Intersections is improved with completion of the long-term transportation projects. Without implementation of the long-term projects, the weighted average intersection LOS for the North and South Concurrency Intersections would fall below the City’s LOS D standard.

In addition to the weighted average LOS, most of the individual concurrency intersections will also operate at LOS D or better with implementation of the full project list. The only two intersections still operating below LOS D with the improvements will be along SR 169 at SE 231st Street and at SE 240th Street. Both intersections are expected to operate at LOS E by 2030 with improvements. However, as noted above, the weighted average delay of the North Concurrency Intersections would be LOS D, thereby meeting the City’s LOS standard.

The intersection operations are improved or generally acceptable at most locations with implementation of the full project list. The results shown in Table T-12 indicate that traffic operations will degrade along SR 169 by Year 2030 if no further improvements are constructed, such as widening the corridor to five lanes. With the identified improvements, the intersections are expected to meet the State’s LOS D standards, except at the concurrency intersections identified in Table T-11. While a few of those intersections will operate at LOS E by 2030, the weighted average delay of the North and South Concurrency Intersections would be LOS D with full implementation of the identified improvements.

The signalized intersection at SE 231st Street/SR 18 SB Ramps is expected to operate at LOS E in 2030 with improvements. This intersection is part of the SR 18 HSS facility and is outside the City limits; therefore no specific improvements have been included as part of the Maple Valley Transportation Element.

**Table T-12  
2030 Weekday PM Peak Hour LOS at Non-Concurrency Intersections**

Intersection	2030 Baseline				2030 With Improvements			
	Ctrl <sup>1</sup>	LOS <sup>2</sup>	Delay <sup>3</sup>	v/c <sup>4</sup> or WM <sup>5</sup>	Ctrl	LOS	Delay	v/c or WM
SR 169/ SE 244th St	TWSC	D	28	WBL	Signal	B	13	0.81
SR 169/ SE 251st St	TWSC	D	29	WB	TWSC	D	32	WB
SR 169/ SE 264th St	Signal	F	82	1.24	Signal	D	47	0.93
SR 169/ SE 271st St	TWSC	F	>200	WB	Signal	C	32	0.78
SR 169/ SE 276th St	Signal	C	21	0.85	Signal	C	28	0.88
SR 169/ SE 280th St	Signal	C	28	0.89	Signal	B	19	0.77
SR 516/ 228th Ave SE	Signal	B	16	0.77	Signal	B	18	0.82
Witte Rd SE/ SE 240th St	Signal	B	18	0.81	Signal	D	39	0.90
Witte Rd SE/ SE 248th St	Round	E	66	1.20	Round	E	62	1.18
Witte Rd SE/ SE 254th Pl	TWSC	F	80	EB	TWSC	F	198	EB
Witte Rd SE/ SE 268th St	TWSC	E	37	WB	TWSC	C	24	WB
SE 231st St/ SR 18 NB Ramps	Signal	C	31	0.67	Signal	D	41	0.80
SE 231st St/ SR 18 SB Ramps	Signal	D	52	0.98	Signal	E	57	0.97
SE Kent-Kangley Rd/ Summit-Landsburg Rd SE	TWSC	F	>200	SB	TWSC	F	67	SB

1. Intersection traffic control: “Signal” is traffic signal; “TWSC” has stop signs on minor approach; “Round” is a roundabout.
2. Level of Service, based on 2000 *Highway Capacity Manual* methodology.
3. Average delay in seconds per vehicle.

EXHIBIT "A" ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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4. Volume-to-capacity ratio reported for signalized and roundabout intersections.
  5. Worst movement reported for stop-controlled intersections.
- 

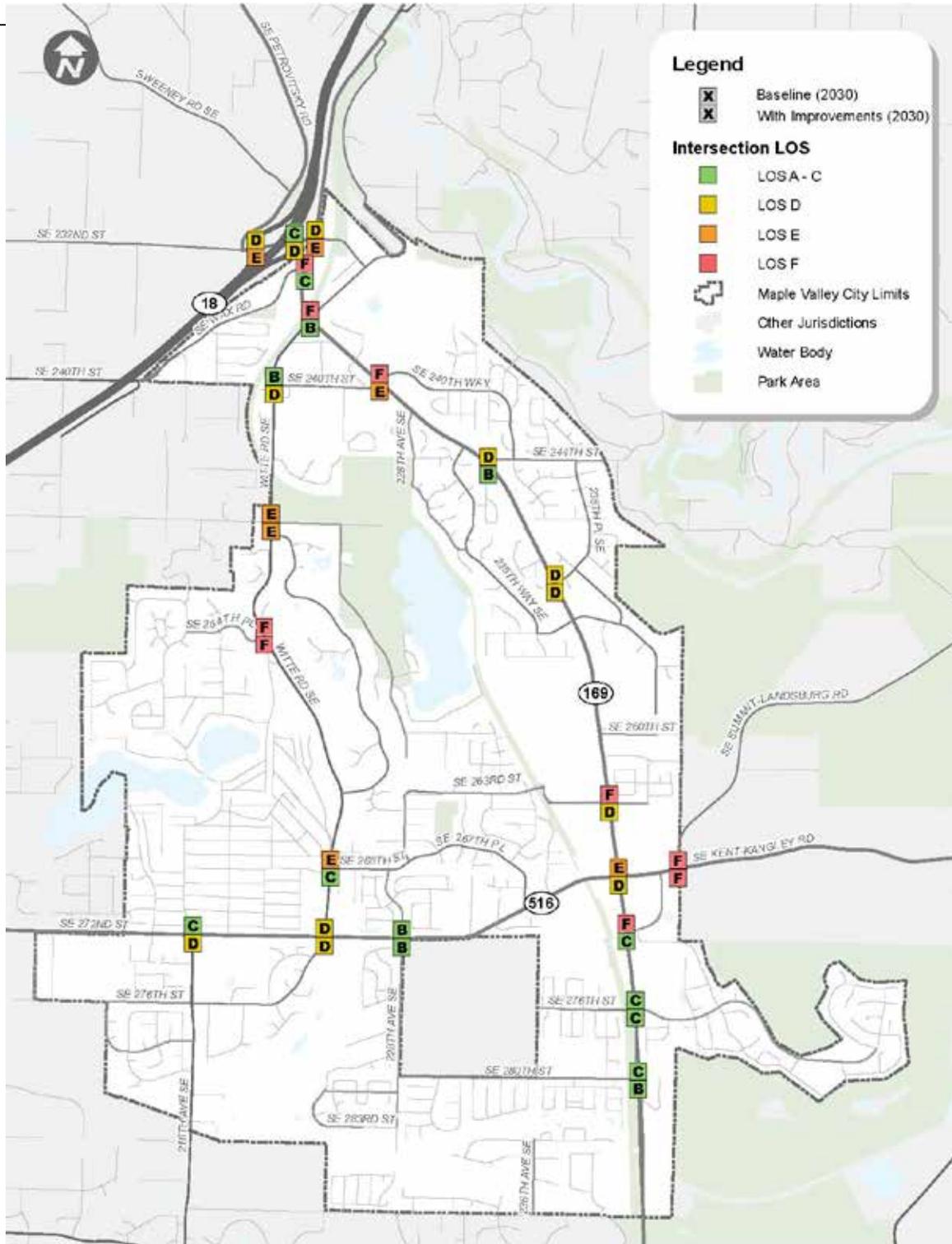
The roundabout at Witte Road SE/SE 248th Street intersection is expected to operate at LOS E under each future scenario. To improve the intersection operations to an LOS D or better, the Witte Road corridor would need to be widened to four or five lanes to accommodate a two-lane roundabout. Further widening along Witte Road is not a desirable solution; therefore LOS E operations are acceptable at this location because the intersection has been constructed to its optimal configuration.

Unsignalized, two-way, stop-controlled intersections not expected to meet City LOS standards include SE 254th Place at Witte Road SE. The high volume of vehicles along Witte Road SE do not allow for many gaps in traffic for vehicles to exit SE 254th Place. The poor LOS impacts a relatively small number of trips (100 vehicles per hour). A similar situation is found at the Kent-Kangley Road/Summit-Landsburg Road intersection. However, neither intersection is expected to meet traffic signal warrants. The City will monitor operations and safety at these locations and may identify additional improvements or restrictions, as needed, consistent with the level of service standards.

EXHIBIT "A" ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan



**Future (2030) PM Peak Hour Intersection Levels of Service**  
 Maple Valley Transportation Element

**FIGURE T-7**

ADOPTED OCTOBER 13, 2011

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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TRANSPORTATION SYSTEMS PLAN

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The transportation systems plan section of the Transportation Element provides a long-range strategy for the City of Maple Valley to address current and forecast transportation issues and identified needs, implement transportation goals and policies, and realize the intent of the community’s Vision. The plan is based upon an analysis of the existing transportation system, forecasts of future travel demands, the anticipated availability of resources, and the desire of the City of Maple Valley to create an efficient transportation system that puts a priority on community livability. The plan builds upon the City’s policies and standards and seeks to give specific shape to the City’s transportation goals and vision.

The transportation systems plan focuses on four components of the transportation system:

- ® Streets and Highways
- ® Public Transit and Travel Demand Management
- ® Non-Motorized Facilities
- ® Waterborne, Rail, and Air Transportation

These are the basic elements of the transportation system upon which mobility within and through Maple Valley depends. The core of the transportation systems plan covers street and highway improvements with a focus on the major corridors within the City. The street system serves the primary movement of automobiles and truck traffic. The street system also provides the framework for other travel modes in the community, including transit, pedestrian, and bicycle modes.

**STREETS AND HIGHWAYS**

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Streets and highways serving Maple Valley provide for the general movement of people and goods. They also serve other travel modes, including pedestrians, bicyclists, and transit. The street and highway section identifies the functional roadway system, roadway design standards, designated truck routes, improvement projects and programs needed to maintain and expand the system, and general guidelines and strategies on access management.

**Functional Classification**

Roadway functional classification provides for a hierarchy of roadways. These classifications also act as a guide for future development of the overall street system. The purpose of the functional classification plan is to provide a hierarchy of arterial and local streets. Arterial streets serve higher traffic volumes and may have few access points. Local streets provide neighborhood circulation and access to individual parcels. Collector streets link arterials and local streets and may provide access to individual parcels. A well-connected system of streets enhances overall mobility and facilitates greater opportunities for pedestrian and bicycle travel.

The Transportation Element simplified the City’s prior street functional classification system. There is now only one “collector street” class compared to the stratification in the 2004 Transportation Element. This allows the City flexibility to adapt the design of the road to meet City goals without the requirement to formally change the street functional classification in the Comprehensive Plan. The roadway classifications shown in Table T-13 include principal arterials, minor arterials, collector streets, and local and business access streets.

EXHIBIT "A" ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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Figure T-8 shows the classification of existing and planned streets within the City and its UGA. The specific alignments of new streets will be defined as part of the street design or during the review of new development proposals. The alignments will take into account property ownership, topography, environmental impacts, site



EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

design, and other considerations. In the “Donut Hole” area, no specific roadway alignments have been shown, but the area has been identified to need a system of circulation roadways that will be defined as part of the development review process. Other new street connections needed in the future are in the vicinity of Lake Wilderness, such as completing a missing segment of SE 260th Street and linking 228th Avenue SE to Lake Wilderness Country Club Drive. These new connections will provide improved emergency response and connectivity for pedestrians, bicyclists, and vehicles in the neighborhood.

The City roadway functional classification system is slightly different from the federal functional classification, particularly for roadways such as Witte Road, SR 516, and many of the collector streets. Witte Road is classified as a collector and SR 516 is classified as a minor arterial on the federal map. Other important collector streets are classified as local access streets or are not shown on the federal map, these include SE 240th Street, 228th Avenue SE, SE 231st Street and SE 280th Street.

Federal functional classification is one determinant of eligibility for federal transportation funding. All roadway projects using federal funds must be approved on the federally classified roadway system. Local access roadway projects are not eligible to use federal transportation funds unless they are a pedestrian or bicycle project, or a safety project using State transportation safety funds.

The City should prepare and submit an application to update the federal functional classification map so that it is consistent with the City classifications identified in Figure T-8. The process includes review by both PSRC and WSDOT, with final approval by the Federal Highway Administration (FHWA). The changes should be focused on key corridors such as Witte Road, SR 516, SE 240th Street, 228th Avenue SE, SE 231st Street and SE 280th Street.

**Table T-13  
Functional Classification Definitions**

<b>Functional Classification</b>	<b>Description</b>
Principal Arterials	Regionally significant streets that link communities while also connecting important locations within the City. Principal arterials most often facilitate the system’s largest traffic volumes. Access to local streets and driveways is discouraged.
Minor Arterials	Major streets that provide important intra-city connections, but may also play a regional role. Access to local streets is encouraged while driveway access is discouraged.
Collector Streets	Intra-community streets connecting residential neighborhoods with commercial and activity centers or principal and minor arterials. Driveway access is often provided along these routes.
Local and Business Access Streets	Streets providing circulation within neighborhoods or commercial areas and direct access to abutting properties.

**Roadway Design Standards**

The City of Maple Valley adopted Roadway Standards in 2004 which sets specific and consistent road design elements. The standards include items such as right-of-way needs, pavement width, type and width of pedestrian and bicycle facilities, and roadway and intersection radii. The standards also provide requirements for the location and installation of utilities within the right-of-way.

The standards are intended to support the City’s goals in providing adequate facilities to meet the mobility and safety needs of the community, as well as complying with storm water management, sensitive areas, and other regulations. The standards are intended to assist design professionals and developers for all new and reconstructed roadways and right-of-way facilities, both public and private, within the City.

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**Truck Routes**

A significant amount of trucking activity occurs in the City due to the surrounding gravel mines and rock quarries east and south of the City. Local industry and surrounding forestry/agricultural uses generate truck traffic as well. Trucks have a significant impact on traffic operations, safety, and roadway maintenance. They also impact air quality and noise levels in the City. The City has designated only principal arterials and one minor arterial as truck routes. The 2004 Road Standards are defined to support truck use along these routes.

The primary routes for trucks traveling through the City are the two state highways: SR 169 and SR 516. The other truck route includes Kent-Kangley Road, east of the SR 516/SR 169 intersection at Four Corners. These routes provide connections from the surrounding land uses to the regional transportation system. SR 169 is the only north-south arterial for trucks heading between Black Diamond and Renton. SR 516 and Kent-Kangley Road provide an east-west arterial through the City. If trucks have an origin/destination within the City, they should limit travel on non-designated streets to the shortest practical travel route between the origin/destination and a designated truck route.

**Transportation Improvement Projects**

Based on the evaluation of existing and forecast traffic volumes, traffic operations, and safety, a recommended list of transportation improvement projects were defined. The improvements address safety, existing capacity deficiencies, and roadway preservation. They also cover upgrades to existing roads and construction of new roadways and street grid systems to support the forecast economic development and growth in the City and its UGA. The projects incorporate needs for pedestrians, bicyclists, and transit service that will use the same corridors. The projects were categorized into the following four types of projects:

- ® SR 169 Improvements (Maple Valley – Black Diamond Road SE)
- ® SR 516 Improvements (SE Kent-Kangley Road)
- ® Local Arterial Improvements
- ® New Local Roadway Projects

A brief description of each project is presented in Table T-14. Figure T-9 shows the location of each project. Table T-14 identifies the roadway or intersection, the project limits, a description of the improvements, and a planning level cost estimate. A map identification number is included on the table to assist in referencing the projects shown on the figure.

Planning level cost estimates were prepared for each project based on typical per unit costs, by type of roadway and scope of the improvement. Where costs had been calculated as part of ongoing design projects, they were used instead. The cost estimates include allowances for right-of-way acquisition, based on generalized needs to meet the City’s street standards. Adjustments to construction costs were included, as needed, to reflect any specific implementation issues, such as environmental impacts or impacts on adjacent properties.

*SR 169 Improvements (Maple Valley – Black Diamond Road SE)*

SR 169 is a critical highway for the region and for each local community along the corridor. It is the primary route for Cities such as Maple Valley and Black Diamond. Improvements are needed within the City of Maple Valley to increase capacity, improve safety, enhance peak hour traffic operations, and to upgrade the facilities to urban design standards. The future analysis indicates that SR 169 should be widened to four or five lane cross-sections to accommodate the anticipated land use growth in the City and the surrounding communities. The widening will be

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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accomplished in phases with a total of fourteen separate projects listed along SR 169 in Table T-14 and shown in Figure T-9.

Projects 101 through 104 focus on improving traffic operations at key intersections in the northern section of the City. Traffic volumes at these intersection are sensitive to major new roadway projects in the area (Projects 124, 125, and 126), and the specific improvements will be confirmed based on results of a recommended Wilderness Village circulation and feasibility study that will need to be conducted at the outset of any of these new roadway improvements.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

**Table T-14  
Transportation Improvement Projects**

Map ID	Title and Location	Description	Project Cost <sup>1</sup> (\$1,000)
<b>SR 169 Improvements (Maple Valley - Black Diamond Road SE)</b>			
101	SR 169/Wax Rd Intersection	Upgrade signal equipment to allow EB right-turn/NB left-turn overlap phase and signal head.	\$10
102	SR 169/Witte Rd SE Intersection	Investigate various design options at the intersection that would be dependent on other projects, such as completion of the SE 231st St Connection. Would require a more detailed feasibility and circulation study, and could not occur until completion of the SE 231st St Connection.	\$900
103	SR 169/SE 240th St Intersection	Construct second WB left-turn lane and EB right-turn lane. NB and SB approaches would both be one left-turn lane, one through lane, and one through/right-turn shared lane.	\$1,160
104	SR 169/SE 244th St Intersection	Install traffic signal to provide for improved operations and reasonable access from the minor approach (SE 244th St).	\$470
105	SR 169 Widening (Witte Rd SE to 228th Ave SE) <i>Phase A</i>	Construct second SB lane on SR 169 from Witte Rd SE to 228th Ave SE. Provide curb, gutter, bike lane, and sidewalk on west side of corridor.	\$3,252
106	SR 169 Widening (Witte Rd SE to SE 244th St) <i>Phase C</i>	Construct second SB lane on SR 169 from 228th Ave SE to SE 244th St and second NB lane on SR 169 from 228th Ave SE to Witte Road SE. Provide center left turn lane/pockets where warranted. Provide curb, gutter, bike lanes, and sidewalks.	\$5,850
107	SR 169 Widening (228th Ave SE to SE 244th St) <i>Phase E</i>	Construct second NB lane on SR 169 from SE 244th St to 228th Ave SE. Provide curb, gutter, bike lane, and sidewalk on east side.	\$2,500
108	SR 169 Widening (SE 255th St to SE 264th St) <i>Phase D</i>	Extend second SB and NB lanes on SR 169 from SE 264th St to SE 255th St. Provide center left turn lane/pockets where warranted. Install traffic signal at the SE 260th St intersection. Provide curb, gutter, bike lanes, and sidewalks on both sides.	\$9,919
109	SR 169 Widening (SE 244th St to SE 255th St) <i>Phase F</i>	Construct second SB lane on SR 169 from SE 244th St to SE 255th St. Provide center left turn lane/pockets where warranted. Provide curb, gutter, bike lane, and sidewalk on the west side.	\$8,480
110	SR 169 Widening (SE 244th St to SE 255th St) <i>Phase G</i>	Construct second NB lane on SR 169 from SE 255th St to SE 244th St. Provide curb, gutter, bike lane, and sidewalk on the east side.	\$5,600

**EXHIBIT “A” ORDINANCE NO. O-11-471**

**TRANSPORTATION ELEMENT**

City of Maple Valley Comprehensive Plan

111	SR 169 Widening (SE 271st St to SE 276th St) <i>Phase B</i>	Construct second SB lane on SR 169 from SE 271st St south to the existing SB right-turn lane onto SE 276th St. Construct second NB lane SE 271st St to SE 276th St. Provide center left turn lane/pockets where warranted. Provide curb, gutter, bike lane, and sidewalk on both sides. Install traffic signal at the intersection with SE 271st St.	\$1,180
112	SR 169 Widening (SE 276th St to SE 280th St) <i>Phase H</i>	Construct a second SB lane on SR 169 from SE 276th St to SE 280th St. Provide center left turn lane/pockets where warranted. Provide curb, gutter, bike lane, and sidewalk on the west side.	\$1,970
113	SR 169 Widening (SE 276th St to SE 280th St) <i>Phase I</i>	Construct a second NB lane on SR 169 from SE 276th St to SE 280th St. Provide curb, gutter, bike lane, and sidewalk on the east side.	\$1,930
114	SR 169 Widening (from SE 280th St to South City Limit) <i>Phase J</i>	Construct second SB lane on SR 169 from SE 280th St to south city limit. This will convert SB approach at SE 280th St intersection to through lane and through/right-turn shared lane. Provide curb, gutter, bike lane, and sidewalk on the west side.	\$3,210
115	SR 169 Intelligent Transportation System Implementation (SE 231st St to SE 280th St)	Upgrade signal controllers, install fiber, and ITS equipment along the SR 169 corridor between SE 231st St and SE 280th St. Equipment includes new controllers and closed circuit video cameras.	\$0 (funded by WSDOT)
<b>SR 516 Improvements (SE Kent-Kangley Road)</b>			
116	SR 516 (213th Ave SE to 218th Ave SE) <i>Phase A</i>	Widen to 3 lanes. Add EBR turn lane at 216th Ave SE intersection. Install new curb, gutter, bike lane, and sidewalk on the north side for the entire length and the south side west of 216th Ave SE.	\$4,600
117	SR 516 (207th Ave SE to 216th Ave SE) <i>Phase B</i>	Construct second EB lane on SR 516 from west city limit to 216th Ave SE. Construct second WB lane on SR 516 from 1,000 ft east of 216th Ave SE to west city limit. Include curb, gutter, bike lanes, and sidewalks. Provide center left turn lane/pockets where warranted. Improve 216th Ave SE intersection.	\$4,320
118	SR 516 (218th Ave SE to 228th Ave SE) <i>Phase C</i>	Widen to 3 lanes. Install new curb, gutter, bike lane, and sidewalk on the south side for the entire length and the north side west of Witte Road. Construct center left turn lane/pockets, where warranted. Construct NB right-turn lane. Left-turn signal pockets and signal phasing provided at each approach.	\$4,860
119	SR 516 (228th Ave SE to 236th Pl SE) <i>Phase D</i>	Widen to 3 lanes. Install new curb, gutter, bike lane, and sidewalk on both sides. Construct center left-turn lane/pockets, where warranted.	\$3,870
<b>Local Arterial Improvements</b>			
120	Witte Rd SE (SE 254th Pl to SE 256th Pl)	Construct 3 lane roadway (center median/turn lane) from north of SE 254th Pl to the south of SE 256th Pl. Close direct access from 220th Ave SE to Witte Rd. Realign SE 256th St for improved intersection angle. Install traffic signal at SE 254th Pl/Witte Rd SE, when warranted.	\$1,520

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

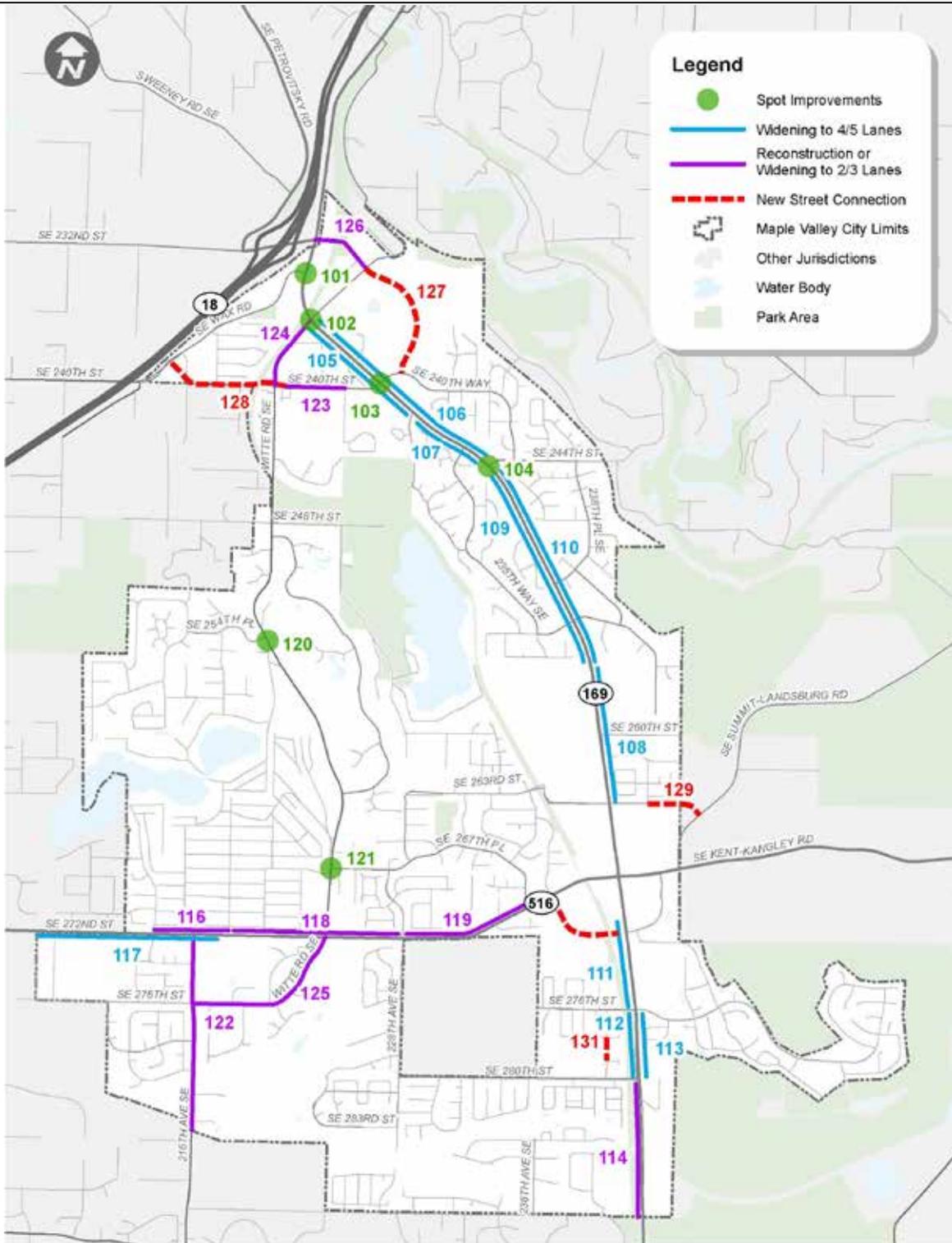
121	Witte Rd/SE 268th St Intersection	Construct center turn/merge lane along with curb, gutter, and sidewalks.	\$480
122	216th Ave SE (SR 516 to South City Limit)	Widen to 3 lanes. Install new curb, gutter, bike lane, and sidewalk on both sides. Construct center left turn lane/pockets where warranted.	\$2,250
123	SE 240th St (Witte Rd to 224th Ave SE)	Widen to 3 lanes through frontage improvements on north side of street. Install new curb, gutter, bike lane and sidewalks. Construct center left turn lane.	\$1,940
124	Witte Rd SE (SR 169 to SE 240th St)	Reconstruct roadways to 3 lanes. Install new curb, gutter, bike lanes, street lights, and sidewalk on the east side. May include retaining wall to the west.	\$2,720
125	SE 276th St (SE 216th St to SR 516)	Reconstruct roadway. Install new curb, gutter, bike lanes, street lights, and sidewalks.	\$9,610
126	SE 231st St (SR 169 to Witte Rd) <i>Phase A</i>	Reconstruct roadway to 3 lanes (one NB lane, one SB lane, and center median/turn lane) between SR 169/SE 231st St intersection and SE Witte Rd. At SR 169 intersection: construct second WB through lane on east leg; WB approach would have left-turn lane, through lane, and through/right-turn shared lane. Provide curb, gutter, bike lanes, and sidewalks.	\$1,480
<b>New Local Roadway Projects</b>			
127	SE 231st St Connection (Witte Rd to SE 240th St) <i>Phase B</i>	Construct 3 lane roadway (one NB lane, one SB lane, and center median/turn lane) between SE Witte Road and SR 169/SE 240th Street intersection vicinity. Provide curb, gutter, bike lanes, and sidewalks.	\$10,140
128	SE 240th St Extension (Witte Rd to Wax Rd)	Construct 2/3 lane extension of SE 240th St between SE Wax Road and Witte Rd SE. Provide center left turn lane/pocket where left turns are likely. Install signal or roundabout at new SE Wax Rd intersection. Reconfigure Witte Rd SE intersection: On EB approach, add right-turn lane, through-lane, and left-turn lane. Provide left-turn pockets on all approaches. Provide curb, gutter, bike lanes, and sidewalks.	\$10,910
129	SE 264th St Extension (SE 242nd Ave to Summit-Landsburg Rd)	Construct 2 lane roadway with curb, gutter and sidewalks between 242nd Ave SE to SE Summit-Landsburg Rd to promote improved circulation in the Four Corners subarea.	\$2,880
130	SE 271st St Extension (SR 169 to 236th Pl SE)	Construct new 3 lane road with curb, gutter, bike lanes, and sidewalks (one EB lane, one WB lane and center turn lane) on the new alignment between SE 271st Pl/SR 169 intersection and 236th Pl SE/SR 516 intersection. Future development would provide a connection between the Extension and the Summit Place development area. At 236th Pl SE/SR 516 intersection, install traffic signal or roundabout and provide turn lanes.	\$6,420
131	240th Ave SE Connection (SE 277th Pl to SE 279th St)	Connect 240th Ave SE together to provide a local access connection between SE 276th St and SE 280th St.	\$790

1. Costs in \$1,000s of dollars (2011 \$).
2. EB = eastbound; WB = westbound; NB = northbound; SB = southbound.

EXHIBIT "A" ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan



Transportation Improvement Projects

Maple Valley Transportation Element

FIGURE

T-9

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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Projects 105 through 113 (except 108) reflect widening only along one side of the highway at a time due to funding and timing constraints. Project 108 would widen both sides of the arterial. Project 115 is intended to improve traffic signal operations, coordination, and management from SE 231st Street to SE 280th Street. WSDOT is leading and funding the signal and Intelligent Transportation System project. The widening projects would add curb, gutter, and sidewalk.

*SR 516 Improvements (SE Kent-Kangley Road)*

Anticipated future development in the southern areas of Maple Valley and in the City of Black Diamond will require additional capacity improvements along SR 516 between the west city limits and SR 169 to support forecast travel demand. A total of four projects have been identified in Table T-15 and are shown in Figure T-9.

West of 218th Avenue SE, SR 516 would be widened to five lanes (Projects 116 and 117). This includes providing additional lanes to the SR 516/216th Avenue SE intersection. It was assumed that SR 516 would be widened to five lanes through the City of Covington before five lanes are needed in this section of Maple Valley.

East of 218th Avenue SE, SR 516 would be widened to three lanes (Projects 118 and 119). With additional local circulation roadways within the southern parts of the City, this section of SR 516 operated acceptably at three lanes. However, improvements to intersection of SR 516 and Witte Road SE would be needed (See Project 118). The SE 271st Street Extension (Project 130) plays a key role in reducing traffic volumes along SR 516.

*Local Arterial Improvements*

This category of projects includes capacity, safety, and road standard improvements along other City arterials and streets. A total of six projects have been identified along City roadways and are listed in Table T-14 and shown in Figure T-9.

Projects 120 and 121 would better manage access between Witte Road SE and side streets. This would improve safety in the area, and improve capacity along Witte Road SE. The addition of traffic signals would likely not be warranted due to lower side street volumes.

Projects 122 and 123 would widen roadways to three lanes reflecting their transition from rural to urban arterials. The widening projects would add curb, gutter, and sidewalk.

Street preservation and rehabilitation projects along Witte Road, Projects 124 and 125, would add curb, gutter, and sidewalk. SE 231st Street would also be upgraded to a three lane roadway between SR 169 and Witte Road as the roadway is extended south to SE 240th Street.

*New Local Roadway Projects*

Five new arterial roadways were identified to support future development within the City. The SE 231st Street Connection (Project 127) is a new roadway that will serve future commercial development east of SR 169 in the Wilderness Village Subarea. Another project will extend SE 240th Street west from Witte Road to Wax Road. The new SE 240th Street Extension (Project 128) is estimated to reduce delays along SR 169 within Wilderness Village and provide better access for vehicles headed to/from areas west of the City.

In order to improve circulation in the southern part of the City and the SR 169/SR 516 intersection in the Four Corners Subarea, the SE 271st Street Extension (Project 130) is to be built between SR 516 and SR 169. The new roadway, along with extension of SE 264th Street (Project 129), will provide better circulation within Four Corners and reduce the need to widen the SR 169/SR 516 intersection beyond a five lane cross-section. In addition, the

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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SE 271st Street Extension allows SR 516 to remain at three lanes by providing an internal connection to the Summit Place area.

**Local Streets**

Improvement to or construction of new local streets are not explicitly defined in the long-range plan and are assumed to be built through developer mitigation requirements or Local Improvement Districts (LIDs) based on community support. Local street system plans may be prepared as part of future neighborhood or subarea studies. For example, increased commercial and residential development within the Four Corners and Summit Place subareas will need to be balanced with appropriate circulation roadways to allow alternate access routes and provide acceptable levels of roadway system performance. The actual alignment of the future circulation roadways will be determined based on property boundaries, environmental impacts, and engineering considerations.

**Maintenance Program**

To maximize the use and efficiency of the existing and future transportation infrastructure, the City of Maple Valley will continue with a comprehensive, systematic maintenance program. The program will evaluate arterials and local roadways for pavement condition, signage, sight distance restrictions (such as vegetation blocking sight lines), and neighborhood traffic impacts. Traffic control devices, including traffic signals, should be monitored and serviced regularly. As needed, the program will also be used to evaluate speed limits based on functional classification, design, and roadway conditions.

The City's Pavement Management System (PMS) provides a consistent and systematic approach for identifying overlay projects each year. The PMS also provides input regarding the need to rebuild existing streets, instead of performing an overlay.

To assure that the existing and future transportation infrastructure is preserved in a cost-effective manner, the City will allocate annual budget resources to maintaining existing infrastructure.

**PUBLIC TRANSIT AND TRANSPORTATION DEMAND MANAGEMENT**

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In order to provide viable transportation alternatives, the City of Maple Valley recognizes the importance of transit and travel demand management programs. In general, these programs build on regional programs with some refinements to reflect the specific needs of the City.

**Transit Plan**

The Transportation Element has been coordinated with King County Metro Transit's 6-Year Development Plan. Transit service in Maple Valley is focused on the SR 169 corridor and the Park-and-Ride lot north of Wilderness Village. Transit service is provided on weekdays, with no weekend service available. King County Metro Transit regularly reviews its service plans and route structure to address possible improvements or reductions in service.

To support future development activity, the City encourages King County Metro Transit to consider additional routes to provide adequate coverage and increased service frequency, especially on the weekends. Increased service frequency and coverage is desired by the City to make transit use more convenient to meet the growing local travel demands. The Maple Valley Transportation Element provides for the following transit/public transportation services and facilities:

- ® **Regional Transit Routes.** King County Metro Transit Routes 143, 149, 168 should continue to be enhanced to provide regional transit services between Maple Valley, Renton, Kent, and Seattle. Changes to future routes should be consistent with the needs of the Maple Valley community and should be based on a collaborative route planning process involving the residents of Maple Valley.

## TRANSPORTATION ELEMENT

## City of Maple Valley Comprehensive Plan

- ® **Park-and-Ride Facilities.** To support future City growth and increases in transit ridership, a new park-and-ride facility at or near the intersection of SR 516 and 216th Avenue SE should be investigated. This facility will allow more people to gain access to transit services without having to travel through the most congested locations in the City. A third park-and-ride facility should be investigated in the Four Corners (SR 169/SR 516) subarea. The new facilities should be coordinated with additional service improvements along the SR 516 corridor.
- ® **Regional Commuter Rail Service.** WSDOT and other partner agencies have completed the Southeast King County Commuter Rail Study which evaluated the feasibility of commuter rail service along the existing BNSF Stampede Pass rail corridor that bisects the southern part of the City. The study recommends completing a next phase of the project that will include more rigorous planning, environmental, and engineering analyses to verify and refine the findings of the completed study. The City will work with WSDOT and other agency partners to implement rail service when feasible.
- ® **Carpooling and Vanpooling.** King County Metro Transit should continue to offer tools to encourage carpooling and vanpooling by City residents. The City will work with King County Metro Transit to increase awareness that carpooling and vanpooling programs are provided.
- ® **Transit Accessibility.** The City will coordinate with King County Metro Transit in the evaluation of accessibility to public transportation to/from future developments. The City's road standards require sidewalks on all streets thereby supporting transit service accessibility.

The City will continue to work with King County Metro Transit to ensure high-quality transit services and facilities are maintained as the City continues to grow.

#### Transportation Demand Management Program

In addition to potential future increases in transit service, transportation demand management (TDM) programs can support the mobility needs of the community. The TDM programs target travel behavior rather than the transportation infrastructure. These programs should be coordinated with Metro Transit, King County, and PSRC to provide a broader basis for reducing single-occupant vehicles and expanding alternative transportation choices.

Maple Valley is a growing community with increased urban levels of development, especially in the Wilderness Village and Four Corners commercial areas. TDM strategies are typically most effective in denser and larger urban settings. However, TDM program strategies coordinated with regional agencies can provide alternatives for residents and employees within Maple Valley. The Washington Commute Trip Reduction Law (RCW 70.94.521) requires TDM performance targets for firms with over 100 employees. However, the Commute Trip Reduction program does not currently apply to Maple Valley because the area lacks large employers. Potential TDM strategies for the City of Maple Valley include the following options:

- ® **Flexible/Alternative Work Schedules.** Flexible work schedules allow employees to adjust start/end times to accommodate carpools, vanpools, or transit options. Alternative work schedules may be used to reduce the number of days an employee commutes during peak travel periods. These programs help reduce the need for adding capacity to highways and arterials, and reduce the levels of peak hour congestion.
- ® **Telecommuting.** The use of telecommunications technology can allow some employees to work from home. This reduces the need for travel to/from a work site for some week days.
- ® **Site and Street Design.** Sidewalks and/or other hard surface pathways that connect a development to adjacent pedestrian and bicycle facilities should be provided. Site designs should provide reasonably direct pedestrian access between arterials or collectors and existing or future transit stops. Transit shelters should be considered along arterial streets where the number of transit riders warrants them.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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**NON-MOTORIZED FACILITIES**

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Bicycle, pedestrian, and equestrian facilities play a vital role in the City’s transportation environment. The non-motorized transportation system is comprised of facilities that promote mobility without the aid of motorized vehicles. A well-established system encourages healthy recreational activities, reduces vehicle demand on City roadways, and enhances safety within the community.

The City desires to have sidewalks and bike lanes on arterial roadways, unless special circumstances make it prohibitive. The City has an annual program to enhance non-motorized facilities. Segments of arterials and collectors that do not have sidewalks, bike lanes, or adequate walkways on both sides of the street would be improved as part of the identified improvement projects or through the annual non-motorized facilities program. Greater details on existing and planned pedestrian and bicycle facilities are provided in the Maple Valley Non-motorized Transportation Plan (July 2004). As a separate publication, the Non-Motorized Transportation Plan was developed to directly address non-motorized elements as part of the Maple Valley Comprehensive Plan and the vision of Maple Valley citizens as expressed in a number of planning and design efforts.

The Non-Motorized Transportation Plan is consistent and supportive of a number of other planning efforts, including the City’s Transportation Element; Road Standards; the Parks, Recreation, Cultural and Human Services Plan; and efforts by citizen organizations in the broader east King County area to identify regional connections. The City will work to initiate an update of the Non-Motorized Transportation Plan to identify projects that have been completed and to update priorities. The plan should also include a funding component that builds of the financing plan as part of the Transportation Element.

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**WATERBORNE, RAIL, AND AIR TRANSPORTATION**

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There are no airports in the immediate Maple Valley planning area. Regional, national, and international air travel for Maple Valley is provided via Seattle-Tacoma International Airport, located approximately 15 miles west of Maple Valley. The airport can be accessed via SR 169 or SR 516.

The Burlington Northern Santa Fe (BNSF) railroad tracks bisect the southern residential areas of the City. This railroad line is referred to as the Stampede Pass route and is a mainline used to ship freight to/from the east side of the state and beyond. BNSF reactivated the line in 1996 to address projected growth at the ports. The Stampede Pass tunnel located near the crest of the Cascade Mountain Range is below railroad height standards and double-stacked container cars are prevented from using the line. BNSF train schedules indicate that two trains use the route each day, with additional trains using the tracks intermittently. No rail passenger service is offered along the rail line. One controlled crossing is located at the southern city limits at 216th Avenue SE.

There is no waterborne transportation serving Maple Valley. The Transportation Element does not identify waterborne transportation as a component of the City’s transportation system.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

FINANCE AND IMPLEMENTATION PROGRAM

The transportation improvement projects must be funded and implemented to meet existing and future travel demands in and around the City of Maple Valley. A summary of project costs and a strategy for funding the projects over the life of the plan are presented. In addition, implementation strategies are discussed, including continuing coordination with WSDOT and other agencies to prioritize and fund improvements along SR 169 and SR 516, two regional state highways serving southeast King County. Other strategies call for monitoring and refining City development regulations, such as the concurrency and traffic impact fee programs to ensure development does not out pace transportation system investments. The implementation plan provides the framework for the City to prioritize and fund the improvements identified in the transportation systems plan.

**FINANCING PROGRAM**

The GMA requires the Transportation Element of the Comprehensive Plan to include a multi-year financing plan based on the identified needs in the transportation systems plan. The financing plan for the Transportation Element provides a basis for the City’s annual Six-Year Transportation Improvement Program (TIP). As required by the GMA, the financing program also includes a discussion of how additional funding will be raised and/or level of service standards will be reassessed to assure that the Transportation Element can adequately support the land use plan. Alternatively, the City may reassess its land use plan.

The transportation financing program becomes a subset of the City’s Capital Facilities Plan (CFP) Element. The GMA requires the CFP Element to include at least a six-year plan that finances capital facilities and identifies the sources of public money for the projects.

**Project Cost Summary**

Table T-14 summarizes the list of capital transportation improvement projects based on the analyses of existing conditions and traffic forecasts. Table T-15 summarizes the planning level project cost estimates from Table T-14. The project costs assume that right-of-way will be needed for some projects to match the City street design standards.

A total of \$115.2 million (2011 dollars) will be needed to fully fund the capital improvements over the 20 year horizon of the Transportation Element. Of these costs, over \$46.4 million are related to improvements on SR 169 within Maple Valley. SR 169 is a designated Highway of Statewide Significance (HSS). Another \$17.6 million is associated with improvements along SR 516 in the City, a state Highway of Regional Significance (HRS). Combined, the estimated costs of improvements to these two state highways total \$64 million, representing 55 percent of the total identified capital improvement needs. The remaining \$51.1 million in capital costs are needed for improvements to City arterials and collector roadways. These include improvements along Witte Road, SE 240th Street, and SE 276th Street, as well as construction of new roadways to improve circulation and reduce the use of the state highways for local traffic.

**Table T-15  
Capital Project Cost Summary**

<b>Improvement Category</b>	<b>Costs<sup>1</sup></b>
State Highway Improvements – SR 169	\$46,431,000
State Highway Improvements – SR 516	\$17,650,000
City Arterial Improvements – Existing Facilities	\$18,520,000
City Arterial Improvements – New Roadway Connections	\$32,620,000
<b>Total Project Costs</b>	<b>\$115,221,000</b>

1. Planning level costs in 2011 dollars.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

**FUNDING STRATEGY**

The City of Maple Valley utilizes a number of fees and tax revenues to construct and maintain their transportation facilities. Funding sources include local tax revenues, grants, partnerships with other agencies, and developer mitigation. Primary City revenues directed toward transportation capital improvement projects include the Real Estate Excise Tax (REET) and Surface Water Management (SWM) funds. The City also uses fuel taxes and can direct revenues from its General Fund to transportation capital projects, as needed, to balance its Six-Year Transportation Improvement Program (TIP). Developer mitigation could be in the form of traffic impact fees, SEPA mitigation, or construction of frontage improvements. Developer mitigation associated with the new master planned communities in Black Diamond also has been incorporated, consistent with the negotiated mitigation agreement between Maple Valley and Black Diamond. Other agencies such as WSDOT will share in the cost of state highway improvements to meet regional transportation needs.

The City identified the most appropriate potential funding sources for each of the improvement projects. For example, grants or other agency funding was generally assumed to be a greater share of the revenues for funding improvements on SR 169 or SR 516 than on the local arterial improvements. While, it is unlikely that implementation of the Transportation Element projects will actually match the City’s funding assumptions at a project-by-project level, this process does provide for a reasonable estimate of anticipated revenues needed for the overall capital improvement program. It also establishes a level of funding needed through traffic impact fees and other developer mitigation. Table T-16 summarizes the anticipated sources of revenues needed to fund the identified capital improvements.

**Table T-16  
Financing Strategy Summary**

<b>Funding Element</b>	<b>2011 to 2030 Revenues (2011 \$)</b>
<b>City Funding</b>	
Real Estate Excise Tax (REET)	\$14,131,135
Surface Water Management Fund (SWM)	\$2,978,045
	<i>Subtotal \$17,109,180</i>
<b>Grants and Other Agency Funding</b>	
Federal, State, or Other Grants/ Funding Partnership	\$34,359,000
Black Diamond Developer Mitigation <sup>3</sup>	\$17,648,100
	<i>Subtotal \$52,007,100</i>
<b>Maple Valley Development Funding</b>	
Traffic Impact Fees – Future Projects <sup>1</sup>	\$35,684,720
Traffic Impact Fees – Prior Impact Fee Costs <sup>2</sup>	\$5,800,000
Other Developer Mitigation – Maple Valley <sup>3</sup>	\$10,420,000
	<i>Subtotal \$51,904,720</i>
<b>Estimated Revenues without Prior Traffic Impact Fee Costs</b>	<b>\$115,221,000</b>
<b>Total Estimated Revenues</b>	<b>\$121,021,000</b>

1. Traffic impact fee revenues based on \$35,684,720 of costs of capital improvements shown in Table T-14.
2. Impact fee program would also include \$4,800,000 associated with prior impact fee costs associated with the roundabout at Witte Road and SE 248th Street and \$1,000,000 for debt service for capital improvements for the Four Corners roadway improvement projects.
3. Maple Valley developer funding beyond traffic impact fees. Could include frontage improvements, local improvement districts, business improvement district, or other similar funding program. Assumes that all, or part of, improvements are constructed or right-of-way dedicated as a condition of development.
4. Accounts for estimated revenues associated with mitigation of the master planned developments in Black Diamond pursuant to the mitigation agreement.

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### **City Revenues**

The City of Maple Valley has directed revenues from its Real Estate Excise Taxes (REET) to fund transportation improvement projects. The program identifies funding from REET at an average of over \$700,000 per year. The City also allocates some revenues from its Surface Water Management (SWM) program to help fund transportation projects. Drainage and retention of storm water is part of most roadway and intersection expansion projects making SWM revenue an appropriate part of the transportation funding program. Given the uncertainty of the REET and SWM funding on a year-to-year basis, the City plans to fill gaps in City revenues from its fuel taxes and general fund, as available. These other City funding sources are typically directed toward preservation and operations of the transportation system, but could be redirected to capital funding for a particular need, with the opportunity to be “reimbursed” through additional grants or future impact fee payments.

### **Grants and Other Agency Funding**

The funding program identifies over \$34 million in funding from grants or contributions by other agencies. This represents nearly 30 percent of the estimated capital transportation improvement program costs. The majority of the identified grant and other agency funding are associated with improvements to SR 169 and SR 516. These state highways serve a significant level of through traffic. The travel forecasting process identified that 40 to 60 percent of the growth in traffic on the state highway was attributable to growth outside of Maple Valley. WSDOT and PSRC have established level of service standards for these facilities which will require funding through federal, state, and regional sources. In addition, partnerships with Black Diamond, Covington, King County, and transit providers can be part of the funding program for these state highways. Grant revenue also has been identified to help fund local arterial improvements identified in the Transportation Element. New roadway connections such as the proposed SE 231st Street and the extension of SE 240th Street will help reduce local traffic use of SR 169 and will support economic development within the City. The projects to upgrade SE 276th Street, 216th Avenue SE and Witte Road SE are also good candidates for grants as the City continues to transition from the County road standards designed for lower levels of traffic to more urban road standards to serve higher densities and provide for needed pedestrian and bicycle facilities.

### **Black Diamond Development Mitigation**

Maple Valley and YarrowBay Holdings, the applicant for the two master planned communities in Black Diamond, have entered into a mitigation agreement to help fund transportation improvements in Maple Valley to address impacts identified in their environmental impact statements. Based on the percentage contributions toward specific projects, the City of Maple Valley funding analyses estimates this contribution at approximately \$17.65 million (2011 dollars). This estimate assumes significant levels of grant funding will be secured for these projects, prior to estimating the cost share for mitigation. If grant or other agency funding is not secured, then mitigation from the Black Diamond developments may increase.

### **Traffic Impact Fees**

The GMA allows agencies to develop and implement a transportation impact fee (TIF) program to help fund some of the costs of transportation facilities needed to accommodate growth. State law (Chapter 82.02 RCW) requires that TIFs are:

- ® Related to improvements to serve new developments and not existing deficiencies
- ® Assess proportional to the impacts of new developments
- ® Allocated for improvements that reasonably benefit new development
- ® Spent on facilities identified in the CFP

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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TIFs can only be used to help fund improvements that are needed to serve new growth. The projects can include recently completed projects to the extent that they serve future growth and did not solely resolve existing deficiencies. The cost of projects needed to resolve existing deficiencies cannot be included.

The City implemented and adopted a traffic impact fee program in 1999. The program is defined in Chapter 16.20 of the Maple Valley Municipal Code. The original impact fee program was based on the City’s Six-Year Transportation Improvement Program (TIP). This resulted in significant year-to-year changes in the impact fee, depending on what projects (and costs) were included in each year’s TIP. For example, the cost per new PM peak hour trip in 2003-2006 was in the range of \$3,500 to \$4,000. During the 2007-2009 time periods, the City’s traffic impact fee rate increased significantly, reaching a high of almost \$6,300 per new PM peak hour trip in 2008. During 2010, the City’s impact fee rate dropped to \$2,859 which resulted from a significant decrease in projects included in the TIP due to the poor economy and reduction in other funding needed to implement the transportation projects. In 2008, the Washington State Auditor’s office conducted a performance audit of different impact fee programs, including the City of Maple Valley. The Auditor’s report recommended agencies use a longer-term project list for developing traffic impact fee programs in order to reduce these large fluctuations in fee rates.

The funding strategy assumes that the City will revise its traffic impact fee program based on the 20-year list of improvement projects, as identified in Table T-14. This process will reduce the annual fluctuations in impact fee rates and should bring more consistency to the revenue assumptions during the planning horizon. The use of a longer-term project list also will reduce the need for an annual update of the impact fee calculation. The City can apply a cost escalation factor each year, or update project cost estimates, to update the rates. A full evaluation and update of the impact fee rates would primarily be needed only when the Transportation Element is updated to reflect changes in land use plans, funding, level of service standards, or regional impacts.

The funding program for the Transportation Element identified which projects, and costs, were eligible to be included in the impact fee program. This resulted in approximately \$35.7 million in impact fee project costs. In addition, the City included costs for the recent roundabout at Witte Road at SE 248th Street (\$4.8 million) and debt service for growth-related transportation improvements in the Four Corners subarea (\$1 million). Based on these projects, and assumed grant and other agency funding, the traffic impact fees are estimated to account for almost \$41.5 million (2011 dollars) in revenues. This represents approximately one-third of the total funding program, including the contributions toward prior transportation projects and related debt service. The impact fee costs are divided by the increase of 10,388 growth trips estimated using the City’s travel demand model. This results in a cost per new PM peak hour trip of approximately \$3,900, which is consistent with the City rates in effect during 2003 and 2006, but lower than the fees between years 2007 to 2009.

**Other Developer Mitigation**

The Transportation Element identifies \$10.4 million in other developer mitigation as part of the funding program. New developments can be required to dedicate right-of-way and/or construct at least part of some of the improvements listed in Table T-15. Developer mitigation could include frontage improvements and other identified improvements to mitigate capacity or safety deficiencies caused by the development. As part of the funding program, developer mitigation (beyond the identified traffic impact fees) is primarily assumed for improvements associated with new roadway corridors, including SE 231st Street, SE 271st Street, or upgrades to existing roadways such as SE 240th Street. The City may, however require developer mitigation at other locations identified in the Transportation Element or at other locations, as determined during the development application and review process. Other strategies for funding these new or upgraded City roadway corridors include the formation of one or more Local Improvement Districts (LID) or Business Improvement Districts (BID). Formation of LIDs or BIDs can help assure completion of the full corridor improvement in a timely manner, instead of a more piecemeal process as each development application is reviewed and approved.

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**REASSESSMENT STRATEGY**

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The funding strategy is based on grants and other outside funding that the City does not control. As noted above, the City may be able to shift revenues from other funding programs to address specific needs as yearly budgets are prepared. In addition, the City is committed to reassessing their transportation needs and funding sources each year as part of their annual Six-Year Transportation Improvement Program (TIP). This allows the City to match the financing program with the shorter-term improvement projects and funding. The plan also includes goals and policies to periodically review land use growth, adopted level of service standards, and funding sources to ensure they support one another and meet concurrency requirements.

In order to maintain the vitality of the City’s transportation system, the City should adhere to the following principles in its funding program:

- ® As part of the development of the annual Six-Year Transportation Improvement Program, the City will balance improvement costs with available revenues;
- ® Review project design during the development review process to determine whether costs could be reduced through reasonable changes in scope or deviations from design standards;
- ® Coordinate and partner with WSDOT and other agencies to vigorously pursue grants from state, federal, and regional agencies to help fund and implement improvements along SR 169 and SR 516;
- ® Work with regional and local agencies to develop multi-agency grant applications for projects that serve regional travel;
- ® Review traffic impact fee revenues each year to determine whether the impact fees should be adjusted to account for project cost increases and/or decreases in grants or WSDOT cost sharing; and
- ® If the actions above are not sufficient, consider changes in the level of service standards and/or limit the rate of growth.

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**IMPLEMENTATION PROGRAM**

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Implementation of the Transportation Element involves several strategies. These include coordination with developers and partnering with other agencies to construct the transportation improvement projects and expand transit service to the City. Partnering with other agencies and use of grants will be especially critical in the implementation of safety, capacity, and operational improvements along SR 169 and SR 516. This may include re-prioritizing roadway projects as new funding sources become available or by focusing on areas most impacted by new development. The City will also continue to review strategies to phase improvements to allow funding to be spread over a longer time period. In addition, the City will need to review, maintain, and possibly update its Concurrency Management Program, Traffic Impact Fee, and other development review processes to assure that the impacts of growth are mitigated and transportation improvements are completed concurrent with new development.

**Partnering with Other Agencies**

The City of Maple Valley is designated as a larger city in PSRC’s Vision 2040 plan. The Vision 2040 plan notes that these larger cities will play an important role in accommodating growth in the region. In particular, these cities will continue to become important subregional job, service, cultural, and housing centers. The Transportation Element supports the City’s role through its policies to support and expand use of transit, transportation demand management, and non-motorized travel to reduce the number of vehicle trips generated by development in the City. The City will need to coordinate with King County Metro and other nearby cities to implement facilities and

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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services to meet those objectives. These will also help assure consistency in plans and implementation programs between agencies to meet the goals of the regional plan.

The City will partner with WSDOT to implement improvements along SR 169 consistent with the Transportation Element project list and the SR 169 Route Development Plan completed in 2007. The City is currently partnering with WSDOT as part of the SR 516 corridor study to develop a long-term improvement project list for the entire corridor. Projects along both state highways serve regional travel patterns as well as provide local access within Maple Valley. Without WSDOT as a partner, the City is unable to put a high priority on major capacity improvements along both state highways since the improvements serve significant levels of regional traffic and the projects cost more than the City can reasonably fund on their own. These projects should be considered for joint submittal of grants, with the local match being combined from benefiting agencies. Partnering with WSDOT will be critical in the implementation of the Transportation Element project list.

The City has entered into an agreement with YarrowBay Holdings, the applicant for two master planned communities in Black Diamond, related to mitigation of traffic impacts in Maple Valley. The City of Black Diamond has incorporated the mitigation into the conditions of approval for the Lawson Hills and The Villages developments. Maple Valley will need to monitor the growth and impacts of these developments. The City can combine the mitigation funding with City funding in its pursuit of grants and/or partnerships with other agencies to implement key improvements along SR 169 and SR 516.

Other agency partnering opportunities involve King County Metro Transit and the Tahoma School District. Coordination with both agencies could lead to cost sharing of improvements to construct pedestrian facilities around schools or transit routes.

**Project Priorities and Timing**

The City of Maple Valley will use the annual update of the Six-Year TIP to re-evaluate priorities and timing of projects. Throughout the planning period, projects will be completed and priorities will be revised. The development of the TIP also will be used to identify potential phasing options to fit within available revenues during that six-year time horizon. The City will monitor traffic volumes and the location and intensity of land use growth in the City. The City will also need to monitor traffic growth from Black Diamond and other adjacent communities. Based on this information, the City will then be able to direct funding to areas that are most impacted by growth or may fall below the City’s level of service standard. The development of the TIP will be an ongoing process over the life of the plan and will be reviewed and amended annually.

**Concurrency Management and Development Review**

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

Concurrency determinations for the roadway network are closely linked with development review decisions. In addition, the City reviews development applications pursuant to the State Environmental Policy Act (SEPA). Concurrency and SEPA are primarily focused on a shorter-term time frame. The City requires payment of traffic impact fees to help fund growth related improvements, both long-term and short-term needs. Projects that resulted in an adverse traffic impacts are required to fund or implement mitigation measures that reduce the impact below a level of significance and/or meet the level of service standard. The City provides credits where developers are required to construct improvements whose costs are included in the traffic impact fee program.

The City will need to regularly monitor the operations and levels of service for the identified concurrency intersections. This will include an assessment of existing operations for North and South Concurrency Intersections. The monitoring also will evaluate forecast conditions to estimate the number of new PM peak hour trips that can be

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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accommodated before the level of service standard for the North and/or South Concurrency Intersections would not be met. This will be used by the City in evaluating concurrency for proposed development. The City will use this information in developing its Six-Year Transportation Improvement Program, pursuit of grants, and coordination with WSDOT and other agencies.

The North Concurrency Intersections currently operate at a weighted average LOS D and the South Concurrency Intersections operate at LOS C based on 2010 traffic count data. These meet the City’s LOS standard. Based on the 2030 baseline forecasts, the North Concurrency Intersections would operate at LOS F and the South Concurrency Intersections would operate at LOS E if no further improvements are made. Using a straight-line estimate of growth, the North Concurrency Intersections are estimated to fall below the LOS D standard by 2018. The South Concurrency Intersections would likely drop below their LOS D standard by 2027. Therefore, the City will need to pursue improvements in the north part of SR 169 within the next several years in order to maintain concurrency. With the improvements identified in the Transportation Element both the North and South concurrency Intersections are forecast to operate at a weighted average LOS D.

As each development application is reviewed, the City will determine if there are an adequate number of trips available at the concurrency intersections. If the number of trips available for the concurrency intersections is not sufficient then the City will establish conditions of approval. Since SR 169 is a Highway of Statewide Significance, the City cannot use concurrency to deny the development application; therefore, conditions of approval will be established through SEPA and in coordination with WSDOT (as applicable) in order to mitigate the impacts of the development.

The City will also monitor traffic operations and safety at other intersections throughout the City. The City will apply SEPA and the City’s Road Standards to evaluate and identify appropriate improvements for mitigating impacts of developments in the City. The City also will conduct its own studies and work with other agencies to define needed improvements to be incorporated into its Six-Year Transportation Improvement Program, which is updated annually.

If expected funding for improvements to meet future transportation needs is found to be inadequate and the City will not be able to meet their adopted level of service standards, then the City will need to pursue options as laid out under the Reassessment Strategy, presented previously.

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

CONSISTENCY WITH OTHER AGENCIES

Maple Valley’s transportation system is part of, and connected to, a broader regional highway and arterial system. The GMA works to increase coordination and compatibility between the various agencies that have responsibilities for the overall transportation system. Since transportation improvements need to be coordinated across jurisdictional boundaries, the Transportation Element needs to be consistent with and supportive of the objectives identified in the Washington State Transportation Plan, PSRC’s Vision and Transportation 2040, and the transportation plans or capital improvement plans of the surrounding agencies. Developing the Transportation Element is primarily a bottoms-up approach to planning, with the City exploring its needs based on the land use plan. Eventually, the local projects are incorporated into regional and state plans. A schematic of this approach is shown below.



The Maple Valley Transportation Element took into account planned improvements, priorities, and policies of the WSDOT, PSRC, King County, City of Covington, and the City of Black Diamond. The following summarizes how the Maple Valley Transportation Element relates and is consistent to these other state, regional, and neighboring agency plans.

**WSDOT**

The Washington Transportation Plan 2007-2026 (WTP), adopted in November 2006, and the associated 2007-2026 Highway System Plan (HSP) from December 2007, provide the umbrella for all metropolitan and regional transportation plans. In 2010, the State Transportation Commission completed an update to the 2007-2026 WTP referred to as WTP 2030. The updated WTP focuses on key policies and strategies for the State, while the 2007-2026 WTP still maintains the most recent long-term statewide project list.

The Highway System Plan is an element of the WTP. The HSP identifies highway system improvement projects and programs consistent with the WTP priorities. The HSP is constrained by available funding forecast for the next 20 years. Policies and improvement projects listed in the WTP and HSP were reviewed for consistency with the strategies and projects recommended in the Transportation Element.

As required by the GMA, the Maple Valley Transportation Element addresses the existing and future conditions of SR 169 and SR 516 serving the City. The transportation inventory describes existing traffic volumes, levels of service, and safety along both highways. The Transportation Element also identifies forecast conditions and improvement needs to resolve capacity, operations, safety, and multimodal transportation needs along both corridors. SR 169 is classified as a State Highway of Statewide Significance (HSS). According to the HSP, the LOS standards are set forth by State law. State law sets LOS D for HSS facilities in urban areas. Since the City is a designated urban area, the LOS D standard applies for the segment of SR 169 within the City. GMA concurrency requirements do not apply to HSS facilities. While the City will monitor several SR 169 intersections as part of its

EXHIBIT "A" ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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concurrency program, any conditions of development approval will be established through SEPA and projects would not be denied based on concurrency, thereby maintaining consistency with the state statutes and regional plans.

SR 516 is classified as a State Highway of Regional Significance (HRS). PSRC and the local agencies have adopted an LOS D standard for SR 516 within Maple Valley. Concurrency will be applied along this corridor based on the program summarized previously in the Transportation Element. The City's LOS D standard for arterials and collectors is consistent with state and regional LOS standards for both SR 169 and SR 516.

The City has worked with WSDOT to coordinate and implement roadway and intersection improvements along SR 169 and SR 516. Recent improvements have included widening and reconstruction of SR 169 between SE 264th Street and Kent-Kangley Road SE (SR 516). The WSDOT HSP calls for widening SR 169 to four lanes through the City from SE 231st Street to Kent-Kangley Road SE. The widening along SR 169 is also reconfirmed in the WSDOT SR 169 Route Development Plan (RDP) completed in 2007. However, the RDP shows the widening of SR 169 extending to SE 291st Street, which is the southern city limits. Maple Valley's Transportation Element identified the need for widening SR 169 to four or five lanes ending at SE 280th Street, with only one additional southbound through lane extending to the southern city limits. The City's improvement projects for SR 169 are generally consistent with the WSDOT SR 169 RDP, which was completed after the update of the HSP.

The Transportation Element identifies widening SR 516 to five lanes from the City limits to 216th Avenue SE, with three lanes continuing to the future SE 271st Street Extension. The HSP does not identify any improvements to SR 516 in the next twenty years. However, the Legislature provided funding in 2010 to complete a corridor study for SR 516 from SR 167 to SR 169 to identify future improvements to the corridor. WSDOT is working with Maple Valley and other adjoining agencies to complete the study in 2011, with any study recommendations to be incorporated into the next WTP and HSP updates.

None of the widening projects along either SR 169 or SR 516 are currently funded by WSDOT, but the City is including a portion of the costs as part of its traffic impact fee program. The City will continue to coordinate with the WSDOT to seek grants or other funding to implement the state highway improvements identified in the Transportation Element.

## **PSRC**

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PSRC recently adopted Vision 2040 and Transportation 2040 to guide transportation policies, priorities and investments for the four county region. The update of the Maple Valley Transportation Element included a review of the policies and projects that were important to consider and build from to provide regional and local consistency. The appropriate policy and project updates were incorporated into the City's Transportation Element so that it is consistent and supportive of both Vision and Transportation 2040 (the Region's Metropolitan Transportation Plan). Several policies were added to the City's Transportation Element to address important regional priorities such as multimodal connectivity, complete streets, low impact design, sustainability, electric vehicles, alternative fuel, environmental impacts, air quality, and travel demand management.

The PSRC travel demand model was used as the basis in constructing the Maple Valley travel demand model. The travel forecasts for areas outside the City's immediate study area were directly integrated from the PSRC model. Therefore, the travel forecasts and subsequent operations and safety analysis for the City considered and incorporated regional growth, consistent with PSRC land use and travel forecasts.

Transportation 2040 identifies widening along SR 169 to four lanes through the City from SE 231st Street to Kent-Kangley Road SE (SR 516) with WSDOT as the lead sponsor. In addition, Transportation 2040 also shows the widening of SR 169 to five lanes extending between SE 270th Street and SE 291st Street, which is the southern city limits. The City's Transportation Element identifies widening of SR 169 to four or five lanes south to SE 280th Street, with only one additional southbound through lane extending to SE 291st Street. Since PSRC identified the

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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City of Maple Valley as the sponsoring agency of that project, the next update of the regional plan should incorporate the updated extents of the widening along SR 169 and show five lanes is only necessary to SE 280th Street. Otherwise, the City's improvement projects for SR 169 are generally consistent with Transportation 2040.

Transportation 2040 also includes widening the SR 516 corridor to five lanes from the western City limits to SR 169, but does not show any additional widening to the west of the City within the City of Covington. The Transportation Element identifies the need to widen SR 516 to five lanes from the western city limits to 216th Avenue SE, but only if widening is completed in the City of Covington to the west. If the five lane cross section is not extended to the east from Jenkins Creek (180th Avenue SE), then widening beyond three lanes within the City of Maple Valley would not be necessary. Both Transportation 2040 and the City's Transportation Element should incorporate any recommendations from the ongoing WSDOT SR 516 Corridor Study to provide for a consistent vision for the SR 516 corridor.

The City roadway functional classification system is slightly different from the federal functional classification system, particularly for roadways such as Witte Road, SR 516, and many of the collector streets. The City will work with PSRC to prepare and submit an application to update the federal functional classification map so that it is consistent with the City street classifications. The changes should be focused on key corridors such as Witte Road, SR 516, SE 240th Street, 228th Avenue SE, SE 231st Street and SE 280th Street.

**KING COUNTY**

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King County transportation and capital improvement plans were reviewed as part of the Maple Valley Transportation Element update. County road classifications were also reviewed and determined to be compatible. The City's functional classification map notes the classification of County roadways. Roadway construction projects were obtained from King County's Transportation Needs Report (TNR). No major capital improvements are identified within the unincorporated areas of King County that would impact or influence specific outcomes of the Maple Valley Transportation Element. Additionally, King County's existing and future land use data for unincorporated areas within the study area were included into the Maple Valley travel demand model. The Transportation Element is consistent with and accounts for travel forecasts from the unincorporated areas of King County.

**KING COUNTY METRO TRANSIT**

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King County Metro Transit provides transit service for Maple Valley. The Maple Valley Transportation Element acknowledges the need for coordination between the City and King County Metro to work together to identify service improvements and strategies to serve Maple Valley. The City has also developed policies and road standards to provide adequate streets and non-motorized facilities to support transit service. King County Metro's six-year development plan was reviewed as part of the Maple Valley Transportation Element update. No significant service changes or new transit facilities are currently planned for the City of Maple Valley. However, the Maple Valley Transportation Element identifies desired service enhancements to help reduce travel demands and support the higher densities identified in the Land Use Element, as set forth in the PSRC plans.

**CITY OF COVINGTON**

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The City of Covington is located to the west of Maple Valley. The primary transportation interface is along the SR 516 and Wax Road corridors. The Maple Valley Transportation Element identifies the need to widen SR 516 to five lanes from the western city limits to 216th Avenue SE, but only if widening is completed in the City of Covington to the west. Covington's six-year Transportation Improvement Plan identifies two projects to widen SR 516 to five lanes from Jenkins Creek to 192nd Avenue SE. This still leaves approximately one mile of roadway between 192nd Avenue SE and the western Maple Valley city limits to be widened. Covington's existing Transportation Element does not identify any additional widening of SR 516 east of 192nd Avenue SE during the

EXHIBIT “A” ORDINANCE NO. O-11-471

TRANSPORTATION ELEMENT

City of Maple Valley Comprehensive Plan

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next twenty years. Any future implementation of improvements along SR 516 would need to be closely coordinated between both cities.

The Maple Valley travel demand model incorporates Covington’s existing and future land use projections. In addition, the model transportation analysis zones (TAZs) are consistent with the zones in Covington's travel demand model in order to easily integrate and evaluate future changes in land use within the study area.

**CITY OF BLACK DIAMOND**

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The transportation systems for the Cities of Maple Valley and Black Diamond connect along the southern boundary of Maple Valley. SR 169 and 216th Avenue SE connect to the City of Black Diamond and its UGA. The Maple Valley travel demand model incorporates Black Diamond’s future employment and residential projections. The land use growth expected to occur in the City of Black Diamond was an important consideration in developing the travel forecasts and identified capital projects that are highlighted in the Maple Valley Transportation Element. The land use growth assumed for Black Diamond is consistent with the major development plans for Lawson Hills and The Villages, two master planned communities that have been approved. As part of the approval process, Maple Valley entered into an agreement with the applicant for two master planned communities to provide funding for needed regional improvements. This mitigation revenue has been estimated in the Transportation Element funding strategy.

The Transportation Element identifies two projects that border the City of Black Diamond and its UGA. They include widening of SR 169 to three lanes to the southern city limits of Maple Valley, and widening and reconstructing SE 216th Avenue SE to three lanes to support the increase in traffic volumes and non-motorized activity between Black Diamond and Maple Valley. Land use growth in Black Diamond also depends on other capacity improvements in the City of Maple Valley such as widening of both SR 516 and SR 169. The City of Maple Valley will monitor the growth and impacts of development in Black Diamond and pursue grants and/or partnerships with other agencies, along with the mitigation payments, to help implement the regional improvements along SR 169 and SR 516.

# LAND USE

## TABLE of CONTENTS

EXISTING LAND USE..... 2

Residential Land Use..... 3

Non-Residential Land Use ..... 3

Vacant Land ..... 4

POPULATION GROWTH PROJECTIONS .....6

Population and Employment ..... 7

Population Forecast ..... 7

Employment Forecast..... 8

FUTURE GROWTH ISSUES .....9

Land Use Phasing and Growth.....10

    Residential Growth.....10

    Commercial Growth.....10

    Growth Phasing.....10

    Annexation and Urban Growth Boundaries .....10

FUTURE LAND USE PLAN .....11

Residential Land Uses .....11

    Low Density Residential .....12

    Medium Density Residential .....12

    High Density Residential .....12

Non-Residential Land Uses ..... 13

    Community Business .....13

    Neighborhood Business .....13

    Office .....13

    Business Parks.....14

    Service Commercial.....14

    Multiple Use Development .....14

    Public Facilities.....15

    Parks, Recreation, Open Space .....15

UNDESIGNATED LAND USES -RESOURCE LANDS.....16

GOALS AND POLICIES .....16

### LIST of FIGURES

	FOLLOWS/ PAGE
LU.1 COMPREHENSIVE PLAN MAP .....	.1
LU.2 PRESENT LAND USE.....	1
LU.3 LAND AREA CLASSIFICATION/ACRES 2000-2004 .....	3
LU.4 PERCENT OF LAND AREA BY CLASSIFICATION 2004.....	5
LU.5 VACANT LAND BY CLASSIFICATION .....	6

EXHIBIT “B” ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

---

LU.6 POPULATION CAPACITY GROWTH PROJECTIONS .....	7
LU.7 EMPLOYMENT BY CATEGORY.....	8
LU.8 EMPLOYMENT GROWTH TARGETS.....	9

LAND USE

“HOW SHALL WE GROW?” is a recurring theme in many communities. Growth can take many forms: more people, more homes, new job opportunities, higher standards of living, increased family wealth and so on. The Land Use element of the Comprehensive Plan is concerned primarily with the accommodation of the City of Maple Valley’s growth.

The Land Use element must be developed in accordance with the Growth Management Act (RCW 36.70A) to address land use issues in the City of Maple Valley, and the potential growth over the next 20 years. Where shall homes, businesses, public services and utilities be located, and at what density or intensity? It will become the City’s policy plan for growth, given the constraints and opportunities of the natural environment and public services and utilities.

The Growth Management Act (GMA) requires jurisdictions to develop:

- ® A land use element designating the proposed general distribution and general location and extent of the uses of land, where appropriate, for agriculture, timber production, housing, commerce, industry, recreation, open spaces, public utilities, public facilities, and other land uses.
- ® The land use element shall include population densities, building intensities, and estimates of future population growth.

This Element must also be developed in accordance with the King County Countywide Planning Policies (CPPs) and be integrated with all other planning elements to ensure internal consistency throughout the Comprehensive Plan. The Countywide Planning Policies direct jurisdictions within the County to focus growth in the cities within the Urban Growth Area (UGA). Based on the Countywide Planning Policies, Maple Valley must:

- ® develop a phasing strategy that identifies areas for growth for the next 20 years;
- ® define the growth it intends to accommodate over the next 20 years;
- ® plan for 20 year population and employment growth target ranges; and
- ® limit and phase growth where services are not yet available.

**EXISTING LAND USE**

The City of Maple Valley encompasses approximately 3,000 acres of land, excluding lakes. The existing land use pattern is illustrated in Figure LU-1. Current land uses are generally consistent with the adopted land use map. The Comprehensive Plan Land Use Map serves as the basis for creation and amendments to the zoning map. While these two maps may not always be the same, the City will ensure that they are combined in a timely manner following updates or revisions.

Maple Valley adopted its zoning code in December 1999. It originally contained thirteen land use categories. The current Comprehensive Plan Land Use map (Figure LU-2) has fifteen categories. It includes higher density housing (12-24 dwelling units per acre), and residential densities ranging from four to six dwelling units per acre (R-4 to R-6) throughout the majority of residential neighborhoods. These classifications allow for the development of

EXHIBIT “B” ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

attached single-family homes, including townhouses and duplexes. Other residential classifications include R-8, which permits duplex through fourplex units and higher with design review. Commercial classifications include Community and Neighborhood Business (CB, NB), Office (O) and Business Park (BP). ~~The classifications Office with Conditions (O/C) and Business Park with Conditions (BP/C) were developed to apply to specific properties in the City in order to control development at these sites and ensure that certain conditions were met in association with new development.~~ The Service Commercial (SC) classification was developed to encourage commercial uses which do not necessarily rely upon arterial visibility. In addition, the City has adopted a Multiple Use (MU) classification that provides for vertical and horizontal mixing of uses across a site. The Public (PUB) category includes land occupied by public facilities, including schools, fire stations, the library, the Regional Emergency Operations center and the community center. Lands dedicated to public and private park space, including the Lake Wilderness Trail and the golf courses, are included in the Parks, Recreation, Open space (PRO) category. The distribution of land area by land use classification is shown in Figure LU-3.

**Figure LU-3  
Total Gross Land Area in Acres by Land Use Classification  
City of Maple Valley**

LAND USE CLASSIFICATION	ACRES IN 2000	ACRES IN 2004
Residential		
R-1	232	N/A
R-4	689	596.25
R-6	1658	1290.36
R-8	99	85.81
R-12	87	72.7
R-18	11	10.12
R-24	10	9.35
Business Park (BP)	107	57.12
Community Business (CB)	164	156.49
Multiple Use (MU)	112	102.8
Neighborhood Business (NB)	7	7.34
Office (O)	54	10.73
Service Commercial (SC)	N/A	63.95
Park, Recreation, Open Space (PRO)	N/A	511.21
Public (PUB)	N/A	69.13
Public/Open Space (P/O)	288	N/A
TOTAL*	3518	3043.36

\*The total acreage of the City of Maple Valley did not change between 2000 and 2004. The figures for 2000 include right-of-way adjacent to the individual zoning classifications. Other discrepancies may be the result of changes in mapping technology.

**LAND USE DISTRIBUTION**

**Residential Land Use**

More than 68 percent (2,064 acres) of the City’s land area is composed of residential land uses. All of the land designated residential is at urban densities (four units per acre or higher density). Figure LU-4 illustrates the

EXHIBIT “B” ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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distribution of land use classifications. Areas designated at densities of six units per acre are the single most dominant residential classification in the City. Areas of higher density classifications are located near commercially designated lands and major arterials. In February 2005, approximately nine percent of the residentially designated land within the City was undeveloped (183 acres).

Community Business, Neighborhood Business, Office, Multiple Use and Business Park and Service Commercial designated lands comprise approximately thirteen percent of the City’s land area (398 acres). Commercial business activity is dominated by the two retail commercial centers (Wilderness Village and Four Corners), while Business Park uses are located along SR 169 and range from light manufacturing, equipment rental and storage and wholesale trade to production of building materials.

Under the current classifications—Community Business designated parcels comprise the largest amount of non-residential land. A substantial amount of the land in the Multiple Use designation is vacant, approximately 96 percent (99 acres). Vacant land in the Multiple Use designation also comprises the largest amount of vacant land in the Community Business, Neighborhood Business, Office, Multiple Use and Business Park classifications, approximately 61 percent.

**Vacant Land**

In August 2004, approximately 413 acres of land within the City were vacant (14 percent).The vacant land pattern is somewhat random with residential subdivisions separated by scattered tracts of forested land. The combined undeveloped land in the Community Business, Neighborhood Business, Office, Multiple Use, Service Commercial and Business Park classifications occupy 47 percent of the total undeveloped land area in Maple Valley (162 acres). Vacant lands includes those properties with no measurable improvements, as defined by the King County Assessors’ Office. The Land Capacity Analysis contained in the Appendix of this Plan outlines the vacant land use inventory in more detail. Figure LU-5 illustrates the distribution of vacant land area in Maple Valley.

EXHIBIT "B" ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

City of Maple Valley, 2004  
**Figure LU-4**  
**Total Gross Land Area by Land Use Classification**

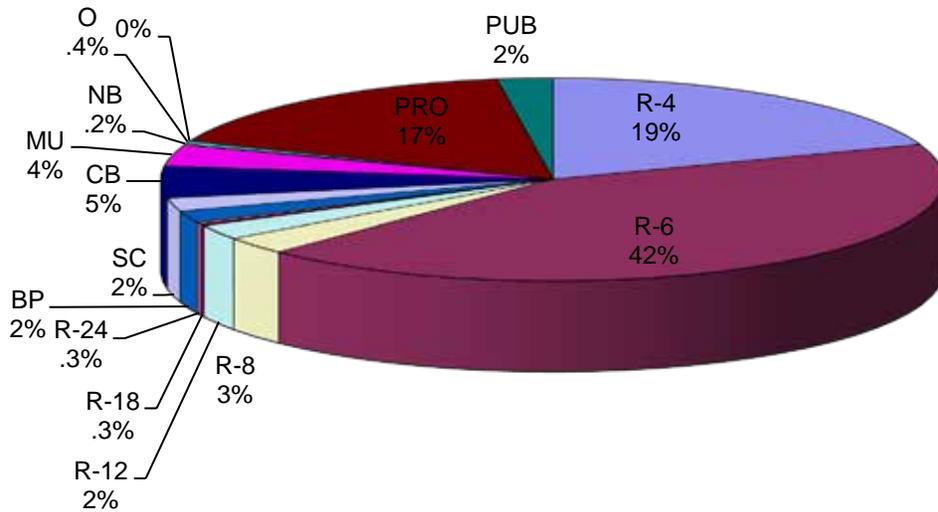


EXHIBIT "B" ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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Figure LU-5

Total Vacant Land Area by Land Use Classification  
City of Maple Valley, 2004

LAND USE CLASSIFICATION	ACRES IN 2004
R-4	57.96
R-6	81.94
R-8	27.5
R-12	16.79
R-18	0
R-24	0
BP	19.19
<del>BP</del> /SC	1.52
CB	35.51
MU	98.8
NB	5.52
O	1.82
<del>O</del> /C	0
PRO	0
PUB	0
TOTAL	346.55

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**POPULATION GROWTH PROJECTIONS**

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The GMA and the King County CPPs encourage cities to assume an increasing share of new growth in the future and that correspondingly less growth is to be accommodated in the rural areas of King County than in the past. This means that new development within cities planning under the GMA should be more compact in order to accommodate the additional share of future growth. Subsequent decisions by the Growth Management Hearings Boards on the appeals of Comprehensive Plans of other communities have helped to better define some of the requirements for future land use designations.

Maple Valley is faced with a finite land supply within its Urban Growth Area. In fact, the City has very little room to grow beyond its current City limits. The City has limited potential annexation areas, most of which are either impacted to some degree by critical areas or are at least partially developed. Therefore, determining the total population capacity of the City required analyzing the potential available land for development and attempting to encourage more "compact" development in areas most "appropriate" in order to most efficiently achieve compliance with the GMA and CPPs. What does "appropriate" mean? It means that a series of criteria were developed to help evaluate the potential for increasing residential densities in certain areas in order to help meet the requirement for more "compact" development. These criteria and the resulting scenarios which comprised the various land use alternatives were then taken to the public through a series of workshops and open houses to gain public input. The public comments were, in effect, the final step in the criteria evaluation to help determine the final recommended plan.

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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**Population and Employment**

Population and employment trends are the basis for determining the amount of land and services required to accommodate the anticipated growth in the City. Demographic information is derived from several sources, including the US Census of Population and Housing, population and employment forecasts from the Puget Sound Regional Council (PSRC), the King County Office of Budget & Strategic Planning and the Washington State Office of Financial Management.

According to the 2000 Census, 14,209 people resided within the City of Maple Valley in 1999, Population growth in the City increased at an annual average rate in excess of eight percent between 1990 and 2000, reflecting the rapid growth experienced in south King County and the entire Puget Sound region during the 1990s. South King County is still expected to grow at a moderate, though somewhat slower, rate for the next decade. Maple Valley expects to accommodate a proportionate share of the South King County growth, and is responsible for accommodating a larger share of future growth than that allocated to the surrounding rural areas outside of the urban growth boundary, within the Tahoma-Raven Heights community planning area. According to the Washington State Office of Financial Management (OFM), the population of Maple Valley in April 2003 was 15,730.

**Population Forecast**

The Comprehensive Plan 20-year capacity and growth projections are shown in Figure LU-6. The projections prepared in 2003 indicate that, should the City develop all of the land within its boundaries and maintain a household size comparable to the current household size, the City could reach a population of approximately 24,051, a growth of approximately 8,321 residents, or 3,182 net new households. This would amount to an average annual compound population growth rate of approximately 1.7 percent over the next 20 years. The average household size in 2004 was 2.85 persons per household and this household size was used to project the City’s buildout population. However, this population forecast may be high, as household size appears to be decreasing in Maple Valley and King County. More detailed discussion of the methodology used to allocate population growth is contained in the Land Capacity Analysis located in the Appendix.

**Figure LU-6  
Maple Valley  
Population Capacity Growth Projections**

	POPULATION AND HOUSING UNITS, 1998	POPULATION AND HOUSING UNITS, 2003	POPULATION AND HOUSING UNITS AT CAPACITY BUILDOUT
POPULATION	11,964	15,730	24,051
HOUSING UNITS	4,421	5,257	8,439
AVERAGE HOUSEHOLD SIZE	2.97	2.94	2.85

*Source: Washington State Office of Financial Management, Land Capacity Analysis for the City of Maple Valley*

The household target assigned to the City for the planning period from 1992-2012 was 1,539 new housing units. By 2000, the City had already achieved 109 percent of the target, exceeding the target by 134 units in the first eight years of the

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

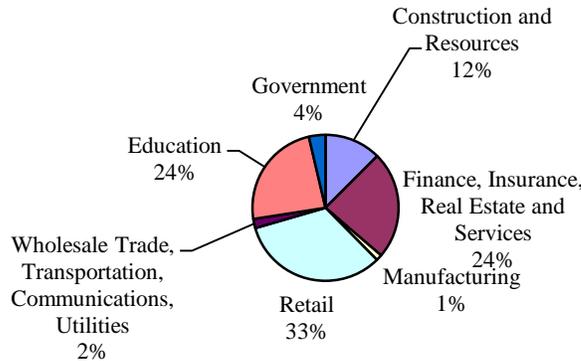
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planning period. The housing targets were re-evaluated by the Growth Management Planning Council for the planning period from 2002-2022. The City of Maple Valley's targets were amended, so that the household target assigned to the city for the 2002-2022 was 300. By 2007 the City had already achieved and exceeded the target number. From 1997 through 2000, the average density of newly constructed houses was 5.5 dwelling units per acre.<sup>1</sup> The minimum residential density for urban areas is defined as four units per acre and the City has continued to meet or exceed this designation.

**Employment Forecast**

In 2004, employment in the City totaled approximately 2,500 jobs. Some of the largest employers are J.R. Hayes Gravel Pit, Johnson's Home and Garden, Maple Valley Fire and Life Safety, QFC, Safeway and the Tahoma School District. Retail is the largest sector of the local economy, accounting for one-third of all jobs. Education accounts for approximately one-quarter of the total employment, as does the sector consisting of Finance, Insurance, Real Estate and Services. Construction and Resources related jobs account for twelve percent of total employment. The Manufacturing, Wholesale Trade, Transportation, Communications and Utilities sectors provide three percent of the City's total employment. Figure LU-7 illustrates the City's employment distribution.

**Figure LU-7  
Maple Valley, 2004  
Total Employment By Category**



*Source: Puget Sound Regional Council*

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The number of businesses in the City varies depending upon the criteria used (e.g. from home occupations to site-based enterprises). Data from the State Department of Revenue and the City indicate that as of April 2004 there were approximately 340 business units in the City, ranging from grocery stores to doctors' offices to independent contractors. Most of the existing commercial base is accounted for by businesses that serve local residents. The largest number of businesses by type include retail establishments, professional services, eating and drinking establishments, personal services, automobile related and grocery stores.

Forecasts for the south King County region from the PSRC indicate that in the next several decades there will be an increase in the percentage of jobs in the retail, finance and professional services sector and a decrease in the

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EXHIBIT “B” ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

manufacturing sector. The City shall encourage more diversified business park development in some of its current light industrial areas in order to attract more high wage jobs in research, corporate development and professional services. The Land Capacity Analysis in the Appendix provides greater detail in projecting future employment growth.

The original employment target assigned to the City of Maple Valley for the years 1992-2012 was 1,233 new jobs. By 2000, a total of 810 new jobs had been created, leaving a remaining job target of 423 for the remainder of the planning period. The employment growth targets were re-evaluated by the Growth Management Planning Council for the planning period from 2002-2022,. The City of Maple Valley’s targets were amended, so that the City is to accommodate 804 new jobs by 2022. Maple Valley has the land capacity to support at least 2,000 more jobs. However, it is uncertain if the market demand for employment space will absorb this capacity during the planning period. The mix of employment is expected to change somewhat with the City’s share of professional services employment increasing over current levels.

**Figure LU-8  
Maple Valley Employment Growth Targets**

<b>JOBS IN 1998</b>	<b>1992-2012 EMPLOYMENT TARGET-NEW JOBS TO BE CREATED</b>	<b>NEW JOBS CREATED THROUGH 2000</b>	<b>REMAINING 2012 JOB TARGET</b>	<b>JOB TARGET ADJUSTED FOR 2002 - 2022</b>
1,756	1,233	810	433	804

Source: King County Buildable Lands Report

**FUTURE GROWTH ISSUES**

The recommended final 20-year plan was developed with uncertainty in mind. These uncertainties include:

- ® the capacity of the City’s street and road network to accommodate additional growth;
- ® meeting the affordable housing requirements of the King County CPPs;
- ® the regional economy and market-driven demand for housing and employment;
- ® the capacity for growth within the City’s remaining vacant and underutilized lands;
- ® preserving environmentally sensitive areas and suitable park and recreation sites for open space and greenbelt corridors;

The main dilemma in considering Maple Valley’s future growth is how to find a balance in the dynamic relationship between the City’s requirement to help accommodate regional growth; the City’s requirement to preserve its critical areas and environmental features; preserve the small-town feel of the City; and live within its means in terms of providing adequate public services and facilities. Careful planning is needed to identify and conserve areas which the community considers critical to its environmental health and identity. This may help the community to strategically accommodate growth without sacrificing the particular qualities that contribute to Maple Valley’s character.

Several significant issues addressed during the planning process include:

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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- ® concern over land use, noise and air quality conflicts between industrial uses and adjacent single-family neighborhoods;
- ® whether to expand and/or diversify the City’s commercial/industrial/office land use base;
- ® annexation of unincorporated areas;
- ® maintaining neighborhood quality of life
- ® maintaining infrastructure capacity commensurate with growth (e.g., sewer and water)

**Land Use Phasing and Growth**

- ® The King County Countywide Planning Policies (CPPs) require that cities within the Urban Growth Area identify methods to phase growth and development in order to bring certainty to long-term planning and development within the County. Phasing should occur within the UGA, as necessary, to ensure that services are provided as growth occurs. Development in the Urban Area will be phased to promote efficient use of the land, add certainty to infrastructure planning, and to ensure that urban services can be provided to urban development. The following plan represents the City’s growth phasing methods.
- ® Residential Growth
  - ® As a first phase, continue single-family development and growth until it runs out of land supply. This should happen in a few years, well within the twenty-year horizon, probably within 5 years. Maintain densities in the City at the GMA minimum for urban residential uses through appropriate development regulations.
  - ® As a second phase, develop multifamily units at a low density for such units. This will encourage ownership of the units, and higher densities are not required by GMA as a result of the strategy in Phase 1. There is no guarantee that this strategy is in line with the immediate economic market for multifamily units. The strategy may result in a slower rate of growth in Phase 2.
- ® Commercial Growth
  - ® As a first phase, focus growth around the two existing centers to utilize existing capacity. Do not encourage uncoordinated enlargement of any strip (linear) commercial development along the Maple Valley Highway.
  - ® Conduct studies to determine the realistic capacity of the limited transportation system to support the commercial growth of the area. It may be that additional streets or connections are needed to create a “grid” of streets within the commercial areas to support the development.
  - ® Consider development regulations that allow for a variety of uses within the two Multiple Use areas of the City. Regulations should accommodate and focus on meeting the City’s needs for the two separate areas.
- ® Growth Phasing
  - ® The City has very limited room to expand within portions of the unincorporated UGA outside of its current boundaries. In addition, the City is located entirely within the existing service areas of

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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the independent water, sewer and fire districts that serve the City. Therefore, growth phasing is expected to occur commensurate with the rate of development, subject to the availability of capacity and service from utility providers.

- ® Traffic bottlenecks are a problem during peak periods at key arterial intersections along SR 169 (Maple Valley Highway) and SR 516 (Kent-Kangley Road). The cities of Black Diamond, Enumclaw, Maple Valley and Renton and King County are participating with Washington State Department of Transportation on a study of the SR-169 corridor. These and other problems as well as improvements to these facilities are discussed in greater detail in the Transportation element. These problems will need to be addressed before expansion to the SR-169 corridor to any great degree can be considered.

**Annexation and Urban Growth Boundaries**

Maple Valley incorporated most of the land within the unincorporated King County/Maple Valley Urban Growth Area (UGA). Any areas that the City did not incorporate within the UGA are considered Potential Annexation Areas (PAAs). Rural areas outside the UGA are in most cases not to be considered for annexation. According to the Growth Management Act, cities are encouraged to identify PAAs within unincorporated portions of the UGA. Identification of PAAs within a city’s plan indicates that the City intends to annex and provide urban levels of service to those areas within the time period of the planning horizon. Aside from this annexation policy, there is limited potential for expansion due to the proximity of the City of Black Diamond to the south and the City of Covington to the west. There are also constraints to development to the north, northwest and east of the City, including the presence of geologically hazardous areas, streams, the Cedar River, floodplains and the King County Urban Growth Boundary.

The Maple Woods development represents the largest potential annexation area into the City. This is a single family residential development, located east of the city limits, that is planned to contain approximately 575 residential units. Of additional interest is coordinating with King County regarding the rural unincorporated “island” located in the City. Surrounded by the City and the UGA, this piece of unincorporated rural King County property is of particular importance to the City’s future development. The City will work with King County to ensure compatible development within and around this area as well as work toward its eventual incorporation into the City. A portion of the unincorporated “island” was designated “Urban” in the King County 2000 Comprehensive Plan update, thereby rendering it available for annexation. Maple Valley has adopted land use designations and preannexation zoning for the two parcels involved. In 2007, the remaining portion of the “island” was identified by King County to be included in the Urban Growth Area without any concurrence with the City of Maple Valley. The City has made attempts on several occasions to approach the County for an agreement for joint planning to ensure that land use designations and development within the “island” will be compatible with the surrounding areas and City goals. In response to King County not cooperating with the City, the City hired a team of consulting firms to identify the potential impacts from development to Maple Valley services. This report was accepted and received by the Maple Valley City Council in July of 2008 and presented to the King County Growth Management and Natural Resources Committee as part of their consideration of the proposed 2008 Comprehensive Plan Amendments. That report is titled, *Donut Hole Development Feasibility Report*. See Figure LU-1 for the boundaries of these potential annexation areas. There are also other areas located outside of the City limits and UGA that are important to future planning. These areas, known as the Greater Maple Valley Area and located primarily within the Tahoma School District, are influenced by growth and development within the City of Maple Valley and the City is impacted by development within these areas. Residents of these areas rely on non-governmental City services and are a part of the Maple Valley community. While annexation of lands outside of the UGA is not permitted, the City should continue to work with King County to ensure that there is cooperation and coordination between the two jurisdictions regarding growth and improvements in these unincorporated areas. To the extent possible, the City will continue to consider these areas during its planning process to insure these areas remain in harmony and in character with Maple Valley.

EXHIBIT “B” ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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**FUTURE LAND USE PLAN**

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The future land use plan is the result of Planning Commission and City Council deliberation, extensive public involvement, and environmental impact review. The purpose of this section is to describe the general pattern of land uses that the City intends to achieve through adoption and implementation of the Comprehensive Plan.

**Residential Land Uses**

The City’s existing residential neighborhoods are overwhelmingly characterized by single-family developments. Yet increasing demand for more affordable housing and means to improve the viability of transit service is driving a trend toward smaller lots. Often times poorly-sited high density developments can have adverse impacts on existing neighborhoods such as increased traffic safety concerns. The policies in this Plan are intended to protect the quality of existing neighborhoods while allowing for a broader range of residential densities in future developments. Specific locational criteria were developed to provide a basis for the designation of higher density developments in an effort to minimize the potential for conflicts with existing single-family neighborhoods.

Higher density residential uses are recommended within proposed mixed use activity centers adjacent to existing commercial nodes. The plan favors preserving higher density housing in areas in close proximity to the commercial activity centers rather than promoting new multifamily developments in established single-family neighborhoods. Preserving neighborhood quality also means ensuring that adequate water and sewer availability, streets, bike paths, trails, landscaping, stormwater drainage, pedestrian access and park and recreational facilities are provided and maintained in a timely manner. The Plan contains policies intended to establish or maintain these types of development standards. Preserving neighborhood quality also means that larger lot areas (some with agriculturally oriented uses) within the City should be protected from the inappropriate impacts of adjacent properties conversion to urban densities.

*Low Density Residential*

The majority of the City’s population lives in detached single-family homes. The bulk of the single-family neighborhoods (including schools and religious facilities) are characterized by densities in the range of four to six units per acre. Land in this classification shall continue to be developed at a range of four to six units per acre to maintain compatibility with the existing neighborhoods. Development of attached single-family homes, including townhouses and duplexes is also allowed in these zones, as long as maximum allowed densities are not exceeded. Generally, this designation is appropriate for most land in the planning area suited for residential use, which is in close proximity to similar uses and to collector streets, with direct connections to commercial and recreational areas. These areas should be well served by recreational and open space resources, served by an internal street system and be defined by appropriate neighborhood boundaries, which may be bordered but not penetrated by major arterial roadways.

EXHIBIT “B” ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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*Medium-Density Residential*

This designation shall provide for primarily single family residential development at a range of densities between eight to twelve units per acre. In addition, townhouses and duplexes are allowed to be interspersed in existing single-family zones as long as density is maintained. Medium density development allows for a mix of housing types and provides a more affordable alternative to larger lot single-family detached housing. Neighborhoods should include compatible uses such as schools, religious facilities, and day care centers where the full range of public services exist or can be provided. Locational criteria for these kinds of development include transition areas between higher density multifamily and single-family neighborhoods and transition between single-family neighborhoods and adjacent commercial centers or employment areas. Generally, this designation is appropriate for land located adjacent to principal arterials.

*High density residential development*

High density residential, which allows for development at densities between 18 to 24 dwelling units per acre, is a necessary component of the City’s housing mix and contributes to the overall GMA density target. High density residential development provides housing opportunities for lower income households in the City who may not yet be able to afford a home of their own, for transitional households looking for a temporary domicile, as well as many senior households looking to downsize their living space needs. This designation is appropriate for land which is located adjacent to principal arterials and major highway corridors, served by public transit and in direct proximity to business and commercial activity centers.

To encourage compatibility with adjacent single-family neighborhoods, locational criteria were developed during the planning process to evaluate adequate sites for future high density housing. Locational criteria include:

- ® Adjacent to or within major arterial transportation corridors.
- ® Abutting existing or proposed streets capable of handling added traffic and served by existing or proposed transit service.
- ® Near similar higher density housing.
- ® In close proximity to major commercial centers or employment areas.
- ® Near existing public services, utilities and facilities with the capacity to service appropriate densities.
- ® Lack of critical areas.

*Non-Residential Land Uses*

The major components of non-residential development include commercial, office industrial and multiple use development activities. These land uses provide needed services and jobs to Maple Valley residents and also provide a major component of Maple Valley’s tax base through sales and property taxes. The Plan supports diversification of the City’s non-residential land uses by promoting mixed use developments and opportunities for higher wage employment through business and office park development. Other non-residential land uses also include lands useful for public purposes and essential public facilities such as parks, schools and libraries.

*Community Business*

This designation provides appropriate land areas that serve the City’s primary shopping and service needs, provide local employment opportunities and a stable tax base structure. Community Business centers comprise larger scale and more intensive retail sales and services than found in neighborhood business centers. A broader range of uses are typically found

EXHIBIT “B” ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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in these areas, including those which typically require outdoor display and/or storage of merchandise, greater parking requirements, and tend to generate noise and traffic impacts as a part of their operations. Such uses include, but are not limited to shopping centers, grocery stores, and restaurants.

This designation applies to areas that are served by the full range of public services and located at the intersections of major arterial roadways and highway corridors served by public transit. They should be of sufficient size to accommodate a concentrated variety of intensive commercial activity with adequate area for buffering, landscaping, internal pedestrian and vehicle circulation, parking and safe and efficient ingress and egress. They should also be situated in areas that have adequate buffering or other features to be compatible with--and avoid or eliminate adverse impacts to – surrounding non-commercial land uses.

*Neighborhood Business*

Commercial centers within or adjacent to residential neighborhoods serve a useful function in providing convenient access to neighborhood residents for their “everyday” or “convenience” shopping needs. These centers can serve to reduce the number of automobile trips or at least shorten them by providing services near one’s residence. For neighborhood centers to provide these benefits, attention must be paid to ensuring adequate access to these centers from the adjacent neighborhood. The Neighborhood Business designation is intended to provide for small scale commercial areas to serve local neighborhoods with a limited range of retail sales and services. Such uses typically include eating and drinking places, professional and personal services, automotive service stations, neighborhood grocery and convenience stores. Residential uses are allowed as secondary uses in Neighborhood Business areas.

This designation is characterized by areas that are served by major arterial streets but are situated in a location that is easily accessible by residents living in nearby neighborhoods. These parcels should be capable of being physically buffered from adjacent residential properties and characterized by soil, drainage and topographic features that can accommodate the construction of commercial areas without adversely impacting surrounding residential areas. Currently there are two areas zoned Neighborhood Business, both located in the southwest portion of the City.

*Office*

The purpose of this designation is to provide for areas used for research and development or professional and corporate offices. These uses are intended to be conducted entirely within a building and not to generate noise or vibration outside the building or generate significant adverse impacts to surrounding properties. These uses should provide for higher wage technical and professional jobs as a means for diversifying the local economy.

Designation of these uses should focus on ensuring adequate circulation, transit access, parking and compatibility with surrounding land uses. Land designated for Office uses consist of two general areas plus a larger site to be developed for office uses when the gravel mining operations cease. All of the office zones are clustered in the northern end of the City where commute trips entering the City will not disrupt traffic on City streets for the most part.

*Business Parks*

Business Park uses are currently located in twoparts of the City:, one in the south part of town, and one concentrated in the central portion of the City in the area north of 264th Street SE, sandwiched between the Lake Wilderness Trail and the Maple Valley Highway. Business Park uses within this area are characterized by non-polluting manufacturing and processing, wholesaling, warehousing and distribution and similar activities. Such uses tend to require large buildings and to generate more noise and large truck traffic than do other types of land uses. The central Business Park area is nearly bounded by a single-family residential neighborhood on one side, but it is separated by the Lake Wilderness Trail.

EXHIBIT “B” ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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Business Park areas should be located in close proximity to major highway corridors (i.e., truck routes) and separated or buffered as much as possible from residential neighborhoods. These sites should be characterized by adequate ingress and egress, internal street design to accommodate truck traffic, screening and design standards to minimize adverse impacts on adjacent properties. All industrial uses allowed in this district must meet the performance standards in the zoning ordinance to prevent undue adverse impacts from noise, smoke, dust, glare and other bulk controls, such as setbacks and height.

*Multiple Use Development*

Multiple or mixed use developments combine a range of different land uses within the same site. This is intended to promote more pedestrian and transit friendly development in the future as well as create true “activity centers” where people may be able to live, work, play and shop in close proximity.

Multiple use developments typically include housing, retail commercial and office parks or a wider range of uses usually kept separate by traditional zoning. They may be large such as for regional retail, office and entertainment, or small such as for a neighborhood retail/office building with apartments on the upper floors. They can include a wide range of different housing types aimed at different income levels within the same development . Combining the retail and residential uses in the right environment can generate an instant market to support the adjoining commercial uses. They are growing in popularity and are seen as an innovative technique to accommodate affordable housing needs and to disperse commercial activities into smaller more manageable clusters with fewer impacts than large concentrated commercial centers.

This Plan proposes two distinct sites for multiple use development. The first is the area immediately east of Maple Valley Highway at SE 240<sup>th</sup> Boulevard; the second is immediately west of the highway across from Rock Creek Elementary. These sites represent the largest remaining parcels available for development within the SR 169 corridor. Each is at least 50 acres or larger in size –meaning they contain enough area to accommodate significant mixed use activities such as office, residential, and pedestrian-scale professional service and neighborhood commercial uses. All of these sites are planned to accommodate higher density residential uses as an important component of their land use mix.

Regulations have been developed to identify the range of land uses allowed and the appropriate mix of intensities and densities of uses for these kinds of developments. Real estate market conditions at the time of development will also impact the feasibility of specific multiple use scenarios.

*Service Commercial*

The Service Commercial designation allows for a combination of commercial uses to serve the general needs of the community and surrounding areas. This land use designation is intended to encourage nonpolluting commercial uses which do not necessarily rely upon arterial visibility and may serve to provide employment and destination retail services. Example uses include: retail, vehicle sales and service, rental services, wholesale, warehousing, , self-storage, entertainment uses, brewery/winery, publishing, hotels, research and development, office and health care facilities. Uses may also include light industrial, lumberyards, and manufacturing that is scaled, or subject to development regulations, that prevent or minimize potential impacts from noise, smoke, odor, dust and glare and emissions. Service Commercial is characterized by areas in proximity to, and relatively easy access to, major arterial streets and regional highways situated in a location that is accessible by local and regional communities. This commercial oriented land use is best suited for areas where commute trips entering the City will not disrupt traffic on City streets for the most part. This area should be capable of being buffered from adjacent residential properties and characterized by features that can accommodate uses without adversely impacting surrounding residential areas. The only area designated for Service Commercial is located in the north of the City near Highway 18 and SR 169.

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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*Public Facilities*

The City contains a great deal of lands considered useful for public purposes. There are also lands outside the City limits that have the ability to be useful for public purposes such as the unincorporated “island” known as the Donut Hole or Summit Pit site. These include but are not necessarily limited to City owned or operated administrative and maintenance facilities, school sites, Park and Ride facilities, the Regional Emergency Operations Center, fire stations, the Maple Valley Library, museums, skateboard park, , the Greater Maple Valley Community Center, and the potential multi-phase community center. Where feasible and permitted, the City will encourage the joint use of public facilities with City departments and other public agencies whether in the City limits or not. Some public lands and facilities are also often referred to as “essential public facilities”. These are not given a separate designation by the City, but are required to be discussed. The Growth Management Act requires that jurisdictions planning under its authority develop and adopt a process for identifying and siting essential public facilities. The GMA defines essential public facilities as facilities that are typically difficult to site because they are locally unpopular, such as airports, state education facilities and state or regional transportation facilities, state and local correctional facilities, housing for sex offenders, solid waste handling facilities and in-patient facilities, including substance abuse facilities, mental health facilities and group homes. The GMA states that no Comprehensive Plan or development regulation may preclude the siting of essential public facilities.

Essential public facilities support the needs of the metropolitan region. As the limits of land supply are recognized, governments must exercise care in making fair decisions on locating new or expanding existing essential public facilities. The Office of Financial Management maintains a list of those essential state public facilities that are required or likely to be built within the next six years. The plan contains policies that identify and support the siting process.

*Park, Recreation, Open Space*

Park, Recreation and Open space land is beneficial for a wide variety of purposes: active or passive recreation, trails, critical areas protection, natural resources lands, view corridors or urban buffers. The GMA establishes the following planning goal concerning open space and recreation: *encourage the retention of open space and development of recreational opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks*. Open space lands comprise both public and private lands which are valued for their open space resource. Many are public such as Lake Wilderness Park, the Lake Wilderness Arboretum and Lake Wilderness Trail. Others are private but provide a public open space and environmental protection benefit such as private parks within subdivisions, golf courses and the wetlands associated with the Elk Run Golf Course. The City is actively pursuing additional park and recreation sites and facilities whether they are within city limits or within areas that may be suitable for future annexation – especially in the southern portion of the City. When completed they are intended to be given this designation, but not in advance of their acquisition by the City.

Recreation uses may include activities that occur within structures and do not have an open space component. Privately owned open space lands may be operated as for-profit entities with special purpose recreation facilities, such as ice arenas, swimming pools, golf courses or live performance theaters. Secondary commercial uses may be allowed in conjunction with these facilities including eating and drinking establishments, small conference facilities and associated retail (e.g., pro shops associated with golf courses).

**Undesignated Land Uses-Resource Lands**

Resource lands include agricultural lands, forest lands, and mineral resource lands of long-term commercial significance. The Growth Management Act requires cities and counties to map these areas and develop regulations

EXHIBIT “B” ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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to protect them. However, the GMA also states that agricultural and forest lands in urban areas are not considered “of long-term commercial significance” and, therefore, do not need to be identified “unless the City or County has enacted a program authorizing transfer or purchase of development rights.” Neither Maple Valley nor King County have enacted such a program for forest and agricultural lands *within the City* and, therefore, these lands have not been identified for long-term preservation. The incorporation of Maple Valley did however include with it a mineral resource site identified by the County as one of long-term commercial significance, and according to GMA, mineral resources are not exempt from resource lands protection policies. These sites are usually home to an extractive industry which mines rock, gravel, fill dirt and other useful minerals important to the continued development of the region. The existing mineral resource site in Maple Valley is a sand and gravel mine located on the northeast City boundary at approximately S.E. 231<sup>st</sup> and Witte Road S.E. According to GMA, an existing resource lands designation within an urban area “*should, in most cases, be limited to ... consistency with the Comprehensive Plan, rather than revisiting the entire prior designation and regulation process.*” Therefore, the future land use should be as the land use plan designates.

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**GOALS AND POLICIES**

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**GOALS**

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- LU-G1 Plan current and future land uses in accordance with the values and vision of Maple Valley residents, landowners, and business owners.
- LU-G2 Preserve Maple Valley’s character, human scale, and neighborhood quality as new development occurs.
- LU-G3 Identify and develop plans and techniques to preserve open spaces, natural and scenic resources, and critical areas.
- LU-G4 Maintain, preserve and enhance the City’s historic, cultural and archaeological resources to provide a sense of local identity and history to the visitors and residents of the community.
- LU-G5 Establish a land use pattern that uses land efficiently, facilitates a multi-modal transportation system and promotes the efficient provision of public services and facilities.

**POLICIES**

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**General**

- LU-P1 Encourage development that creates and maintains a safe, healthy and diverse community. Maple Valley should contain affordable housing, reasonable employment opportunities, and should protect the natural environment and significant cultural resources.
- LU-P2 A set of design guidelines shall define the design vision for multifamily residential neighborhoods, commercial, industrial and mixed use developments. The guidelines will encourage architectural form and site design that are pedestrian in scale. The guidelines will address such design features as: sloped roof lines, distinctive building shapes, integration of art, textures, patterns, treatment of pedestrian and public spaces, interface with the public right-of-way landscaping, signage and facade treatments.

EXHIBIT “B” ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

---

- LU-P3 The Comprehensive Plan will be consistent with the GMA and King County Countywide Planning Policies (where applicable), and will adopt land use policies, regulations and capital facility plans consistent with other elements of the Maple Valley Comprehensive Plan.
- LU-P4 Growth should be directed as follows: a) first, to areas with existing infrastructure capacity; b) second, to areas where infrastructure improvements can be easily extended; and c) last, to areas requiring major infrastructure improvements.
- LU-P5 Environmental standards for urban development should emphasize flexible development options to allow maximum permitted densities without compromising the intent of the standards to protect the quality of the critical area or natural resource.
- LU-P6 Mitigating measures should be utilized to serve multiple purposes, such as drainage control, ground water recharge, stream protection, open space, cultural and historic resource protection and landscaping.
- LU-P7 When technically feasible, all land use and environmental standards should be simple and measurable, so they can be implemented without lengthy review processes.
- LU-P8 If service deficiencies, such as City, County and State roads, public water supply and wastewater treatment, are identified through planning, Maple Valley and the affected service providers shall adopt Capital Improvement Programs to remedy identified deficiencies in a timely fashion.

**Potential Annexation Areas**

- LU-P9 Examine the feasibility of annexing any portion of the unincorporated Urban Growth Area of King County adjacent to the north and eastern boundaries of the City by taking into account site-specific considerations, zoning, as well as the concerns of adjacent cities, rural area residents, and King County.

The City has identified the unincorporated portion of the King County Urban Growth Area known as the Maple Woods development as a potential annexation area. The City intends to annex the area during the planning period.

- LU-P10 The City of Maple Valley shall coordinate future planning and interlocal agreements for annexation areas with the appropriate agencies.
- LU-P11 Engage King County, local agencies that provide public services, property owners and affected residents in discussion and coordination regarding the possible future annexation of the unincorporated rural island located within the city limits. The City has identified two lots adjacent to the King County gravel pit as a potential annexation area. These lots are located in the Urban Growth Area. The City intends to annex the area during the planning period.
- LU-P12 Make every effort, whether by interlocal agreement or other mechanism, to ensure that land which lies within King County’s jurisdiction which may become a part of the City of Maple Valley, develops according to the Comprehensive Plan policies or other development standards the City of Maple has developed.
- LU-P13 Encourage a thorough joint planning process at all levels in the region to carry out the City of Maple Valley Comprehensive Plan. Accomplish this by supporting the Puget Sound Regional Council, the Growth Management Planning Council, and other regional bodies to ensure that Maple Valley’s interests in long-term regional planning are represented and that the City can take into account the interests of other jurisdictions in its own long-term planning.

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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LU-P14 The City shall evaluate and consider the feasibility of annexing lands within the Tahoma School District and the Greater Maple Valley Area as they become urban and available for annexation, consistent with the King County Countywide Planning Policies and Urban Growth Area designations.

**Residential Land Use**

*Residential Densities*

LU-P15 Seek to achieve, through future planning efforts over the next twenty years, a minimum average net zoning density of four homes per acre through a mix of densities and housing types for residentially zoned properties.

LU-P16 Allow for a full range of residential densities, commensurate with the character of the City, to ensure the provision of affordable housing to all economic segments of the population.

LU-P17 Higher density housing should be located close to major arterials served by public transit and within walking distance of commercial activities and recreational facilities.

LU-P18 Use innovative land use techniques such as “density averaging” and/or “clustering” to preserve open space and allow more efficient land use patterns. Emphasis should be placed on using these techniques when developing single-family residential uses.

LU-P19 Common wall and zero lot line, single-family development shall be considered in areas that are:

- a. transitional between single-family and higher density or intensity areas;
- b. located in residential zoning of 4 to 12 units per acre; and
- c. located in mixed use areas.

*Infill Development*

LU-P20 In order to promote infill development, accessory units, carriage houses, cottage housing and townhome development should be encouraged in areas which: 1) transition between single-family residential and other uses or densities; 2) are served by an arterial street system with sidewalks; or 3) have nearby pedestrian access to a park or public transit services.

*Residential Neighborhood Design*

LU-P21 Home businesses may be allowed if the business is resident owned and operated and compatible with residential uses; i.e., the business does not: 1) develop significant noise; 2) require heavy trucking; 3) significantly increase traffic or demand for parking; or 4) involve unscreened outdoor storage of materials or equipment.

LU-P22 Road standards, zoning and subdivision regulations shall encourage and facilitate the following:

- a. preserve natural site characteristics;
- b. protect privacy;
- c. provide pedestrian safety and accessibility;
- d. reduce the impact of motorized transportation; and
- e. create useable open space, community space and community facilities. LU-P21 Design variety such as lot clustering, flexible setback requirements and mixing attached and detached housing is strongly encouraged in single-family areas.

EXHIBIT "B" ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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- LU-P23 Variation in facades, roof lines and other building design features should be used to give a residential scale and identity to multifamily developments.
- LU-P24 Landscaping shall be required as a buffer between different intensities of land use, along street frontages and within parking lots. Encourage the use of native vegetation within buffers and landscaped areas.
- LU-P25 Take an active role with the private sector in the development of covenants and restrictions to assure that:
- a. The future maintenance and operation of private open space is guaranteed so that the City does not become responsible for future costs for maintenance.
  - b. Covenants and restrictions are consistent with the City's policies and regulations.

***Residential Development Standards***

- LU-P26 Zoning and subdivision regulations shall require development proposals to include appropriate urban residential improvements which may include the following:
- a. Paved streets (and alleys, if appropriate), curbs and sidewalks, bike lanes and internal walkways, when appropriate;
  - b. A reduction of construction of parking spaces as nearby public transportation services improve;
  - c. Street lighting and trees;
  - d. Stormwater control;
  - e. Public water supply; and
  - f. Public sewers.
- LU-P27 All residential development shall provide park sites or contribute a fair share toward meeting park and outdoor recreation needs, and consider integration of surface water management facilities into park sites.

*(new section) Siting Non-Essential Public Facilities*

- LU-P28 Encourage the siting of institutional, educational, and governmental uses adjacent to or within residential zones so that these uses do not significantly impact nearby residences.
- LU-P29 Establish a site and design review process for siting non-essential public facilities within or adjacent to residential zones that will ensure minimal impacts to nearby residences,
- LU-P30 Facilities that serve the entire City shall be easily accessible from all parts of the City and should minimize and then mitigate use-generated traffic or other impacts to residential neighborhoods.
- LU-P31 Facilities that serve regional needs shall be located in close proximity to regional transportation systems (freeways, arterials, or major public transit lines); such facilities shall minimize and then mitigate use generated traffic or other impacts to residential neighborhoods.
- LU-P32 The visual character of buildings shall be enhanced by means of architectural design and landscape elements to create a human scale and positive visual character for the streetscape and abutting residential uses.

LU-P33 Screening of elements such as recycling and waste collection areas, compactors and dumpsters, loading and service areas, and mechanical equipment shall be required so that these elements do not create a negative impact to the streetscape and nearby residential areas.

**Commercial and Business Park Land Use**

*Economic Development*

LU-P34 Promote and maintain an atmosphere that encourages business to locate in the City and to actively pursue desirable types of commercial and/or industrial uses.

LU-P35 Ensure that permits are evaluated and processed in a timely manner.

LU-P36 Encourage capital improvement projects in commercial and business park areas to improve pedestrian and vehicular circulation systems and stimulate more intensive and concentrated activity.

LU-P37 Develop an equitable tax structure that keeps and attracts businesses while maintaining the City’s ability to provide a high level of service for commercial and business park uses.

LU-P38 Work cooperatively on economic issues with the Chamber of Commerce, local businesses and industries.

LU-P39 The City of Maple Valley shall coordinate with water and sewer districts to ensure that adequate water and sewer capacity exists or is proposed within the respective District’s capital facilities plan to support development throughout the City.

*Multiple Use Development*

LU-P40 Incorporate trail systems to connect with adjacent activities. Pedestrian and bicycle routes should be encouraged by safe and attractive walkways and bicycle lanes, and by close grouping of buildings. For example, parking lots should be compact, located behind buildings and well screened, while internal on-street parking should be encouraged.

LU-P41 Multiple use activity centers that are well designed and located with a mix of uses such as residential, offices, and specialty retail should be encouraged to promote more affordable housing opportunities, and reduce external vehicle trips and related traffic congestion patterns in the City.

LU-P42 Large-scale multiple use activity centers could include the following mix of uses:

- a. Public facilities and/or open spaces;
- b. Pedestrian and public transit-oriented design and circulation;
- c. Specialty retail stores;
- d. Professional offices;
- e. Community services; and
- f. A range of housing densities.

LU-P43 Individual multiple use buildings with residences or offices located along with retail uses should be encouraged in suitable areas close to public transit, pedestrian amenities and open spaces.

LU-P44 Encourage pedestrian-oriented retail uses and development in the commercial nodes and multiple use areas.

LU-P45 Higher density housing shall be required within multiple-use activity centers.

EXHIBIT “B” ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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- LU-P46 Landscaping shall be required between different intensities of land use, along street frontages and within parking lots, and buffers shall be required between mixed use sites and adjacent parcels.
- LU-P47 Encourage the development of “Multiple Use” centers that will contribute to the social and economic base of the City.
- LU-P48 Create, through appropriate zoning, the opportunity to develop a mix of uses including residential, commercial, business park, and community services uses.
- LU-P49 Integrate “Multiple Use” sites as a component of the community through motorized and non-motorized links.
- LU-P50 Provide residential use or open space on “Multiple Use” sites as buffers to adjacent residential uses.
- LU-P51 Mix compatible land uses horizontally across a “Multiple Use” site, and vertically integrate uses in mixed use buildings.
- LU-P52 Incorporate principles of pedestrian orientation throughout the site.
- LU-P53 Offer development bonuses such as building height and building footprint size to projects that incorporate significant design elements such as underground parking, active public outdoor recreation space, and outdoor public plazas.
- LU-P54 Ensure an active pedestrian environment by providing ground floor retail uses.
- LU-P55 Establish a maximum size for retail uses.
- LU-P56 Prohibit drive through facilities associated with food service businesses, including coffee. Allow walk-up service for pedestrians.
- LU-P57 Encourage residential development in vertically mixed-use buildings.
- LU-P58 In Multiple Use designations, provide for a maximum residential density of 12 units per acre. A density transfer of up to 4 units per acre from additional permanent open space and Community Service uses may be incorporated into residential and mixed-use projects.
- LU-P59 Establish guidelines to ensure a mix of ground floor land uses on the site and to encourage an active pedestrian environment.

***Commercial/Business Development Standards***

- LU-P60 Clustered retail commercial development shall be encouraged rather than strip commercial development.
- LU-P61 The size of retail commercial centers shall be scaled to serve the needs of the City and its immediate environs rather than seeking to meet larger regional shopping needs.
- LU-P62 Encourage office and business park type development with campus style design, in suitably zoned areas, including Office, Business Park and Multiple Use zones.
- LU-P63 Encourage diversification of industrial and commercial areas (including the encouragement of business or office parks) while mitigating or reducing the associated impacts of these activities, particularly industrial impacts, on adjacent properties and the natural environment.

EXHIBIT “B” ORDINANCE NO. O-11-471

LAND USE ELEMENT

City of Maple Valley Comprehensive Plan

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- LU-P64 The City of Maple Valley's zoning and other development regulations for commercial, retail and industrial uses should foster community, create enjoyable outdoor areas and balance needs of automobile movement with pedestrian and bicycle mobility and comfort. Commercial/industrial uses shall include, but not be limited to:
- a. Paved streets;
  - b. Sidewalks and bicycle lanes in commercial and retail areas;
  - c. Adequate parking for employees and business users;
  - d. Landscaping along or within streets, sidewalks and parking areas to provide an attractive appearance;
  - e. Adequate stormwater control, including curbs, gutters and stormwater retention facilities;
  - f. Public water supply;
  - g. Public sewers; and
  - h. Controlled traffic access to arterials and intersections.
- LU-P65 Flexibility in standards should be allowed to encourage the type of development envisioned by the City's commercial design policies. Trade-offs between different required site features and amenities should be allowed depending on the type of development, its anticipated market, and the desires of the surrounding communities. The scale of site improvements should be consistent with the type of development served.
- LU-P66 Establish and adhere to community design standards that promote compatibility with surrounding land uses and to ensure high quality development. Urban design elements shall include aesthetic building facades, signage and landscaping, efficient pedestrian and vehicular circulation movement, transit opportunities, passive open spaces, and underground utilities.
- LU-P67 Utilize setbacks and landscaping requirements to protect wetlands, shorelines, and streams from adjacent intense land uses such as business park development, other impervious developments, and high-traffic land uses.
- LU-P68 Commercial and industrial uses requiring heavy trucking and handling of materials (such as assembly, fabrication, heavy repair, storage or outside sales) shall be carefully controlled. New commercial and industrial uses which require additional heavy trucking shall be discouraged due to potential conflicts with retail and office use.

**Development Incentives**

- LU-P69 Incentives should encourage developers to provide innovative affordable housing, additional open space, historic preservation and energy conservation measures exceeding City and state requirements.
- LU-P70 Develop incentives to encourage preferred development through a variety of regulatory and financial strategies that may include, but are not limited to:
- a. Transfer of density credits;
  - b. Streamlined permit process through area-wide State Environmental Policy Act (SEPA) review;
  - c. Road system reclassification;
  - d. Flexible, hardship-based variances from sideyards and setbacks for greater land coverage;
  - e. Reduced mitigation fees; and
  - f. Reduced impact fees.
- LU-P71 Develop City investment incentives to encourage infill development in commercial areas. Investments may include improved sidewalks and outdoor public spaces such as urban parks or small public

squares. Other public investment incentives include facilities such as a performing arts center, permanent public market space, daycare facilities, and community centers.

**Open Space**

- LU-P72 Consider the following features for inclusion in an open space system:
- a. Natural or scenic resource areas;
  - b. Natural drainage areas;
  - c. Golf Courses under the Public Benefit Rating System;
  - d. Urban landscaped areas such as cemeteries and parks;
  - e. Land reserved as open space or buffer as part of development, including parcels subject to density averaging;
  - f. Critical areas as defined in the Environmental Quality Element of the Comprehensive Plan;
  - g. Rivers and streams;
  - h. Areas designated as environmentally sensitive, like stream corridors; and
  - i. Lands designated as open space under the Current Use taxation–open space established according to King County for tax assessment purposes.
- LU-P73 Encourage the preservation of open space through the Current Use Taxation - Open Space program.
- LU-P74 Use a variety of land development techniques including density averaging or clustering to preserve and maintain open space corridors. These corridors define urban growth boundaries and provide separation between communities, and between differing land use densities.
- LU-P75 New residential development shall contribute its fair share to open space preservation through mitigation funds or acreage.
- LU-P76 Work with private organizations and service clubs to encourage the development of special purpose recreation facilities (e.g., ice arenas, swimming pools, golf courses, live performance theaters, etc.).
- LU-P77 The City’s development regulations shall include provisions that adequately consider the development of publicly and privately owned recreation space.

**Historic Resources**

- LU-P78 Encourage the protection, preservation, recovery and rehabilitation of significant archaeological resources and historic sites.
- LU-P79 Consider the impacts of new development on historical resources as part of its environmental review process.
- LU-P80 Encourage efforts to rehabilitate sites and buildings with unique or significant historic characteristics.
- LU-P81 Encourage the incorporation of open space into the design and preservation of historic properties.
- LU-P82 Coordinate with the Maple Valley Historical Society regarding its future visions and plans, including the following:
- a. Build a Heritage Center across from the Fire Engine Museum.

- b. Prevent the demolition and to possibly restore the Gaffney family-owned buildings on Lake Wilderness.

LU-P83 Reflect the pioneering history of Maple Valley in its civic architecture and conform to the City’s design standards.

**Essential Public Facilities**

Essential public facilities will be prioritized, coordinated, planned, expanded and sited through an interjurisdictional process. A facility must be considered an essential public facility before initiating a siting process and must adhere to the following policies:

- LU-P84 Proposed new, or expansions to existing, essential public facilities should be sited consistent with the King County Comprehensive Plan.
- LU-P85 King County, the City and neighboring cities and special purpose districts, if advantageous, should share essential public facilities to increase efficiency of operation.
- LU-P86 King County and the City should ensure that no racial, cultural or class group is unduly impacted by essential public facility siting or expansion decisions.
- LU-P87 King County and the City should strive to site essential public facilities equitably Countywide. No single community should absorb an undue share of the impacts of essential public facilities. Siting should consider environmental equity and environmental, technical and service area factors.

Evaluating proposed new, or expansions to existing, essential public facilities through the interjurisdictional process will ensure that the facility will support Countywide land uses and economic development activities, achieve policies LU-P1 through LU-P4 and help reduce costs and environmental impacts. The following policies will be used to site essential public facilities within King County:

- LU-P88 A facility may be determined to be an essential public facility if it has one or more of the following characteristics:
  - a. The facility meets the Growth Management Act definition of an essential public facility;
  - b. The facility is on a State, County or local community list of essential public facilities;
  - c. The facility serves a significant portion of the County or metropolitan region or is part of a Countywide service system; or
  - d. The facility is difficult to site or expand.
- LU-P89 Siting proposed new, or expansions to existing, essential public facilities shall consist of the following:
  - a. An inventory of similar existing essential public facilities, including their locations and capacities;
  - b. A forecast of the future needs for the essential public facility;
  - c. An analysis of the potential social and economic impacts and benefits to jurisdictions receiving or surrounding the facilities;
  - d. An analysis of the proposal’s consistency with Policies LU-P1 through LU-P4;
  - e. An analysis of alternatives to the facility, including decentralization, conservation, demand management and other strategies;
  - f. An analysis of alternative sites based on siting criteria developed through an interjurisdictional process;
  - g. An analysis of environmental impacts and mitigation; and
  - h. Extensive public involvement.

**EXHIBIT “B” ORDINANCE NO. O-11-471**

**LAND USE ELEMENT**

City of Maple Valley Comprehensive Plan

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ADOPTED OCTOBER 10, 2011

LU-26  
LAND USE ELEMENT

CAPITAL FACILITIES & PUBLIC SERVICES ELEMENT

City of Maple Valley Comprehensive Plan

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# CAPITAL FACILITIES AND PUBLIC SERVICES

## TABLE of CONTENTS

LEVELS OF SERVICE.....	1
CAPITAL FACILITY FINANCING.....	2
CITY-PROVIDED PUBLIC SERVICES AND FACILITIES.....	3
PARK AND RECREATION FACILITIES.....	3
STORMWATER FACILITIES.....	3
Level of Service Standards.....	3
Needs and Plans.....	4
Financing.....	4
MUNICIPAL FACILITIES.....	5
Existing Facilities.....	5
Needs and Plans.....	5
Financing.....	5
OTHER PUBLIC SERVICES AND FACILITIES.....	6
SCHOOLS.....	6
Description of Facilities.....	6
Level of Service Standards.....	6
Needs and Plans.....	7
Financing.....	8
Descriptions of Services and Facilities.....	8
Existing Level of Service.....	9
Some of the programs offered by the Center include:.....	9
Needs and Plans.....	9
Financing.....	9
LIBRARY FACILITIES.....	10
Level of Service Standards.....	10
Needs and Plans.....	10
Financing.....	10
Existing Resources.....	11
Needs and Plans.....	11
Financing.....	11
POLICE SERVICES.....	11
Level of Service Standards.....	11
Needs and Plans.....	12
Financing.....	13
FIRE AND EMERGENCY MEDICAL SERVICES.....	13
Facility Description.....	13
Level of Service Standards.....	13

EXHIBIT “C” ORDINANCE NO. O-11-471

CAPITAL FACILITIES & PUBLIC SERVICES ELEMENT

City of Maple Valley Comprehensive Plan

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Emergency Operations Center .....	14
Needs and Plans .....	14
Financing .....	14
SOLID WASTE FACILITIES.....	15
Facility Description.....	15
Level of Service Standards .....	15
Needs and Plans .....	15
Financing .....	15
SUMMARY OF SIX-YEAR CAPITAL FACILITIES COSTS AND REVENUE SOURCES..	21

**LIST of FIGURES**

FOLLOWS PAGE

CF.1 Demand Standards for All Park and Recreation Facilities.....	6
CF.2 Capital Facilities and Public Services .....	8

# CAPITAL FACILITIES AND PUBLIC SERVICES

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THE WASHINGTON STATE Growth Management Act (GMA) requires cities to prepare a Capital Facilities Element. The element contains the following:

1. An inventory of current capital facilities owned by public entities showing the location and capacity of those public facilities;
2. A forecast of the future needs for such capital facilities;
3. The proposed locations and capacities of expanded or new capital facilities;
4. At least a six-year plan that will finance capital facilities within the projected funding capacities and clearly identify sources of public money for such purposes; and
5. A requirement to reassess the land use element if probable funding falls short of meeting existing needs and to ensure that the land use element, capital facilities element, and finance plan within the capital facilities plan element are coordinated.

This Capital Facilities element is concerned with existing levels of service, needed improvements and future plans and funding for public facilities and services which are of relatively large scale, are generally non-recurring high cost, and may require multi-year financing. For the purposes of this element, capital improvements are defined as real estate, a structure, or equipment anticipated to have a cost over \$20,000 and an expected useful life of at least 10 years.

City-provided capital facilities in the Comprehensive Plan include parks and recreation, stormwater management, municipal facilities (City Hall), and transportation (which is addressed in the Transportation element). In addition to City-provided services, other public facilities and services are provided by other public entities that construct or acquire public facilities. These entities include schools, human services, library services, cultural services, police services, fire and emergency medical services, and solid waste collection and management.

## LEVELS OF SERVICE

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Levels of service (LOS) are generally quantifiable measures of the amount of public facilities that are provided to the community. Levels of service also may measure the quality of some public facilities. Typically, measures of LOS are expressed as ratios of facility capacity to demand.

The GMA prohibits jurisdictions from approving a development that would cause the level of service to fall below the minimum standards adopted for a specific capital facility, unless improvements or strategies to accommodate the impacts are made concurrent with development. The Act further defines “concurrent with development” to mean that the required improvements or strategies are in place at the time of development, or a financial commitment is in place to complete the improvements or strategy within six years.

This Comprehensive Plan adopts level of service (LOS) standards for transportation facilities (found in the Transportation element) and other growth-demand related facilities as required by the GMA. The element also includes general recommendations as to levels of service or other measures for other capital facilities. In most cases, this element identifies future functional plans to be developed to guide development of specific public facilities and services. The City anticipates that those functional plans will be adopted by reference in this Comprehensive Plan when they are completed and may provide for revised level of service standards, and projected future needs for these facilities and services, as applicable.

### **CAPITAL FACILITY FINANCING**

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The “concurrency” requirement of the GMA is a critical component of the legislation. Simply put, the term means that the City must demonstrate in its Comprehensive Plan that it (or other applicable service providers) has the financial capability to construct adequate facilities at the time they are required, in support of the growth anticipated by the Land Use element. Achieving this “concurrency” at the Comprehensive Plan stage does not mean that the cost and timing of each and every capital project need be identified in advance. But that general comparisons of anticipated capital improvements be made against reasonably expected revenue sources to ensure there is a balance. New financing mechanisms that may be required to finance future capital improvements should be identified in the Comprehensive Plan although they might be instituted only when and if the financial need arises.

This Capital Facilities element is not a budget nor does it serve to replace the City’s annual budget documentation and adoption process. Rather it serves to provide an overview of the needs and financing means to implement or construct large scale and long term capital improvement projects over the course of the Planning horizon. The actual selection, cost and financing decisions regarding individual capital improvement projects are made by the City Council during the annual budget adoption process.

The City is required, however, by the GMA to monitor whether this “plan-level concurrency” is being maintained by continuously reassessing its long range needs and expected revenues. This is achieved through the annual budgeting process, where the City’s six-year capital improvement program (CIP) is annually reviewed, updated, and another year’s forecast of projects and revenues are added to the CIP. It should be noted that the GMA also requires that should expected revenues and capital improvement needs fall out of balance, the City must either acquire additional revenues for the needed capital improvements, lower the level of service standards for the needed facilities, or reassess the Future Land Use Map to either permanently or temporarily reduce the amount of growth and subsequent demand for the facilities in question.

The City’s six-year CIP is located following the goals and policies section of this element. Supporting documentation of the City’s current and potential CIP revenue sources are also identified in the Appendix.

This element also identifies the other public and quasi-public agencies and organizations that provide capital facilities and public services to residents of the City. The City is required to ensure that the future land use and population growth targets adopted in this Comprehensive Plan are consistent with the planned capacities and capabilities of these public facility and service providers over the course of the planning period. References to the level of service standards, existing facilities and revenue sources and capital facilities plans for these organizations are provided, where applicable. However, the City has no direct authority over these entities and cannot provide a detailed financing plan for their future capital facilities. Nevertheless, for consistency purposes, these facilities and services are addressed in this element, or in the case of water and sewer facilities, in the Utilities element.

## **CITY-PROVIDED PUBLIC SERVICES AND FACILITIES**

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### **PARK AND RECREATION FACILITIES**

The City of Maple Valley prepared a unique, Parks and Recreation Element, pursuant to RCW 36.70A.070(8), through the 2008 amendment process. Comprehensive Plan content formally associated with this chapter has been deleted and replaced by the full Parks and Recreation Element, which contains a demand analysis for parks and recreation facilities, provides goals and policies and offers an implementation program to further grow the City's parks system.

### **STORMWATER FACILITIES**

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The stormwater system in Maple Valley comprises public catch basins, manholes, pipes and other facilities, as well as public stormwater facilities required within private developments such as detention ponds. This system follows the gravitational flow of the drainage basins for the conveyance of stormwater. The southern portion of the City of Maple Valley is located in the Soos Creek Basin. It drains in a southwesterly direction into tributaries of Big Soos Creek, which originates in the northeast corner of the glacial molded upland known as the Covington Drift Plain, then joins the Green River east of Auburn. The northern portion of Maple Valley (the area located between the Maple Valley Highway and the Cedar River) drains into the Cedar River.

As the City's population grows and urbanization increases, roofs, pavement and parking lots replace natural soil and plant cover. Consequently higher volumes of runoff enter streams and lakes at faster speeds carrying more contaminants. The consequences of not providing adequate surface water treatment and drainage can be devastating, particularly to the groundwater supply and salmon. Storm waters pick up and dissolve chemical waste from human activities and carry it into the streams and groundwater. Storm waters also increase the velocity of streams, which can create scouring and therefore high amounts of sedimentation. These factors degrade the quality of the streams required to support salmon and other species. Adequate surface water drainage for new development is an increasingly important function of future mitigation plans in light of the listing of the local Chinook Salmon under the Endangered Species Act.

#### **Level of Service Standards**

The City has adopted the King County Surface Water Design Manual as the design standard for stormwater facilities. Additional criteria are developed consistent with surface water and sensitive areas considerations, as part of the policy development stage of the Comprehensive Plan. The design criteria govern the following aspects of the stormwater collection and conveyance system:

- ® the discharge rates of water for developed and undeveloped areas;
- ® the quality of water treatment;
- ® the conveyance of 100-year storm event waters;
- ® the size of detention facilities for different peak and storm rates; and
- ® the phasing of stormwater runoff.

The King County records, passed on to the City of Maple Valley in 1997, list 68 residential, two regional and 29 commercial detention facilities in the City. These facilities are in good condition and require very little or no retrofitting. They are primarily new and designed to meet King County's standards.

**Needs and Plans**

Isolated stormwater flooding has been a problem in certain low-lying areas. These instances are mainly attributable to poorly or inadequately designed drainage systems. Approximately ten locations with recurrent flooding were identified by King County in January, 1998. They are located in the general vicinity of the following intersections, from north to south:<sup>1</sup>

- ® 215 Place S.E. and S.E. 240<sup>th</sup> Street
- ® Witte Road and S.E. 248<sup>th</sup> Street
- ® Witte Road and S.E. 254<sup>th</sup> Place
- ® S.E. 258<sup>th</sup> Street between 210<sup>th</sup> and 215<sup>th</sup> Avenue S.E.
- ® Wax Road and 216<sup>th</sup> (Meadows)
- ® 224<sup>th</sup> Court S.E. in Lake Wilderness Country Club residential area
- ® Lake Wilderness Park's driveway (at two locations)
- ® Witte Road and SR 516

Because specialized surface water improvements to all of these areas would overtax the City's revenues, the City is in the process of negotiating with the County on a division of responsibility for resolving drainage problems in these areas.<sup>2</sup> The City completed stormwater drainage improvements in the Meadows neighborhood to resolve the areas chronic drainage problems.

The Maple Valley Public Works Department recently completed the *Interim Stormwater Management Plan* which includes an inventory of the City's facilities, conditions, and rates based on existing King County records. When more funding becomes available, the department intends to develop a more comprehensive program consisting of facility maintenance, water quality enhancement, and capital improvements. The overall goal of the program is to create a system that carries water with minimal erosion and water quality degradation. This means implementing best management practices that prevent drainage through sensitive areas, constructing adequate catch basins, and managing surface water pollution and runoff control. King County's Water and Land Resource Division provides government-sponsored, on-site consultations to businesses to determine site-appropriate measures that will prevent the runoff of pollutants, as outlined in *Stormwater Pollution Control Manual: Best Management Practices for Businesses*, King County, July 1995. (For further explanation of surface water quality and quantity, see the Natural Environment element.)

**Financing**

The major funding source for stormwater improvement projects comes from the surface water management fee assessed by King County. These fees are collected from property owners by the County and remanded to the City. These Surface Water Management (SWM) funds are dedicated funds and by statute must be spent on surface water related functions. Some debt financing is also utilized by the County for larger regional stormwater facilities. Overall, the SWM monies pay for detention facility inspections, inventory of facilities, and maintenance. The City's Public Works Director administers the Surface Water Management Fund.

Surface water management fees are typically used to:

- ® Replace, upgrade and maintain drainage systems – stormwater control structures, settling ponds, catch basins, culverts and other facilities – in neighborhoods that have had a history of serious flooding;
- ® Restore stream banks and fish habitat damaged by uncontrolled runoff;

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<sup>1</sup> City of Maple Valley 1998 Interim Stormwater Management Plan.

<sup>2</sup> City of Maple Valley Director of Public Works, June 15, 1998.

- ® Protect lakes, streams and wetlands and try to prevent future problems by implementing watershed management plans;
- ® Send out field investigators to respond to citizen complaints about drainage or water pollution and to provide technical assistance where needed; and
- ® Encourage community stewardship of water resources through streamside plantings, storm drain stenciling, educational workshops, and small grants to citizen groups and businesses.

Without the benefit of years of operation as an independent entity, the City does not have a database from which to accurately determine future surface water management expenditures. However, the City's final Stormwater Management Plan will identify projected revenues and expenditures for stormwater-related functions. All new development will be required to provide adequate on-site drainage improvements. Please refer to the *City of Maple Valley Interim Stormwater Management Plan* for more information. Further discussion of the City's stormwater management funding mechanisms are also contained in the Appendix.

## **MUNICIPAL FACILITIES**

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### **Existing Facilities**

City Hall is currently situated in the Hagen Plaza shopping center located at 22035 S.E. Wax Road at the intersection of the Maple Valley Highway (SR 169) and Wax Road (see Figure CF.2). The City currently leases and occupies several spaces within the shopping center, totaling approximately 3,000 square feet. It provides office and meeting space for City departments including the City Clerk, City Manager, Finance, Community Development, Public Works and the Police Department.

However, the current City Hall layout is not the most conducive to customer service. Even though the office space has recently been consolidated, the space remains constricted; there is no room for public meetings or City Council chambers, and its location in a shopping center can be confusing for City residents trying to find City Hall or access to public services and City staff. Indeed, City Council, Planning Commission and other official public meetings of the City are held at the Tahoma School District administration building (more than a mile away) due to lack of space at the current City Hall.

### **Needs and Plans**

The City has identified finding a new City Hall as an important goal. The City intends to initiate planning efforts regarding development of a new City Hall facility. In preparation of this effort, a projection of future City employee staffing needs will be completed first. This will enable the City to proceed with a space needs analysis for the new City Hall. A site selection study will also need to be performed to evaluate potential alternative City Hall sites, culminating in the selection of a preferred site. In addition to a new City Hall, the City has identified the need for a new Public Works Maintenance facility. As part of initial studies, the City has identified local jurisdictions and agencies that may be potential joint users for a maintenance facility. The area needed for such a facility ranges from 3 to 10 acres, depending on the number of joint users or partners.

### **Financing**

Funding sources for a new City Hall have not been identified in the City's capital and operating budgets, however, the Public Works Maintenance facility (interim) is funded in the 2008 budget. Though monies have not been set aside in the City's Capital Improvement Program to finance a new City Hall, the City does own land for a potential City Hall site and has allotted funding in its 6-year Capital Program for site planning. Funding sources for the eventual construction of buildings will be identified after the City Hall staffing needs and site planning studies have been completed.

**OTHER PUBLIC SERVICES AND FACILITIES**

**SCHOOLS**

**Description of Facilities**

The Tahoma School District No. 409 provides school facilities and services for the entire City of Maple Valley. The District consists of four elementary schools, two junior high schools, and one high school. They include Lake Wilderness Elementary, Shadow Lake Elementary, Rock Creek Elementary, Glacier Park Elementary, Cedar River Middle School, Tahoma Junior High School, and Tahoma High School (located in Kent). The District also operates two alternative schools, Russell Ridge Center (K-12) and Maple Valley High School (9-12). The District’s headquarters are located next to Rock Creek Elementary. Its support facilities include a central services center and a central kitchen, located within the City, and a transportation and maintenance building (located outside the City). Figure CF.2 indicates the location of school facilities and district boundaries in Maple Valley.<sup>3</sup>

**Level of Service Standards**

The minimum levels of service standard for the Tahoma School District are determined by the District based on State legislation and a contract agreement with the Tahoma Education Association. Classroom sizes average 26 students (15 for special education students not integrated into the regular classroom).

The Tahoma School District’s 1998 enrollment was 5,693 students in grades Kindergarten through 12. The following table shows the enrollment and capacity within each school facility, including figures for “relocatable” facilities (i.e., portable classrooms). In general, the District’s elementary grade schools are currently experiencing some overcrowding and the secondary schools are beginning to feel the pressure of the aging school population.

**Table CF-1  
School Capacities  
Tahoma School District No. 409 – 1998**

Facility	Facility Type	No. of Classrooms <sup>4</sup>	Total Capacity	Actual Enrollment	Over/Under Capacity
Lake Wilderness	Elementary	40	858	897	39
RELOCATABLE		17	156	160	4
Shadow Lake	Elementary	23	572	488	-84
RELOCATABLE		5	*	*	*
Rock Creek	Elementary	33	676	655	-21
RELOCATABLE		6	156	157	1
Cedar River	Middle School	23	468	433	-35
RELOCATABLE		11	156	161	5
Glacier Park	Elementary	26	676	580	-96
RELOCATABLE		5	104	104	0
Junior High	Jr. High	33	774	636	-138
RELOCATABLE		2	26	26	0
Senior High	Sr. High	37	875	875	0
RELOCATABLE		20	388	160	-228

Source: Tahoma School District No. 409

<sup>3</sup> Tahoma School District No. 409, May, 1998. *Capital Facilities Plan 1998-99 to 2003-04*.

<sup>4</sup> According to the District’s Capital Facilities Plan, all of the classrooms counted under “relocatable” provide actual classroom space, but are used for, and are more appropriate for, school programs (such as music, computer labs, and special education).

City of Maple Valley Comprehensive Plan

The two alternative schools, the Russell Ridge Center (K-12) and Maple Valley High School (9-12), have waiting lists, and have maximum set enrollments of 25 and 75, respectively.

The District experienced substantial growth in the last decade, affecting mostly the primary grades as younger families moved into the area. Since 1989, the student population increased 57 percent. The district's demographic projections indicate that this rate (a six percent compound growth rate) will decrease to three percent beginning in 1999, as the student population ages. This aging student population will in turn create capacity issues for the middle and high school facilities. The School District projects the current enrollment of 5,693 to increase over the next six years to 6,512 by the fall of 2003, a 14 percent increase. Analyzed by grade levels, this increase is shown in the following table.

**Table CF-2:  
Enrollment Projections By Grade Level  
Tahoma School District No. 409 (1998-2003)**

Grade	1998	2003
K-6	2,981	3,114
7-9	1,346	1,670
10-12	1,035	1,434
<b>Total</b>	<b>5,362</b>	<b>6,218</b>

*Source: Tahoma School District No. 409*

The enrollment projection table shows the baby "boomlet" generation moving into the 10-12 grade levels over the next five years, representing a 38 percent increase. This compares with a 24 percent increase in grades 7-9, and a four percent increase in grades K-6 enrollment over the same time period. The following table indicates that overall remaining capacity within the district will decrease to less than 400 students by 2004.

**Table CF-3:  
Projected Enrollment and Capacity  
Tahoma School District No. 409 (1998-2004)**

	1998	2004
Total Permanent Elementary	2,604	2,812
Total Permanent Secondary	2,325	3,119
Total Relocatable	986	674
Total Space	5,915	6,605
Projected Enrollment	5,362	6,218
<b>Capacity Available</b>	<b>553</b>	<b>387</b>

*Source: Tahoma School District No. 409*

Twelve classrooms were added to Glacier Park in 1997-98 which was a grade 7 single-grade level school that now accommodates half of the 8<sup>th</sup> grade. This allowed the Junior High School to house the remainder of the 8<sup>th</sup> grade and all of the 9<sup>th</sup> grade. This grade configuration relieves subsequent pressure on the High School.

**Needs and Plans**

The *Capital Facilities Plan: Tahoma School District No. 409, 1998-99 to 2003-2004* was completed by the District in May 1998. The District planned a number of adjustments to house the projected enrollment growth, particularly at the junior high and high school levels. Some of these adjustments have been carried out, others are expected to occur by the year 2000. The District also plans to purchase land for the construction of an additional grade school to reduce classroom sizes in grades K-6. A specific site has not yet been identified.

With the successful passage of a \$45 million bond issue in 1997 and the construction of a 350 student addition at the High School in 1999, Glacier Park will be reconfigured to adequately serve grades K-6 for the 2000-2001 school

year. The District will continue relocating students of one grade level to another, as necessary, in order to take advantage of available excess capacity.

**Financing**

The Tahoma School District has four major funding sources: school levy assessments, bond issues, state matching funds, and school impact fees. The District’s primary funding source for capital improvements is a \$45 million bond issue which passed in February 1997. The District’s *Capital Facilities Plan* contains a complete breakdown of revenues allocated by project funding.

The GMA and other state enabling legislation authorizes cities and counties to exact school *impact fees* from new residential development for its “fair share” of the improvement costs for school facilities necessary to serve the development. The District has adopted impact fees and these fees are collected from new development by the City and passed on to the District. These fees are calculated for single- and multifamily households based on the District’s cost per dwelling unit to purchase land for school sites, make site improvements, construct schools, and purchase/install temporary facilities.

The new *bond issue* generates the greatest amount of funds for facility improvements within the District. Please refer to the *Tahoma School District Capital Facilities Plan*, adopted in 1998, which outlines the anticipated costs for all of the District’s remodeling and expansion projects, and new construction for the next six years. The total projected costs from 1998-2004 are \$75,577,750. The District’s capital improvement spending Plan identifies the following overall need for construction and site improvements:

® Expansion and Modernization	\$36,305,000
® New Facilities	\$39,272,750

**HUMAN SERVICES**

Planning for human service needs is a requirement of the King County Countywide Planning Policies (CPPs) which State that all jurisdictions shall identify essential community and human services and include them in land use, capital improvement, and transportation plans.

Human and community services are those services usually provided directly to individuals or families having difficulty meeting their basic needs. Human services are often segregated into four basic categories:

- ® subsistence services (food, shelter, clothing, medical assistance);
- ® access services (information and referral, job training, transportation and translation services);
- ® preventative services (counseling and safety from abuse); and
- ® services for special populations (homeless persons, mentally ill, substance abusers and persons with development disabilities).

Human services are also closely connected with residential programs and affordable housing. Maple Valley will work with various human service organizations and developers to ensure that affordable housing is provided within the City (see the Housing element of the Plan).

Human services are made available to people who choose to use them. The City of Maple Valley does not provide these services directly but funds some programs on a limited basis and serves as a catalyst to service providers.

**Descriptions of Services and Facilities**

The main provider of human services in Maple Valley is the Maple Valley Community Center located at 22010 S.E. 248<sup>th</sup> Street (see Figure CF.2). This is a forested site at the entrance to Lake Wilderness Park, shared with the Fire

Engine Museum based on a land use agreement with King County. It is directly across the street from the new Maple Valley Library. Maple Valley, as well as the surrounding communities of Hobart, Ravensdale, and the unincorporated areas near Covington and Renton, involve themselves in the Community Center in numerous ways that enhance community unity and health. The Center's service area is the same as the Tahoma School District's service area.

### **Existing Level of Service**

The Community Center provides office and activity space for its own as well as outside programs. The Center's hall is available for rent by public and private organizations. Such organizations include the Maple Valley Historical Society, homeowner's associations, and the Boy Scouts and Girl Scouts.

The Center staff includes a Director, Administrative Assistant, three Program Coordinators, and a Contract worker. Each Program Coordinator is assisted by a part-time program assistant. The Center has recently created two new positions: a youth program leader and a coordinator for the prevention of substance abuse and youth violence. The Center also receives the volunteer labor of 225 community workers who contribute between 10 and 15 hours each per week. These volunteers provide transportation, tutoring, chaperone and program services.

Some of the programs offered by the Center include:

- .. Family activities (parenting classes, school-based programs, family support and counseling)
- .. Youth development (recreation, youth programs and support and space for clubs)
- .. Meal programs
- .. Minor home repair
- .. Legal advocacy
- .. Senior center and other senior services
- .. After school programs (ASAP)
- .. Public health clinic

The Center also provides referral or space needs for the following:

- .. Employment
- .. Domestic violence
- .. Sexual assault services
- .. Chemical dependency treatment
- .. Public health services

### **Needs and Plans**

The Center has seen the community's needs transition from recreational programs, to mental health programs, and most recently to prevention programs. The greatest need expressed by the Center is for more indoor space to conduct its programs. This space is needed for community meetings and classes, and would make it possible to keep its programs community-based. The Center has also expressed a need for improved public transportation to the facility, particularly for young mothers and children, seniors, and low-income people. There is also a need for improved access to and from the nearby towns, such as Hobart and Ravensdale, as they are a part of the Maple Valley social community. King County has advocated that more human service programs in the County be residential (rather than institutional) based and more dispersed among the suburban communities in the future.

### **Financing**

The Maple Valley Community Center operates on a yearly budget of approximately \$340,000 which comes from both public and private sources. It receives one-third of its funding from the County, slightly less than one-third from United Way, and the rest from small grants, community donations and fund raisers.

The City will be funding and completing a comprehensive human services Plan to provide greater policy guidance regarding its human services needs. That Plan will also include preparation of a master Plan for the Community Center area which the City anticipates being transferred from County to City ownership.

Additional information on human services in the Maple Valley area can be found in two other Plans: the *Greater Maple Valley Community Summit* participants' report (October, 1991), and the *Family Forum Greater Maple Valley Participants Community Report* (September, 1993).

### **LIBRARY FACILITIES**

The Maple Valley Library is part of the King County Library System. It offers a wide range of educational and recreational programs.

#### **Level of Service Standards**

King County Library levels of service are discussed in terms of size on a scale from small to large. The size refers to a combination of factors: the number of volumes, the square footage of the facility, and the variety of programs offered by the library service.

Maple Valley's library is currently considered a "medium-sized" library. It has the benefit of access to King County's Library System of 3.2 million volumes of reading materials, and thousands of audio cassettes, videos, compact disks, computer disks, magazines and periodicals. When the City of Maple Valley was incorporated, the community chose to be considered an "annex" of the County library system rather than start its own programs.

The Maple Valley Library building has a total of approximately 4,000 square feet. Programs are nearly always at their maximum capacity. Program capacities range from 65 to 250 people and include programs open to all ages such as summer reading programs and day-time pre-school education. On site, the library has computers that provide access to the world wide web.

#### **Needs and Plans**

King County has purchased property for its future library on a site directly across from the Maple Valley Community Center at the intersection of Witte Road and S.E. 248<sup>th</sup>. This facility will have 10,000 square feet, and an expanded staff. The new library will be considered a "large-sized" library under the County standards.

#### **Financing**

Library financing is provided through special assessments levied by King County on local property owners. Special purpose bond issues are also utilized from time to time for major Countywide library modernization and expansion plans.

### **CULTURAL RESOURCES**

Cultural resources enhance quality of life and economic vitality. They are a measure of a community's identity and social well-being as expressed through their gatherings, art, music, and many other forms. The infrastructure for cultural activities can range from local to regional in scale even when located within a small City such as Maple Valley. They include multi-purpose public and private facilities such as schools, the community center, park and recreation facilities, and arts and heritage centers. They also include single-purpose facilities such as concert halls, theaters, museums, galleries, studios and archives. Cultural providers can range from theater or dance companies, ethnic associations, heritage societies and park and recreation programs to individual artists, heritage specialists and practitioners of traditional customs.

Cultural organizations and historic sites are recognized by both the Growth Management Act and Countywide Planning Policies (CPPs) as major contributions to a region's economic vitality and overall quality of life. The CPPs require that "all jurisdictions encourage land use patterns and implement regulations that protect and enhance historic resources, and sustain historic community character," and they suggest that "all jurisdictions work

individually and cooperatively to identify, evaluate, and protect historic resources including continued and consistent protection for historic resources and public art works.”

### **Existing Resources**

The Maple Valley Historical Society is the primary cultural resources organization in Maple Valley. This group is currently maintaining two historic sites in the City: the Fire Engine Museum (a restored 1926 Howard Cooper Fire Engine); and the Lake Wilderness Lodge (see Figure CF.2).

The Maple Valley Historical Society also operates the Maple Valley Museum in the top floor of the Old Maple Valley Grade School (a King County Historical Landmark located at 23015 S.E. 216<sup>th</sup> Way). Founded in 1972, this museum has preserved memories of the area’s past through displays of pioneer life and a collection of community photographs.

A recently formed community arts commission is another community group actively engaged in cultural activities. Maple Valley has its own community band as well.

### **Needs and Plans**

Three historic preservation plans are already in place by the Historical Society. One is to renovate the Fire Engine Museum so that it can hold more cultural material from the museum. The Society recently moved the original Gibbons store to the Community Center site and plans to open it as a traditional store and museum. The Historical Society is also in the midst of a fundraising campaign to build a 3,000-square-foot *Heritage Center* and brick *Memory Walkway* on site with the existing Community Center and Fire Engine Museum.

The master plan for the Community Center site will have to incorporate these plans as well. The Community Center location is emerging as a growing civic gathering place since it is within walking distance of Lake Wilderness Park, the Arboretum and the Maple Valley library as well as adjacent residential neighborhoods. The City is also negotiating with King County about the long-term transfer of some of the properties in the vicinity of the Center to the City.

The Historical Society is also looking for funds to restore the *Old Maple Valley Grade School* (now housing the museum). This is a two story brick structure with great social importance. It was built by the parents of students who donated time and equipment to level the site and prepare the building. The fact that this building is scheduled for demolition makes it a good candidate for the National Register.

Other cultural arts needs that should be considered are public art, special community events, summer concert series, and classes in art and music.

### **Financing**

The Historical Society relies on funding from the City, grant funds from King County and independent fund-raising activities. The organization recently wrote a grant proposal to King County for funding to complete the Fire Engine Museum.

### **POLICE SERVICES**

The City contracts with King County to provide police services to Maple Valley. The Maple Valley Police Unit is a full service department. The Unit is located in City Hall in Hagen Plaza at 22035 S.E. Wax Road.

### **Level of Service Standards**

The Police Unit currently provides all basic police services to Maple Valley, such as patrol, and community safety and prevention programs. Major crime investigation (such as robbery and homicide) and specialized police services (such as SWAT, K-9, bomb squad and helicopter services) will continue to be provided by King County. The police

City of Maple Valley Comprehensive Plan

staff consist of a Police Chief and nine officers (two officers per shift). When there is need for additional assistance, King County will loan an officer.

The Police Unit is small but meets the City’s current needs. The officers and chief share office space and support staff with other departments of the City. The City leases 10 police vehicles from the County with the City of Maple Valley logo. The County is responsible for maintenance of the vehicles. The officers use the office as a base of operations, however, the office is not staffed 24 hours a day. The officers can be contacted by radios, pagers or cell phones 24 hours a day. Emergency 911 calls are dispatched from the County. Three phone lines are open for community needs such as appointments with the chief or other officers, requests for presentations or educational materials, reporting of abandoned vehicles or traffic complaints, and any other police concerns in the community. The unit also has a bike patrol.

Level of service standards are usually measured in terms of the average number of minutes the police unit requires to respond to emergency calls or based on the number of officers per thousand population served. The current police level of service is shown in the following table for the first full year of operation (1998).

**Table CF-4:  
Response Times and Call Frequencies  
Maple Valley Police (1998)**

Type of Call	Frequency (% of Total Calls)	Average Response Time (minutes)
Priority “X” (life-threatening)	0.4%	2.4
Priority 1 (property crime in progress/injury accidents)	10%	8.5
Priority 2 (property crime not in progress/domestic violence)	25%	15
Priority 3 (routine/vandalism)	60%	35
Priority 4 (nuisance)	5%	118

*Source: Maple Valley Police Unit*

The City Police received more than 3,300 dispatch calls for service in 1998. The response time anticipated for requests for police service are based on the type or priority of the call. Police calls are categorized by five different priority levels. Emergency calls which are considered life-threatening (priority X) or involve a crime in progress such as robbery, rape, or an injury accident (priority 1) demand the fastest response time. Calls for property crimes that have already occurred, such as burglary, or domestic violence cases (priority 2) receive the next fastest response time. Priority 3 calls are relatively routine, such as reported theft and vandalism, and are the most common. Finally, nuisance calls (priority 4), such as noise, receive the lowest priority. Overall the City has a relatively low crime rate and crimes against people are rare.

**Needs and Plans**

Maple Valley Police are currently developing a number of public education programs, including group presentations and dissemination of materials on block watches and crime prevention.

Population growth and increased traffic flows are likely to increase future demand for additional police services. Future demand could strain the unit’s current capacity. King County has expressed concern over likely increases in the number of annual emergency calls, and may therefore find it necessary to increase the fees they charge Maple Valley. The City currently operates on a renewable three-year contract with the County for police services. The City is currently negotiating the renewal of that contract and expects to adopt a new three-year contract to go into effect in the year 2000.

**Financing**

The City currently contracts with the County to provide these services. The City pays for these services out of its general fund. However, for planning purposes, contracted costs are not considered as direct capital improvements costs.

**FIRE AND EMERGENCY MEDICAL SERVICES**

**Facility Description**

Maple Valley’s fire suppression, emergency medical services (EMS), and fire prevention services are provided by King County Fire Protection District 43, known as Maple Valley Fire & Life Safety (MVFLS). The District operates ~~five~~ three career fire stations within a ~~55 square mile service area~~. ~~Within the City limits of Maple Valley, the District operates two stations:~~ Fire Station No. 80, located just north of Kent-Kangley Road on Highway 169, and Fire Station No. 81 (the District’s primary station), located at S.E. 231 Street and Highway 169 and Fire Station No. 83, located at S.E. 272<sup>nd</sup> Street and 216<sup>th</sup> Avenue S.E. (see Figure CF.2). Water for fire suppression in the Maple Valley area comes from water storage tanks of both the Covington Water District and Cedar River Water and Sewer District.<sup>5</sup> Supporting the three career fire stations are three volunteer stations located outside the City limits but within the Fire Districts area.

**Level of Service Standards**

The Washington Surveying and Rating Bureau grades fire protection services. The Bureau rates each District’s response capability against its risk of fire and emergency on a scale from 1 to 10 (1 being the best), in order to determine fire insurance rates. The lower the rate, the lower the cost for residents. Urban communities generally have a better rating, ~~four~~ three and below, due to their proximity to fire suppression services. Maple Valley is generally suburban classified as class 4.

~~The District maintains an average response time of just under six minutes for the entire District, four minutes for the Maple Valley area. The District has been given a Class 4 rating by the Bureau.~~

The District has qualified for Tanker Water Supply Credit through the Bureau, which extends the Class 4 insurance rates to residential property within five miles of a fire station, even in areas without a developed water system and fire hydrants. This higher rating for Maple Valley provides residents with savings on their annual insurance costs.

Through it’s Capital Facilities Plan and staffing allocations, the District establishes the ability to identify and maintain designated Levels of Service.

~~The District keeps one engine at each station, seven total in the District (five primary and two reserved for replacement). The District currently has the following staff:~~

- ~~⊕—Daytime administrative~~
  - ~~2 Chief Officers~~
  - ~~3 Clerical Staff~~
  - ~~2 Mechanical Staff~~
  - ~~1 Lieutenant~~
  - ~~1 Fire Marshall~~
  - ~~1 Fire Fighter (forthcoming)~~
- ~~⊕—Operations—27 positions total~~

<sup>5</sup> Fire Chief Dwight Van Zanen, August 7, 1998.

City of Maple Valley Comprehensive Plan

~~2 people assigned during daytime shifts (volunteers and response at night)  
9 each shift assigned to 2 stations (7 are on duty each day)~~

~~Ⓢ—Volunteers  
50 volunteers~~

Chapter 52.33 RCW provides that all substantially career fire departments establish level of service response time objectives. Guided by standards established by the National Fire Protection Association (NFPA) and those jointly established by the International Fire Chief’s Association (IFCA) and the International City/County Management Association (ICMA) and in compliance with Chapter 52.33 RCW, the District has established the following response time standards to be performed 90% of the time (nine out of ten) as a measure of level of service (LOS):

**Benchmark Standard for First Emergency Response Unit to Arrive**

Urban areas (2000+ people per square mile): 7 minutes from time of 911 call until curbside arrival of emergency response personnel.

Suburban areas (1000-1999 people per square mile): 8 minutes from time of 911 call until curbside arrival of emergency response personnel.

Rural areas (999 or less people per square mile): 13 minutes from time of 911 call until curbside arrival of emergency response personnel.

**Emergency Operations Center**

The District, King County, and the City of Maple Valley recently adopted the *Greater Maple Valley Area Emergency Management Plan*. The Plan outlines creation of an Emergency Operations Center and process for designating a Unified Command structure and identification of roles and responsibilities to respond to local or regional emergencies or disasters.

**Needs and Plans**

~~The District has identified the need for construction of an additional fire station in the Four Corners area of Maple Valley to serve anticipated future growth. The District has already purchased land for a future station in this area on a parcel located near the southwest corner of S.E. 264<sup>th</sup> Street and Highway 169. In addition to the need for an additional fire station, the District has identified a new training facility, expansion of its administrative offices, and a maintenance facility in order to serve its long term needs. These needs require approximately 10 acres of land, which is in addition to the previously mentioned 10 acres for the City’s Public Works Maintenance facility.~~

In 2008, the District completed a study of fire station locations. The study focused on the District’s ability to achieve prompt and effective response to emergencies utilizing current station deployment. Results of the study indicated the need to establish response time objectives appropriate to current community profiles. The study recommends an increase of on-duty staffing so current volunteer stations can be staffed 24 hours a day, construct an additional station that will merge two existing stations, and to move the current location of three other stations.

In addition to the need for an additional fire station, and the move and subsequent construction of three other stations, the District has identified other facility needs including: a new training facility, expansion of its administrative offices, and a maintenance facility in order to serve its long-term needs.

**Financing**

The District’s primary funding source is the Fire District levy assessed on local property owners. The District is seeking funding for ~~new station construction and may investigate the possibility of utilizing development capital projects and will work with the City to implement impact fees. In addition, the District may establish Local~~

Improvement Districts (LID's), utilize capital improvement bonds and foster inter-local relationships to take advantage of economies of scale by sharing capital facilities costs. For more information refer to the *Maple Valley Fire and Life Safety Long Range Plan*.

## **SOLID WASTE FACILITIES**

### **Facility Description**

Meridian Valley Disposal, owned by Rabanco Companies, provides solid waste disposal and recycling services to the City of Maple Valley. Solid waste is collected weekly and transported to local transfer stations. Recycling is collected every two weeks. Meridian transports solid waste for disposal via trucks and trailers from the local transfer stations to the King County Cedar Hills Landfill. Cedar Hills is the County's only operating landfill. It's located on Cedar Grove Road north of Maple Valley.

### **Level of Service Standards**

Waste disposal companies are certified by the Washington Utilities and Transportation Commission and the King County Solid Waste Division. They are also governed by the *King County Comprehensive Solid Waste Plan*, the King County Code, the Seattle-King County Department of Public Health, and the Solid Waste Section of the Environmental Health Services Division of Public Health. King County bases its Plans for the generation of waste, and materials to be recycled, on a 20-year projection for the region.

The regional landfill system has enough capacity to handle the waste generated in Maple Valley and other communities in King County into the long-term future.<sup>6</sup> King County contracts with disposal companies serving cities in King County to provide space at Cedar Hills Landfill until that landfill reaches capacity. However, this landfill is accommodating solid waste at a faster rate than had been expected. In order to control the rate of disposal, King County now prohibits the disposal of construction, demolition and land clearing debris into Cedar Hills. These materials must be transported to the regional Roosevelt landfill, also owned by Rabanco, in eastern Washington. The Roosevelt landfill will also serve as a back-up landfill for King County for an estimated 38 years.

### **Needs and Plans**

In anticipation of future landfill capacity issues and waste transportation costs, the City of Maple Valley should coordinate with King County to develop and maintain aggressive, pro-active business and residential recycling education programs.

### **Financing**

King County assesses solid waste collection fees on local property owners. Solid waste collection and recycling services are provided on a regional basis by King County through contractors. Therefore there are no capital improvements costs associated with these services provided directly by the City. For more information please refer to the *King County Comprehensive Solid Waste Plan*.

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## **GOALS AND POLICIES**

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### **GOALS**

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- CF-G1 To ensure that decisions to provide, extend, or expand capital and transportation facilities are coordinated with the goals and policies of the Land Use Element and Transportation Element of the Comprehensive Plan.

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<sup>6</sup> Meridian Valley Disposal, August 7, 1998.

- CF-G2 To guarantee continuous, reliable and cost-effective capital facilities and public services to development in the Urban Growth Area in a phased, efficient matter reflecting the sequence of development as shown in the Land Use, Natural Environment, Utilities, and Transportation Elements of the Comprehensive Plan.
- CF-G3 To enhance the quality of life in Maple Valley through Planned provision of public capital facilities either directly by the City or via coordination with other public and private entities.
- CF-G4 To ensure that public facilities necessary to support new development are adequate at the time the development is available for occupancy. This determination shall be based on locally adopted level of service standards and in accordance with Washington State Law.
- CF-G5 To ensure efficient and equitable siting of essential regional capital facilities through cooperative and coordinated Planning with other jurisdictions in the region.
- CF-G6 To ensure that new growth and development pay for a proportionate share of the cost of new facilities needed to serve such growth and development.

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**POLICIES**

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**General**

- CF-P1 The City of Maple Valley shall encourage the shared use of all public capital facilities including, but not limited to, community facilities such as parks, libraries, schools, fire stations and community meeting facilities.
- CF-P2 The City of Maple Valley shall encourage the construction of new utility systems in existing rights-of-way whenever possible.
- CF-P3 The City of Maple Valley shall adopt a Comprehensive Parks, Cultural Resources and Human Services Plan to establish appropriate levels of service, project future needs and funding sources, and guide future decision-making and financing mechanisms for these public services and facilities.
- CF-P4 The City of Maple Valley shall maintain an inventory of existing capital facilities owned by public entities. This inventory shall include location and capacities of such facilities.
- CF-P5 In future development of specific functional plans for City-provided capital facilities and public services, the City of Maple Valley shall project needed capital facilities based on adopted level of service standards and forecasted growth in accordance with the land use element and the Comprehensive Plan.
- CF-P6 The City of Maple Valley shall maintain at least a 6-year Plan to finance needed City capital facilities. The Plan shall clearly identify sources of public money for capital facilities. If projected funding is inadequate to finance projected capital facilities needs based on adopted levels of service standards and forecasted growth, adjustments shall be made to the level of service standards, Land Use Element, or both to achieve a balance between funding capacities and needed facilities.
- CF-P7 The City of Maple Valley shall coordinate with other public entities which provide public services within the Maple Valley Planning area in the development of consistent level of service standards and the use of population growth projections consistent with the land use element and the Comprehensive Plan.

**Stormwater and Surface Water**

- CF-P8 The City of Maple Valley shall develop and implement a Stormwater Management Plan. The Plan shall include a means to prioritize installations. Special consideration shall be given to concurrent installations to minimize construction related disruptions to the public and to the costs of system deliveries.
- CF-P9 The City of Maple Valley recognizes that new development may cause environmental impacts, including but not limited to, flooding, erosion and decreased water quality on downstream communities and natural drainage courses. The City shall continue to actively participate in developing and implementing regional water quality Planning and flood hazard reduction efforts with King County Surface Water Management within all drainage basins that affect the City. The City should consider updating its stormwater and flood hazard regulations and programs consistent with these efforts.
- CF-P10 The City of Maple Valley recognizes that stormwater treatment facilities do not function efficiently unless properly maintained. The City shall implement procedures to ensure that public and private stormwater collection, retention/detention and treatment systems are properly maintained.

**Police Services**

- CF-P11 The City of Maple Valley shall continue to provide the most economical public safety service available that meets the requirements of the City for the functions of police protection. If the City is able to provide their own services at a more economical rate, then the City will do so as long as it continues to be cost effective.
- CF-P12 The City of Maple Valley will work cooperatively with the Maple Valley Fire Life Safety, to plan for future fire and emergency medical services and facility needs. These efforts should focus on the District's need to provide facilities that are located centrally to the service area in which the District responds.

**Human Services**

- CF-PP13 Promote community awareness of human service needs and the resources available to meet them. For example, the City of Maple Valley should regularly coordinate with the Maple Valley Library, Community Center, etc., to help inform residents about programs and services.
- CF-14 Ensure that human service programs reflect and are sensitive to the cultural, economic and social character of the City.
- CF-P15 The City of Maple Valley shall cooperate with the Maple Valley Library, Community Center, Tahoma School District, and other jurisdictions and entities, to cooperatively Plan for future human services program and facility needs. These efforts should focus on the school district, with regard to the development and utilization of schools as a focal point for the delivery of services to children and families.
- CF-P16 Ensure that human service needs and impacts are considered in all land use, capital improvement and transportation project actions.
- CF-P17 The City shall serve primarily as a funding grantor rather than a direct provider of human services.

**Schools**

- CF-P18 Promote cooperation between the City and the Tahoma School District in providing sufficient opportunities for community utilization of school facilities.

- CF-P19 Keep the school district informed of any land use changes or City actions which could impact school facilities.
- CF-P20 The City shall adopt the Tahoma School District Capital Facilities Plan to enable the District to collect impact fees from the City.
- CF-P21 Coordinate parks Planning with school site Planning to develop shared use of parks and school facilities to minimize public costs of acquisition, maintenance and use.

#### Fire Services

- CF-P22 Promote cooperation between the City of Maple Valley and Maple Valley Fire & Life Safety (King County Fire Protection District No. 43) to provide sufficient opportunities for community utilization of fire facilities.
- CF-P23 The City of Maple Valley may facilitate the collection of Fire and Emergency Service impact fees based upon the Districts adopted CFP and interlocal agreement.

#### Essential Public Facilities

- CF-P224 Maple Valley shall, in concert with King County and other jurisdictions, establish a process for siting public capital facilities of a Countywide or Statewide nature. These facilities are known for their difficulty to site, such as airports, solid waste landfills, higher educational facilities, energy generating facilities, and the like.

#### Concurrency Management

- CF-P235 The following level of service guidelines should be used to evaluate whether existing public facilities are adequate to accommodate the demands of new development:
- ® *Water.* Require that new development have adequate water supply for consumption and fire flow. Maintain the current-year level of service acceptable Countywide in gallons per day per equivalent residential unit.
  - ® *Stormwater Management.* Require that new development and redevelopment have adequate stormwater management facilities to meet State Department of Ecology requirements.
  - ® *Wastewater.* Require that adequate wastewater treatment capacity, transmission and collection facilities are in place to accommodate new development at the current level of service to meet American Public Works Association and Department of Ecology requirements.
  - ® *Recreation.* The level of service standards for neighborhood and community parks, trails, and open space shall be as adopted in the City of Maple Valley Parks, Recreation, Cultural, and Human Services Plan.
  - ® *Police Protection.* The Maple Valley Police Department shall provide a service response time of 2.4 minutes for life-threatening, crime in-progress calls; and 8.5 minutes for priority one property crimes in progress.
  - ® *Fire Protection.* Fire District #43 should continue to provide ~~an a total~~ alarm response time of ~~just under six minutes for the entire District, and four minutes for the City of Maple Valley~~ 7 minutes for urban areas, 8 minutes for suburban areas and 13 minutes for rural areas, 90% of the time.

- ® *Transportation.* The City will adopt a Level of Service (LOS) standard for City streets based upon an examination of County LOS standards and the standards of adjacent jurisdictions and will seek to provide consistency with regional transportation systems. See the Transportation Element of the Maple Valley Comprehensive Plan for the adopted LOS.

CF-P246 A development shall not be approved if it causes the level of service on a capital facility to decline below the standards set forth in Policy CF-P257, unless capital improvements or a strategy to accommodate the impacts are made concurrent with the development. For the purposes of this policy, “concurrent with the development” shall mean that improvements or strategies are in place at the time of the development or that a financial commitment is in place to complete the improvements or strategies within six years of the date the development is approved.

CF-P257 If adequate facilities are currently unavailable and public funds are not committed to provide such facilities, developers must provide such facilities at their own expense.

CF-P268 The City shall adopt a Transportation Concurrency Management Ordinance, in accordance with the GMA.

CF-P279 Require that development proposals are reviewed by the various providers of services such as school districts, sewer, water, police and fire departments for available capacity to accommodate development and needed system improvements.

**Capital Facility Financing**

CF-P2830 The burden for financing capital should be borne by the primary beneficiaries of the facility.

CF-P2931 General revenues should be used only to fund projects that provide a general benefit to the entire community.

CF-P302 Long-term borrowing for capital facilities should be considered as an appropriate method of financing large facilities that benefit more than one generation of users.

CF-P343 Where possible, special assessment (local improvement districts) revenue and other self-supporting bonds and impact fees will be used instead of tax supported general obligation bonds.

CF-P324 The City will maintain the practice of designating its street and capital improvement revenue, including the dedication of at least 25 percent of its sales tax and equalization revenue, for the funding of its Capital Improvement Program.

CF-P335 The City will strive to obtain the best bond rating possible in an effort to ensure the lowest interest rate on each bond sale, when and if, such bond sales are utilized.

CF-P346 The City will maintain adequate available debt capacity to ensure a reliable funding source is always available for large-scale projects, when and if such funding sources are necessary.

CF-P357 The City will utilize interfund borrowing to reduce administrative costs, where such borrowing is cost-effective to both the borrowing and lending fund.

CF-P368 The City will review fees and user charges on a periodic basis to determine if they are covering, but not exceeding, the cost of providing these services.

CF-P379 The City will establish and maintain impact fees in appropriate areas to help ensure that new growth pays for the impacts it generates.

CAPITAL FACILITIES AND PUBLIC SERVICES

City of Maple Valley Comprehensive Plan

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CF-P3840 The City will update its Capital Improvement Program on an annual basis consistent with the adoption of the annual budget and the Comprehensive Plan Amendment process.

City of Maple Valley  
**SIX-YEAR  
CAPITAL IMPROVEMENT PROGRAM**

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**SUMMARY OF SIX-YEAR CAPITAL FACILITIES COSTS AND REVENUE SOURCES**

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Table CF-7 summarizes the capital cost and revenue sources projected over the next six years for the capital facilities and public services identified in the Comprehensive Plan.

Transportation related project capital facility costs account for, by far, the largest share of the overall Capital Improvement Program (CIP). The costs and revenue sources for transportation facilities have been developed in the Transportation Element and are included here to portray a complete picture of capital facilities expenditures for the next six years (1998-2003). For more detailed information on the City's six-year Transportation Improvement Program (TIP), please refer to the Transportation Element. The Transportation Element contains language on transportation requirements in general and a more detailed description of proposed projects and funding requirements.

The *General Fund* is the City's central repository for revenue and the major overall financing mechanism. It is funded by local tax revenue to the City (i.e., property, retail sales and utility taxes) as well as intergovernmental transfers (e.g., sales tax equalization, motor vehicle excise tax, etc.) and other sources, including development review fees, license fees, etc. However, this fund is intended primarily as an operating fund to accommodate expenditures on an annual and recurring basis (e.g., public safety services and contracts, salaries, rent, etc.). Almost all of the City's operating expenditures come out of the General Fund. Excess monies are transferred to other "funds" expressly intended to finance long term capital improvement projects.

The major revenue sources identified in the CIP correspond to dedicated funds established by the City to finance future improvements to these capital facilities and public services. The major CIP revenue sources include:

- ® Surface Water Management Fund
- ® Street Fund/Street Capital Projects Fund
- ® Capital Improvement Fund

The *Surface Water Management Fund* is supported by intergovernmental transfers of annual stormwater management fees assessed by the King County Surface Water Management Utility on local property owners. These monies are repatriated to the City for its use in implementing projects identified in the Stormwater Management Plan adopted by the City. From time to time, the fund may also be augmented by special award grant monies.

The *Street Fund* and *Street Capital Projects Fund* comprises revenue from a variety of sources, including intergovernmental transfers that account for the City's local share of State and County road taxes, license fees and motor vehicle fuel taxes. Additional sources of revenue include transportation impact fees, mitigation funds for dedicated projects, interest income and other miscellaneous sources as they become available, such as State and federal grant monies.

The *Capital Improvement Fund* is a dedicated funding source for future CIP projects. It can be utilized for a wide range of potential capital improvement projects and is not limited to non-street or stormwater related projects

exclusively. The Fund's main revenue base is supplied by the real estate excise tax levied on the sale or transfer of real property in the City. Additional revenue sources may include interest income, special allocations made from the General Fund from time to time (as approved by the City Council) and special award grant monies. The City has also established, by policy, that at least 25 percent of its annual sales tax and equalization revenue (normally deposited in the General Fund) shall be invested in the Capital Improvement Fund to help finance capital projects and services required by future growth.

A more detailed description of the existing and potential revenue sources available to the City to finance capital facilities and public services is contained in the Appendix.

Maintaining a balance between projected revenue sources and the demand for capital facilities and public services is a key tenet of the CIP and is required by the GMA. Projections of revenue sources beyond one to two years, however, is problematic due to the volatility of the regional economy and the local real estate market. Changes in local, County, State and federal legislation also has a direct effect on local government revenue sources. This legislation is political in nature and cannot be forecast with certainty. In addition, many funding sources such as grants and loans are not available on a consistent basis, are competitive in nature and cannot be reliably forecast.

To achieve coordinated Planning for public facilities consistent with available funding sources, however, the City's annual budget adoption process does anticipate future revenue generation and includes an updated one- and five-year forward financial forecast for the City. This total six-year financial forecast of anticipated revenue is integral to the annual update to the six-year CIP required by the GMA. It is based on conservative assumptions of revenue growth and is the mechanism to ensure that a balance between the expected revenues and long range need for capital improvement projects is maintained. The six-year financial forecast is completed as a component of the City's annual budget. It is adopted by reference and made a part of this Comprehensive Plan and CIP. Please refer to the annual City Budget for more information.

If funding sources were to fall short of meeting the projected CIP needs (based on adopted levels of service standards and forecasted growth) over the course of the planning period, the Comprehensive Plan contains policies to require that adjustments be made to the level of service standards, land use element, or both to achieve a balance between funding capacities and needed facilities.

CAPITAL FACILITIES AND PUBLIC SERVICES

City of Maple Valley Comprehensive Plan

**Table CF-5: City of Maple Valley – Capital Improvement Program (1999-2005)\***

Funding Source	Projects		Total	1999	2000	2001	2002	2003	2004	2005
<b>SURFACE WATER MANAGEMENT PROGRAM</b>										
Surface Water Management Fund	S1	Neighborhood Drainage Assistance	210	30	30	30	30	30	30	30
	S2	Meadows Pumping Project	250	175	75					
	S3	Surface Water Management Plan	190	140	50					
<b>Total Surface Water Management</b>			<b>3%</b>	<b>650</b>	<b>345</b>	<b>155</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>
<b>TRANSPORTATION PROGRAM</b>										
Street Fund	<b>Annual Capital Expenditures</b>									
	T5	Misc. Street Improvements	440	50	140	50	50	50	50	50
		Annual Asphalt Overlay	835	85	125	125	125	125	125	125
<b>Total Annual Capital Expenditures</b>			<b>1,275</b>	<b>135</b>	<b>265</b>	<b>175</b>	<b>175</b>	<b>175</b>	<b>175</b>	<b>175</b>
Street Capital Projects Fund	<b>Capital Project Expenditures</b>									
	T1	SR 169 - 231 <sup>st</sup> Street to Wax Road	400	400						
	T2	Witte Road & SR 516 Intersection Improvements	1,120	170	950					
	T3	SR 169 & Witte Road Traffic Signal	1,660		1,660					
	T4	SR 169 Pedestrian Improvements	401		401					
	T6	SE 260 <sup>th</sup> Street Connection	438		438					
	T7	Witte Road & SE 240 <sup>th</sup> Street Intersection Improvements	400	208	192					
	T8	Witte Road - SE 248 <sup>th</sup> Street to SR 169 Roadway Improvements	3,557	100		3,257	200			
	T9	Lake Wilderness Trail Access @ 231 <sup>st</sup> Street	50			50				
	T10	Lake Wilderness Trail Access @ 237 <sup>th</sup> Street	50				50			
	T11	Witte Road - 248 <sup>th</sup> Street to SR 516 Roadway Improvements	2,000				2,000			
	T12	Lake Wilderness Trail Access @ 248 <sup>th</sup> Street	53				53			
	T13	SE 268 <sup>th</sup> Street & Witte Road Intersection Improvements	488					488		
	T14	SR 516 Roadway Improvements	2,000					2,000		
	T15	SR 169 Roadway Improvements	1,200						1,200	
	T16	216 <sup>th</sup> Avenue SE & SR 516 Intersection Improvements	120							120
	T17	228 <sup>th</sup> Avenue SE & SR 516 Intersection Improvements	120							120
	<b>Total Capital Project Expenditures</b>			<b>14,057</b>	<b>878</b>	<b>3,641</b>	<b>3,307</b>	<b>2,303</b>	<b>2,488</b>	<b>1,200</b>
<b>Total Transportation Expenditures</b>			<b>71%</b>	<b>15,332</b>	<b>1,013</b>	<b>3,906</b>	<b>3,482</b>	<b>2,478</b>	<b>2,663</b>	<b>1,375</b>

CAPITAL FACILITIES AND PUBLIC SERVICES

City of Maple Valley Comprehensive Plan

Funding Source	Projects	Total	1999	2000	2001	2002	2003	2004	2005	
<b>FACILITIES PROGRAM</b>										
Capital Improvement Fund	F1	City Hall Space and Facility Analysis	30		30					
	F2	City Hall Site Purchase	200		200					
	F3	City Hall (Debt Service on 2 Million)	800			160	160	160	160	160
		Office Space Remodel	56	56						
		Equipment Purchases	20	20						
	<b>Total Facilities Program</b>	<b>5%</b>	<b>1,106</b>	<b>76</b>	<b>230</b>	<b>160</b>	<b>160</b>	<b>160</b>	<b>160</b>	
<b>PARKS, CULTURAL RESOURCES AND HUMAN SERVICES</b>										
Community Service Capital Projects Fund (CIP)	P1	Special Opportunity Acquisition Fund	3,745	175	525	551	578	608	638	670
	P2	Streetside Beautification	35	5	5	5	5	5	5	5
	P3	Community Facilities Fund	140		20	120				
		<b>Total Parks, Cultural Resources &amp; Human Services</b>	<b>18%</b>	<b>3,920</b>	<b>180</b>	<b>550</b>	<b>676</b>	<b>583</b>	<b>613</b>	<b>643</b>
<b>NEIGHBORHOOD REINVESTMENT PROGRAM</b>										
Community Service Capital Projects Fund (CIP)	N1	Neighborhood Reinvestment Plan	500			100	100	100	100	100
		<b>Total Neighborhood Reinvestment Program</b>	<b>2%</b>	<b>500</b>	<b>—</b>	<b>—</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>TOTAL PROJECTS</b>		<b>100%</b>	<b>21,508</b>	<b>1,614</b>	<b>4,841</b>	<b>4,448</b>	<b>3,351</b>	<b>3,566</b>	<b>2,308</b>	<b>1,380</b>

<b>FUNDING SOURCES</b>										
Transfer from Surface Water Management Fund			(650)	(345)	(155)	(30)	(30)	(30)	(30)	(30)
Transfer from Street Funds & Street Capital Projects Fund			(15,332)	(1,103)	(3,906)	(3,482)	(2,478)	(2,663)	(1,375)	(415)
Transfer from Capital Improvement Fund			(5,526)	(256)	(780)	(936)	(843)	(873)	(903)	(935)
<b>TOTAL FUNDING SOURCES</b>			<b>(21,508)</b>	<b>(1,614)</b>	<b>(4,841)</b>	<b>(4,448)</b>	<b>(3,351)</b>	<b>(3,566)</b>	<b>(2,308)</b>	<b>(1,380)</b>

NOTE: Project identification numbers refer to specific project descriptions in adopted annual budget.

\*Amounts in thousands

Source: City of Maple Valley