

## Chapter Six TRANSPORTATION

*"Transportation planners and cardiologists face similar problems. Both are concerned about uninterrupted flow from the smaller collectors and through the major arterials to the destination. When blockages occur, the cardiologist does by-pass surgery (building a new arterial) or angioplastic surgery (widening of existing arterials). The onset of arteriosclerosis is hastened by a diet rich in cholesterol. The cholesterol of our transportation system is the single occupant vehicle (SOV), the proliferation of which leads to "arterial SOVosis" (i.e. the clogging and blockage of arterials by our transportation diet predominant with the single occupant vehicle (SOV))."*

**Bob Hughes  
CTAC**

### INTRODUCTION

#### Purpose

The Growth Management Act provides for a systematic approach for estimating and planning for future transportation needs based on an analysis of existing conditions and a projection of future conditions. The purpose of this approach is to provide transportation facilities that meet the service standards desired and adequately serve the demand produced by the growth in land use in future years.

#### Process

This chapter was created in several steps. A consultant, JHK & Associates, was retained by the county to assist in preparation of the transportation element of the Comprehensive Plan. The first step was an assessment of existing traffic conditions and transportation services. The next step was a transportation plan built on forecasts of future land use, traffic patterns, and funding. It describes the level of service Whatcom County intends to maintain. The preferred road network alternative described in the transportation plan supports the goals and policies included in this chapter.

Public participation has been instrumental in identifying the priorities of county residents. To help develop the transportation plan, Whatcom County established a community-based planning effort including a Citizens' Transportation Advisory Committee (CTAC). The CTAC met regularly throughout the development of the plan and this chapter, and was active in formulating these documents' visions, improvement alternatives, goals and policies. The CTAC was instrumental in prioritizing the transportation needs in the county based on the cost-effectiveness and the projected benefits of the improvements. In the process, the CTAC drew on the expertise of the Technical Transportation Advisory Committee under the Whatcom County of Governments, a group of technical experts from throughout Whatcom County representing different agencies and jurisdictions.

#### **GMA Goals, County-Wide Planning Policies, and Visioning Community Value Statements**

By being designed to accommodate an urban concentration land use model for Whatcom County, this chapter addresses the GMA goals of encouraging development in urban areas where adequate facilities are provided and of reducing sprawl. The GMA goal encouraging efficient multi-modal transportation systems that are based on regional priorities and coordinated with county and city

comprehensive plans is addressed through goals and policies in this chapter, through coordination with the Regional Transportation Planning Organization, and through urban growth area planning. (See *Chapter 2: Land Use* for other aspects of UGA planning.) Many other GMA goals are incidentally supported throughout this chapter.

This chapter supports County-Wide Planning Policies by encouraging alternative modes of transportation through goals, policies, and actions. It includes policies on demand management strategies and considers inter-county and international transportation links. The *Whatcom County: The Next Generations* Visioning Community Value Statements are also supported by concentrating growth in urban areas and providing for an adequate system to support agriculture and economic development. The chapter recognizes the geographic differences among various parts of the county identified in Visioning features. This chapter emphasizes increasing the capacity of existing roads, encourages more public transit and bicycle facilities, prioritizes safety measures and makes provision for intermodal connections. Transportation improvement plans are within the county's financing capability.

### **GMA Requirements**

The Growth Management Act requires jurisdictions to adopt a transportation element which includes land use assumptions, estimated traffic impacts to state-owned transportation facilities, a facilities and services inventory, level of service standards for arterials and transit routes, actions to bring services below level of service standards into compliance, forecasts of traffic for ten years consistent with the land use plan, identification of system expansion needs and a management system to meet the needs. It also requires a financing analysis of funding capability, a multi-year financing plan and alternatives in case funding falls short. Demand management strategies are to be created.

This comprehensive plan addresses the above requirements through this chapter, the six-year transportation improvement program, the *Whatcom County Transportation Plan* (including the *Whatcom County Transportation Plan Existing Conditions Report*), incorporated herein by reference, and *Chapter 4: Capital Facilities*. Land use assumptions used for transportation planning, inventories, level of service standards, traffic projections and alternative system expansion needs are quantified in the *Whatcom County Transportation Plan*. Financing analysis and multi-year financing plans are in the six-year transportation improvement program. Goals, policies and actions, level of service standards, actions to take in case funding falls short, demand management strategies and specific recommended improvements are included in this chapter.

GMA requires adequate transportation facilities to be provided concurrent with development. In the goals and policies of this chapter, Whatcom County establishes the acceptable levels of service (LOS) for county-owned transportation facilities. Per GMA, any development that would cause the level of service on a county facility to fall below the adopted LOS must be denied, unless improvements that accommodate the impacts of the development – or other strategies that accommodate the growth, such as increased transit service -- are made concurrent with the development.

### **BACKGROUND SUMMARY**

Traffic volume on roads in Whatcom County varies widely from less than a hundred vehicles per day to as many as 55,000 per day on I-5 (2000 Annual Traffic Report, Washington State Department of Transportation). Whatcom County facilities are less impacted by the issue of road *congestion* than they are by the issue of road *condition*. However, there are several county roads

where congestion is also a problem. Congestion and inadequate road conditions both contribute to traffic accidents, which represent a significant (if mostly hidden) cost to the traveling public and potential tort liability to Whatcom County.

Some of Whatcom County's traffic problems may be attributable to the increasing volume on roads which were designed and built for rural traffic. There are also several areas of development that have created unusual amounts and patterns of traffic. Some of these are the Casino on the Lummi Reservation, Bellis Fair Mall, and the Mount Baker Recreation Area. Canadian border auto crossings decreased, while truck border crossings increased significantly in the 1990's. **Map 14** indicates traffic volumes on county and state roads.

For the most part, land use and associated traffic volumes dictate the type of roadway to be provided. That traffic includes a variety of users. Along with cars and trucks, Whatcom County roads serve transit vehicles, school buses, farm vehicles, bicycles and pedestrians. While these users currently represent only about ten percent of the total, their numbers are increasing. For them to share the road safely with other traffic they need facilities like paved shoulders and bus turnouts.

Roads are only part of the transportation network. Whatcom County provides ferry service between Lummi Island and Gooseberry Point--the only public transportation link between the island and the mainland. It carries about 400,000 passengers per year. The Port of Bellingham operates the Bellingham Cruise Terminal, which serves the Alaska Marine Highway System ferries and commercial cruise ship lines. Other non-road transportation facilities within Whatcom County include off-street bikeways, harbor facilities, three airports, and two north-south freight rail lines. Passenger rail service, that was discontinued in 1981, resumed operation in 1995. Beginning in 1999 two Amtrak trains per day began visiting Whatcom County. One stops in Bellingham, then continues to Vancouver, BC. The other stops in Bellingham but continues no farther due to freight rail congestion that is caused by Canadian rail lines in the Vancouver BC area. It is recognized that with greater service, ridership would increase significantly. The state's twenty-year goal is to increase Whatcom County/cross-border passenger rail service. The two rail tracks in Whatcom County are both owned by Burlington Northern Santa Fe Railway (BNSF). The BNSF main line is along the shoreline through Bellingham and proceeds up the I-5 corridor. The second line, referred to by BNSF as their secondary main line, is aligned generally along State Route 9 and crosses the Canadian Border at Sumas. The secondary main line is used infrequently, but does offer certain options and advantages. Transfer points, where people or goods transfer from one mode of transportation to another, are vital linkages in the transportation system. In Whatcom County transfer points include air, rail, bus, and ferry terminals, plus a freight terminal near the US-Canadian border at Sumas where cargo is transferred between truck and rail modes, and several shipping terminals where cargo is moved among rail cars, barges, and ships. **Map 15** indicates the location of intermodal sites in Whatcom County.

## **ISSUES, GOALS, AND POLICIES**

Whatcom County's transportation system is a network of structures--highways, arterial streets, rural roads, rail, marine, airport, bikeways, ferries, and many other facilities. At the same time, the transportation system is a link among land use patterns, population growth, economic opportunities, energy consumption, environmental stress, and other facets of Whatcom County growth. The Growth Management Act requires the county to plan for the future of both network and linkage aspects of the transportation system.

To be sure of providing adequate facilities, Whatcom County must prepare to meet future demand. Population projections, land use plans, and traffic patterns suggest that the county will need to

upgrade or expand some of its facilities, in addition to maintaining the current network. Since funding is limited, Whatcom County must prioritize the improvements it would like to make. The criteria for those choices include traffic congestion; safety; mobility; use by transit, bicycles, and pedestrians; and access to modes of transport such as airplanes, railways, and ferries. Additionally, the impact to endangered species, along with mitigation costs and delays associated with gaining approval for transportation projects that affect such species, must be considered.

To manage transportation systems, including their economic, social and environmental impacts, Whatcom County must be aware of the ways transportation influences--and is influenced by--other aspects of growth. Identifying the relationships allows the county to dovetail its plans for the various aspects so all the plans work toward compatible goals.

### **Overall County Transportation**

Over the next two decades Whatcom County will be shaping its transportation network with several fundamental goals in mind. The system must be cost-effective; it must be compatible with subarea, county and regional plans; it must be properly maintained and upgraded; it must provide access for transit and non-motorized travel; and it must offer acceptable levels of service and safety.

The LOS standards adopted for county-owned transportation facilities in Policy 6A-3 are measures of traffic congestion on arterial and collector roadway segments, expressed as a ratio of estimated volume in weekday afternoon peak hours to roadway capacity. Levels of service range from completely unrestricted flow of traffic (LOS A) to stop-and-go traffic jams (LOS F). At LOS C or better the road segment is less than or equal to 80% full (or a volume-to-capacity ratio of less than or equal to 0.80). The flow of traffic is generally stable, though individual users are significantly affected by the presence of other vehicles. At LOS D the volume-to-capacity ratio is greater than 0.80 but less than or equal to 0.9. At LOS D small increases in flow may cause some delays and decreases in speed during the afternoon peak hour.

The Washington State Department of Transportation (WSDOT) has adopted levels of service for highways of statewide significance and the Regional Transportation Planning Organization, in consultation with WSDOT, has adopted levels of service for other state highways. For state highways in Whatcom County the standards are LOS D in urban areas and LOS C in rural areas. Similar to the LOS adopted on state highways, Whatcom County generally adopts for its roadways a LOS D in urban areas and LOS C in rural areas, though for some of the rural roads that function as primary routes connecting major activity centers (as designated in the regional Whatcom Transportation Plan), the county adopts a LOS D to reflect higher peak-hour volumes.

#### **GOAL 6A: Provide for the safe and efficient movement of people and goods.**

Policy 6A-1: Make safety and mobility the primary considerations in ranking transportation improvements.

Policy 6A-2: Use the transportation planning process to identify transportation system needs throughout the county in order to provide adequate transportation facilities and services to meet current and future travel needs; identify and protect specific transportation corridors and alignments where transportation facilities including auto, commercial, bicycle, transit and rail are needed.

Policy 6A-3: Establish the following levels of service (LOS) for purposes of maintaining transportation concurrency:

- A volume-to-capacity ratio less than 0.75 during weekday p.m. peak hours for county arterials and collectors located outside of urban growth areas, except for specified primary routes as shown on Map 14A, which shall have a volume-to-capacity ratio less than or equal to 0.90 (LOS D).
- A volume-to-capacity ratio less than or equal to 0.90 (LOS D or better) during weekday p.m. peak hours for county arterials and collectors within urban growth areas not associated with cities, which may be reduced for concurrency evaluation purposes in accordance with Policy 6A-4.
- A volume-to-capacity ratio less than or equal to 0.9 during weekday p.m. peak hours (equivalent to LOS D) for county arterials and collectors within city urban growth areas, which may be reduced for concurrency evaluation purposes in accordance with Policy 6A-4.
- Coordinate with Whatcom Transit Authority to ensure adequate transit service in urban areas.
- 513 ferry passenger trips annually per capita Lummi Island population.

- Policy 6A-4: For proposed developments in designated urban growth areas, increase the volume-to-capacity ratio standard for impacted transportation facilities by 0.05 if at least one of the following amenities is existing or is committed to being provided as part of the development:
- Transit service and stop within one quarter mile walking distance accessible from the development using non-motorized facilities that meet or are functionally equivalent to Whatcom County Road Standards
  - Non-motorized facilities that meet or are functionally equivalent to Whatcom County Road Standards along the impacted facility
- Policy 6A-5: Encourage extension of city concurrency review authority and LOS standards into their respective UGAs to provide for greater consistency in concurrency review for urban areas.
- Policy 6A-6: Identify and mitigate safety and other impacts to transportation facilities caused by development during SEPA review, using standards adopted for intersections and other minimum standards established by WCC Development Standards.
- Policy 6A-7: Consider implementation of Intelligent Transportation Systems (ITS) technology to increase safety, reduce traffic congestion, decrease delays, expedite commercial vehicle travel, and provide appropriate traveler information.

## Financing

The Growth Management Act is very specific in its requirement that transportation improvements must be based on financial capability. Furthermore the Act requires that improvements must occur concurrent with developments. It is therefore very important to coordinate funding and land-use-driven transportation improvements.

The majority of county transportation dollars are spent on upkeep and maintenance of the existing road system with a much smaller amount available for major improvements and even less for actual capacity improvements. Potential additional revenue sources include a greater share of gas tax revenues and impact and/or mitigation fees. Gas tax revenues can only be imposed through a vote of the people. Impact and/or mitigation fees are enforced through a county ordinance and are intended to pay for improvements required as result of additional traffic generated by development.

GMA authorizes counties to impose impact fees that fund a proportionate share of transportation system improvements made necessary by planned growth. Whatcom County has identified future system improvements eligible for impact fee funding and has enacted a transportation impact fee system to fund a portion of those projects that are reasonably related to and reasonably benefit the planned growth.

**GOAL 6B: Create a cost-effective transportation system that optimizes public investment.**

- Policy 6B-1: Funding of transportation programs and improvements should prioritize preservation and maintenance of the existing transportation system and upgrading of unsafe and/or structurally deficient facilities over new capital improvements. Exception to this policy should be allowed when a cost/benefit analysis indicates that the public interest is better served by new capital expenditures over rehabilitation of existing infrastructure.
- Policy 6B-2: Develop a fair and equitable formula to assess development for transportation improvements, including but not limited to transit, pedestrian facilities, bikeways and roadways that are considered reasonably necessary as a direct result of proposed developments in Whatcom County.
- Policy 6B-3: Consider incorporating the impact of additional traffic on existing substandard roads as part of defining level of service for county roads, in order to better define and prioritize transportation improvements and assess new development for its share of impact on existing roads.
- Policy 6B-4: Adopt a prioritized bicycle capital facilities improvement plan.
- Policy 6B-5: Identify and pursue funding sources for the proposed projects and improvements contained in the *Whatcom County Comprehensive Plan and the six-year transportation improvement program*.
- Policy 6B-6: Utilize impact fees to fund a proportionate share of the costs of transportation system improvements that benefit and are reasonably related to new development.

- Policy 6B-7: Identify and pursue funding sources for activities and improvements which encourage the use of transportation modes other than the single-occupant vehicle.
- Policy 6B-8: Use the financial resources available for transportation improvements to support a program of capital facilities needed for a multi-modal transportation system. The priority ranking system should balance the overall system and individual improvement needs.
- Policy 6B-9: Consider and address any major fluctuations between expected revenues and needed improvement costs during the annual review process of the comprehensive plan. Such resolution could result in a reassessment of land use allocation, level of service standards and/or revenue availability.
- Policy 6B-10: Implement a methodology for public-private partnerships when it would result in a more efficient use of public resources.
- Policy 6B-11: Explore the possibility of encouraging cooperative funding for bicycle trails.

### **Intergovernmental Coordination and Implementation**

Responsibility for planning and providing transportation facilities in Whatcom County is spread among a variety of governments and agencies. Consider a few examples: the federal government is in charge of the facilities at the Canadian border; state highways are the responsibility of Washington State; the Port of Bellingham manages air, shipping and the Alaska ferry connection; and Whatcom County and its cities operate local roads, ferries, and bikeways. These and many other pieces have to be integrated. In addition, transportation facilities which cross Whatcom County's boundaries must mesh with the facilities of neighboring counties and Canada.

Cooperation among jurisdictions is necessary in transportation planning. The Growth Management Act reflects this need; it calls for a regional transportation plan, and all the local jurisdictions' plans must be consistent with it. Working collaboratively can also lead to more effective use of the available funding. "Collaboration" with users to reduce traffic congestion--by getting more people to use alternative modes of transportation--is a useful strategy as well.

**GOAL 6C: Coordinate with international, federal, state, regional (including Skagit and Okanogan Counties), and local transportation laws, policies, and plans that relate to the *Whatcom County Transportation Plan-A Combined Metropolitan and Regional Plan*, in order to be consistent and compatible with regional priorities.**

- Policy 6C-1: Support the Regional Transportation Planning Organization (RTPO) to coordinate transportation planning that affects Whatcom County.
- Policy 6C-2: Support federal government efforts to improve border crossing facilities to minimize traffic congestion and safety hazards.
- Policy 6C-3: Coordinate Whatcom County transportation planning with the Washington State Department of Transportation.

- Policy 6C-4: Work with state and other jurisdictions to identify bridge deficiencies and to address bridge maintenance and reconstruction requirements.
- Policy 6C-5: Coordinate with neighboring counties' and Canada's transportation planners to ensure compatible transportation recommendations.
- Policy 6C-6: Participate in the Whatcom Council of Governments (WCCOG) Transportation Technical Advisory Committee as a mechanism to coordinate with the cities of Whatcom County, the Whatcom Transportation Authority, as well as other jurisdictions.
- Policy 6C-7: Work with the Whatcom Council of Governments to develop effective, ongoing mechanisms for city and county public works engineers and planners to coordinate with transit and bicycle planning.
- Policy 6C-8: Coordinate county efforts with state activities toward compliance with the Americans with Disabilities Act.
- Policy 6C-9: Consistent with county land use planning, coordinate identification of new arterial routes with adjacent city jurisdictions.
- Policy 6C-10: Develop a policy and agreement with the Washington State Department of Transportation to implement a locally managed improvement program for state highways based on local impacts.
- Policy 6C-11: Identify areas and mechanisms for potentially collaborative projects so that multiple jurisdictions can share costs and efficiencies.

### **Coordination with Land Use**

The way land is developed affects the need for transportation facilities; conversely, the availability of transportation can influence development. This two-way relationship needs to be taken into account in both land-use and transportation planning. The Growth Management Act requires Whatcom County to link the two processes.

#### **GOAL 6D: Support land use planning efforts in Whatcom County which include land use types and densities that reduce reliance on single-occupant vehicles.**

- Policy 6D-1: Allow densities and mixed uses in land use planning to reduce the number and length of vehicle trips, increase opportunity to use public transportation, and encourage pedestrian and bicycle trips.
- Policy 6D-2: Discourage transportation improvements that would trigger development that is premature or not consistent with applicable comprehensive plans, policies, or zoning.
- Policy 6D-3: Support continual education of the public regarding the relationship between transportation and land use issues and ways to reduce traffic congestion.

- Policy 6D-4: Direct transportation planners to evaluate positive and negative impacts to the productivity of resource based industries when creating new, or expanding existing, transportation corridors. Transportation improvements in areas designated "Resource Lands" should be constructed to facilitate the operations of those affected areas and industries.
- Policy 6D-5: Ensure that new developments provide safe and efficient infrastructure for pedestrians and bicyclists.
- Policy 6D-6: Encourage new housing developments to be located in urban growth areas and small towns to help provide a sense of community and safe, non-motorized transportation to community facilities and public transit nodes.

### Environment and Energy

The transportation network is a benefit to the community, but it can have unwanted side effects. Vehicles on the roads are noisy, and they contribute to air pollution and contaminated water runoff. They also use up irreplaceable fossil fuel. Road construction can damage fragile wildlife habitats or intrude on scenic views. These effects can be mitigated through careful siting and design. Even more fundamentally, the effects can be minimized by reducing the amount of travel on the roads. Such "demand management" can include expanded public transit, ride-sharing, bicycling, and telecommuting, to reduce the number of trips people make in single-occupant vehicles.

**GOAL 6E: Provide a transportation system that minimizes environmental and social impacts, reduces reliance on fossil fuels.**

- Policy 6E-1: Promote designs to preserve mature trees, unique wildlife habitats, water quality and other elements of the natural environment, including environmentally sensitive areas and shorelines, during the design and construction of road improvement projects.
- Policy 6E-2: Support the use of natural noise reduction techniques and visual screens between high-volume transportation routes and other facilities adjacent to residential uses, wherever possible.
- Policy 6E-3: Minimize the amount of impervious surface whenever practicable by using natural engineering design methods such as the use of open, shallow, grassed street swales instead of curbs and gutters and, where feasible, encouraging alternate surfacing options.
- Policy 6E-4: Engineer, construct, and maintain road improvements to control pollutants affecting water quality and reduce runoff entering surface or groundwater consistent with water quality standards.

**GOAL 6F: Promote energy conservation by implementing demand management policies and encouraging the reduction of single-occupant vehicles on county roads and highways.**

- Policy 6F-1: Develop programs that reduce single-occupant vehicle use and vehicle miles traveled, minimizing trip length and reducing travel during peak periods.

## State Highway Improvements

A number of state highways cross Whatcom County, forming an important part of the transportation network for county residents. Although state highways are not Whatcom County's direct responsibility, the county can be a voice for its citizens' interests with regard to those highways, working cooperatively with the Whatcom Council of Governments and the Washington State Department of Transportation.

**GOAL 6G:**           **Ensure an efficient regional system of state highways that is functional and safe, and is consistent with regional priorities and city and county comprehensive plans.**

Policy 6G-1:           In cooperation with the Whatcom Council of Governments, identify a regional transportation network.

Policy 6G-2:           Recommend access management classifications for all the state highways in the county in order to minimize the number of access points and maximize public safety and highway capacity.

Policy 6G-3:           In cooperation with the Washington State Department of Transportation and other jurisdictions, adopt access management classes and designations for state highways.

Policy 6G-4:           In cooperation with the Washington State Department of Transportation, investigate the feasibility of frontage roads along the Guide Meridian (SR 539) and other facilities, where appropriate, to consolidate and minimize necessary access points as development proposals are made.

## Local Arterial and Collector Improvements

The Citizens' Transportation Advisory Committee and Technical Transportation Advisory Committee worked out a list of criteria for judging the effectiveness of a transportation network. The elements include uncongested traffic flow; sound engineering and construction; safety; mobility; facilities for public transit, bicycles, and pedestrians; access to air, rail, and other forms of transportation; and cost effectiveness. Whatcom County's program of local arterial improvements has to address all these aspects.

**GOAL 6H:**           **Ensure an efficient regional system of arterials that is functional, safe, and consistent with regional priorities and city and county comprehensive plans.**

Policy 6H-1:           Develop access control plans, which may include joint driveways, for classifications higher than neighborhood collector roads; and require new developments to minimize the number of access points to road classifications higher than neighborhood collector roads.

Policy 6H-2:           Where new arterials or collectors are necessary, such routes should follow topographic or land use patterns which minimize disruption to residential neighborhoods and the environment.

- Policy 6H-3: Support the use of shared access roads from commercial and residential developments to limit intersections with arterials.
- Policy 6H-4: Review design and maintenance standards for arterials for consistency between jurisdictions and develop continuity where appropriate.
- Policy 6H-5: Identify a regional system of all-weather roads and develop emergency maintenance plans for adverse weather conditions.
- Policy 6H-6: Work towards making all county-designated arterials all-weather roads.
- Policy 6H-7: Set proper speed limits.
- Policy 6H-8: Minimize delay at all intersections by timely provision of warranted traffic controls and other improvements.

### **East/West Mobility**

The rectangular shape of Whatcom County, the Nooksack River and Interstate-5 create a problem with access between the eastern and western parts of the county. Suggestions for correcting this problem are expensive including such options as freeway interchanges and overpasses and major bridge crossings.

#### **GOAL 6J: Improve mobility between the eastern and western regions of Whatcom County.**

- Policy 6J-1: Prioritize for improvements the east/west routes that have been identified in the preferred alternative for improvements and weatherization.
- Policy 6J-2: Support the possibility of transit and/or other alternative modes for east/west mobility.

### **Non-Motorized and Public Transportation Improvements**

Whatcom County's transportation network serves other users besides automobiles and trucks. Railways, public transit, carpools, bicycles, and pedestrians place lower demands on the transportation system, so encouraging these kinds of uses--"demand management"--can reduce the need for new or expanded facilities. Demand management can also help minimize transportation's negative side effects. The Growth Management Act requires Whatcom County to include demand management strategies in its comprehensive plan.

#### **GOAL 6K: Support the development and use of new technologies (e.g., fiber optics, other communication improvements) and approaches to planning in Whatcom County, so as to minimize the reliance on vehicular travel.**

- Policy 6K-1: Monitor new technologies and approaches and incorporate changes into transportation planning efforts.
- Policy 6K-2: Incorporate alternatives to conventional petroleum-based technology systems into transportation planning.

- Policy 6K-3: Support multi-modal use by encouraging, for example, provision of secure bicycle storage facilities at park-and-ride lots and other transit facilities, and allowing for the transporting of bicycles on public transit vehicles.
- Policy 6K-4: Support a regional public transit system with various modes of transportation including auto, bicycle, and pedestrian travel and with the intercity bus, rail, ferries and airline facilities.
- GOAL 6L: Support commuter use and employer promotion of alternative modes of transportation (i.e., carpools, vanpools, transit, bicycles and pedestrian travel) where feasible and discourage reliance on the single-occupant vehicle.**
- Policy 6L-1: Facilitate the implementation of the Commute Trip Reduction Program.
- Policy 6L-2: Assess the need and feasibility for preferential treatment for transit vehicles, vanpools, and carpools to improve competitive transit time with the single-occupant vehicle.
- Policy 6L-3: Support educational efforts that emphasize non-motorized transportation alternatives.
- Policy 6L-4: Support passenger rail service.
- GOAL 6M: Promote bicycle and pedestrian travel by systematically providing safe and convenient routes and facilities where feasible.**
- Policy 6M-1: Encourage safe and efficient bikeways that link populated areas of the county with travel destinations.
- Policy 6M-2: Recognize public safety, education and law enforcement as integral to the development of bicycle transportation opportunities in Whatcom County.
- Policy 6M-3: Where practical, identify site-specific on-street/road improvements needed for bicycle/pedestrian facilities along arterials and provide for regular shoulder sweeping and other maintenance as needed.
- Policy 6M-4: Identify needed rights-of-way for bicycles.
- Policy 6M-5: Include internal pedestrian circulation systems as well as links to external systems in development projects.
- Policy 6M-6: Develop a system of off-road trail networks for non-motorized transportation to link population centers, employment centers and recreation areas.
- Policy 6M-7: Implement a policy of providing safe pedestrian and bicycle access on county roads that have significant pedestrian and bicycle traffic as these roads are reconstructed, preferably by adding separated facilities or alternately by providing 4 foot minimum shoulders.

Specifically, safe pedestrian facilities should be provided within a one mile radius of community places such as schools, markets and libraries if there is residential or other development that would generate significant foot-traffic within the one mile radius.

- Policy 6M-8: Implement as a priority the goals, policies and recommendations of the latest Whatcom County Bicycle Plan.
- GOAL 6N: Support Whatcom Transportation Authority in providing high-quality, safe, convenient, accessible public transportation, where cost effective, for the public as an attractive alternative to single-occupant vehicles.**
- Policy 6N-1: Support public transit system design that encourages frequent and convenient access points, and that integrates various transportation modes into the transit services, such as bus systems, park-and-ride lots for cars and bicycles, and bus, railroad and airline terminal facilities.
- Policy 6N-2: Assist Whatcom Transportation Authority in developing transportation plans that meet the specific operational and personnel needs of individual employers.
- Policy 6N-3: Incorporate adopted plans and policies for non-motorized and public transportation in the permitting process for all development or land use proposals, including provisions for efficient access and mobility, and convenient links between pedestrian, bicycle and transit facilities.
- Policy 6N-4: Participate in investigating the potential for expanding express bus service and other forms of high-capacity transit.
- Policy 6N-5: Coordinate with Whatcom Transportation Authority to establish rural transit service in unincorporated areas, including Small Towns and Crossroads Commercial areas, consistent with county land use plans, based on cost effectiveness, location of major trip generators, distance between generators, and the needs of transit-dependent individuals.
- Policy 6N-6: Encourage Whatcom Transportation Authority to work with major employers to coordinate bus service with shift changes.
- Policy 6N-7: Establish development regulations which offer incentives for projects which are transit compatible, considering density of development, location relative to transit stops, design of project, and circulation to accommodate transit.
- Policy 6N-8: In cooperation with Whatcom Transportation Authority and Washington State Department of Transportation, provide park-and-ride lots along major corridors and provide necessary services to encourage their use.
- Policy 6N-9: Encourage provision of transit from the Canadian border to retail facilities in Whatcom County.
- Policy 6N-10: Consider, where needed, bus pull-outs on street/road improvements.

## Commercial Transportation

In addition to the commercial traffic that serves Whatcom County industries and residents themselves, the county's transportation system carries heavy cross-border truck traffic between the United States and Canada. Freight vehicles' access to industrial and commercial areas, safety on roads shared with private vehicles, efficient long-distance movement of goods, and coordination of commercial transportation with rural land uses are all issues for Whatcom County. Trucks make up the bulk of the commercial traffic, but rail, air, and ship transportation are involved as well.

**GOAL 6P: Provide for safe, efficient movement of commercial vehicles in Whatcom County.**

Policy 6P-1: Support and participate in studies to evaluate freight movement which supports economic development.

Policy 6P-2: Consider proposals for an east/west rail freight corridor.

Policy 6P-3: Develop and implement a program of incentives such as fast-track permitting for truck/rail transfer facilities when they contribute to achievement of other transportation goals in this chapter and it can be shown that negative impacts from the facilities can be mitigated.

Policy 6P-4: Support commercial and industrial development adjacent to existing transportation corridors, including I-5 and rail and air facilities as long as such facilities do not reduce safe, efficient movement of vehicles in Whatcom County.

Policy 6P-5: To better facilitate dispersal of commercial truck traffic, support the Lynden border crossing to open 24 hours a day.

**GOAL 6Q: Support intermodal connections (i.e., truck/rail facilities) that promote use of air, water, and/or rail freight where feasible.**

Policy 6Q-1: Encourage the location and design of intermodal facilities for efficient freight transfer and access to the state and interstate highway, rail and ferry systems.

Policy 6Q-2: Support convenient access to ports, airports, other intermodal freight facilities, and international border crossings to enhance freight mobility.

Policy 6Q-3: Incorporate needs for access to ports and other intermodal freight facilities into capital facilities planning.

**GOAL 6R: Emphasize the importance of economically competitive and high-quality inland transportation services; foster the preservation, development and full implementation of freight rail; and plan intermodal linkage for long-distance movement of goods.**

Policy 6R-1: Support efficient movement and access of freight vehicles within and through the county.

- Policy 6R-2: Support efficient movement of goods and people with regard to land use regulation and environmental and community impacts.
- Policy 6R-3: Identify a recognized route system for trucks giving access to major commercial and industrial land uses which will minimize disruption of existing/projected rural land use patterns.
- Policy 6R-4: Facilitate the movement of trucks between industrial/commercial areas and I-5 and through the county by providing all-weather roads, adequate turning radii and signage.

### **Agricultural Vehicles**

Agriculture is one of the largest industries in Whatcom County. Agricultural vehicles need to use county roads, but slow-moving equipment can become a safety problem when it shares the road with other vehicles.

**GOAL 6S: Allow for safe movement of farm equipment on county roads where necessary, and reduce conflicts with other vehicles.**

Policy 6S-1: Provide signage, where appropriate, warning of slow-moving agricultural equipment.

Policy 6S-2: Provide for marked access points, wider shoulders and/or slow vehicle turnouts on routes where warranted to allow passenger vehicles to safely pass wide agricultural vehicles.

**GOAL 6T: Transportation systems, including roads, should avoid adverse impacts to habitat of threatened and endangered fish and wildlife species, and restore such habitat when possible. For County transportation projects, the County Council will determine when such restoration is financially feasible through adoption of the six-year transportation improvement program, the annual road construction program and the County budget.**

Policy 6T-1: Maintain and restore fish passage when constructing new transportation systems. Where existing transportation systems have fragmented habitat, such as where culverts prevent fish from migrating upstream, strive to restore fish passage at every opportunity. For County transportation projects, the County Council will determine when such restoration is financially feasible through adoption of the six-year transportation improvement program, the annual road construction program and the County budget.

Policy 6T-2: When constructing new transportation systems, ensure that stormwater generated by the transportation system is treated prior to discharge to waterways utilized by salmonid fish populations or which flow directly into such waterways. Provide for regular, systematic maintenance of transportation system related stormwater control and treatment facilities.

Policy 6T-3: Avoid or mitigate future wetland impacts from transportation system construction and maintenance.

- Policy 6T-4: When constructing new or maintaining existing transportation systems, retain or restore native riparian vegetation along streams and rivers to the greatest extent possible.
- Policy 6T-5: Avoid or mitigate future impacts to feeder bluffs, accretion shoreforms, driftways, eelgrass, kelp beds and other elements of marine shoreline habitat when constructing or maintaining transportation systems.
- Policy 6T-6: Allow natural stream processes to continue by minimizing bank hardening and streambed disturbances to the greatest extent possible, while meeting transportation objectives.
- Policy 6T-7: Implement best management practices for erosion control to prevent sedimentation during transportation system construction or maintenance. Maintain such erosion control devices until no longer necessary to protect water quality.

## TRANSPORTATION - ACTION PLAN

### Capital Facilities Planning, Funding, and Impact Fees

1. Adopt a twenty-year capital improvement plan and six-year transportation improvement plan consistent with the recommendations and priorities in the *Whatcom County Transportation Plan* and *Comprehensive Plan*. Make safety and mobility the primary considerations in ranking transportation improvements.
2. Develop an annual program of review for maintenance and upgrade of county facilities providing access to commercial and industrial areas.
3. Include bicycle facilities in the six-year capital improvement program (for trails that will be utilized by bikes) or the six-year transportation improvement program (for shoulder widening projects that will accommodate bikes).
4. Maintain a system for level of service measurements which allows the county to assess the impact of growth-related additional vehicle trips on existing roads. Use this measurement in identifying needed improvements in capital facilities planning, and in establishing impact and/or mitigation fees, or in determining the desirability of the area to be serviced for additional growth.
5. Emphasize maintenance of the existing transportation system, upgrading unsafe and/or structurally deficient facilities, east/west connections, provision of all-weather roads, and support of a multi-modal transportation system.
6. Review levels of service and concurrency management practices as needed.
7. Within 12 months of adoption of the plan by the County Council, develop an impact and/or mitigation fee ordinance based on actual impacts.

**Comprehensive Planning and Regulatory Review**

8. As the Whatcom County Comprehensive Plan is updated, ensure affected elements, transportation policies, and programs are also updated.
9. Review subarea plans and this chapter to ensure consistency of policies and programs when implementing this plan.
10. Identify and protect specific transportation corridors and alignments through purchase, developer contribution, and land use regulation.
11. Update the map of the regional system of all-weather roads on an annual basis.
12. Complete the Guide Meridian Study to ensure appropriate land use and transportation improvements on Guide Meridian.
13. Review and update Washington State Access Management Plans consistent with the Land Use chapter and the Transportation chapter.
14. Develop a Whatcom County "Access Management Plan."
15. Amend existing regulations to support designs which address internal and external pedestrian circulation and transit access, and encourage the use of shared access roads.

**Incentives**

16. Amend current regulations to offer incentives for projects which are transit compatible.
17. Develop incentives in Whatcom County to provide designs that encourage usage of high-occupancy vehicles.
18. Develop incentives in Whatcom County to encourage safe, non-motorized transportation, such as scenic and efficient, off-road transportation corridors.

**Transit**

19. Initiate a program in conjunction with Whatcom Transportation Authority to identify and satisfy rural transportation needs.
20. Work with the Whatcom Transportation Authority to identify rights-of-way and property needed for park-and-ride lots and intersection improvements.

**Education**

21. Work with Whatcom Transportation Authority to increase public knowledge of public transit options.

**Monitoring**

22. Gather additional information on passenger and commodity transportation to and from Canada.

23. Monitor fluctuations in Canadian commercial and passenger vehicle traffic and review recommendations in this plan based on changes in trends.

### Inter-Jurisdiction Coordination

24. Formulate a recommendation to the Regional Transportation Planning Organization to explore new transportation funding sources and innovative solutions to transportation problems.

## RECOMMENDED TRANSPORTATION IMPROVEMENTS

In addition to the above recommended actions, a preferred road improvement network is recommended. **Map 16** identifies necessary major road improvements over the next twenty years to accommodate future desired growth patterns. The plan is based on future projections of revenues balanced with needs to maintain desired levels of service and correct existing deficiencies.

Recommended transportation improvements are based on the premise that the City of Bellingham will complete its project improvements. Within six years, they are as follows:

- **Yew Street Rd/ Samish Connector** Add a street connecting Yew Street (San Juan Boulevard) and Samish Way.
- **Sunset Drive** From Woburn St. to City limits, widen to five lanes.

Major twenty-year County and State improvements described in the preferred alternative are the following:

- **Guide Meridian** From Bellingham City Limits to Pole Road, widen Guide Meridian to five lanes. From Pole Road to the Canadian Border, widen Guide Meridian to four lanes, two lanes in each direction.
- **Mt. Baker Highway** From Bellingham City Limits to the intersection with SR9 north, improve to two lanes in each direction.
- **E. Badger Road** From Garrison Road to Guide Meridian, widen existing lanes improve shoulders.
- **Hannegan Road** From Bellingham City Limits to Smith Road, widen to four lanes. From Bellingham to Lynden, add turn lanes at intersections as needed.
- **SR9** From Siper Road to Mt. Baker Highway, improvement for safety purposes, recognizing the residential character.
- **SR9** From Canadian border to Badger, realign.
- **Slater Road** From Northwest to Hannegan, extend two lanes.

For long-range planning and future right-of-way use monitor the need for the following improvements:

- **Lincoln**                      Widen and extend to Blaine Road.
- **Blaine Road**                From Birch Bay-Lynden Road to I-5, widen to four lanes.
- **SR9**                            From Badger to Nugent's Corner, improve alignment.
- **Slater**                        From Hannegan to Mt. Baker Highway, connect with two lanes.
- **Lake Louise Road**        Improve in conjunction with installation of Water District #10 sewer line.

Other recommended 20-year improvements, including road reconstruction projects, are set forth in the Whatcom Transportation Plan – A Combined Metropolitan and Regional Plan (Whatcom County Council of Governments, Oct. 2001).

Revisions to the Growth Management Act, adopted under House Bill 1487 in 1998, indicate that the County's Comprehensive Plan must incorporate planning for state highways, consistent with state and regional transportation planning efforts.

The Washington State Highway System Plan 2003-2022 was adopted by the state in February of 2002. This plan includes improvement strategies for the state highway system over a 20-year planning period. Specific state highway improvement strategies in this plan include:

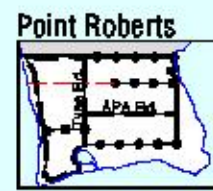
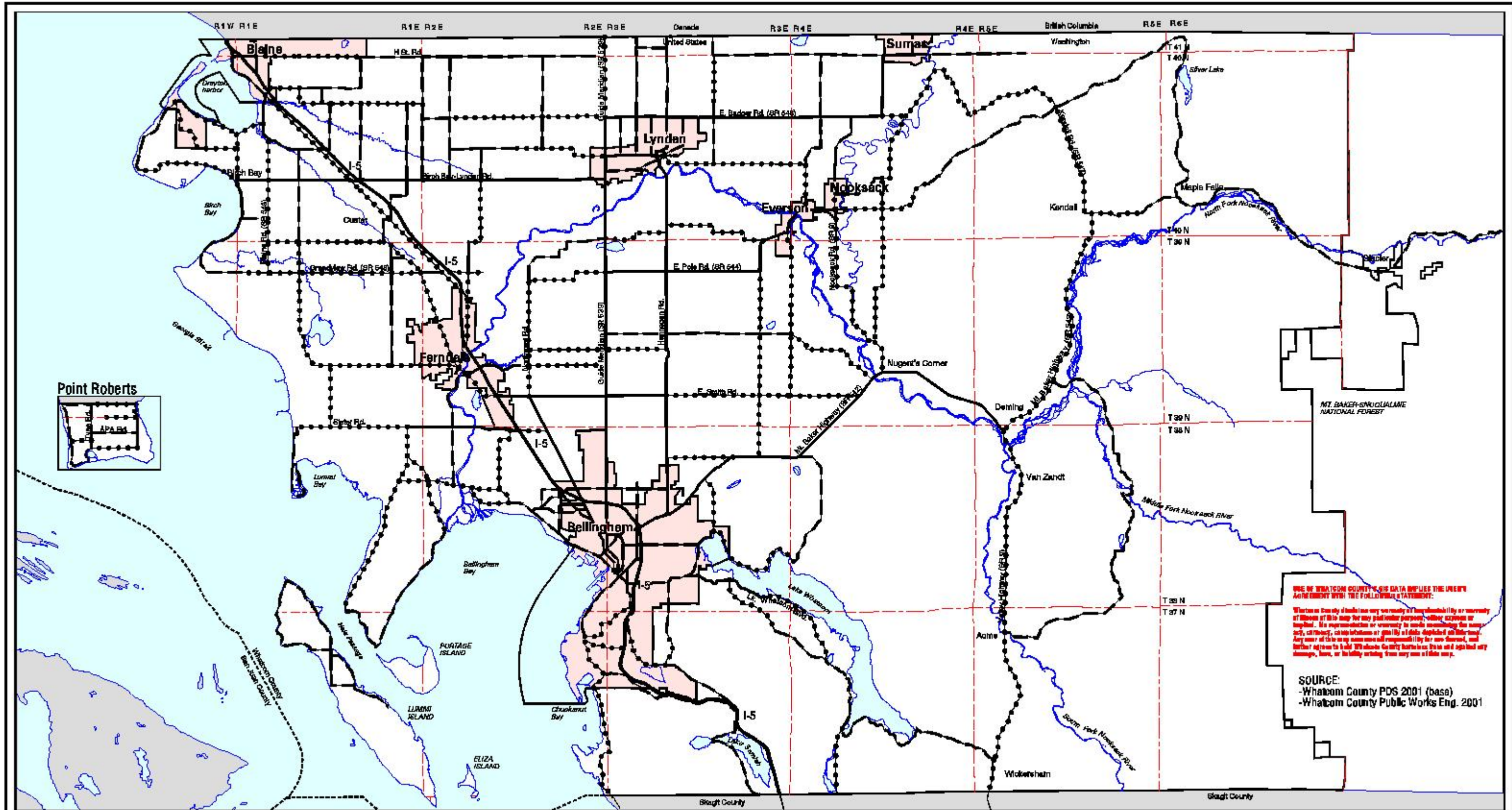
- Widening I-5 from the Skagit County line to Blaine, improving interchanges along I-5, and constructing park and ride lots along I-5.
- Widening State Route 9 from the Skagit County line to Sumas.
- Widening State Route 539 (Guide Meridian) from Horton road to the border.
- Widening State Route 542 (Mt. Baker Highway) from Britton Rd. to Kendall.
- Widening State Route 544 (Pole Rd./Everson-Goshen Rd.) from the Guide Meridian to Nooksack.
- Widening State Route 546 (Badger Rd.) from Guide Meridian to State Route 9.
- Widening State Route 548 (Grandview Rd./Blaine Rd.) from I-5 to Blaine.
- Improving stormwater runoff and eliminating fish barriers along state highways.

### **RECOMMENDED NON-MOTORIZED TRANSPORTATION FACILITIES**

Develop detailed project proposals for a safe system of bikeways and walkways in Whatcom County, including identification of available funding sources and implementation plans, emphasizing the projects below. Implement these projects as funding becomes available.

**Map 17** displays a proposed system of bicycle routes and facilities in Whatcom County.

1. Install dedicated bicycle lanes in accordance with WSDOT standards on the following roadways:
  - Hwy 542 from Bellingham City limits to Hwy 9 southbound.
  - Bakerview Rd.
  - Hannegan Rd.
  - Birch Bay/Lynden Rd.
  - Portal Way.
2. Pursue implementation of the following off-road transportation corridors:
  - Coast Millennium Trail - Complete off road segments between Marine Drive and Ferndale, including a possible bicycle/pedestrian bridge connecting Pioneer Park and Hovander Park. In addition, pursue scenic, non-motorized segments along the bluffs between Ferndale and Birch Bay, through purchase or long-term agreements with land owners.
  - Hertz North Lake Whatcom Trail Extension – Between eastern terminus of existing trail and Blue Canyon Road. Also install a safe non-motorized route, including a separated path where physically and financially feasible, along North Shore road between Bellingham City limits and the North Shore trailhead.
  - Bay to Baker Trail – Between Bellingham City limits and Maple Falls.
  - Nooksack River Trail – between Ferndale and Glacier.
  - Galbraith Connectors – Between Yew Street and Lake Louise Boulevard.
  - Stewart Mt. Connectors – Between east end of Smith road and Van Zandt and between Y road, Northshore trailhead and the South Fork Nooksack Valley.



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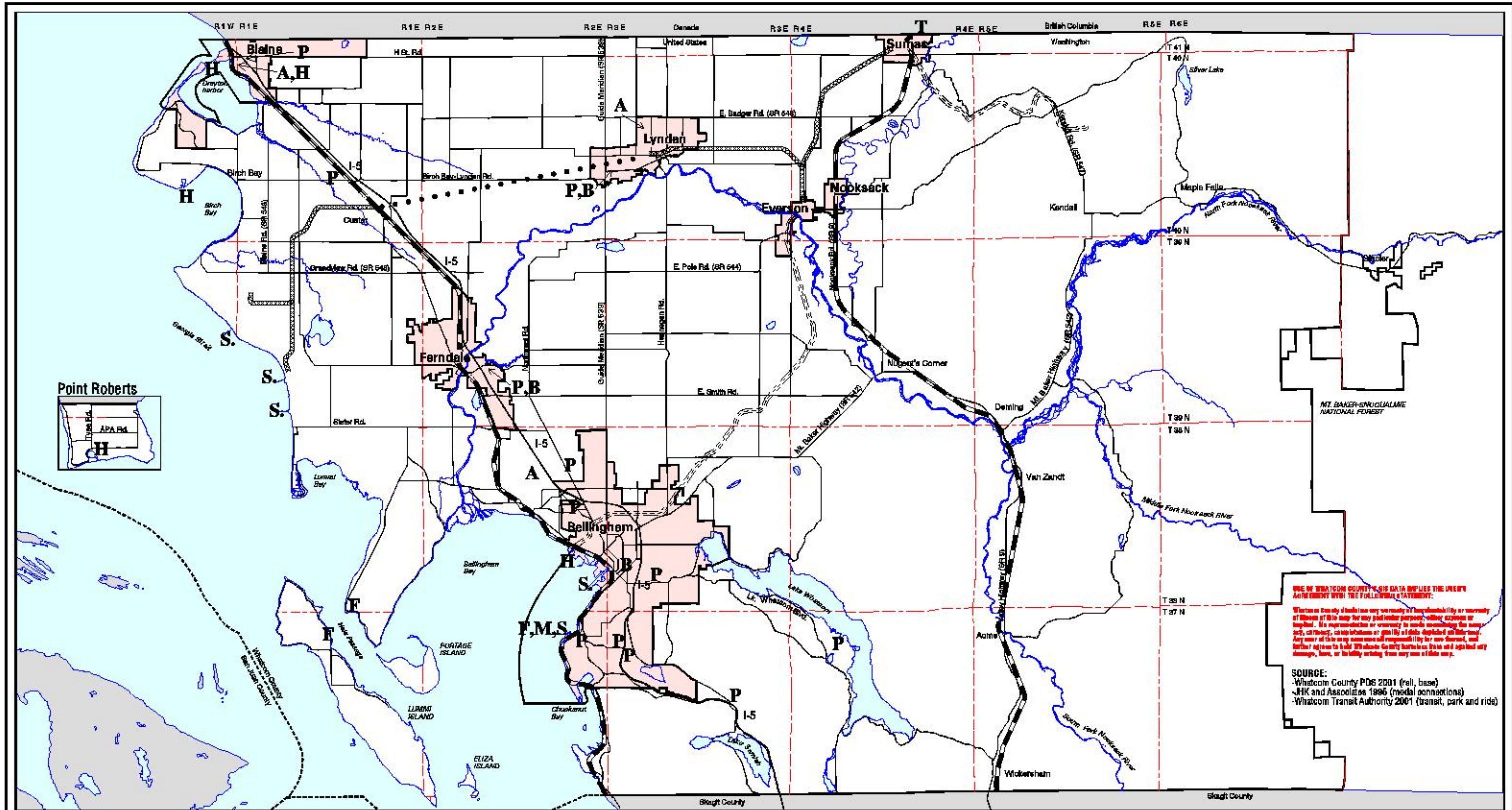
SOURCE:  
 -Whatcom County PDS 2001 (base)  
 -Whatcom County Public Works Eng. 2001

Whatcom County  
 Comprehensive Plan  
 2002

Scale 1:197845  
 1/22/02 str. Miles

- Legend**
- Over 5,000 Vehicles Per Day
  - 1,000-5,000 Vehicles Per Day
  - Under 1,000 Vehicles Per Day

**Map #14**  
**Daily Traffic Volume**  
**2001**



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

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SOURCE:  
 -Whatcom County PDG 2001 (rail, base)  
 -JHK and Associates 1996 (modal connections)  
 -Whatcom Transit Authority 2001 (transit, park and ride)



**Whatcom County Comprehensive Plan**  
 2002

Scale 1:197845  
 1/17/02 str.

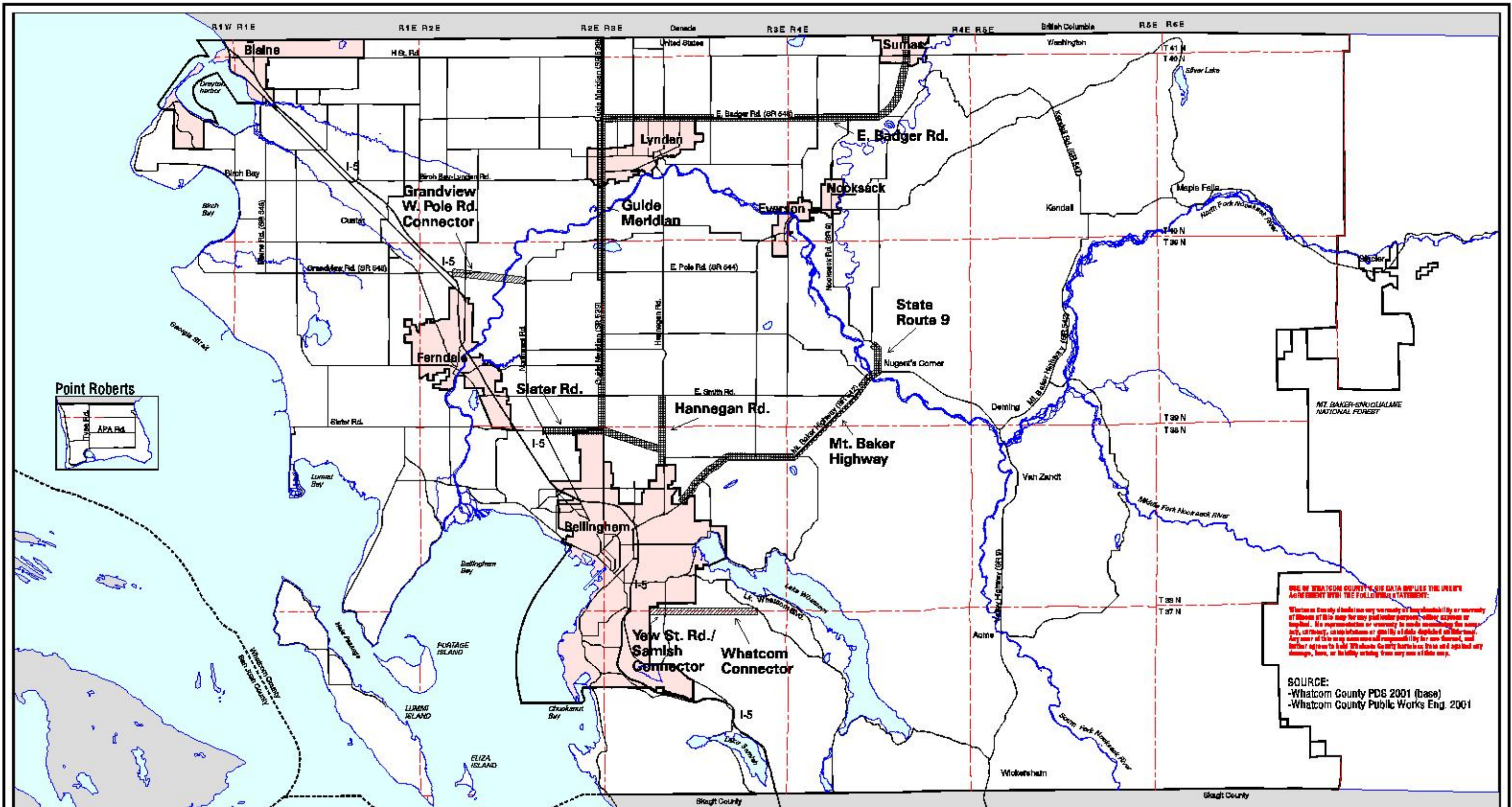
- Legend**
-  Main Rail Line
  -  Branch Rail Line
  -  Abandoned Rail Line
  -  East/West Rail Proposal

- Modal Connections**
- A - Airports
  - B - Bus Stations/Transit Centers
  - F - Ferry Terminals/Docks
  - H - Harbors/Marinas
  - M - Multi-modal Passenger Terminals
  - P - Park and Ride Lots

- S - Shipping Terminals
- T - Truck/Rail Freight Terminals

# Map #15

## Modal Connection Points and Railroads



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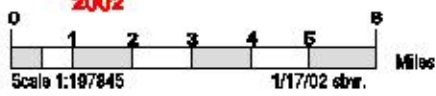
SOURCE:  
 -Whatcom County PDS 2001 (base)  
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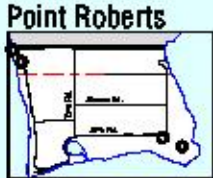
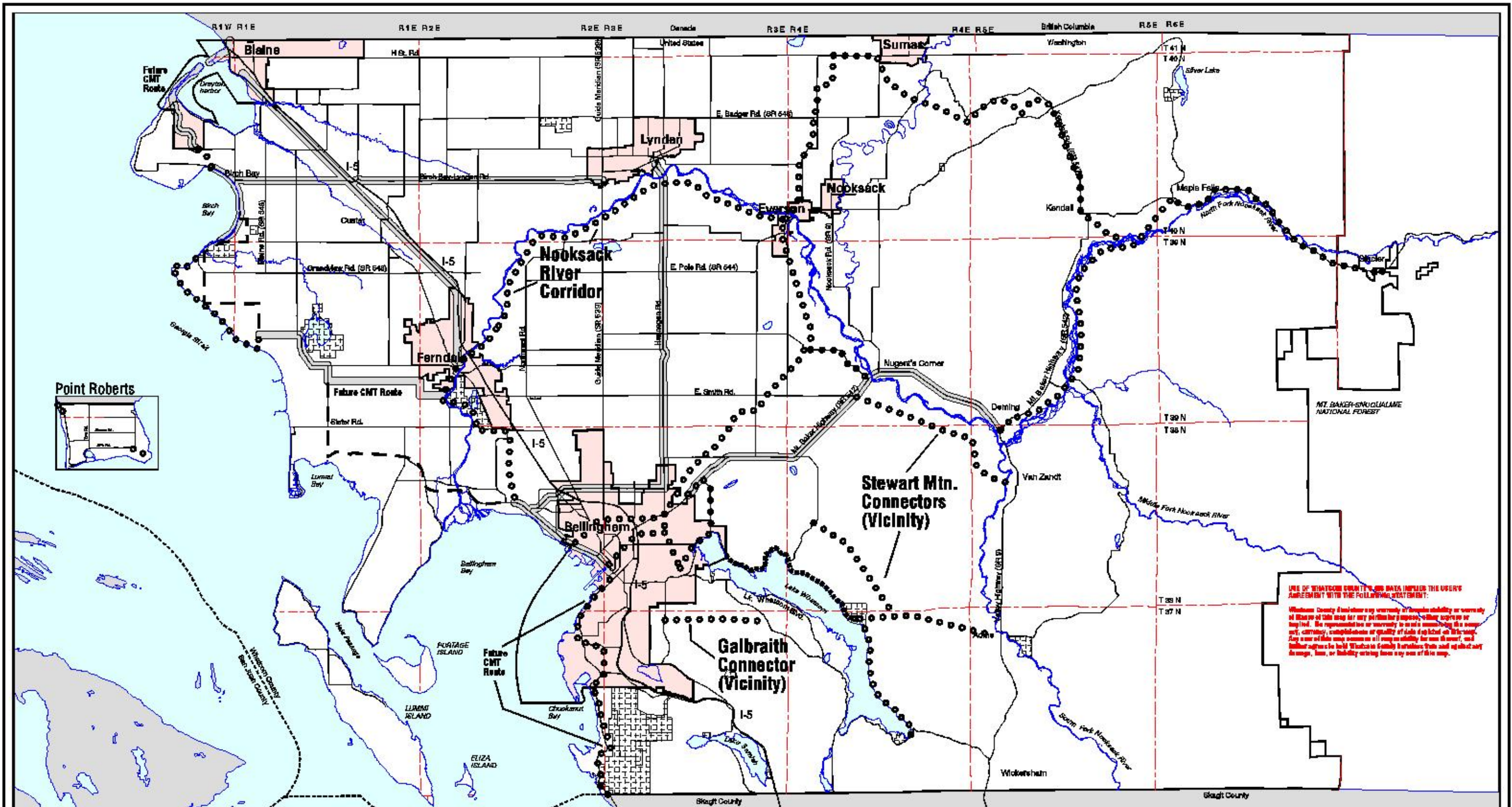
Whatcom County Comprehensive Plan

**Legend**

-  Six Year Transportation Improvement Program Alignment and Right-of-Way Study
-  Twenty Year Recommended Improvements



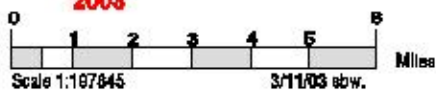
**Map #16**  
**Recommended Transportation Improvements**








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Whatcom County Comprehensive Plan



**Legend**

-  On-Road Bike Lanes
-  Off-Road Trails
-  Coast Millenium Trail (GMT) Route Phase 1
-  On and Off Road Bike/ Pedestrian Corridor
-  Existing Developed Parks

**Map #17**  
**Proposed Bicycle and Pedestrian Improvements**