Chapter 6
Transportation

Introduction

A safe and efficient transportation system for the movement of people and goods is needed to support existing and future development. The purpose of the Transportation Element is to identify the types, location, and extent of existing and proposed transportation facilities and services. These include streets and highways, air, rail, transit systems, pedestrian, and bicycle uses.

Relationship to Other Plans

Growth Management Act Requirements

This Transportation Element has been developed in accordance with Section 36.70A.070 of the Growth Management Act (GMA) to address transportation needs in Bayview Ridge. It represents the County's policy plan through 2015 and specifically considers the location and condition of the existing traffic circulation system, the projected transportation needs, and plans for addressing future transportation needs while maintaining established level of service standards. According to the GMA, this element must include:

- Land use assumptions used in estimating travel.
- An overview of facilities and service needs.
- An analysis of funding capability and a multi-year financing plan to fund the needed improvements.
- Intergovernmental coordination efforts.
- Demand-management strategies.

Goal 3 of the GMA relates to transportation:

Goal 3. Transportation – Encourage efficient multi-modal transportation systems that are based on regional priorities and coordinated with County and city comprehensive plans.

Countywide Planning Policies

Countywide Planning Policy 3 addresses transportation. The policy states:

3.1 Multi-purpose transportation routes and facilities shall be designed to accommodate present and future traffic volumes.

3.2 Primary arterial access points shall be designed to ensure maximum safety while minimizing traffic flow disruptions.

3.3 The development of new transportation routes and improvements to existing routes shall minimize adverse social, economic, and environmental impacts and costs.

3.4 The Transportation Element of the Comprehensive Plan shall be designed to: facilitate the flow of people, goods, and services so as to strengthen the local and regional economy; conform with the Land Use Element of the Comprehensive Plan; be based upon an inventory of the existing Skagit County transportation network and needs; and encourage the conservation of energy.

3.5 Comprehensive Plan provisions for the location and improvement of existing and future transportation networks and public transportation shall be made in a manner consistent with the goals, policies, and land use map of the Comprehensive Plan.

3.6 The development of a recreational transportation network shall be encouraged and coordinated between state and local governments and private enterprises.

3.7 The Senior Citizen and Handicapped transportation system shall be provided with an adequate budget to provide for those who, through age and/or disability, are unable to transport themselves.

3.8 Level of service (LOS) standards and safety standards shall be established that coordinate and link with the urban growth and urban area to optimize land use and traffic compatibility over the long term. New development shall mitigate transportation impacts concurrently with the development and occupancy of the project.

3.9 An all-weather arterial road system shall be coordinated with industrial and commercial areas.

3.10 Cost effectiveness shall be a consideration in transportation expenditure decisions and balanced for both safety and service improvements.

3.11 An integrated regional transportation system shall be designed to minimize air pollution by promoting the use of alternative transportation modes, reducing vehicular traffic, maintaining acceptable traffic flow, and siting of facilities.

3.12 All new and expanded transportation facilities shall be sited, constructed, and maintained to minimize noise levels.

Other Transportation Related Plans

A number of regional, county, and local documents have been prepared that are relevant to the Bayview Ridge transportation system. This Subarea Plan incorporates relevant information contained in the following plans:

- *Skagit County Comprehensive Plan* (July 2000).
- *Skagit County Capital Facilities Plan for 2001-2006*.

- *Skagit County Transportation Improvement Program 2001-2006*.
- *Skagit County Transportation Systems Plan* (March 1997)
- *Skagit County Transportation Systems Plan – Review Final* (June 2001)
- *Six-Year Transportation Improvement Plan* (TIP) (2003-2008). The Transportation Systems Plan is updated annually by the adoption of a new Six-Year TIP.
- *Skagit/Island Regional Transportation Plan* (April 1996).
- *Skagit Regional Airport Master Plan Update*, (June 1995).
- *Countywide Air, Rail, Water, and Port Transportation System Study* (February 1996).
- *Skagit Non-Motorized Transportation Plan* (draft August 2000).
- *Skagit County Comprehensive Transit Plan*
- *SR 20: Sharpes Corner to SR 536 NEPA Pilot Project Dwelling Unit and Employment Forecasts for Transportation Analysis Zones*, CH2Mhill (December 2001)

Major Issues

Safety

All citizens place considerable importance on the safety of the transportation system. Accidents are not only traumatic on a personal level, but are also costly for society. Aircraft accidents may inadvertently threaten the preservation of the Skagit Regional Airport, and it is important to establish low intensity uses and adequate airport safety zones to minimize the impact of accidents. Maintaining and improving the Bayview Ridge transportation system should aid in reducing or preventing accidents.

Economic Development

Efficient movement of people, freight, and goods is important because it enhances the economic vitality of the region. A study undertaken by CH2Mhill, in conjunction with transportation planning for SR 20, projects the increase in employment to 2015 and 2025 by UGA, *SR 20: Sharpes Corner to SR 536 NEPA Pilot Project Dwelling Unit and Employment Forecasts for Transportation Analysis Zones*, CH2Mhill, December 2001. Employment within the Bayview Ridge UGA is projected to increase from 1,456 in 1998 to 3,301 in 2015. The 2000 Overall Economic Development Plan (OEDP) estimated that urban areas (UGAs) throughout Skagit County would need approximately 2,750 acres of industrial and commercial acreage for development through 2015. To meet this forecasted need, 750 acres of industrial and commercial acreage has been allocated to the Bayview Ridge UGA. Many of these new employees are expected to work in sectors that generate freight, such as manufacturing, communication, retail, and wholesale trade. Many businesses seeking to locate in Bayview Ridge are attracted by the efficient transportation system and the area's proximity to resources and markets. The existing transportation infrastructure represents a significant investment of capital and labor. To protect this investment, the capacity and condition of the system need to be maintained.

Alternative Modes

For most of this century, transportation improvements have emphasized the movement of motorized vehicles, especially automobiles and trucks. Alternative modes, such as bicycling and walking, have not been stressed. It is expected that the automobile will continue to account for the majority of transportation trips in the foreseeable future, both in the number of trips and in the distance traveled. With new residents and new employees expected by 2015, both parking and road congestion will become increasingly important issues. Transit will play a role in alleviating congestion and has been recognized in the traffic model discussed later in this chapter.

The Parks, Recreation, and Open Space program envisioned in this Plan recognizes the importance of development of paths and trails in Bayview Ridge. The *Skagit County Six-Year Transportation Improvement Plan* (2001-2007) includes construction of 11.5 miles of pedestrian and bicycle paths connecting the north and south industrial areas of the Port ownership.

Encouraging non-motorized modes of transportation can lessen congestion, reduce maintenance of the built infrastructure, and reduce air pollution while providing health benefits to the users.

Neighborhood Needs

The transportation system provides significant benefits to both the general public and to local neighborhoods. Neighborhood transportation projects can be designed to improve pedestrian facilities, traffic flow, and/or neighborhood safety. When transportation improvements are constructed, it is important to address the needs of the general public, individuals, properties, and neighborhoods affected by the project. Today, much of the area's residential development is centered around the country club and golf course situated in the southeast quadrant of Bayview Ridge. Access to the area is limited to Ovenell, Avon-Allen, and Peterson Roads. To facilitate provision of emergency services and convenient access to the area's future commercial district, a new north-south road with an east-west link into the country club is warranted. As the residential population increases, the importance of sidewalks and trails will increase. Using appropriate funding sources, Skagit County should work with local property owners to make local transportation improvements.

Transportation Demand Management

Most solutions to meeting transportation system demands involve increasing the system capacity. This method is appropriate in many circumstances. However, in some cases, the capacity of the system can be increased by reducing the demand on the system. With effective transportation planning, demand placed on the system by the adjacent land uses can be directed to corridors that have excess capacity or have future improvements planned. Truck traffic serving the industrial district of the Bayview Ridge Subarea currently access SR 20 via Higgins Airport Way or Peterson Road. The intersection of Higgins Airport Way and SR 20 is not signalized and trucks turning left experience delays and dangerous conditions. A traffic fatality and high accident rates have resulted in the conversion of the SR 20 and Pulver Road intersection to right turn only, forcing trucks into the City Limits of Burlington, until such time as signalized intersections are constructed. The alternative route to SR 20 via Peterson Road is adversely impacting the residential areas of both Bayview Ridge and the northwest quadrant of the City of Burlington. In

this case, effective transportation planning means signalizing the intersection of Higgins Airport Way and SR 20, diverting truck traffic from the residential land use areas.

Funding

Growth is expected to continue in Bayview Ridge, and increased traffic volumes to, from, and within the UGA are a major issue facing the future build-out of the area. As financial resources constrain the number of potential transportation projects, each new development must be carefully evaluated to determine its impact on the transportation system. The County made specific funding and project timing assumptions with the adoption of the first *Bayview Ridge Urban Growth Area Comprehensive Transportation Plan*. As a result, a decision was made not to charge transportation impact fees for new development at this time. The County's *Capital Improvement Plan*, along with the *Skagit County Six-Year Transportation Improvement Plan* (2001-2007), is updated annually. It will be necessary to continuously monitor this financing plan, together with development activity and level of service, to determine whether impact fees may be warranted.

It is also important to utilize the funds available to Skagit County and Bayview Ridge in as efficient a manner as possible. In order to maximize transportation improvements it is important to pursue all available funding opportunities, exercise fiscal prudence, and capitalize on innovative funding methods. Prioritization of projects permits the most important projects to be constructed first to better utilize limited available funds. Using a combination of these methods will increase the number of transportation projects Skagit County can provide for its citizens.

Concurrency

One of the goals of the GMA is to have transportation systems in place concurrent with development. This concept is known as concurrency. In Skagit County concurrency means:

- Transportation systems to serve development shall be in place before the use is occupied, or that a financial commitment is made to provide the facilities within a six-year period of development; and
- Such transportation systems have sufficient capacity to serve development without decreasing levels of service below minimum standards adopted in this Transportation Element.

The GMA requires concurrency for transportation facilities. This transportation plan is designed to meet the adopted level of service standard discussed later in this chapter.

System Inventory

This section of the Transportation Element describes the existing transportation system in Bayview Ridge. This inventory was used to identify and analyze existing and future transportation deficiencies, to analyze impacts of development upon the transportation system, and to identify transportation improvement projects needed to remedy deficiencies.

General System Description

Transportation facilities serving the Bayview Ridge Subarea include a State highway, County

roads, the Skagit Regional Airport (an essential public facility), Skagit Transportation (SKAT), and the Burlington Northern Santa Fe Railroad. This Transportation Element focuses on facilities owned and operated by Skagit County.

The Bayview Ridge Subarea is located about two miles west of Interstate 5 (I-5), immediately north of State Route 20 (SR 20). I-5 is the major north and south corridor through Skagit County, connecting Mount Vernon and Burlington to Vancouver, B. C. Canada and Seattle.

SR 20 is a partially controlled, limited access east-west facility that connects the eastern and western portions of Skagit County. SR 20 is a designated "transportation facility of statewide significance." From Bayview Ridge, SR 20 provides access to Anacortes, Oak Harbor, and the San Juan Islands to the west and to Interstate 5 and Okanogan via the North Cascades Highway on the east. The intersections with Farm to Market Road and Avon-Allen Road are signalized. The intersection with Higgins Airport Way is stop-sign controlled.

County Roads

Description

The Skagit County road system within Bayview Ridge is comprised of approximately 20 miles of roadways. The system is comprised of an irregular pattern of arterials, collectors and local streets. Figure 9 shows the Subarea Roadway System.

Josh Wilson Road, along the northern boundary of the Subarea, connects the community of Bayview Ridge (to the west) to SR 11 and the City of Burlington. Peterson Road, an east-west major collector in the central portion of the Subarea connects the Bayview Ridge area to the City of Burlington's northwest precinct, a residential neighborhood. Farm to Market and Avon-Allen Roads on the west and east, respectively, connect the Subarea to SR 20 and communities to the north and south. Ovenell Road provides an east-west connection between Farm to Market Road and Avon-Allen Road. Higgins Airport Way, in the central portion of the Subarea, provides direct access to the airport and the Port of Skagit County's Bayview Business and Industrial Park from both SR 20 and Josh Wilson Road. Local access streets within the Subarea serve the developed industrial and residential areas.

In March 1995, the State Transportation Commission designated various streets and highways within Washington as the State's Freight and Goods Transportation System (FGTS). The FGTS designations are based on estimates of annual gross tonnage hauled. Ovenell Road, west of Higgins Airport Way received a FGTS classification of 300,000 to 5 million tons per year. SR 20 received a FGTS classification of more than 10 million tons per year.

Functional Classifications

The Bayview Ridge roadway system is divided into classes according to the function of each roadway segment as defined by the Federal Functional Classification System. A classification defines the major role of a road within the complete existing and future roadway network. The Federal Functional Classification System includes the following urban road classifications: Principal Arterial, Minor Arterial, Collector, and Local Access. Roads within the Bayview Ridge Subarea will be classified by the Skagit County Public Works Department consistent with federal standards for roadway systems.

Figure 9 – Bayview Ridge Subarea Plan: Road System

Non-Motorized
Skagit County drafted a *Non-Motorized Transportation Plan* (NMTP) in August 2000 which is currently undergoing further revisions. The NMTP focuses on non-motorized travel alternatives for Skagit County. These alternatives generally include bicycle, pedestrian, and equestrian facilities. Existing non-motorized facilities within Bayview Ridge consist of limited sidewalks. The Port of Skagit County has developed a 9.3 -mile trail system available to pedestrians, bicycles and pets through the Port area. The trail system is a result of the Port's wetland mitigation plan that requires the use of open ditches rather than traditional curb, gutter, and sidewalk construction.

Non-County Public Transportation Systems

Description
Other service providers within the Bayview Ridge Subarea including Washington State Department of Transportation, the Port of Skagit County, and the Skagit County Transit Authority, also maintain and operate public transportation systems. A brief description of these providers and their facilities follows.

State Highways
There is one state highway within the Bayview Ridge Subarea, State Route 20 (SR 20). SR 20 borders the Subarea on the south and is the major east-west travel route for the County. It provides direct access from I-5 to Anacortes.

Public Transportation Providers
In November 1992, a Skagit County Public Transportation Benefit Area (PTBA) was established serving the cities of Mount Vernon and Burlington, and transit operations began in November 1993. In subsequent elections, the remaining majority of Skagit County was annexed into the PTBA. Skagit Transit (SKAT) services include 12 fixed routes and demand responsive service seven days per week. Until recent funding cuts, Route 513 served the Bayview Ridge Subarea. The transit system is collecting fares to offset costs to assist in restoring service. Currently, Route 410 (WA State Ferry/Anacortes to Burlington/Cascade Mall) serves the eastern and southern perimeters of the Subarea (i.e. along SR 20 and Peterson Road via Avon-Allen Road).

A new multi-modal station is planned for Mount Vernon. When the station is operational, Route 513 will be restored, providing service along Peterson Road and Higgins Airport Way, and connect to SR 20.

Airport Facilities
There are three public airports and several private airports in Skagit County: Anacortes, Concrete Municipal, and Skagit Regional. Established as a military base in the 1940s, Skagit Regional is the largest and most significant of the three public airports. It is located within the Bayview Ridge Subarea. It provides for industrial property, commercial passenger/cargo and general aviation aircraft as identified in the *Skagit Regional Airport Master Plan*. The Port owned Anacortes Airfield is located approximately two miles west of the City of Anacortes. It provides

limited industrial property and primarily serves general aviation aircraft. The Concrete Municipal Airport is owned by the City of Concrete and also serves small general aviation aircraft.

Skagit Regional Airport

Skagit Regional, also called Bayview Airport, was built in 1933 as a joint project of the Public Works Administration and Works Progress Administration. The original facility was developed as a single-runway facility serving light aircraft. In 1943, the United States Navy constructed the present runway and taxiway as an alternate airfield for the Whidbey Island Naval Air Station. After World War II, the federal government continued to operate the airport until 1958 when the airport was transferred to Skagit County under the Surplus Property Act of 1944. In 1965, ownership of the airport was transferred to joint ownership between the Port Districts of Anacortes and Skagit County. In 1975, ownership was transferred solely to the Port of Skagit County.

Skagit Regional Airport is a General Aviation Facility with two runways:

- 10-28 – 5,475 feet long by 100 feet wide, with one instrument approach, Medium Intensity Runway Lights and Visual Approach Slope Indicator (VASI) Navigational Aides for both approaches, and long-term plan for precision approach at both ends;
- 4-22 (crosswind) – 3,000 feet long by 60 feet wide, with visual approaches, Low Intensity Runway Lights, and planned to host general aviation development.

Airside facilities also include parallel taxiways, aircraft apron, tiedowns, hangars, and a fuel distribution and storage system. Landside facilities include the 7,000-square foot terminal and Port office building, maintenance and fire equipment buildings, an air cargo facility, and several fixed base operator (FBO) buildings. Over 70 persons are employed at the airport in both aviation and non-aviation businesses.

The *Skagit Regional Airport Master Plan Update* (June 1995) includes a determination of the anticipated growth to be experienced at Skagit Regional Airport and an evaluation of the ability of the existing facilities to accommodate this demand. The master plan uses a 20-year planning period that extends through 2013 and provides a recommended development plan showing the future needs of the airport.

The forecasts of future aviation activity show that the types of activity at the airport are not expected to change dramatically in the 20-year planning period. The airport will continue to function as the key aviation facility serving Skagit County. Aircraft operations are forecast to increase, however, with general aviation aircraft operations increasing, from 72,000 annual take-offs and landings today, to 100,100 operations by 2013. Approximately 120 aircraft are based at the airport at the present time. The composition of the aircraft fleet is expected to continue to reflect national general aviation trends. Future general aviation operations will continue to be dominated by business oriented flight, private transportation, flight training, or other forms of noncommercial activity using single- and multi-engine piston aircraft. The *Skagit Regional Airport Master Plan* includes plans for the extension of utilities, stormwater detention facilities, taxiway and apron to accommodate future growth.

Future plans for the airport include increasing development for general aviation and commercial uses along runway 4-22. In addition, the Port plans to assist existing tenants along runway 10-28 in expanding existing operations. Few changes are expected to the runways themselves other than routine maintenance activities. Changes in the FAA's policies toward security and precision approaches may result in some changes in these areas, however.

Air cargo operations are also forecast to increase from 4,300 operations in 1992 to 7,300 operations in 2013. Commercial passenger service is forecast to be feasible during the planning period with airlines expected to offer about 13 flights per day to and from the Seattle-Tacoma International Airport by the year 2013.

The *1997-2002 Bayview Ridge UGA Capital Facilities Plan* provides information on the Skagit Regional Airport, including a facility inventory; a level of service capacity analysis; summary of capital projects; and a financing plan. Complete information on the airport may be obtained in the *Skagit Regional Airport Master Plan Update*, (June 1995).

Railway Facilities

Rail service within Skagit County is provided by Burlington Northern Santa Fe Railroad (BNSF). The BNSF main line generally parallels Interstate 5. They provide a secondary line from Sedro-Woolley to Sumas in Whatcom County, as well as two branch lines originating in the City of Burlington, one traveling west to Anacortes, and one traveling east to Sedro-Woolley. The Burlington Anacortes branch line travels through Bayview Ridge. Rail service passing through Bayview Ridge is limited to freight hauling operations. There are approximately 12 freight trains per day operating on the east-west Burlington branch lines.

Level of Service, Capacity, and Needs Assessment

Existing Skagit County Levels of Service and Capacity

The *Skagit County Transportation Systems Plan - Review Final*, (June 28, 2001) addresses Level of Service (LOS) and capacity issues within Skagit County through the year 2015. The Plan includes traffic forecasts through 2015, based on a county-wide modeling effort.

As stated in the Plan, traffic volumes on County roads are low and maintenance of the existing road system takes precedence over road construction. Because of this, road improvements rely more on the Priority Array than on level of service deficiencies. The Priority Array refers to a calculation that provides information on the safety and physical characteristics/deficiencies in individual roadway segments. The calculation combines and weighs factors such as pavement condition, road geometrics, traffic levels and accident rates.

In addition to the Priority Array, Skagit County also uses a LOS methodology based on the Transportation Research Board's *Highway Capacity Manual* (2000-Edition). Prior to the 2001 *Skagit County Transportation Systems Plan*, the County used an unique methodology known as the "Birdsall Method," but it was determined that the Birdsall methodology was not as appropriate as that contained in the 2000 *Highway Capacity Manual* (HCM). Further, the

Birdsall methodology was inconsistent with the HCM methodology used by all other local jurisdictions.

LOS ratings are a measure of the quality of service and efficiency provided by an area's roadways. Traditionally, LOS ratings for roadways have been based on an A through F, quantitative measures of roadway capacity, as defined in the 1985 Highway Capacity Manual. These alphabetical ratings describe the quality of service provided at peak hours and average daily conditions. The standard is based on the ratio of volume (V) to capacity (C). In general, LOS A indicates free flow with no delays, while LOS F signifies very severe congestion with slow travel speeds. In the middle is LOS C, which represents a condition of stable flow with slightly reduced speeds and reduced maneuverability.

Based on the Highway Capacity Manual method, the proposed LOS for Skagit County Roads and Intersections is level D and E, respectively. The Skagit County Department of Public Works monitors the LOS on County roads. When traffic volumes exceed the threshold of 7,000 Average Annualized Daily Traffic (AADT) on a road segment, the Department initiates further study of the roadway. This threshold is an indicator that a road segment may be approaching the LOS D limitations and should be studied in depth for potential improvements.

LOS ratings have also been developed for intersections. These alphabetical ratings describe the quality of service provided at peak hours and average daily conditions. The standard is based on seconds of delay for signalized intersections or reserve capacity for unsignalized intersections as shown in Table 6-1.

Table 6-1
Level of Service Ratings for Intersections

LOS	Type of Intersection	
	Signalized	**Unsignalized**
	Control Delay per Vehicle (Sec/Veh)	**Average Control Delay (Sec/Veh)**
A	< 10	< 10
B	> 10 – 20	> 10 – 15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

Source: *Highway Capacity Manual*, 2000 Edition

The proposed LOS standard for intersections in Skagit County, based on the Highway Capacity Manual, is LOS E. LOS analyses for intersections within the Bayview Ridge Subarea were conducted in 2000; all intersections were at LOS A or B, with the exception of the intersections with SR 20 (SR 20/Avon Allen was at LOS E).

State Highways

LOS standards for most State Highways are set through the Regional Transportation Planning Organizations (RTPOs). The Skagit-Island RTPO has established LOS C as the standard for all

rural highways and LOS D the standard for all urban highways, with SR 20 through Anacortes designated as LOS C. All designations are based on the HCM methodology.

The LOS for state highways of statewide significance (i.e., SR 20) is established by the Washington State Department of Transportation (WSDOT). The standard set for SR 20 is LOS C for rural areas, and LOS D for urban areas.

High traffic volumes on state routes can cause delay on intersecting county roads. Skagit County and WSDOT coordinate regarding SR 20, although they are not in total agreement regarding the SR 20 intersection needs. The County believes further corridor studies are necessary to properly plan for short and long term intersection improvements.

Transit

SKAT does not have level of service standards, but rather focuses on providing basic service and expanding the areas receiving basic service.

Subarea Capacity and Levels of Service

The LOS standards that are adopted in this Plan will be maintained through upkeep of the existing circulation system and expansion of transportation services where needed. The *Bayview Ridge Subarea Plan* adopts the LOS standards for streets and intersections as adopted in the *Skagit County Comprehensive Plan.* These standards currently are LOS C for streets and LOS D for intersections.

While all Bayview Ridge arterials currently demonstrate adequate capacity, the public may consider some deficient based on their physical condition. A capacity-based analysis supplemented with a condition-based analysis may yield a more accurate assessment of roadway system deficiencies.

Such a condition-based analysis could consider factors such as:

- Lane width
- Roadway width
- Pavement width
- Accident severity
- Surface rating
- Vertical and horizontal alignment
- adequacy
- Pedestrian/bicycle facilities
- Freight and goods mobility
- Transit routes
- Destination routes for airport and rail freight

For this Plan, the County will use only a capacity-based system of establishing level of service. As part of an annual Plan amendment process, the County may elect to devise a condition-based level of service and analysis model. The analysis model could include some or all of the factors listed above, depending upon the data available and routinely maintained by the Skagit County Public Works Department.

Average weekday traffic (AWDT) and PM peak hour counts were collected for the Skagit County arterial network, including Bayview Ridge, during 1998, 1999, and 2000. The counts

were provided by the Washington State Department of Transportation, Skagit County Public Works, and Skagit Council of Governments. Where AWDT counts were not available, peak hour counts were factored to estimate AWDT volumes using area specific relationships between daily and peak hour volumes. These count-based volumes (V) were divided by functional classification capacities (C) obtained from the 1985 Highway Capacity Manual to determine existing levels of service.

Table 6-2 illustrates the traffic counts for some of the most highly traveled segments of county and state facilities within the Bayview Ridge Subarea.

Table 6-2
Base Line Traffic Counts

Roadway	*Year Counted*	*Average Weekday Traffic (AWDT)*		*PM Peak*
		Directional	*Total*	
Pulver N/O SR 20 @ MP 3.30	1999	582N/518S	1100	181
Pulver S/O SR 20 @ MP 3.43	1998	223N/111S	334	38
Avon-Allen Road @ MP 6.32 S/O Cook	1998	921N/843S	1764	250
Avon-Allen Road @ MP 6.49 N/O Cook	1998	324N/218S	542	77
Farm to Market @ MP 0.5 N/O SR 20	1999	1343N/1256S	2599	295
Farm to Market @ MP 1.24 N/O Ovenell	2000	1208N/1087S	2295	224
Farm to Market @ MP 2.0 N/O Bayview	2000	1248N/1125S	2373	249
Farm to Market N/O Marihugh S/O Josh Wilson	1998	1258N/1186S	2444	288
Farm to Market N/O Josh Wilson	2000	752N/760S	1512	157
Higgins Airport Way N/O SR 20	1998	845N/742S	1587	251
Avon-Allen Road N/O SR 20	1998	1156N/1053S	2209	203
Avon-Allen Road N/O Ovenell	1998	1051N/1020S	2071	169
Avon-Allen S/O Peterson	2000	1032N/965S	1997	201
Peterson Road E/O Pulver Road	1998	2386W/2487E	4873	487
Peterson Road E/O Avon-Allen	1998	1890W/1960E	3850	418
Peterson Road W/O Avon-Allen	1999	1286W/1586E	2872	331
Peterson Road E/O Higgins Airport Way	2000	703W/867E	1570	253
Josh Wilson W/O SR 11	1999	1574W/1655E	3229	387
Josh Wilson E/O Farm to Market	2000	1249W/1299E	2548	283
Josh Wilson W/O Farm to Market	2000	493W/440E	933	93
Ovenell Road E/O Higgins Airport Way	2000	84W/113E	197	26
Ovenell Road W/O Avon-Allen	2000	536W/548E	1084	106
Ovenell Road E/O Farm to Market	2000	323W/353E	676	58

The present roadway system within the Subarea operates reasonably well. Congestion and delay measured at primary roadway and intersections indicate levels of service are acceptable throughout the regional system.

Currently, the primary issue for Bayview Ridge traffic is access to SR 20, a "Highway of Statewide Significance." Access at the intersections with Avon-Allen Road, Higgins Airport Way, Pulver Road, and Farm to Market Road can be very difficult for traffic needing to make a left turn onto SR 20, heading east toward Burlington, Mount Vernon, or Interstate 5. Only the intersection with Avon-Allen Road is signalized. The Washington State Department of Transportation has installed a signal at the intersection of SR 20 and Farm to Market Road. As the industrial traffic increasingly tries to avoid the unsignalized intersections (i.e. SR 20/Pulver Road and SR/20Higgins Airport Way), more of this traffic, including trucks, travels east via Peterson Road into the City Limits of Burlington past Pulver Road, due to the right turn only at Pulver Road that was installed after accidents. This results in truck traffic passing through both the Bayview Ridge residential area and rural residential areas between Bayview Ridge and Burlington. The Washington State Department of Transportation, Skagit County, the City of Burlington, and the Port of Skagit County are actively working to address this issue.

The Washington State Department of Transportation, in conjunction with Skagit County and the Skagit Council of Governments, is currently preparing a new transportation planning study for SR 20. This study will include an analysis of the Farm to Market Road, Higgins Airport Way, Avon-Allen Road, and Pulver Road intersections. The results of this study will not be available until late 2002.

Forecast of Traffic

Changes in traffic volume are primarily dependent on changes in population and employment, which in turn are dependent upon growth in the housing market and in regional industries. As detailed in Chapter 5, population projections for the Bayview Ridge Subarea expect the population to reach 3,444 in 2015.

In order to systematically estimate future travel demand on the Bayview Ridge road network, a computerized travel forecast model was developed for the Subarea by the Skagit Council of Governments in 2000. This model was based on employment forecasts available at that time, but these forecasts greatly overstated 2015 employment (the model used a forecast of 7, 347 total employees by 2015, vs. the 3,301 now estimated). Given significant change in the basic employment assumptions, the modeling is no longer considered applicable. The 2000 study did determine however, that even with the higher employment estimates, traffic circulation within the Subarea would meet or exceed adopted LOS standards, assuming the new north-south collector was constructed.

Transportation System Analysis

As described in previous sections, the residential population and employment sector of Bayview Ridge are predicted to steadily increase over their current levels. There will be an increase in travel to, from and within the Subarea. There will also be an increase in travel on SR 20 by vehicles traveling from I-5 to the eastern portion of Skagit County. The most significant issue for traffic from Bayview Ridge through 2015 will continue to be the safety and capacity of the Farm to Market Road, Higgins Airport Way, Pulver Road and Avon-Allen Road intersections

with SR 20. Projected levels of service within the Subarea itself are not anticipated to fall below adopted LOS standards.

Because traffic volumes will increase over existing levels, the additional traffic will be noticeable to local residents. New access streets will also be constructed to accommodate new residential, community center and industrial development. It is important that these new streets accommodate the new traffic while providing a streetscape consistent with the character of the community.

As individual development projects within Bayview Ridge are proposed, a determination will be made on a case-by-case basis as to whether a detailed traffic study will be required as part of the SEPA project-level review.

The Bayview Ridge Subarea Plan proposes a new north-south collector arterial connecting Ovenell Road with Peterson Road and Jensen Lane, and signalization of the Higgins Airport Way intersections with SR 20 and Josh Wilson Road. The new north-south collector is needed primarily for access between the new Peterson Road community center/proposed Fire District No. 6 Fire Station to meet urban fire response times, and the existing Skagit Golf and Country Club residential development. The proposed arterial will also provide new industrial development with access to Ovenell Road, thus reducing the potential for truck traffic on Peterson Road.

Finance Plan

Skagit County is required under the GMA to prepare a plan for financing the transportation improvements included in this Transportation Element. The Transportation Improvements Program (TIP) identifies transportation revenue sources that are available for undertaking the maintenance, administration, operation, and improvement of the County's transportation system. Included in the TIP are a listing of transportation improvement projects, a schedule of program expenditures, and a summary of revenue sources (local, state, and federal) available to fund the identified costs.

No additional improvements are needed in order to continue providing the adopted level of service. Even so, the county remains committed to providing its citizens the best transportation system possible within funding capabilities. While no capacity projects are proposed, safety, structural, and preservation projects are necessary.

Goals, Objectives, and Policies

Goal 6A Ensure that the transportation system functions at a reasonable level of service internally throughout the Subarea and coordinate the links to the regional transportation network.

Objective 6A-1 *To provide a level of service on the transportation system that accommodates the needs of both motorized and non-motorized travel and provides a network of streets and trails for ease and variety of travel.*

Policy 6A-1.1 The planned level of service is not to exceed level of service standards for streets and intersections as adopted in the *Skagit County Comprehensive Plan*. The concurrency requirements do not apply to transportation facilities and services of statewide significance. State Route 20 is a Highway of Statewide Significance (HSS).

Policy 6A-1.2 Proposed projects that decrease the level of service below the planned level, because of their traffic contribution, shall be denied unless concurrent improvements are made to prevent a decrease in level of service below the planned level for that location. Improvements shall be in place before the use is occupied, except as follow:

(a) Sites located where regional improvements are the only means to improve or maintain the level of service existing prior to the development may be developed if the proponents make a fair share contribution to the regional improvement, when the improvement is planned for construction within five years; or sign an agreement to perform at a future date when the County sees needed improvements that are not possible under the Washington State Department of Transportation Warrant System.

(b) Essential public facilities may be constructed subject to a commitment to contribute to the regional improvement at a future date, as funding becomes available from the public entity, including police, fire stations, transfer stations, and the like.

(c) Other exceptions may be authorized by the County Engineer if consistent with the policy intent.

Policy 6A-1.3 The County shall take advantage of existing public lands and right-of-way in the development of the non-motorized transportation system.

Policy 6A-1.4 The County shall work toward linking public transportation to the non-motorized system.

Objective 6A-2 *To provide for the continued maintenance and improvement of the transportation system.*

Policy 6A-2.1 Complete the construction and upgrading of the arterial street network to maximize circulation and level of service within the community.

Policy 6A-2.2 Implement detailed standards for needed upgrades to residential streets so that the changes will enhance, rather than adversely affect, the

character of the area, whether initiated by the county or required to mitigate the impacts of developing a site.

Objective 6A-3 To ensure that transportation planning and other comprehensive planning efforts for the County and the Bayview Ridge Subarea are coordinated.

Policy 6A-3.1 Coordinate the *Skagit County Six-Year Transportation Improvement Plan* and the Transportation Element of the annually updated Bayview Ridge Capital Improvement Plan with the Land Use, Utilities, and other relevant plan elements to ensure a balanced program that is adequately funded and responsive to community interests.

Policy 6A-3.2 Coordinate the Capital Improvement Plan with regional non-motorized travel plans, including bicycle and pedestrian.

Objective 6A-4 To reduce demand on the transportation system during peak travel times.

Policy 6A-4.1 Implement programs to encourage the use of flextime, carpooling and transit as traffic levels increase.

Policy 6A-4.2 The County shall promote the use of flexible work schedules that can be coordinated with public transit schedules.

Policy 6A-4.3 The County shall employ Transportation Demand Management (TDM) and Transportation System Management (TSM) measures as an additional mitigation measure.

Objective 6A-5 Develop design standards for street and trails that reflect the needs and character of the Bayview Ridge Subarea.

Policy 6A-5.1 Create a safe, appropriate neighborhood street system in a network configuration that provides easy access but does not allow rapid or high volume traffic to disrupt residential neighborhoods.

Policy 6A-5.2 Design standards should encourage the use of street trees and landscaping.

Policy 6A-5.3 Street and trail projects should minimize impacts to sensitive natural areas and preserve significant trees and vegetation.

Policy 6A-5.4 Streets within the community center area should be especially sensitive to pedestrian needs.

Policy 6A-5.5 Any existing streets constructed to less than the full urban standard, provision shall be made for future improvement to the urban standard.