TRANSPORTATION

PURPOSE

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

Comment [JR1]: This is Goal 13.1 (Overall) – moved from p. 156 to provide a description of the City's vision for the Transportation system.

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 Comprehensive Transportation Plan,~~ the six-year Transportation Improvement Plan;~~,~~
2. the six-year Capital Improvement Program~~lan,~~ 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.

Comment [RF2]: Added a link to the Strategic Plan on the role of the transportation system for supporting community livability and economic vitality.

The Transportation Element ~~also~~ 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 ~~requirements and assures concurrence with other agencies~~. The~~se~~ specific requirements of each of these plans are fulfilled by the City of Tukwila~~'s~~ Background Report for the Transportation Element of the Comprehensive Plan Update (hereafter referred to in this element as the Background Report) ~~Comprehensive Transportation Plan~~, and summarized herein. The Background Report~~Comprehensive Transportation Plan~~, Walk and Roll Nonmotorized Transportation Plan, Tukwila Transit Plan, Commute Trip Reduction Plan, Growth and Transportation Efficiency Center Plan, ~~and~~ the annually updated six-year Transportation Improvement Plan, six-year CIP/FPM~~Capital Improvement Plan~~, 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, ~~and~~ commuter rail transit service, Amtrak passenger rail service, sidewalks, trails, and neighborhood footpaths. In addition, Boeing Field and SeaTac Airport provide~~s~~ air transportation for ~~a combination of primarily~~ general, commercial and business aviation. The Duwamish River provides water access to Elliott Bay and beyond. ~~Significant commercial freight transportation is provided by trucking and railroads throughout the City.~~ The City's road and rail network enables freight and rail transportation within and through the city. Future Tukwila transportation system additions include ~~light rail (slated to open in 2009) and possibly~~ Bus Rapid Transit. A detailed inventory of the existing transportation system in Tukwila is contained in the Background Report. (Fehr & Peers, May 2012)

Comment [JR3]: PSRC requires cities to show LOS on state highways of statewide significance and highways of regional significance. Highways of statewide significance include I-5, I-405, SR 518, 99, and 509. Highways of regional significance include 99 (except that portion controlled by Tukwila), SR181 (south of I-405), and MLK Way.

Comment [DC4]: This is reworded to structure it similarly to the other sentences.

Insert Transportation Infrastructure Map

The major transportation issues facing Tukwila include the following:

- Physical and geographic barriers that challenge connectivity throughout the City. Physical barriers including the valley wall, the Green/Duwamish River, and highways 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.

Comment [NG5]: Language suggested by Fire Dept.

- Limited funding to satisfy competing priorities.
    - Increasing connectivity is very costly given the need to acquire new rights-of-way, conduct engineering and design studies, and pay construction costs.
    - 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 is planned and is supported by regional plans.
    - 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 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.

Insert Household and Job Growth Maps

~~Level of Service~~

~~The capacity of a transportation facility reflects its ability to accommodate a moving stream of people or vehicles. Capacity is a measure of the supply side of transportation facilities. Level of service (LOS) is a measure of the quality of flow. Capacity and LOS calculations are needed for most traffic engineering and transportation planning decisions and actions.~~

~~Traffic Level of Service~~

~~In this instance, level of service is used to describe and define capacity of a corridor or intersection. A grading system, defined in the *Highway Capacity Manual*, published by the Transportation Research Board, ranges from A (best) to F (worst).~~

Comment [JR6]: This section removed per PW. A new discussion, to reflect latest Background Report work on LOS and MMLOS, is at beginning of Goal 13.3 Level-of-Service section

LOS	Delay per Vehicle Signalized Intersections	Delay per Vehicle Unsignalized Intersections
A	Less than or equal to 10 seconds	Less than or equal to 10 seconds
B	Greater than 10 and less than or equal to 20 seconds	Greater than 10 and less than or equal to 15 seconds
C	Greater than 20 and less than or equal to 35 seconds	Greater than 15 and less than or equal to 25 seconds
D	Greater than 35 and less than or equal to 55 seconds	Greater than 25 and less than or equal to 35 seconds
E	Greater than 55 and less than or equal to 80 seconds	Greater than 35 and less than or equal to 50 seconds
F	Greater than 80 seconds	Greater than 50 seconds

Source: Highway Capacity Manual, 2000

Figure 39 - Traffic Level of Service Standards

Non-motorized Level of Service

A level of service for pedestrian and other modes of non-motorized transportation is much more difficult to establish. Various methodologies exist but none are yet considered industry standards.

Streets and Highways

Comment [JR7]: This discussion has been re-named "Street Network" and moved to beginning of Goal 13.2

Tukwila is divided into three areas of distinct traffic patterns and roadway needs. The largest volume of traffic, as well as the area with the largest needs for infrastructure, is in the Tukwila Urban Center (TUC). To the north, the Manufacturing and Industrial Center (MIC) has a large amount of existing infrastructure, but has unused capacity due to a change in land uses and building tenants since 1995. The central and southwestern areas of Tukwila are predominately residential in nature, criss-crossed with residential streets funneling traffic onto large north-south arterials such as Interurban Avenue S and Tukwila International Boulevard.

The TUC has a very unique traffic pattern due to its predominately commercial nature. Unlike the rest of the city, the traditional commuter p.m. peak hour is not always the peak of congestion. Oftentimes, the peak weekday volumes of traffic occur around the lunch hour, and the true peak of weekly volumes occurs on Saturday. Holiday shopping increases the daily volumes as much as 25-50% above the rest of the year. Since 1990, daily traffic volumes in the TUC have risen nearly 17%. For the most part, existing travel speeds of motorists in the TUC average around 20 m.p.h., and is a Level of Service C (LOS C). Although there are some intersections that operate poorly during peak hours, for the most part, the TUC area intersections also average at LOS C.

~~Safety in the TUC is generally good from a motorist point of view. Major Southcenter Parkway intersections have the largest number of accident occurrences, though none are above the King County average for accidents on similar streets.~~

~~Throughout the remainder of Tukwila, the traditional p.m. peak hour is the peak traffic volume. The average level of service is LOS B at key intersections but there are some specific locations where the capacity of the intersection is being approached. Accident occurrences are generally at lesser rates than the TUC area.~~

~~There are four classes of streets: principal arterials, minor arterials, collector arterials, and access streets *(Figure 42)*. These four classes of street were developed in recognition of a transition in street use from strictly access to properties to pure mobility. The differences result in different street widths, access control, speed limit, traffic controls, and other similar design and operation features. While the street sections and speed limits shown are generic for the each functional classification, current City codes and specific sub-area plans will govern.~~

~~Functional Classification~~	~~Right of Way~~	~~Curb to Curb~~	~~Speed Limit~~
~~Local Access Streets~~	~~50 to 60 ft.~~	~~28 to 36 ft.~~	~~25 mph~~
~~Collector Arterials~~	~~60 ft.~~	~~36 to 40 ft.~~	~~30 mph~~
~~Minor Arterials~~	~~60 – 80 ft.~~	~~36 to 48 ft~~	~~30 to 35 mph~~
~~Principal Arterials~~	~~80 to 100 ft.~~	~~60 to 84 ft.~~	~~35 to 50 mph~~

~~*Standards above are typical; see current City codes for actual standards~~

~~Figure 42 – Functional Street System Standards~~

~~The TUC area is projected to see the most growth in traffic by 2020. Without needed capacity improvements, LOS problems will develop, with an average of LOS E/F for the area and many locations projected to operate extremely poorly. The rest of the city fares better with an average of LOS D, however, many intersections will operate at severe LOS F conditions without improvements.~~

~~Access streets in residential areas are not projected to experience LOS problems by the year 2020. However, the occasional problem of "too much traffic, too fast" can occur and measures to address safety and access would be determined based on studies and measures to reduce the volumes and speed.~~

~~The City maintains an annually updated Capital Improvement Plan (CIP) identifying projects that will address current and future system deficiencies. A full reporting and discussion of the data on traffic forecasts~~

and present and future levels of service is included in the Comprehensive Transportation Plan.

Transit

King County Metro provides bus service throughout the City of Tukwila. Fourteen different routes provide intra-Tukwila service and direct service to Burien, Kent, Auburn, Seattle, Renton, and West Seattle. 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 Tukwila Station, as does Amtrak regional and national passenger rail service.

The City of Tukwila strives to collaborate and cooperate with the region's transit providers in order to improve and support these systems. 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.

Tukwila desires quality transit service to support and complement adjacent land uses. To achieve this, a multi-hub system and Transit Priority Corridor Classifications were developed. This classification system was created with the goal of establishing several different focal points for service in Tukwila. These include the S. 154th Street Link Light Rail Station, the Tukwila Commuter Rail/Amtrak Station, an improved Tukwila Urban Center Transit Center, and a new link connecting the Tukwila Commuter Rail/Amtrak Station to areas near Westfield Mall at Southcenter. Improved routes and frequency feed into this multi-hub concept. Some changes in route alignments or schedules are recommended to meet a system-wide need.

Transit Priority Corridor Classifications *(Figures 43 and 44)* were developed which identify transit corridor types by function, ideal transit operational characteristics, optimal adjacent land uses, and supporting physical design features of the public infrastructure. This tool is designed to be flexible and assist quality decision-making. An inventory of present transit routes are contained in the Tukwila Transit Network Plan. Full details on the recommendations for service changes and infrastructure needs are also included in that document. King County Metro and Sound Transit control changes to routes.

Comment [JR8]: This discussion has been moved to the beginning of the Transit goals in section 13.4

Classification	Functional Purpose	Typical Adjacent Land Use
TRANSIT WAY	Provides frequent, high speed, high capacity service and interregional transit trips.	Major private and public developments of regional significance. Should not be adjacent to residential areas.
TRANSIT PRINCIPAL CORRIDOR	Provides frequent, moderate speed, high capacity service, connections between major activity centers, and some interregional trips	Major private and public developments of regional or local significance; adjacent to commercial, industrial, and high density residential land uses.
TRANSIT MINOR CORRIDOR	Provides connections between local transit destinations, concentrated to connect and reinforce major activity centers and residential areas.	Major private and public developments. Generally are located adjacent to high and medium density residential areas as well as commercial areas.
TRANSIT LOCAL ACCESS STREET	Provides connections between neighborhoods and area attractions. .	Neighborhood activity centers such as schools, businesses, recreational facilities, and single family neighborhoods
POTENTIAL TRANSIT ROADWAY	Roadways without existing transit service or service but are potential future transit roadway.	Depends on location.

Figure 43 – Transit Corridor Classifications

Figure 44 – Transit Priority Corridor Classifications

Non-motorized Transportation

A non-motorized transportation plan is included in this Comprehensive Transportation Plan and has been coordinated with the King County Non-motorized Plan. It differentiates two categories of non-motorized trips: Category I trips are "through" trips for bicycle commuters using trails, bikeways, and bicycle friendly streets. Category II trips are "within neighborhood" trips, for example between homes and schools or between home and play field, park, or market.

Category I improvements include completing the Interurban and King County Green River trails, which will provide access to the Green/Duwamish high employment corridor for bicycle, combined bicycle and bus, and combined bus and walking trips, as well as for recreation and exercise. The Category I improvements include incorporating bicycle, pedestrian, and other non-motorized transportation elements in other transportation improvement designs.

Comment [JR9]: Discussion is moved to beginning of goal 13.5 Non-Motorized Transportation.

~~Category II improvements include neighborhood footpaths, sidewalks, and the pedestrian path program of paving shoulders and paths for non-motorized travel.~~

~~Both Category I and II improvements involve the cooperation of King County Metro, the Tukwila Parks Department, and other agencies including King County, neighboring jurisdictions, and the Washington State Department of Transportation.~~

~~A non-motorized transportation plan specific to the TUC will inventory existing pedestrian and bicycle facilities in the urban center. Recommendations on improvements to link and support pedestrian and bicycle activity in the TUC are included in the TUC Subarea Plan.~~

Comment [NG10]: This information is outdated.

~~LEVEL OF SERVICE STANDARDS~~

Comment [JR11]: Discussion moved to beginning of Goal 13.3 Level of Service section, with changes made in strikeout/underline format.

~~Level of service standards for all local arterials and transit routes are necessary in order to ensure mobility, vitality, and quality of life for the city. The standard, coordinated with surrounding jurisdictions, is to judge the performance of the system against what the community is willing to accept and what can be financed.~~

~~Traffic~~

~~Projected growth in Tukwila, and surrounding areas, was used in the Comprehensive Transportation Plan to project traffic volumes and levels of service in 2020. In order to develop an LOS standard and determine the improvements needed to maintain capacity, consideration was given to projected demands and projected income. Significant new capacity will be required to accommodate future growth throughout the city. The majority of the project needs are in the TUC area. The City must have a fiscally constrained financing plan that is balanced with planned growth and existing and future needs.~~

~~In general terms, the City's LOS standard for arterials is LOS E in commercial areas and LOS D in residential areas. Within the TUC area, level of service is calculated by averaging defined key intersections to obtain a corridor standard; elsewhere in the city, the level of service is calculated on individual key intersections.~~

~~The TUC area and key arterial corridors throughout Tukwila will continue to be monitored to assure that the LOS standard is maintained. The Tukwila Comprehensive Transportation Plan identifies improvements that would maintain adopted level of service standards around the City. Projects necessary to maintain the minimum level of service standard will be built, as needed, to accommodate projected growth. In the event of a funding shortfall or unexpected growth, the City must re-evaluate planned land uses and explore alternate funding sources to assure continuing concurrency with transportation system improvements.~~

~~Transit~~

GOALS AND POLICIES

Goal 13.1 Overall

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

Policies

13.1.1 Prioritize safety in an ongoing monitoring program.~~Focus on safety as the first priority of an ongoing and continuous monitoring program.~~

13.1.2 Focus on ~~highest possible~~ transportation efficiency by maximizing the movement of people~~, while balancing the needs to provide streets that maximize traffic movement~~ with streets that are designed to be safe for all transportation modes, accommodating ~~and~~ existing land uses while designing for the future ~~consistent with existing and desired land uses~~.

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.~~on land use and transportation systems and strategies.~~

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.

Comment [JR12]: Walk and Roll Plan and Complete Streets, Ordinance 2222

Comment [JR13]: Language is directly from KCCPP T-15

Comment [JR14]: Language is from KCPP T-1

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.

Comment [JR15]: Language modified from KCCPP T-12

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

Comment [JR16]: Strategic Plan Goal One, number C 3.

IMPLEMENTATION STRATEGIES

- ☐ Ongoing monitoring of accidents and level of service, with associated engineering improvements or education/outreach efforts to improve safety in target areas.

Comment [JR17]: Language added to make this implementation strategy for 13.1.1 more active.

- ☐ 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

Comment [JR18]: Implementation strategy for 13.1.3.

Street Network

~~Tukwila is divided into three areas of distinct traffic patterns and roadway needs. The largest volume of traffic, as well as the area with the largest needs for infrastructure, is in the Tukwila Urban Center (TUC). To the north, the Manufacturing and Industrial Center (MIC) has a large amount of existing infrastructure, but has unused capacity due to a change in land uses and building tenants since 1995. The central and southwestern areas of Tukwila are predominately residential in nature, criss-crossed with residential streets funneling traffic onto large north-south arterials such as Interurban Avenue S and Tukwila International Boulevard.~~

~~The TUC has a very unique traffic pattern due to its predominately commercial nature. Unlike the rest of the city, the traditional commuter p.m. peak hour is not always the peak of congestion. Oftentimes, the peak~~

weekday volumes of traffic occur around the lunch hour, and the true peak of weekly volumes occurs on Saturday. Holiday shopping increases the daily volumes as much as 25-50% above the rest of the year. Since 1990, daily traffic volumes in the TUC have risen nearly 17%. For the most part, existing travel speeds of motorists in the TUC average around 20 m.p.h., and is a Level of Service C (LOS C). Although there are some intersections that operate poorly during peak hours, for the most part, the TUC area intersections also average at LOS C.

Safety in the TUC is generally good from a motorist point of view. Major Southcenter Parkway intersections have the largest number of accident occurrences, though none are above the King County average for accidents on similar streets.

Throughout the remainder of Tukwila, the traditional p.m. peak hour is the peak traffic volume. The average level of service is LOS B at key intersections but there are some specific locations where the capacity of the intersection is being approached. Accident occurrences are generally at lesser rates than the TUC area.

There are four classes of streets For street design and operation purposes, engineers have classified streets into four categories: principal arterials, minor arterials, collector arterials, and access streets *(Figure 42)*. These four categories classes of street were developed in recognition of a transition in group streets according to whether they primarily provide use from strictly access to properties to or pure mobility. The differences in function result in different street widths, access control, speed limit, traffic controls, and other similar design and operation features. While the street sections and speed limits shown are generic for the each functional classification, current City codes and specific sub-area plans will govern.

Comment [NG19]: This will go in a sidebar.

Functional Classification	Right of Way	Curb-to-Curb	Speed Limit
Local Access Streets	50 to 60 ft.	28 to 36 ft.	25 mph
Collector Arterials	60 ft.	36 to 40 ft.	30 mph
Minor Arterials	60 - 80 ft.	36 to 48 ft	30 to 35 mph
Principal Arterials	80 to 100 ft.	60 to 84 ft.	35 to 50 mph

*Standards above are typical; see current City codes for actual standards

Figure 42 – Functional Street System Standards

The TUC area is projected to see the most growth in traffic by 2020. Without needed capacity improvements, LOS problems will develop, with an average of LOS E/F for the area and many locations projected to operate extremely poorly. The rest of the city fares better with an average

~~of LOS D, however, many intersections will operate at severe LOS F conditions without improvements.~~

~~Access streets in residential areas are not projected to experience LOS problems by the year 2020. However, the occasional problem of "too much traffic, too fast" can occur and measures to address safety and access would be determined based on studies and measures to reduce the volumes and speed.~~

~~The City maintains an annually updated Capital Improvement Plan (CIP) identifying projects that will address current and future system deficiencies. A full reporting and discussion of the data on traffic forecasts and present and future levels of service is included in the Comprehensive Transportation Plan.~~

Goal 13.2 ~~Transportation System~~Street Network

Comment [JR20]: Title changed to reflect this section's focus on streets.

~~Expansion of t~~The ~~existing~~ public street network has ~~into~~ 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 on new alignments~~.

Comment [JR21]: Moved from CIPP 8

13.2.2~~x~~ ~~Emphasize a network of~~ Prioritize residential local access through-streets, minimizing cul-de-sacs.

Comment [JR22]: Moved from 7.4.2.

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~~2~~ 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 ~~of specific conditions~~.

13.2.5~~3~~ 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.

Comment [JR23]: Walk and Roll Plan, Complete Streets policy (Ord. 2222)

13.2.64 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. ~~Continue to improve residential streets and coordinate with utility improvements.~~

Comment [JR24]: Replace this policy with the more specific language at 7.4.6.

Comment [JR25]: Added language to 12.1.26

13.2.75 Design residential access streets to provide at least the minimum capacity for emergency access and for slow traffic. ~~Regional or non-local traffic will be discouraged on residential access streets.~~

Comment [JR26]: Moved from 7.4.4.

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

Comment [JR27]: Moved from 7.4.5.

13.2.96 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.

Comment [JR28]: Language taken from KCCPP T-19

13.2.10~~x~~ 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.

Comment [JR29]: Moved from CIPP 21 and edited for active voice.

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

Comment [JR30]: Moved from TUC element, 10.3.2

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

Comment [JR31]: Moved from CIPP 14 and edited for active voice.

IMPLEMENTATION STRATEGIES

- ☐ Implement Sidewalk ordinance
- ☐ Implement Subdivision ordinance
- ☐ Implement Street Network Plan
- ☐ Apply emergency vehicle criteria in street design standards

Comment [JR32]: Moved from 7.4.4.

- ☐ Prioritize neighborhood quality design features when reducing street facilities (e.g. removal of one lane of parking before removal of sidewalk)

Comment [NG33]: Moved from 7.4.4 and reworded.

- ☐ Traffic Calming Program

Comment [JR34]: Implementation Strategy added for Policy 13.2.5

Level-of-Service

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, that is so that conditions do not degrade with the addition of the new households and workers in the City.

The projected growth figures 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

Comment [NG35]: Moved to sidebar in formatted version

Comment [JR36]: Information added to show how City's LOS standards are regionally coordinated per RCW 36.70A.070(6)(a)(iii)(B).

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 MMLOS 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* also identified service frequency needs for the City and facility improvements necessary for robust and effective 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

Figure 40 –Service Frequency LOS: Urban Scheduled Transit Service

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

Figure 41 – Hours of Service LOS

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.

Comment [U37]: Moved below to create a new policy 13.3.13 for transit LOS.

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 below). Other bus routes not identified in the table below currently serve Tukwila.

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

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 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 in to 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)

~~Traffic~~

~~Projected growth in Tukwila, and surrounding areas, was used in the Comprehensive Transportation Plan to project traffic volumes and levels of service in 2020. In order to develop an LOS standard and determine the improvements needed to maintain capacity, consideration was given to projected demands and projected income. Significant new capacity will be required to accommodate future growth throughout the city. The majority of the project needs are in the TUC area. The City must have a fiscally constrained financing plan that is balanced with planned growth and existing and future needs.~~

~~In general terms, the City's LOS standard for arterials is LOS E in commercial areas and LOS D in residential areas. Within the TUC area, level of service is calculated by averaging defined key intersections to obtain a corridor standard; elsewhere in the city, the level of service is calculated on individual key intersections.~~

~~The TUC area and key arterial corridors throughout Tukwila will continue to be monitored to assure that the LOS standard is maintained. The Tukwila Comprehensive Transportation Plan identifies improvements that would maintain adopted level of service standards around the City. Projects necessary to maintain the minimum level of service standard will be built, as needed, to accommodate projected growth. In the event of a funding shortfall or unexpected growth, the City must re-evaluate planned land uses and explore alternate funding sources to assure continuing concurrency with transportation system improvements.~~

~~Transit~~

~~At this time, Tukwila 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 work within Tukwila's Transit Street Classification System.~~

Goal 13.3 Level-of-Service

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

Comment [U38]: Revised to reflect a greater range of modes and desired outcomes.

Policies

13.3.1 In general, use varied Level of Service Standards according to ~~shall vary by~~ differing levels of development ~~patterns~~, desired character of streets, and growth management objectives. ~~Use the following LOS standards to guide City improvement and development approval decisions:~~

Comment [JR39]: Moved to 13.3.9

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 ~~is~~ not exceeded.

13.3.5 Evaluate impacts to LOS ~~W~~when reviewing private development proposals, and require mitigation and/or reduce or delay project impacts if necessary in order to maintain adopted LOS standards. ~~apply the Concurrency Ordinance to determine mitigation, if required, that will provide capacity or traffic generation control~~.

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. ~~Include as a priority increased transportation choices such as transit use; rideshare measures such as carpooling as capacity mitigation measures; and pedestrian and bicycle facilities. After consideration of these priority improvements, consider signal improvements, other street capacity improvements, and street widening as a last resort.~~

Comment [RF40]: Reworded for clarity.

13.3.7 Maintain ~~Establish~~ 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~~Tukwila Urban Center~~ corridor average is not to exceed LOS E, except for the Strander Boulevard and a portion of the Andover Park E corridors. Method~~sology~~ for computing the average LOS are~~is~~ described in the Background Report ~~Comprehensive Transportation Plan and is updated annually in the Concurrency Ordinance~~.

– 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) ~~(SR 181)~~ and SR 599, as ~~a~~ 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~~, as defined by PSRC~~.

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.

~~— *SR 599, as a state highway of regional significance, is not to exceed LOS E/Mitigated, as defined by PSRC.*~~

Non-Motorized Level of Service

Comment [JR41]: Added to meet requirements of RCW 36.70A.070 (6)(a)(ii)

Comment [JR42]: Combined with bullet on SR 181 above.

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, ~~adopted with the Walk and Roll Plan~~ 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 ~~Tukwila will encourage all transit providers 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.

~~13.3.9 Regionally Significant State Highways, including SR 181 (West Valley Highway) and SR 599 are subject to a Regional Level of Service Standard established by the Puget Sound Regional Council and WSDOT.~~

~~LOS standard for Regionally Significant State Highways within Tukwila's boundaries is LOS E/Mitigated.~~

Comment [JR43]: Language moved/added as a bullet point and changed as shown in track changes under policy 13.3.9

IMPLEMENTATION STRATEGIES

- ☐ Continue to implement concurrency ordinance
- ☐ ~~Ongoing~~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. ~~Fourteen~~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 2013. 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 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.

Comment [JR44]: From Table 2 and Table 3 of Background Report

~~Tukwila desires quality transit service to support and complement adjacent land uses.~~ To achieve this, a multi-hub system and Transit Priority Corridor Classifications ~~(Figures 43 and 44)~~ were developed, as shown on Map 4. Transit Priority Corridors are those corridors where transit service currently exists. Activity centers are tied together by the Transit Priority Corridors, and include the~~ This classification system was created with the goal of establishing several different focal points for service in Tukwila. These include the~~ Tukwila International Boulevard~~. 154th Street~~ Link Light Rail Station, the Tukwila Commuter Rail/Amtrak Station, an improved ~~Tukwila~~ Southcenter ~~Urban Center~~ 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. ~~Some changes in route alignments or schedules are recommended to meet a system-wide need.~~

Insert Transit Priority Map

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~~Tukwila Transit Network Plan. Full details on the r~~Recommendations for service changes and infrastructure needs are contained in the Tukwila Transit Network Plan.~~also included in that document.~~ King County-Metro and Sound Transit control changes to routes.

Classification	Functional Purpose	Typical Adjacent Land Use
TRANSIT WAY	Provides frequent, high speed, high capacity service and interregional transit trips.	Major private and public developments of regional significance. Should not be adjacent to residential areas.
TRANSIT PRINCIPAL CORRIDOR	Provides frequent, moderate speed, high capacity service, connections between major activity centers, and some interregional trips	Major private and public developments of regional or local significance; adjacent to commercial, industrial, and high-density residential land uses.
TRANSIT MINOR CORRIDOR	Provides connections between local transit destinations, concentrated to connect and reinforce major activity centers and residential areas.	Major private and public developments. Generally are located adjacent to high and medium-density residential areas as well as commercial areas.
TRANSIT LOCAL ACCESS STREET	Provides connections between neighborhoods and area attractions. .	Neighborhood activity centers such as schools, businesses, recreational facilities, and single-family neighborhoods
POTENTIAL TRANSIT ROADWAY	Roadways without existing transit service or service but are potential future transit roadway.	Depends on location.

Table 13-4~~Figure 43~~ – Transit Corridor Classifications

~~Figure 44 – Transit Priority Corridor Classifications~~

Goal 13.4 ~~Public Transportation,~~ Transit~~, Rideshare~~

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

Comment [JR45]: Rideshare policies moved in to new Transportation Demand Management (TDM) section. TDM-related policies have been moved in to new section, and changed as indicated in strikeout/underline format.

Comment [NG46]: It should be public transportation options for all Tukwila residents (not just those with no other options).

Policies

~~13.4.1 Recommend and pursue a bus route along Interstate 405 connecting a Tukwila multi-modal center, located at Interstate~~

~~405 and Interurban, with Everett (Boeing) and serving the freeway stations, such as the Bellevue Transit Center.~~

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

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

13.4.3~~2~~ 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~~3~~ 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~~4~~ ~~Continue to provide Commute Trip Reduction Program service to Tukwila employers and~~ Continue to provide assistance to King County Metro, Sound Transit, Washington State Department of Transportation, King County, and other ~~adjacent~~ agencies in increasing people-carrying capacity of vehicles and reducing trips.

~~13.4.5 Continue to encourage the use of rideshare, transit, bicycle, and evolving technological transportation improvements.~~

~~13.4.6 Continue to support, participate in, and encourage the development and implementation of regional/rapid rail with service to the Tukwila Urban Center, and other emerging efficient-capacity technologies that will serve people traveling to, from, and within Tukwila.~~

~~13.4.7 Support and encourage the extension of regional light rail facilities to serve the Urban Center. The preferred route can be conceptually described as running South from the vicinity of I-405, to a station located east of Southcenter Mall and west of the eastern edge of Andover Park West and in proximity to the TUC Transit Center, then turning east running adjacent to or parallel to Strander Boulevard, across West Valley Highway and north to a second station adjacent to the Tukwila Sounder Station at Longacres.~~

13.4.6~~8~~ ~~Support forming a partnership with Metropolitan King County, in the area north of Strander Boulevard in the Tukwila Urban Center, in order to locate a pedestrian-friendly Transit Center~~

Comment [JR47]: This policy is outdated. The Sounder train provides a connection from Tukwila to Everett (Boeing).

Comment [NG48]: Boeing Access Road called out per MIC priority.

Comment [JR49]: Language moved but not changed to new Transportation Demand Management section 13.x.

Comment [JR50]: Language moved but not changed to new TDM section 13.x

Comment [JR51]: These two policies (13.4.6 and 13.4.7) combined and moved as a bullet under 13.4.12

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

13.4.~~9~~7 Research and pursue a ~~TUC~~ Southcenter area circulator service that would connect the Tukwila Station, the Transit Center, businesses, and attractions in and adjacent to the ~~TUC~~ 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~~10 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~~ing~~ a bus route;~~,~~

- ~~transportation system management (TSM) program,~~ the continued development of commuter and light rail particularly with service to Southcenter ~~the Tukwila Urban Center area,~~ and the Manufacturing/Industrial Center;~~,~~ and

- ~~continue to provide and support~~ Commute Trip Reduction service.

~~13.4.11 Establish mode split goals for all significant employment centers which will vary according to development densities, access to transportation service and levels of congestion.~~

Comment [JR52]: Language moved and changed as shown in strikeout/underline format to new TDM section 13.x.

13.4.~~9~~12 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, ~~buses~~transit, biking, and walking~~commuter rail, and light rail~~.

– 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 ~~serves~~ ~~the~~ Tukwila's urban center, ~~Urban Center~~ Manufacturing and Industrial Center,

and transit centers ~~other employment and population centers and the Tukwila Multi-modal Center~~, so as to encourage ~~the~~ development ~~of these Centers~~ in the manner contemplated by this Plan and the Countywide Planning Policies.

Comment [JR53]: Walk and Roll Plan, Ord 2222

~~13.4.13 Encourage transit-oriented uses, development patterns and pedestrian amenities in the vicinity of high-capacity transit stations.~~

~~13.4.14 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.~~

Comment [JR54]: Language for 13.4.13 and 13.4.14 moved and changed as indicated in strikeout/underline format to new TDM section 13.x

IMPLEMENTATION STRATEGY

- ☐ 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
- ~~☐ Tukwila lead on construction of Transit Center in TUC area~~

Comment [JR55]: Walk and Roll Plan, Ord 2222

Comment [JR56]: This is currently being implemented.

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.

13.5.1 Continue to provide Commute Trip Reduction Program services to Tukwila employers to reduce drive-alone ~~single-occupancy vehicle~~ 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.

Comment [JR57]: From GTEC Plan p. 37).

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.

Comment [JR58]: Added in support of CTR Plan, GTEC Plan, Walk and Roll Plan.

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.

Comment [NG59]: Previously 13.4.11

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

Comment [NG60]: Previously 13.4.5

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

Comment [NG61]: Previously 13.4.13

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.

Comment [JR62]: Moved from Transit section 13.4.14 but changed as shown.

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, and 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.

Goal 13.6~~5~~ Non-M~~m~~otorized Transportation

~~*Bicycle and walking capacity for regional Category I and local Category II trips.*~~*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~~5~~.1 ~~Implement specific improvements that provide safe bicycle and walking capacity for regional (Category I) and local (Category~~

Comment [JR63]: Safety and comfort are appropriate priorities for nonmotorized travel (per Highway Capacity Manual and nonmotorized transportation industry standards), whereas safety and avoidance of delay are the measures used for automobiles.

II) trips.Consider and provide for all users of the roadway, including pedestrians and bicyclists, when new streets and street improvements are made.

13.65.2 Continue theto allocate funds to the Residential Street Fund in order to build access street improvement program that provides sidewalks on access streets.

13.65.3 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 Non-motorized Transportation Plan is the priority network to connect schools, employment centers, parks, shopping and other local and regional destinations. on designated bicycle-friendly streets.

13.65.4 Continue to pursue funding sourcesgrants to construct pedestrian and non-motorized improvements.

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

13.65.6 Continue construction of neighborhood links by Pprovideing additional sidewalks and foot trails as opportunities and development occur.

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

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

13.6.9 Provide way-finding along roads, sidewalks, and trails to direct nonmotorized 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.

Comment [JR64]: From Walk and Roll Plan, p. 93 and Complete Streets Ord. 2222.

Comment [JR65]: Complete Streets does not limit bicycle facilities to the routes shown on the Bicycle Friendly Routes map – this map shows the priority/backbone network. There should be some consideration for bicycles when a street improvement is made, even if it is not one of the bicycle-friendly routes, since cyclists are allowed and can be expected on any street in the City. If bike lanes do not fit, there may be other improvements (signage, loop detectors) that make a street more amenable for cyclists.

Comment [JR66]: This is Recommended Action #3 from the Walk and Roll Plan (p. 20-21)

Comment [JR67]: The Tukwila Zoning Code (TMC 18.56.050, Figure 18-7 and TMC 18.56.130 provide minimum bike parking requirements and development standards. This revision broadens the range of bicycle parking the City encourages.

Comment [JR68]: Walk and Roll Plan, p. 44-45; PSRC Bicycle and Pedestrian Advisory Committee, GTEC Plan p. 37

Comment [JR69]: Recommended action #4 from Walk and Roll Plan - "Provide more than the minimum for pedestrian safety" (p. 21, 39-43)

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

- ~~Adopt a non-motorized transportation plan for the City~~ Follow the Walk and Roll Non-motorized Transportation Plan and Design Report to pursue additional pedestrian and bicycle amenities.
- Pursue connections between existing pedestrian and bicycle facilities.
- ~~Pursue additional pedestrian and bicycle amenities.~~
- 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.

Comment [JR70]: Added to be consistent with Countywide Planning Policy T-7.

Comment [JR71]: Combined with first bullet point.

Comment [JR72]: Recommended action #4 from Walk and Roll Plan – "Provide more than the minimum for pedestrian safety" (p. 21, 39-43)

Comment [JR73]: This is the intent of the MMLOS, to provide Complete Streets improvements per Ord. 2222 as new development occurs.

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 areas. 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 Stander 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.

Freight, Rail, Water, and Air Transportation

Goal 13.~~7~~6 Tukwila has adequate ~~G~~geometric capacity for commercial freight transportation located in and serving Tukwila.

Policies

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

~~13.6.2 Include bus design considerations in street improvements on streets with existing or potential bus service.~~

13.76.23 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~~, following a traffic study and meetings with residents and businesses~~.

Goal 13.8 Tukwila and the rail and airport operators are collaborators in rectifying poor planning decisions from the past, partners in minimizing impacts upon each others land use activities, and supportive of the mutual benefits between the people of Tukwila and the rail and air operators.

13.86.14 Participate with King County and the Port of Seattle in updating their airport master plans ~~for all airports affecting Tukwila~~, to ensure that King County International Airport and SeaTac International ~~a~~Airport operations and development:

- Enhance~~s~~ Tukwila goals and policies;
- Incorporate~~s~~ Tukwila land use plans and regulations;
- Minimize~~s~~ 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.

Funding ~~Sources and Mitigation Payment System~~

Comment [JR74]: Added to address RCW 36.70.547

Comment [JR75]: Language reformatted, but copied directly from Countywide Planning Policy FW-20.

Goal 13.9~~7~~ Funding Sources and Mitigation Payment System

Funding through grants, mitigations, general funds, and other sources for safety and capacity measures ~~to maintain adopted LOS standards~~ to provide safe and efficient movement of people and goods to, from, within, and through Tukwila.

Comment [JR76]: We are required to maintain LOS standards at a minimum, but our funding and goals/policies cover more than just LOS improvements.

Policies

13.9~~7~~.1 Continue to pursue grants.

13.9~~7~~.2 Use an impact fee system that identifies:

— Capacity improvements based upon the long-term 2030~~2020~~ LOS needs, but which also accommodates a realistic financing plan;

— Costs of improvements needed to mitigate growth that are~~is~~ reflected in the annual CIP/FPM ~~Capital Improvement Plan~~ update and annual update to the ~~Concurrency Ordinance and~~ Impact Fee Schedule;

~~— Costs to be shared between new development and existing users~~

— Impact f~~F~~ee 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 new development ~~affects locations~~ cannot meet~~ing~~ Concurrency standards.

13.9~~7~~.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~~7~~.4 Update the CIP/FPM ~~Capital Improvement Plan~~ bi-annually, adding new projects that implement City goals and deleting completed projects.

13.9~~7~~.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.

Comment [JR77]: Language taken from KCCP T-16.

IMPLEMENTATION STRATEGIES

- ~~Adopt and annually update a Concurrency Ordinance and Impact Fee Schedule~~
- 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.

Comment [JR78]: The update time frame for these two documents are different. They duplicate policies 13.7.4 and 13.7.5.