

## 6.0 TRANSPORTATION

### 6.1 INTRODUCTION

The goals and policies contained in this transportation chapter provide a framework for transportation improvement projects and planning for the Kingston UGA to 2025. These goals and policies are consistent with the Kitsap County Comprehensive Plan and GMA. The Kitsap County Comprehensive Plan emphasizes that land use plans should drive the transportation system, thus multi-modal transportation services and a variety of transportation management techniques should be employed to reduce dependency on Single Occupancy Vehicles (eg, automobiles). Subsequently, the goals and policies outlined in this chapter provide a structure to meet or exceed this objective. The goals and policies expressed in this section also support the Commute Trip Reduction Act, and the Puget Sound Regional Council's (PSRC) Vision 2020 and Destination 2030.

### 6.2 GOALS, POLICIES & PROJECTS

The goals and policies included in this Sub-Area Plan Update are intended to be concurrent with the Comprehensive Plan and Capital Facilities Element.

**Goal 1:** Improve safety for pedestrians, bicycles, and vehicles.

**Policy 1.1:** Provide pedestrians and bicyclists with an integrated system of pathways, trails, dedicated bike lanes, and sidewalks that support connections between residential areas, employment centers, shopping, schools, recreational facilities, public transit, and other similar destination-oriented uses. Kingston should develop a safe and convenient environment for pedestrians and bicyclists by:

- Physically separating pedestrian and vehicle traffic; and
- Placing special consideration on accommodating pedestrians and bicyclists in school, park, commercial areas, and community facilities.

**Project 1.1.1:** Evaluate and prepare a Kingston multi-modal circulation plan to supplement the Kitsap County Bicycle Facilities Plan. The Plan should evaluate current and proposed facilities and identify prioritized improvements that would result in a more complete multi-modal circulation network.

**Policy 1.2:** A “safest route to school” map should be prepared to assure that safety and accident prevention for pedestrian and bicycle travel to school receives highest consideration.

**Project 1.2.1:** Working collaboratively with the North Kitsap School District, prepare a “safest route to school” map. The safest route to school should include transportation facilities that:

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- Provide pedestrian pathways on streets connecting to, or located within, the school zone
- Locate appropriate signs to alert motorists entering school zones
- Ensure that adequate lighting is installed along roadways and pathways that are primary access routes
- Establish crosswalks in areas of good sight visibility, lighting and proximity to connecting modes
- Promote safe and convenient pedestrian access to bus transportation

**Policy 1.3:** Complete to the greatest extent feasible, construction of sidewalks, pathways, bikeways and pedestrian trails from the downtown waterfront through the Village Green Park complex to Lindvog Road, SR104 and along West Kingston Rd. To the extent possible, direct pedestrian routes away from SR104 corridor.

**Goal 2:** Provide a range of transportation options including walking, bicycling, riding on transit, as well as in private automobile.

**Policy 2.1:** Encourage Kitsap Transit and the Washington State Department of Transportation (WSDOT) Ferry System to design and provide facilities that foster increased pedestrian, transit and bicycle use through:

- The provision of secure bicycle parking at the ferry terminal, transportation centers and employment centers;
- Accommodation of bicycles on bus routes where designated as part of a bicycle route system; and
- Future vessels and vehicles should be designed to safely accommodate bicycles.

**Goal 3:** Upgrade local access streets to promote increased pedestrian and vehicular safety, provide traffic calming (where appropriate), and enhance the aesthetic values of the streetscape.

**Policy 3.1:** Traffic calming techniques should be integrated into new and redeveloping residential areas in order to reduce “cut-through” trips, as well as to provide enhanced pedestrian safety.

**Policy 3.2:** Sub-standard roads should be improved to meet current road standards and level of service. Reconstruct non-standard arterial roads to current road standards as funding becomes available and as prioritized in the six-year Transportation Improvement Program.

**Goal 4:** Reduce the adverse effects of ferry-generated traffic:

- Develop appropriate measures to minimize or eliminate adverse effects of speeding cars, parking demand from ferry users and on-street vehicle holding.

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- Improve pedestrian and bicycle access to the ferry dock.
- Reduce conflicts between ferry and local access traffic.

**Policy 4.1:** Ensure that the short- and long-term impacts to the community from ferry-related traffic are addressed in a proactive and effective manner.

**Project 4.1.1:** Work cooperatively with the WSDOT to prepare a comprehensive and long-term strategy to address the impacts to the community from ferry-related traffic, specifically:

- The impact of ferry traffic and queuing on local access roads and the viability of the commercial core;
- The feasibility of establishing remote park-and-ride facilities to lessen transportation impacts and reduce traffic volumes; and
- The appropriate balance between short- and long-term parking in the commercial core.

**Project 4.1.2:** Coordinate with WSDOT to ensure that a reassessment of signal light timing on SR104 is undertaken every two to three years to assure that the flow of traffic from the ferry terminal to George's Corner is optimized for all intersections.

**Goal 5:** Ensure that an appropriate balance of commuter (long-term) and local (short-term) parking is provided in the downtown area.

**Goal 6:** Improve community awareness and access to public transit.

**Goal 7:** Create transportation systems that balance accessibility and mobility.

**Policy 7.1:** Kingston will work collaboratively to reduce the negative impacts of transportation improvements on the community.

**Policy 7.2:** The County will work to improve access management along major Kingston streets to improve mobility.

**Project 7.2.1:** Assess traffic patterns in congested areas, particularly access from S. Kingston Road to Miller Bay Road; access from Lindvog to Parcell Road and Lindvog to Thriftway shopping center, without traveling on Hwy 104 and into ferry traffic.

## **6.3 PLANNED IMPROVEMENTS**

### **6.3.1 Kitsap County Six-Year Transportation Improvement Program (TIP)**

Transportation improvement projects in unincorporated Kitsap County are implemented through the Six-Year Transportation Improvement Program (TIP) and the Washington

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State Capital Improvement & Preservation Program. The present Kitsap County six-year TIP covers the 2005 to 2010 timeframe. Currently, there are four projects identified in Kingston for improvements and include:

- Priority Project No. 19 is the Miller Bay Rd improvement, from Gunderson Hill to Indianola Rd, slated for widening and signalization by 2007.
- Priority Project No. 24 includes channelization at Miller Bay and West Kingston Road. Completion is planned for 2008.
- Priority Project No. 32 is shoulder paving on South Kingston Road from Jefferson Point to Indianola Road, (White Horse entry point) Construction is planned for completion in 2006.
- Priority Project No. 45 is an off-road separated bike trail on Miller Bay Road from West Kingston Road to Indianola Road. Construction is planned for completion in 2009. This project is part of the Mosquito Fleet Trail, which is a 57-mile-long bicycle/pedestrian trail that is proposed from Kingston to Southworth. It follows the historic stops of the Mosquito Fleet boats that provided transportation to many towns and villages in Kitsap County. In the Suquamish area, the Mosquito Fleet Trail follows Miller Bay Rd (primary route, separated bicycle path), south to NE Augusta Ave. and continues on to Suquamish Way NE to the intersection of NE Totten Rd, then westerly along Totten Road to its intersection with SR305. A secondary route is also listed following Suquamish Way NE, southerly past the NE Totten Road / Suquamish Way NE intersection and continuing south to the Suquamish Way intersection with SR305. There is no completion date scheduled.

### **6.3.2 Washington State Department of Transportation Capital Improvement & Preservation Program**

Several projects along state routes in North Kitsap have been listed on the statewide TIP:

#### **State Route 3:**

This project will reconstruct the intersection of SR3 and SR104 creating a holding lane for westbound traffic on SR104 during bridge openings.

#### **State Route 104:**

SR104/Hood Canal Bridge – This project replaces the eastern half of the two-lane bridge with a new two-lane structure. The existing eastern half of the bridge is becoming structurally deficient due to age. The total cost of the project is \$179.7 million and is scheduled to be completed by 2009.

#### **State Route 305:**

SR305/Poulsbo City Limits to Bond Road (SR307) – Adds two peak-hour High Occupancy Vehicle lanes, and provides bike lanes in each direction. Sidewalks will be

provided where pedestrian traffic is anticipated, and channelization improvements will be completed at seven intersections. Construction is scheduled to begin in 2006.

**State Route 307:**

This project includes a corridor study to identify potential safety improvements on SR307 and SR104. In addition, funding is available to Implement spot safety improvements as identified in the study. Funding for the safety improvement study is identified in the 2005 Transportation Partnership Funding Package.

**6.4 FUTURE NEEDS**

Future traffic volume forecasts to 2025 were calculated using the Kitsap County transportation model and area growth patterns. Trips were distributed using Kitsap County's regional transportation model and traffic patterns. The following discussion shows the estimated traffic volumes and Level of Service (LOS) to 2025 for each of the alternatives describe in Chapter 4.

**Intersections** Intersection operations were not analyzed in this study, and it is possible that individual intersections may experience capacity or safety issues. The County will monitor intersection operations as development proposals are submitted and may require specific improvements at that time.

**Safety** In addition to capacity, safety issues must be considered. It is difficult to predict exactly where and when development will take place in each of the scenarios. Depending on the nature of the development and the speed at which it occurs, additional safety improvements on connecting roadways may be required.

**6.4.1 Level of Service (LOS)**

Level of service is a measure of the quality and overall congestion of a particular section of road or intersection. LOS is calculated by using the method outlined in the 2000 Highway Capacity Manual. Letter grades A through F are assigned to describe the capacity, density, and travel speed of the freeway. Kitsap County currently has LOS standards adopted at the roadway link level only and includes:

**LOS A-** describes operations with low control delay, up to 10 seconds per vehicle (s/veh). This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.

**LOS B-** describes operations with control delay greater than 10 and up to 20 s/veh. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.

**LOS C-** describes operations with control delay greater than 20 and up to 35 s/veh. These higher delays may result from only fair progression, longer cycle

lengths, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

**LOS D-** describes operations with control delay greater than 35 and up to 55 s/veh. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high vehicle congestion ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

**LOS E-** describes operations with control delay greater than 55 and up to 80 s/veh. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.

**LOS F-** describes operations with control delay in excess of 80 s/veh. This level, considered unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

#### **6.4.2 Land Use Alternatives Transportation Analysis**

##### **Alternative 1 - “No Action”**

With Alternative 1, the No Action Alternative, by 2025 most roadways within the transportation impact zone remain at an acceptable LOS (LOS D in urban areas), and there are no link capacity deficiencies, if built out to meet the no action alternative with the exception of Miller Bay and Gunderson Road. Additionally, it is possible that individual intersections may experience delay or safety issues as a result of development and growth. Operational analysis at the intersection level will be reviewed by the County when development applications are submitted or through the 10-year update.

##### **Alternative 2 - Land Use Reclassification Requests**

In Alternative 2, by 2025 all roadways will remain at an acceptable LOS with the exception of Miller Bay, Gunderson and SR104, with marginal link capacity deficiencies, if built out to meet the scenario. It is also possible that individual intersections may experience delay or safety issues. Operational analysis at the intersection level will be reviewed by the County when development applications are submitted or through the 10-year update.

##### **Alternative 3 - Southern**

Under the southern alternative, by 2025 all roadways remain at an acceptable LOS with the exception of Miller Bay Road, Gunderson Road, and SR104. Currently, Miller Bay Road is approaching LOS E. It is also possible that individual intersections may experience delay or safety issues as a result of development and growth. Operational

analysis at the intersection level will be reviewed by the County when development applications are submitted.

**Alternative 4 – Preferred (Steering Committee)**

With Alternative 4, the Preferred Alternative, by 2025 all roadways remain at an acceptable LOS, with the exception of Miller Bay Road, which would fall to an unacceptable LOS E, and Gunderson and SR104, both at an unacceptable LOS D.

**Alternative 4 - Preferred (Planning Commission Recommended)**

With Alternative 4, modified by the Planning Commission, by 2025 all roadways remain at an acceptable LOS, with the exception of Miller Bay Road, which would fall to an unacceptable LOS E, and Gunderson and SR104, both at an unacceptable LOS D.

**6.5 SUMMARY & RECOMMENDATIONS**

By 2025, there are minimal impacts under the land use scenarios of all four alternatives, though unacceptable LOS primarily focused on Miller Bay and Gunderson Roads. Listed below are transportation impacts, at the roadway link level for all four alternatives and includes:

**Alternative 1 - “No Action”**

SR307 - South of SR104: LOS E

SR104 - SR307 to Miller Bay Rd NE: LOS F

SR104 - Miller Bay Rd NE to NE Barber Cut-off Rd: LOS E

SR104 - East of NE Barber Cut-off Rd: LOS C or better

Miller Bay Rd NE - SR104 to NE West Kingston Rd: LOS C or better

Miller Bay Rd NE - NE West Kingston Rd to Indianola Rd NE: LOS C or better

Miller Bay Rd NE - Indianola Rd NE to NE Gunderson Rd: LOS D

NE Gunderson Rd - Miller Bay Rd NE to Port Gamble Rd NE: LOS C or better

NE Barber Cut-off Rd - SR104 to NE West Kingston Rd: LOS C or better

South Kingston Rd NE - South of NE West Kingston Rd: LOS C or better

NE West Kingston Rd - Miller Bay Rd NE to South Kingston Rd NE: LOS C or better

NE West Kingston Rd - South Kingston Rd NE to NE Barber Cut-off Rd: LOS F

West Kingston Rd - East of NE Barber Cut-off Rd: LOS D

Future Connector Rd - Miller Bay Rd NE to South Kingston Rd NE: LOS C or better

**Alternative 2 - Land Use Reclassification Requests**

SR307 - South of SR104: LOS D

SR104 - SR307 to Miller Bay Rd NE: LOS F

SR104 - Miller Bay Rd NE to NE Barber Cut-off Rd: LOS E

SR104 - East of NE Barber Cut-off Rd: LOS C or better

Miller Bay Rd NE - SR104 to NE West Kingston Rd: LOS C or better

Miller Bay Rd NE - NE West Kingston Rd to Indianola Rd NE: LOS C or better

Miller Bay Rd NE - Indianola Rd NE to NE Gunderson Rd: LOS D

NE Gunderson Rd - Miller Bay Rd NE to Port Gamble Rd NE: LOS D

NE Barber Cut-off Rd - SR104 to NE West Kingston Rd: LOS C or better

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South Kingston Rd NE - South of NE West Kingston Rd: LOS C or better  
NE West Kingston Rd - Miller Bay Rd NE to South Kingston Rd NE: LOS C or better  
NE West Kingston Rd - South Kingston Rd NE to NE Barber Cut-off Rd: LOS F  
West Kingston Rd - East of NE Barber Cut-off Rd: LOS E  
Future Connector Rd - Miller Bay Rd NE to South Kingston Rd NE: LOS C or better

### **Alternative 3 - Southern**

SR307 - South of SR104: LOS D  
SR104 - SR307 to Miller Bay Rd NE: LOS F  
SR104 - Miller Bay Rd NE to NE Barber Cut-off Rd: LOS D  
SR104 - East of NE Barber Cut-off Rd: LOS C or better  
Miller Bay Rd NE - SR104 to NE West Kingston Rd: LOS D  
Miller Bay Rd NE - NE West Kingston Rd to Indianola Rd NE: LOS C or better  
Miller Bay Rd NE - Indianola Rd NE to NE Gunderson Rd: LOS C or better  
NE Gunderson Rd - Miller Bay Rd NE to Port Gamble Rd NE: LOS C or better  
NE Barber Cut-off Rd - SR104 to NE West Kingston Rd: LOS C or better  
South Kingston Rd NE - South of NE West Kingston Rd: LOS C or better  
NE West Kingston Rd - Miller Bay Rd NE to South Kingston Rd NE: LOS D  
NE West Kingston Rd - South Kingston Rd NE to NE Barber Cut-off Rd: LOS E  
West Kingston Rd - East of NE Barber Cut-off Rd: LOS D  
Future Connector Rd - Miller Bay Rd NE to South Kingston Rd NE: LOS C or better

### **Alternative 4 - Preferred**

SR307 - South of SR104: LOS D  
SR104 - SR307 to Miller Bay Rd NE: LOS F  
SR104 - Miller Bay Rd NE to NE Barber Cut-off Rd: LOS D  
SR104 - East of NE Barber Cut-off Rd: LOS C or better  
Miller Bay Rd NE - SR104 to NE West Kingston Rd: LOS D  
Miller Bay Rd NE - NE West Kingston Rd to Indianola Rd NE: LOS C or better  
Miller Bay Rd NE - Indianola Rd NE to NE Gunderson Rd: LOS D  
NE Gunderson Rd - Miller Bay Rd NE to Port Gamble Rd NE: LOS D  
NE Barber Cut-off Rd - SR104 to NE West Kingston Rd: LOS C or better  
South Kingston Rd NE - South of NE West Kingston Rd: LOS C or better  
NE West Kingston Rd - Miller Bay Rd NE to South Kingston Rd NE: LOS D  
NE West Kingston Rd - South Kingston Rd NE to NE Barber Cut-off Rd: LOS E  
West Kingston Rd - East of NE Barber Cut-off Rd: LOS D  
Future Connector Rd - Miller Bay Rd NE to South Kingston Rd NE: LOS C or better

### **Alternative 4 - Preferred (Modified by Planning Commission)**

SR307 - South of SR104: LOS D  
SR104 - SR307 to Miller Bay Rd NE: LOS F  
SR104 - Miller Bay Rd NE to NE Barber Cut-off Rd: LOS D  
SR104 - East of NE Barber Cut-off Rd: LOS C or better  
Miller Bay Rd NE - SR104 to NE West Kingston Rd: LOS D  
Miller Bay Rd NE - NE West Kingston Rd to Indianola Rd NE: LOS C or better  
Miller Bay Rd NE - Indianola Rd NE to NE Gunderson Rd: LOS D

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NE Gunderson Rd - Miller Bay Rd NE to Port Gamble Rd NE: LOS D  
NE Barber Cut-off Rd - SR104 to NE West Kingston Rd: LOS C or better  
South Kingston Rd NE - South of NE West Kingston Rd: LOS C or better  
NE West Kingston Rd - Miller Bay Rd NE to South Kingston Rd NE: LOS D  
NE West Kingston Rd - South Kingston Rd NE to NE Barber Cut-off Rd: LOS E  
West Kingston Rd - East of NE Barber Cut-off Rd: LOS D  
Future Connector Rd - Miller Bay Rd NE to South Kingston Rd NE: LOS C or better

### **6.6 MITIGATION**

It will be important to analyze impacts to the transportation system as development occurs to 2025. Without a detailed plan of future site-specific development, it is difficult to determine detailed impacts of this Sub-Area Plan Update in terms of capacity, level of service degradation and safety. For this reason, WSDOT and the Kitsap County Department of Public Works reserve the right to analyze the effects of development as it is permitted. All large developments will be required to prepare a Traffic Impact Analysis (TIA) of the projected traffic conditions expected at the completion of the proposed development. The TIA would identify if additional roadway improvements are needed to accommodate the new traffic generated by the site-specific development. The TIA for a localized area would be required to include the estimated traffic from all planned developments that are currently in the permitting process. If the cumulative effects of development causes specific roadways or intersections to operate at less than acceptable capacity or safety standards, appropriate mitigation will be required. Improvements would be funded through SEPA mitigation, traffic impact fees, and other developer contributions.

While specific mitigation projects for the Arborwood Development Proposal, represented in all alternatives, “except no action” have not been determined. However, mitigation has been approved for the White Horse development regarding roadway and intersections improvements and includes:

- South Kingston Road at the Northeast entrance for Whitehorse Development;
- Indianola Road/South Kingston Road;
- Indianola Road/Southwest entrance to Whitehorse Development;
- South Kingston Road/West Kingston Road;
- Indianola Road/Miller Bay Road;
- Gunderson Road/Miller Bay Road;
- Gunderson Road/Bond Road (SR307);
- West Kingston Road/Miller Bay Road.

Mitigation outlined for the White Horse development contributes to all roadway impacts that are noted in the four development alternatives.