CHAPTER THIRTEEN

TRANSPORTATION ELEMENT

TRANSPORTATION

WHAT YOU WILL FIND IN THIS CHAPTER:

- A description of the existing transportation network in Tukwila;
- A discussion of how transportation planning and land use are related
- A discussion of how demand on the transportation network is managed; and
- Goals and Policies for providing adequate levels of service.

PURPOSE

To provide safe and efficient movement of people and goods to, from, within, and through Tukwila.

The Transportation Element establishes Tukwila's transportation goals and policies for the 20-year planning period. It provides direction for transportation decisions regarding annual plan updates, including:

1. The Six-Year Transportation Improvement Plan (TIP);
2. The Six-Year Capital Improvement Program and Financial Planning Model (CIP/FPM);
3. The annual budget; and
4. Infrastructure Design and Construction Standards.

It is key in supporting community livability and economic vitality, as prioritized in Tukwila's Strategic Plan. It also provides guidance for development review and approval, land use and zoning decisions, and continuing transportation programs.

The Transportation Element establishes a basis for decision-making that is consistent with

Washington's Growth Management Act, King County Countywide Planning Policies, and the Puget Sound Regional Council's (PSRC) Transportation 2040. The specific requirements of each of these plans are fulfilled by the City of Tukwila Background Report for the Transportation Element of the Comprehensive Plan Update (hereafter referred to in this element as the Background Report), and summarized herein. The Background Report, Walk and Roll Nonmotorized Transportation Plan, Tukwila Transit Plan, Commute Trip Reduction Plan, Growth and Transportation Efficiency Center Plan, the annually updated six-year Transportation Improvement Plan, six-year CIP/FPM, and the budget are all adopted by reference in the Tukwila Comprehensive Plan.

ISSUES

Tukwila's diverse transportation system includes freeways, highways, arterial streets, access streets, bus, light rail, commuter rail transit service, Amtrak passenger rail service, sidewalks, trails, and neighborhood footpaths. In addition, Sea-Tac International Airport and Boeing Field provide air transportation for general, commercial, and business aviation. The Duwamish River provides water access to Elliott Bay and beyond. The City's road and rail network enables freight and rail transportation within and through the city. Future Tukwila transportation system additions include Bus Rapid Transit. A detailed inventory of the existing transportation system in Tukwila is contained in the Background Report. (Fehr & Peers, May 2012)

The major transportation issues facing Tukwila include the following:

- Physical and geographic barriers that challenge connectivity throughout the City. Physical barriers include the valley wall, the Green/Duwamish River, and highways that separate portions of the City from each other, increasing emergency services response times and cost. Residents value quiet streets in neighborhoods, preferring the isolation and disconnected system, which puts a large volume of vehicles and burden on the few streets that do connect and the properties and people who live on them and which makes it more difficult for walking to destinations, such as schools, libraries or shopping.
- Limited funding to satisfy competing priorities.

    1. Increasing connectivity is very costly given the need to acquire new rights-of-way, conducting engineering studies and design, and construction costs.

2. Criteria for grant funding is most often targeted to Tukwila's Urban Center or the Manufacturing/Industrial Center because these are the locations where significant employment and residential growth are planned and are supported by regional plans.

3. There are unmet needs in other areas of the City, including streets that do not meet city standards and it is unlikely that the roads would be improved by new development in these already developed areas.

- Reliance on regional agencies, such as the Port of Seattle, Metro and Sound Transit, to serve local needs.

TRANSPORTATION AND LAND USE

The Transportation Element supports the City's Land Use Element. It demonstrates how the City will maintain and preserve the existing network, as well as address deficiencies while demonstrating how planned growth will be accommodated over the next 20 years per the Office of Financial Management (OFM) and PSRC forecasts.

The household and job forecasts for Tukwila are for an additional 4,860 households and 27,670 jobs by the year 2030, with most of that occurring in the Southcenter, Tukwila International Boulevard and Tukwila South mixed use commercial areas. To plan for land use and transportation changes associated with this growth, these households and jobs are assigned to Traffic Analysis Zones (TAZs) based on the availability of vacant and redevelopable lands. (Maps 13-1 and 13-2)

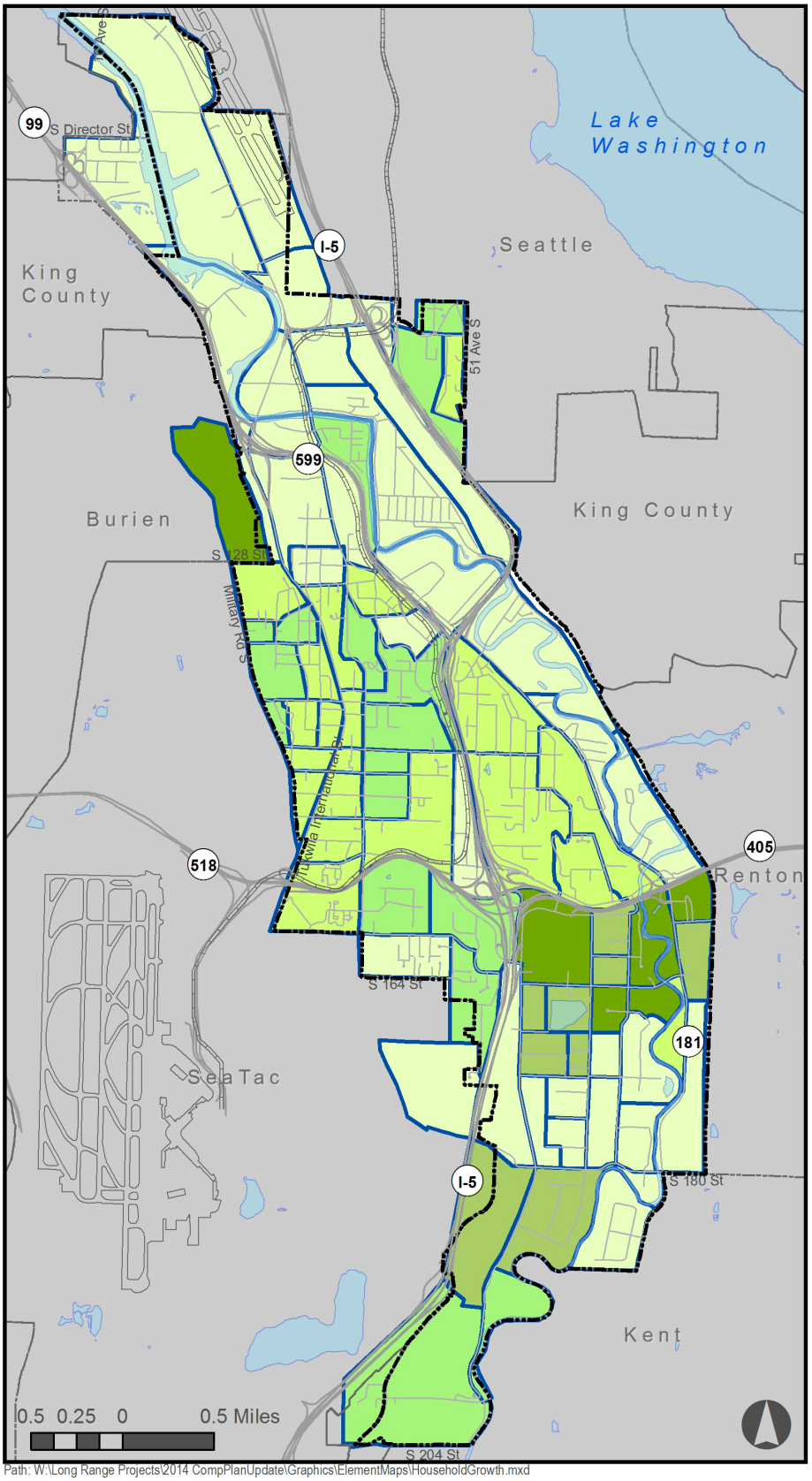
Goal 13.1 General

Tukwila's transportation network provides for safe and efficient movement of people and goods to, from, within, and through Tukwila.

General Transportation Policies

13.1.1 Prioritize safety in an ongoing monitoring program.

13.1.2 Focus on transportation efficiency by maximizing the movement of people with streets that are designed to be safe for all transportation modes, accommodating existing land uses while designing for the future.



Projected Household Growth by TAZ 2010-2030

Legend

- CityLimits

Household Growth

- 0 - 15
- 15 - 50
- 50 - 100
- 100 - 200
- 200 and above
- Traffic Analysis Zones

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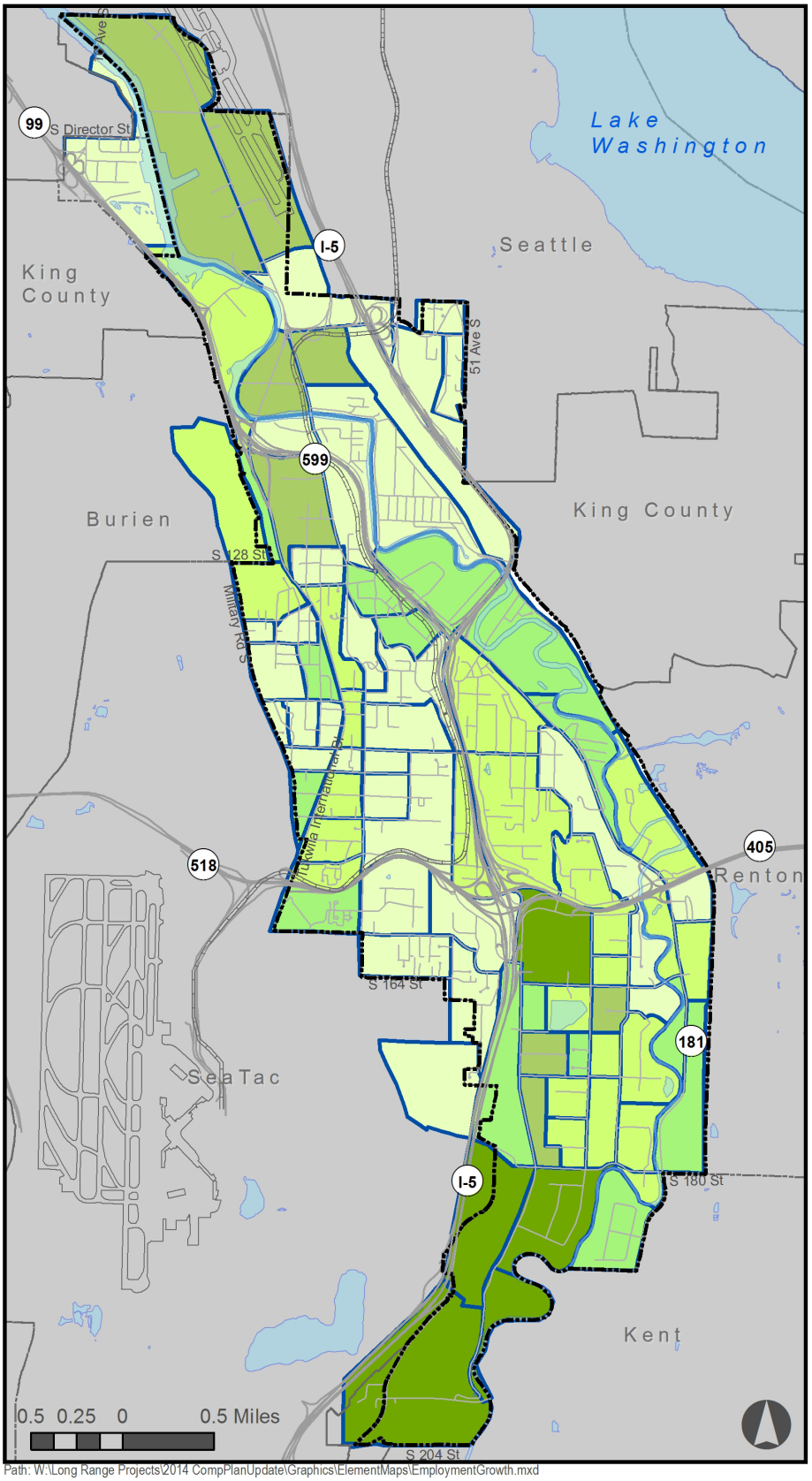
Map 13-1: Projected Household Growth



Projected Employment Growth by TAZ 2010-2030

Legend

Tukwila Employment Growth

- 0 - 50
- 50 - 200
- 200 - 450
- 450 - 1500
- 1500 and above
- Traffic Analysis Zones
- CityLimits

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Map 13-2: Projected Employment Growth

What are the King County Countywide Planning Policies?

The Countywide Planning Policies are a series of policies that address growth management in King County. The Countywide Planning Policies provide a countywide vision and create a framework each jurisdiction can use when developing its own comprehensive plan.

How do the Countywide Planning Policies affect transportation planning in Tukwila?

Because each city's comprehensive plan must be consistent with the overall county policy framework, Tukwila has incorporated some of the Countywide Planning Policies into this element.

For example, the Countywide Planning Policies identify protection of the natural environment and transportation accessibility for non-drivers as regional priorities. The City has established policies 13.1.5 and 13.1.8 to address these needs. Other policies throughout this element will reference countywide priorities and ensure that Tukwila's planning efforts are consistent with the overall transportation vision for King County.

13.1.3 Balance travel efficiency, safety, and quality-of-life in residential areas through creative roadway design.

13.1.4 Support, encourage, and implement transportation programs and improvements that promote water quality and regional air quality.

13.1.5 Design and operate transportation facilities in a manner that is compatible with and integrated into the natural and built environments in which they are located. Incorporate features such as natural drainage, native plantings, and local design themes that facilitate integration and compatibility.

13.1.6 Continue to coordinate with surrounding jurisdictions and with regional and state agencies to finance and develop a multi-modal transportation system that enhances regional mobility and reinforces the countywide vision for managing growth.

13.1.7 Protect the transportation system (e.g. roadway, rail, transit, air, and marine) against major disruptions by developing prevention and recovery strategies and by coordinating disaster response plans.

13.1.8 Address the need for a range of mobility options including walking, biking, transit and driving in the development and management of local and regional transportation systems.

13.1.9 Support, encourage, and implement programs and improvements that promote transit, foot, and bicycle access to community amenities, stores, and jobs.

IMPLEMENTATION STRATEGIES

- Ongoing monitoring of accidents and level of service, with associated engineering improvements or education/ outreach efforts to improve safety in target areas.
- Implement Traffic Calming Program.
- Implement Walk and Roll Nonmotorized Transportation Plan.
- Implement Complete Streets.
- Implement Safe Routes to School.
- Implement Commute Trip Reduction Plan.
- Implement Growth and Transportation Efficiency Centers Plan.
- Develop Low Impact Development/Green Streets strategies.

Street Classifications

For street design and operation purposes, engineers classify streets into four categories: principal arterials, minor arterials, collector arterials, and local access streets. These four categories group streets according to whether they primarily provide access to properties or are purely for mobility. The differences in function result in different street widths, number of curb cuts/driveways allowed, speed limit, traffic controls, and other similar design and operation features.

Goal 13.2 Street Network

The public street network has a hierarchy of street designs that serve pedestrian and vehicle safety, traffic movement, and adjacent land use.

Policies

13.2.1 Develop a street network plan that augments the existing system of streets, breaks up super-blocks in non-residential areas, designs connecting

through streets in all areas, and provides functional separation of traffic through new streets.

13.2.2 Prioritize residential local access through-streets, minimizing cul-de-sacs.

13.2.3 Create or require the creation of non-motorized connections in lieu of streets where local access through streets are not feasible, such as on steep hillsides or where property owners resist streets.

13.2.4 Require street improvement projects and development improvements to be in accordance with the general Functional Street System Standards or subarea plans and require an engineering study.

13.2.5 Require all new streets, street improvements, property developments and property improvements to provide sidewalks and other non-motorized infrastructure consistent with adopted standards and subarea plans. Property developments and improvements in commercial areas will provide direct pedestrian access from sidewalks to buildings.

13.2.6 Incorporate proportionately greater neighborhood-enhancing elements in collector, minor arterial, and principle arterial design. These elements include collector lanes, wider sidewalks, separated sidewalks, and curbline trees.

13.2.7 Design residential access streets to provide at least the minimum capacity for emergency access and for slow traffic.

13.2.8 Design collector arterials with a two travel lane, local access road design to encourage slow but steady speeds.

13.2.9 Design streets, including retrofit projects, to accommodate a range of motorized

and non-motorized travel modes in order to reduce injuries and fatalities, to provide access to services and to encourage non-motorized travel. The design should include well-defined, safe and appealing spaces for pedestrians and bicyclists.

13.2.10 Evaluate street improvement projects for the inclusion of features that support the Complete Streets policy and the Walk and Roll Plan in order to encourage walking, bicycling, and transit use.

13.2.11 Design intersections and sidewalks to promote pedestrian safety and foster walking as a viable mode of transportation.

13.2.12 Include roadside plantings whenever feasible for street and road improvement projects on slopes to help mitigate the land used for roadway and sidewalk improvements.

IMPLEMENTATION STRATEGIES

- Implement sidewalk ordinance.
- Implement subdivision ordinance.
- Implement Street Network Plan.
- Emergency vehicle criteria in street design standards.
- Prioritize neighborhood quality design features when reducing street facilities (e.g. removal of one lane of parking before removal of sidewalk).
- Traffic Calming Program.

What is Transportation Concurrency?

The Washington State Growth Management Act requires the City to ensure that transportation programs, projects and services needed to serve growth are regionally coordinated, and are in place either when new development occurs or within six years. This is done to make sure the City can provide the transportation improvements needed to maintain its adopted standards of service and so that conditions do not degrade with the addition of the new households and workers in the City.

LEVEL OF SERVICE

The projected growth numbers in Tukwila and surrounding areas were used in the Background Report for the Transportation Element of Comprehensive Plan Update to anticipate traffic volumes and levels of service in 2030. The Level of Service (LOS) analysis is one of the ways the City plans and budgets for future transportation projects.

The City balances the fiscal constraints of its financing plan for transportation programs and projects with planned growth and existing needs. To do this, Tukwila monitors LOS on arterial streets to examine the existing performance of the system and anticipated impacts of planned land use growth, to determine what adjustments will need to be made to maintain adopted LOS standards concurrent with new development. Properly applied and monitored, LOS standards for the transportation network ensure that mobility, vitality, and quality of life for the city is maintained. For the 2030 planning horizon, significant new capacity will be required to accommodate future growth throughout the city; although, the majority of the project capacity needs are in the Southcenter area.

Traditionally, LOS has been used to evaluate vehicular flow with little regard to other forms of transportation such as pedestrians, bicycles, and transit. Building upon Tukwila's Walk and Roll Plan, the Complete Streets standard, and Transit Network Plan, the City is working to develop a Multi-Modal Level of Service (MMLOS) to help balance transportation goals across all modes of transportation. The City has identified Transit Priority Corridors as part of an analysis done for the Transit Network Plan and will continue to work closely with transit providers to achieve goals and policies related to transit service to serve existing needs and to accommodate future growth.

AUTOMOBILE LOS

In many ways, the existing performance of Tukwila's transportation system reflects how performance has historically been evaluated—with a strong bias towards auto travel. Automobile LOS is focused on setting an acceptable level of delay drivers can expect along a corridor or at a particular intersection. To see how the transportation system will function in the future, growth projections are incorporated into traffic models to determine future conditions along arterial streets and at intersections. Modeling results, along with a list of projects needed to maintain adopted LOS on arterial streets, are included in the Background Report. Tukwila's transportation system generally accommodates auto travel well, with just a handful of locations operating at a poor automobile LOS.

NON-MOTORIZED LOS

LOS for pedestrians and bicyclists is focused on measuring factors that impact the safety and comfort of pedestrians and bicycles rather than quantifying congestion and delay. In 2007 and 2008, Tukwila collected data on existing conditions for pedestrians and bicycle facilities on all arterial streets using the 2010 Highway Capacity Manual's Multi-Modal Level of Service (2010 HCM MMLOS) methodology. The 2010 HCM MM LOS did not produce results that could be used in a similar fashion as the automobile LOS, which categorizes minutes of delay into an A-F. The City needs to create or find a system for quantifying the conditions of pedestrian and bicycle facilities so that a goals based approach to prioritizing these projects is achieved. The City will continue to customize a non-motorized level of service measure to help achieve the City's vision of a more balanced mix of mobility options.

TRANSIT LOS

Transit service, both frequency and time-span of service, is an important aspect of a healthy transportation network. The City uses the Transit Capacity and Quality of Service Manual, published by the Transportation Research Board, as a methodology to measure level of service for transit. This recommended level of service methodology is included in the City's Transit Network Plan (Perteet 2004.) The Plan identified service frequency needs for the City and facility improvements necessary for robust and effective transit service. Tables 13-1 and 13-2 illustrate LOS standards for transit service frequency and hours of service, respectively.

Table 13-1. Service Frequency LOS: Urban Scheduled Transit Service

LOS	Headway (min)	Vehicle/ hour	Comments
A	<10	>6	Passengers don't need schedules
B	10-14	5-6	Frequent service, passengers consult schedules
C	15-20	3-4	Maximum desirable time to wait if bus/train missed
D	21-30	2	Service unattractive to choice riders
E	31-60	1	Service available during hour
F	>60	<1	Service unattractive to all riders

Source: Transit Capacity and Quality of Service Manual, 2nd Ed., 2003

Table 13-2. Hours of Service LOS

LOS	Hours per Day	Comments
A	19-24	Night or owl service provided
B	17-18	Late evening service provided
C	14-16	Early evening service provided
D	12-13	Daytime service provided
E	4-11	Peak hour service/limited midday service
F	0-3	Very limited or no service

Source: Transit Capacity and Quality of Service Manual, 2nd Ed., 2003

King County Metro and Sound Transit provide transit service to Tukwila residents and businesses. At this time, the City is not the owner/operator of a transit service, therefore a minimum level of service standard cannot be enforced. However, Tukwila will encourage all transit providers to achieve and maintain a minimum LOS C and focus service within Tukwila's Transit Priority Corridors. Tukwila's goal is to have transit service every 15-20 minutes throughout most of the day on its Transit Priority Corridors, including early evening.

The following is an assessment of existing transit service on Tukwila's Transit Priority Corridors:

King County Metro identifies eight corridors in Tukwila on which it has set target service levels (see Table 13-3). Other bus routes not identified in Table 13-3 also currently serve Tukwila.

During peak hours, King County Metro's target LOS on the eight major corridors as of 2011 is consistent with Tukwila's in terms of frequency, except for service from Tukwila to Fairwood and from Admiral District to Southcenter. However, most corridors are not served with frequent service throughout the day, with the exception of the Rapid Ride routes, including Rapid Ride A Line and

Table 13-3. King County Transit Corridors in Tukwila

Between	And	Via	Major Route
Federal Way	SeaTac	SR-99	A Line
Kent	Seattle CBD	Tukwila	150
Tukwila	Fairwood	S 180th St, Carr Road	155
Renton	Burien	S 154th St	140 (F Line)
Tukwila	Seattle CBD	Pacific Hwy S, 4th Ave S	124
Admiral District	Southcenter	California Ave SW, Military Rd, TIBS	128
Tukwila	Des Moines	McMicken Heights, Sea-Tac	156
Auburn	Burien	Kent, SeaTac	180

the planned Rapid Ride F Line.

Link Light Rail, providing service between SeaTac Airport and Seattle, currently meets the City's LOS standard both in terms of frequency and time-span. (Sound Transit 2013 Service Implementation Plan, p. 21)

There are currently nine northbound and nine southbound Sounder Trains providing service between Seattle and Lakewood with a stop in Tukwila on the Sounder South Line. The Sounder South Line represents 90% of total Sounder ridership. Four new South Line round trips are being implemented beginning in September 2013. The preliminary draft schedule for Sounder South Line in fall of 2013 includes 20-minute headways for the peak hour of service, which will bring the South Line into conformance with the City's LOS in terms of frequency during the peak hour, but will not meet the City's LOS in terms of time span. (Sound Transit 2013 Service Implementation Plan, p. 29)

Goal 13.3 Level of Service

Traffic levels-of-service provide safe and efficient movement of pedestrians, bicycles, cars, buses and trucks and incorporate evolving, sustainable land use and traffic patterns.

Policies

13.3.1 In general, use varied Level of Service Standards according to differing levels of development, desired character of streets, and growth management objectives.

13.3.2 Use adopted LOS standards to guide City improvement and development approval decisions.

13.3.3 Maintain adopted LOS standards in planning, development, and improvement decisions.

13.3.4 Provide capacity improvements or trip reduction measures so that the LOS standards are not exceeded.

13.3.5 Evaluate impacts to LOS when reviewing private development proposals, and require mitigation and/or reduce or delay project impacts, if necessary in order to maintain adopted LOS standards.

13.3.6 Prioritize transportation choices that provide capacity mitigation (i.e. transit use, carpooling/rideshare, pedestrian and bicycle facilities.) After considering these priority improvements, consider other street capacity improvements (i.e. signal improvements, street widening) as a last resort.

13.3.7 Maintain a program to monitor congestion and evaluate the effectiveness of the LOS standards in providing a competitive business environment and adequate public safety response.

AUTOMOBILE LEVEL OF SERVICE

13.3.8 Highways of Statewide significance (HSS), including Interstate 5 (I-5), Interstate 405 (I-405), and State Route 518 (SR-518), are exempt from concurrency requirements.

13.3.9 Use the following LOS standards to guide City improvement and development approval decisions:

- The Southcenter area corridor average is not to exceed LOS E, except for the Strander Boulevard and a portion of the Andover Park E corridors. Methods for computing the average LOS are described in the Background Report.
- The Strander Boulevard corridor average is not to exceed LOS F with an average delay not to exceed 120 seconds. The Andover Park E corridor, between Tukwila Parkway and Strander Boulevard, is not to exceed LOS F with an average delay not to exceed 120 seconds.
- All other non-residential arterial intersections are not to exceed LOS E.
- The LOS of minor and collector arterials in predominantly residential areas is not to exceed LOS D for each specific arterial.
- SR 181 (West Valley Highway) and SR 599, as state highways of regional significance, are subject to a Regional Level of Service Standard established by the Puget Sound Regional Council and WSDOT. Automobile level of service is not to exceed LOS E/Mitigated.
- I-5, I-405, SR 518, and SR 99, as highways of statewide significance, are subject to a LOS standard established by WSDOT. Automobile level of service is not to exceed LOS D.

NON-MOTORIZED LEVEL OF SERVICE

13.3.10 Establish multi-modal levels of service consistent with planned development, the countywide vision for managing growth, Vision 2040 and Transportation 2040.

13.3.11 Use the Transportation Background Report, and the Walk and Roll Plan sidewalk prioritization scheme, planned trails, and bicycle-friendly routes network, in conjunction with this Plan's land use goals, to prioritize construction of new sidewalks, bike lanes, and trails.

TRANSIT LEVEL OF SERVICE

13.3.12 Advocate for Tukwila representation on the boards of King County Metro and Sound Transit in order to influence service and policies that are effective for Tukwila.

13.3.13 Advocate through verbal and written testimony to King County Metro and Sound Transit to achieve and maintain a minimum LOS C (defined by headway, vehicles per hour, and hours of service) and work within Tukwila's Transit Street Classification System.

IMPLEMENTATION STRATEGIES

- Continue to implement concurrency ordinance.
- Continue monitoring of traffic volumes and levels of service.
- Implement Complete Streets.
- Continue to implement Transportation Demand Management.
- Continue to implement Commute Trip Reduction programs.
- Continue to implement Capital Improvement Plan.
- Build on work done with the 2010 Highway Capacity Manual LOS to develop a multi-modal level of service standard that includes a calculated standard plus a qualitative element to address desired urban form.
- Update the analysis done for the Transit Network Plan as the basis for transit service advocacy for Tukwila.

TRANSIT

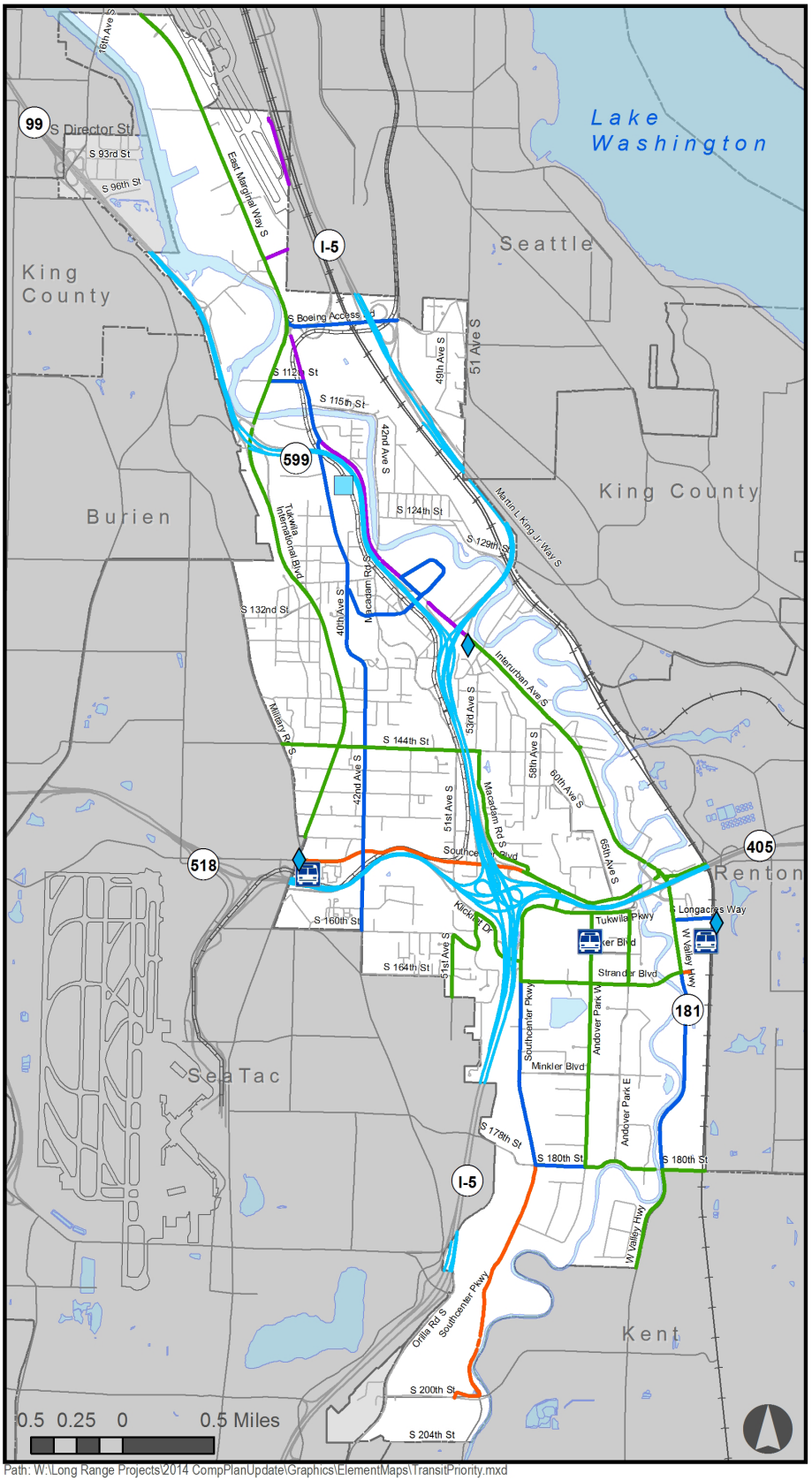
The City of Tukwila strives to collaborate and cooperate with the region's transit providers in order to have convenient transit service to support and complement adjacent land uses. The goal of increasing overall transit ridership within the City of Tukwila drives the need for both service and capital improvements. Transit speed and reliability, improved passenger amenities, and access to transit service are all crucial for attracting and maintaining transit riders.

King County Metro provides bus service throughout the City of Tukwila. Twelve different routes provide intra-Tukwila service and direct service to Burien, Kent, Auburn, Seattle, Renton, and West Seattle. Existing Route 140 is planned to be upgraded to Rapid Ride bus rapid transit, with associated facilities, in 2014. At this time, Sound Transit does not serve any destinations in Tukwila with Regional Express Bus service. Sounder, the regional commuter rail service, has a stop in Tukwila at the Tukwila Station, as does Amtrak regional passenger rail service. Sound Transit Link Light Rail is located in Tukwila, with service from SeaTac Airport to downtown Seattle. Extensions of Link Light Rail are planned to the north, south, and east.

To achieve this, a multi-hub system and Transit Priority Corridor Classifications were developed, as shown on Map 13-3. Transit Priority Corridors are those corridors where transit service currently exists. Activity centers are tied together by the Transit Priority Corridors, and include the Tukwila International Boulevard Link Light Rail Station, the Tukwila Commuter Rail/Amtrak Station, an improved Southcenter Transit Center, and a new link connecting the Tukwila Commuter Rail/ Amtrak Station to areas near Westfield Mall at Southcenter. The goal is to increase transit frequency and time span of service to Tukwila's activity centers and regional destinations. Improved routes and frequency feed into this multi-hub concept.

Transit Priority Corridor Classifications identify transit corridor types by function, ideal transit operational characteristics, optimal adjacent land uses, and supporting physical design features of the public infrastructure. The classification system is designed to be flexible and assist quality decision-making.

An inventory of present transit routes are contained in the Background Report. Recommendations for service changes and infrastructure needs are contained in the Tukwila Transit Plan. King County Metro and Sound Transit control changes to routes.



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Transit Priority Corridor Classification

Legend

- Metro South Base
- Transit Center
- Park and Ride
- Transit Way
- Principal Corridor
- Minor Corridor
- Local Access
- Potential Transit

Rail Lines

- Heavy Rail
- Light Rail

Map 13-3: Transit Priority Corridors

Goal 13.4 Transit

Efficient transit capacity that will reduce single-occupancy-vehicle trips to, from, and through Tukwila and provide public transportation options for all Tukwila residents.

Policies

13.4.1 Support and encourage the location of a light rail stop at Boeing Access Road.

13.4.2 Coordinate with the Washington State Department of Transportation to preserve and support the Amtrak Cascades stop in Tukwila.

13.4.3 Recommend and pursue a regional multi-modal center in conjunction with the Tukwila Commuter Rail/Amtrak Station and secondary pedestrian/bicycle/transit hubs elsewhere in the City.

13.4.4 Pursue amenities and funding in support of a pedestrian/bicycle route linking Westfield Mall at Southcenter to the Tukwila Commuter Rail/Amtrak Station.

13.4.5 Continue to provide assistance to King County Metro, Sound Transit, Washington State Department of Transportation, King County, and other agencies in increasing people-carrying capacity of vehicles and reducing trips.

13.4.6 Maintain a partnership with King County Metro in operation and maintenance of the Tukwila Transit Center.

13.4.7 Research and pursue a Southcenter area circulator service that would connect the Tukwila Station, the Transit Center, businesses, and attractions in and adjacent to the urban center with frequent service to encourage reduction of single-occupant vehicle trips, enhance the Southcenter area's image as a lifestyle center, and bring more customers to all businesses.

13.4.8 Encourage and support public transportation services, including:

- Expanded dial-a-ride and fixed-route van service to areas that do not produce enough transit ridership to warrant a bus route;
- Continued development of commuter and light rail, particularly with service to Southcenter and the Manufacturing/Industrial Center; and
- Commute Trip Reduction service.

13.4.9 The development and extension of any light rail or commuter rail system shall meet the following objectives.

- Any commuter or light rail system serving Tukwila, Seattle, South King County and/or Sea-Tac Airport should be located in a manner which promotes the coordinated short-term and long-term use of alternative transportation systems, such as carpools, transit, biking, and walking.
- Such systems shall be located so as to allow for future extensions to commuter and/or light rail service to East King County and Southeast King County, and shall be coordinated with other transit service.
- Such systems shall be located in a manner that provides multi-modal connections to Tukwila's urban center, Manufacturing and Industrial Center, and transit centers, so as to encourage development in the manner contemplated by this Plan and the Countywide Planning Policies.

IMPLEMENTATION STRATEGIES

- Implement Commute Trip Reduction Program.
- Implement Commute Trip Reduction Plan.
- Implement Growth and Transportation Efficiency Center Plan.
- Implement Walk and Roll Plan and Design Report for the Walk and Roll Plan.
- Encourage transit providers to meet minimum level of service standards.

TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) emphasizes the movement of people and goods, rather than vehicles, by providing transportation alternatives to driving. TDM benefits the community by maximizing the efficiency of existing infrastructure and limiting the impacts of excessive traffic in neighborhoods by promoting transportation options such as carpooling, vanpooling, transit, walking, biking, teleworking and flexible work hours. Reducing vehicle trips limits air and water pollution and supports the City's commitment to reduce greenhouse gas emissions.

Tukwila's TDM activities are directed at employers, workers, business owners, residents, and visitors. Tukwila adopted a Commute Trip Reduction (CTR) Plan in 2008 that sets goals and implementation strategies for large employers to reduce drive-alone trips and vehicle miles traveled. Tukwila adopted a Growth and Transportation Efficiency Center (GTEC) Plan in 2008 to set the stage for focused TDM activities in Tukwila's urban center. The CTR Plan and GTEC Plan provide locally adopted mode-split goals for Tukwila's urban center and the Manufacturing and Industrial Center.

Goal 13.5 Transportation Demand Management

Support transportation system improvements and programs which encourage transit use, high-occupancy vehicle trips, and non-motorized transportation to reduce single-occupancy vehicle trips, vehicle miles traveled, traffic congestion, and greenhouse gas emissions.

Policies

13.5.1 Continue to provide Commute Trip Reduction Program services to Tukwila employers to reduce drive-alone trips, vehicle miles traveled, traffic congestion, and greenhouse gas emissions.

13.5.2 The City of Tukwila will set an example to other employers by a commitment to reducing drive-alone trips, vehicle miles traveled, and greenhouse gas emissions through implementation of CTR goals.

13.5.3 Work with King County Metro and Sound Transit to provide amenities for transit riders, encourage transit use, and enhance multi-modal connections to transit.

13.5.4 Establish mode-split goals for all significant employment centers which will vary according to development densities, access to transportation service, and levels of congestion.

13.5.5 Continue to encourage the use of rideshare, transit, bicycle, and evolving technological transportation improvements.

13.5.6 Encourage transit-oriented uses, development patterns and pedestrian amenities in the vicinity of high-capacity transit stations.

13.5.7 Require that parking facilities developed in conjunction with transit facilities be

adequately sized and managed to prevent spillover parking onto private property, public property, or public streets. Consider a phasing plan to require structured parking if additional parking is needed.

IMPLEMENTATION STRATEGIES

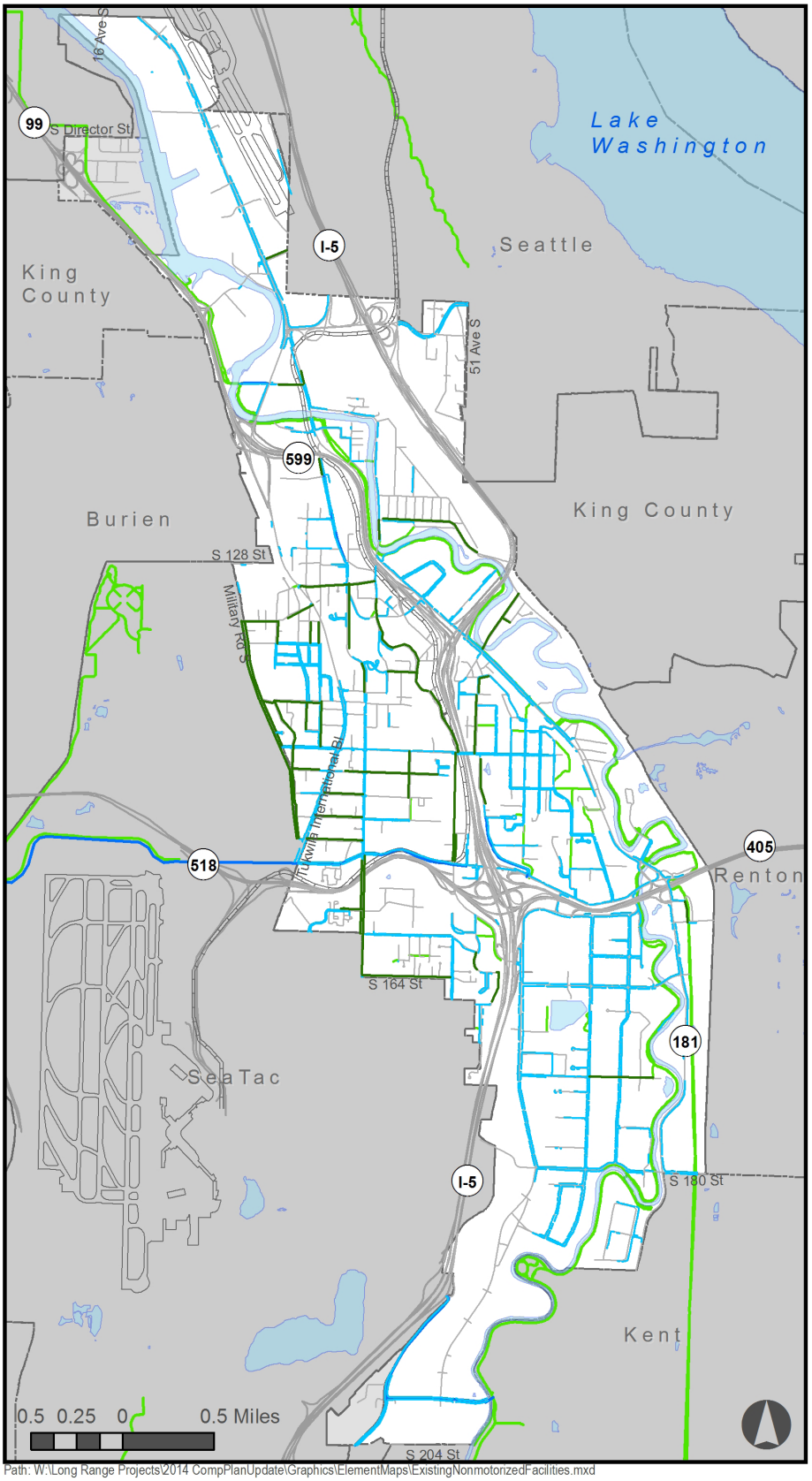
- Implement Commute Trip Reduction Program.
- Implement Growth and Transportation Efficiency Center (GTEC) Plan.
- Promote the use of drive-alone alternatives through social media, Rideshareonline.com, community outreach, and offering assistance with parking management.

NON-MOTORIZED TRANSPORTATION

Tukwila adopted its first non-motorized transportation plan, the Walk and Roll Plan, in 2009 as well as a Complete Streets policy. This policy requires all new City transportation improvement projects to provide appropriate accommodation for pedestrians, bicyclists, transit riders, and persons of all abilities, while promoting safe operation for all users.

The Walk and Roll Plan includes an inventory of existing non-motorized facilities, including bike lanes, trails, sidewalks, and pedestrian footpaths. The Plan also identifies projects to guide City implementation of a safe and complete non-motorized network. These projects are made up of (1) a list of missing sidewalk segments and a method of prioritizing which missing segments should be constructed first, (2) trail projects to expand the existing system of non-motorized neighborhood connections, and (3) a backbone network of Bicycle Friendly Routes – existing and planned on-street facilities and trail projects that represent a bicycle network connected to local and regional destinations, as well as existing and planned bicycle friendly routes in adjacent jurisdictions.

The Walk and Roll Plan commits the City to promoting programs that support and encourage biking, walking, commute trip reduction activities, and the City's annual participation in the regional bicycle and pedestrian count.

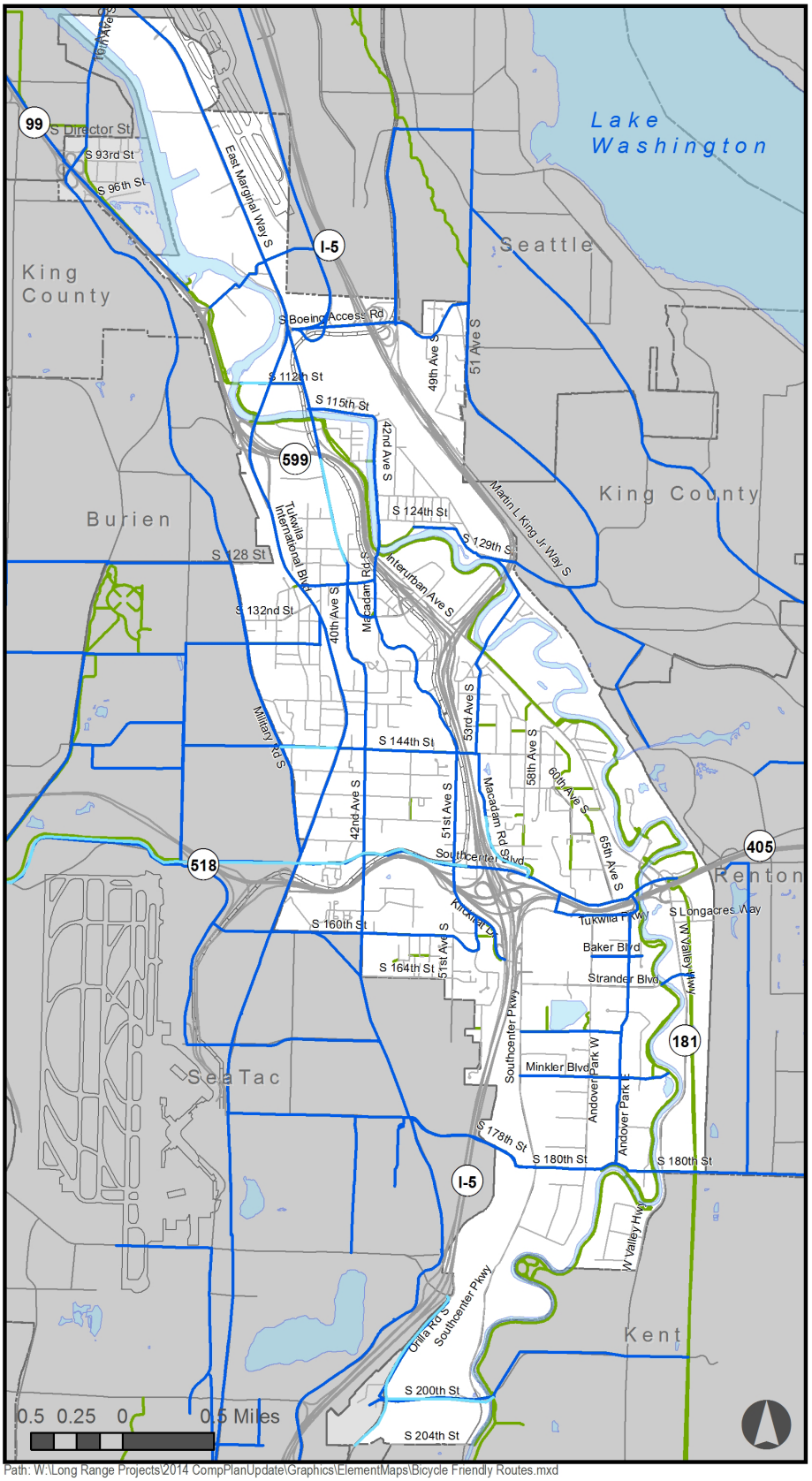


Existing Nonmotorized Facilities

Legend

- Paved Shoulders
- Sidewalks
- Bike Lanes
- Trails

Map 13-4: Existing Non-Motorized Facilities



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Bicycle Friendly Routes

Legend

- Existing Bike Lanes
- Bike Friendly Routes
- Trails

Map 13-5: Bicycle Friendly Routes

Goal 13.6 Non-Motorized Transportation

Tukwila's non-motorized transportation network is safe and comfortable, provides local and regional connections to neighborhoods and activity centers, and makes cycling and walking viable and enjoyable forms of transportation and recreation.

Policies

13.6.1 Consider and provide for all users of the roadway, including pedestrians and bicyclists, as appropriate, when new streets and street improvements are made.

13.6.2 Continue to allocate funds to the Residential Street Fund in order to build sidewalks on residential local access streets.

13.6.3 Include pedestrian and bicycle improvements in street improvement projects, as appropriate. The prioritized list of missing sidewalk linkages and the Bicycle Friendly Routes map adopted with the Walk and Roll Nonmotorized Transportation Plan is the priority network to connect schools, employment centers, parks, shopping and other local and regional destinations.

13.6.4 Continue to pursue external funding sources to construct pedestrian and non-motorized improvements.

13.6.5 Continue to coordinate with adjacent agencies on the development of regional non-motorized transportation improvements in, through and to Tukwila.

13.6.6 Continue construction of non-motorized neighborhood links by providing additional sidewalks and trails as opportunities and development occur.

13.6.7 Pursue converting railroad and other easements to pedestrian and bicycle trails.

13.6.8 Require secure bicycle storage (i.e., racks, lockers, cages, etc.) in appropriate locations.

13.6.9 Provide way-finding along roads, sidewalks, and trails to direct non-motorized travelers to trails and destinations.

13.6.10 Continue to work with school officials to promote Safe Routes to School projects and programs, and require safe routes to school improvements, such as sidewalks and crosswalks, as new development occurs along designated school walk routes.

13.6.11 Provide more than the minimum for pedestrian safety. Options include wider sidewalks, landscape buffers, street trees, pedestrian-level lighting, crossing enhancements, patterned pavement, and improved driveway design to encourage residents and visitors to walk for transportation, recreation, and improved health.

13.6.12 Continue to plan and budget for non-motorized transportation projects within the Tukwila Capital Improvement Program.

13.6.13 Draw upon all sources of transportation funding for implementation of Complete Streets improvements.

13.6.14 Maintain existing unimproved rights of way if there is a potential future opportunity to create a non-motorized connection through stairs or other trail improvements.

IMPLEMENTATION STRATEGIES

- Follow the Walk and Roll Nonmotorized Transportation Plan and Design Report to pursue additional pedestrian and bicycle amenities.
- Pursue connections between existing pedestrian and bicycle facilities.
- Update the Infrastructure Design and Construction Standards with improved pedestrian safety and amenity designs.

- Adopt a multi-modal level of service which may be incorporated into the City's concurrency and traffic impact fee program.
- Develop local wayfinding programs based on subarea or neighborhood plans.
- Develop a consistent regional way-finding program for bicycle routes.
- Continue to provide staff support to the Safe Routes to School Committee made up of City and school district staff to coordinate grant applications, events, and spot improvements in school zones.
- Adopt the Tukwila School District school walk route maps as the basis for new requirements in the subdivision code.
- Participate in the National Documentation Project annual count of bicycles and pedestrians at designated locations throughout the City.

FREIGHT, RAIL, WATER, AND AIR TRANSPORTATION

Tukwila's Urban Center and Manufacturing and Industrial Center (MIC) include retail, commercial, and industrial businesses which serve the region. Railroad tracks owned by the Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) railroads run north/south through Tukwila. These rail networks carry international and domestic cargo to inland markets and serve the Port of Seattle to the north and the Port of Tacoma to the south. Industrial railroad spurs, operated and controlled by the railroad companies and private property owners, are located in the Southcenter and MIC area. BNSF has a multi-modal storage yard in the Manufacturing and Industrial Center in northern Tukwila. Both Amtrak and Sound Transit's Sounder Commuter Rail use the BNSF tracks.

Given Tukwila's location at the crossroads of two major interstate highways, and the prevalence of manufacturing, warehousing, and commercial activities in the City, many streets experience high truck volumes. The streets with the highest truck traffic are West Valley Highway south of Strander Boulevard, Interurban Avenue South north of SR 599, and East Marginal Way South north of Boeing Access Road.

The portion of the Duwamish River in Tukwila north of the Turning Basin is located within the City's Manufacturing and Industrial Center and is accessible to shipping activity. The river remains

inaccessible to shipping activity south of the Turning Basin, where it can be accessed by small water craft, kayaks, and canoes only.

King County International Airport, also known as Boeing Field, is located in northern Tukwila at the City's border with Seattle and is one of the busiest primary non-hub airports in the nation. The airport serves small commercial passenger airlines, cargo carriers, private aircraft owners, helicopters, corporate jets, and military and other aircraft. It is also home to approximately 150 tenant businesses, including the Boeing Company operations. The Museum of Flight is also located there and attracts a large number of visitors to the area.

Sea-Tac Airport, the state's largest airport, is located within a mile of Tukwila city limits. The airport is a large employer for Tukwila residents, and its operations support many Tukwila businesses.

Goal 13.7 Freight Transportation

Tukwila has adequate geometric capacity for commercial freight transportation located in and serving Tukwila.

Policies

13.7.1 Include trucking design parameters in principal and minor arterial improvements as well as in commercial areas.

13.7.2 Allow truck traffic on all principal and minor arterials, as well as on commercial area local access streets. Consider using load limit restrictions on residential collector arterials and residential local access streets.

Goal 13.8 Rail, Water, and Air Transportation

Tukwila and the rail and airport operators are collaborators in rectifying poor planning decisions from the past, partners in minimizing impacts upon each other's land use activities, and supportive of the mutual benefits between the people of Tukwila and the rail and air operators.

Policies

13.8.1 Participate with King County and the Port of Seattle in updating their airport master plans to ensure that King County International Airport and SeaTac International Airport operations and development:

- Enhance Tukwila goals and policies;
- Incorporate Tukwila land use plans and regulations;
- Minimize adverse impacts to Tukwila residents; and
- Are not encroached upon by incompatible land uses.

13.8.2 Continue to support goods mobility by all modes, recognizing that Tukwila is part of a regional freight distribution hub and a major international trade gateway.

13.8.3 Continue to work with BNSF to mitigate impacts associated with rail and intermodal yard operations within Tukwila's residential neighborhoods.

Goal 13.9 Funding Sources

Funding through grants, mitigations, general funds, and other sources for safety and capacity measures provides safe and efficient movement of people and goods to, from, within, and through Tukwila.

Policies

13.8.1 Continue to pursue grants.

13.9.2 Use an impact fee system that identifies:

- Capacity improvements based upon the long-term 2030 LOS needs, but which also accommodate a realistic financing plan;
- Costs of improvements needed to mitigate growth that are reflected in the annual CIP/FPM update and annual update to the Impact Fee Schedule;
- Impact fee assessments, determined by the number of new development trips in the p.m. peak hour; and
- Additional mitigation measures, in accordance with the Concurrency Ordinance when development cannot meet Concurrency standards.

13.9.3 Study and pursue funding sources such as Local Improvement Districts (LIDs) to pay for improvements not fully funded by grants, impact fees, and general funds.

13.9.4 Update the CIP/FPM bi-annually, adding new projects that implement City goals and deleting completed projects.

13.9.5 Update the Impact Fee Schedule annually, adding new projects, deleting projects as necessary, and keeping project costs at current dollar value.

13.9.6 Prioritize preserving and maintaining existing transportation facilities to avoid costly replacements and to meet public safety objectives in a cost-effective manner.

IMPLEMENTATION STRATEGIES

- Aggressively pursue grant opportunities.
- Consider interlocal agreements for impact fees with adjacent jurisdictions recognizing that traffic generated in one jurisdiction contributes to the need to make transportation improvements across jurisdictional boundaries.