

Application for the FY 2014 TIGER Discretionary Regional Planning Grant

Cascade Gateway Integrated Investment Strategy Supporting Economic Development

*This TIGER VI regional planning grant will fund preparation of a
partnership implementation strategy*

**Cities of Bellingham/ Ferndale vicinity, Washington State
First and Second Congressional Districts**

**Washington State Department of Transportation
Lead Applicant**

**Whatcom Council of Governments/Metropolitan Planning Organization
Lummi Nation
Co Applicants**

\$250,000

TIGER VI Funds Requested (Regional Planning Urban)

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Introduction:

The Washington State Department of Transportation is transforming as an agency. At all levels, we are pursuing strategies that emphasize return on investment while encouraging flexibility, innovation, and multimodal solutions. We place high importance on engaging local stakeholders at the earliest stages in our processes to ensure their input is included in moving Washington forward.

An important reform we're undertaking at WSDOT is Least Cost Planning. Least Cost Planning is an approach to planning that considers a variety of investments on an equal basis; analyzes the costs and benefits of various strategies, including direct and indirect costs; includes the public in the planning process; and identifies an optimum mix of practical investment and policy options to address system performance that support communities, the economy, and the environment.

Each of the three applications submitted by WSDOT for the TIGER planning grant competition will embrace a Least Cost Planning approach, and we look forward to working with USDOT to make Every Day Counts applicable to planning, as well as capital projects.

I. Description:

Executive Summary: This Urban TIGER VI regional planning grant will fund development of an integrated investment strategy informed by a multi-year comprehensive network analysis currently underway within the Whatcom Council of Governments Cascade Gateway Integrated Ivestment Strategy Area (IISA - see map on page 6).

This integrated investment strategy will not only prioritize short and long term needs, but will also build on recently successful intergovernmental financing models and emphasize the pursuit of funding partnerships for transportation network and service improvements shown to benefit both the state and locally owned parts of the system. These improvements support projected economic development in the region and create opportunities such as improved modal transportation connectivity within the urban area and across Interstate 5, which now imposes a barrier to pedestrians, bicyclists and transit service as well as vehicular traffic including freight mobility.



Mayor of Bellingham (right) accepting recognition for the I-5/Bakerview partnership project (2013)

Background: There are approximately 115,000 residents within the IISA, which is comprised of two cities, Bellingham and Ferndale, along with areas of unincorporated Whatcom County. Additionally, most of the county's 201,000 residents, and a significant number of Canadian visitors, travel in this urban area daily for jobs, shopping and services.

This area is also home to the third highest volume commercial airport in the state (Bellingham International Airport). The Lummi Nation is also connected to the IISA roads, transit routes, and maintained trails. State-owned roadway facilities within the area include Interstate 5, SR 548, SR 542 and SR 539.

The IISA encompasses all the major job centers in Whatcom County (industrial, manufacturing, retail, medical and professional services, agricultural and government). There are two colleges and one regional state university and the majority



Canadians traveling south into the US on Hwy 99 in the morning (Peace Arch crossing - 2012)



Canadians traveling back northbound on I-5 in the evening (Peace Arch Crossing - same day)



Construction of new trail under I-5 in Bellingham

of the residential areas are within 5 minutes of Interstate 5, including the Lummi Nation's reservation and trust lands. Currently there are only two park and rides and two small park and pool locations in the IISA and many barriers to pedestrian and transit access. Interstate 5 continues to be a barrier to multi-modal choices creating long trip lengths for all modes. This situation also has the effect of adding to congestion at interchanges when traversing traffic does not need to access the interstate.

Challenges: This sub-region of Washington is unique in many ways. Since 2010 Interstate 5 in the northern half of the IISA has one of the highest traffic volume growth rates of any Interstate highway in Washington State. Volumes have grown 12 to 25 percent over the pre-recession (2003-2007) time period. This compares to only 1.9 percent growth for all Washington interstate highways combined (calculated from data in WSDOT Annual Traffic Report, years 2003-2013).

Why?

There are over 2.5 million people living and working in the lower mainland British Columbia (BC) Canada, less than 40 miles to the north, who travel to and through Whatcom County in significant and growing numbers.

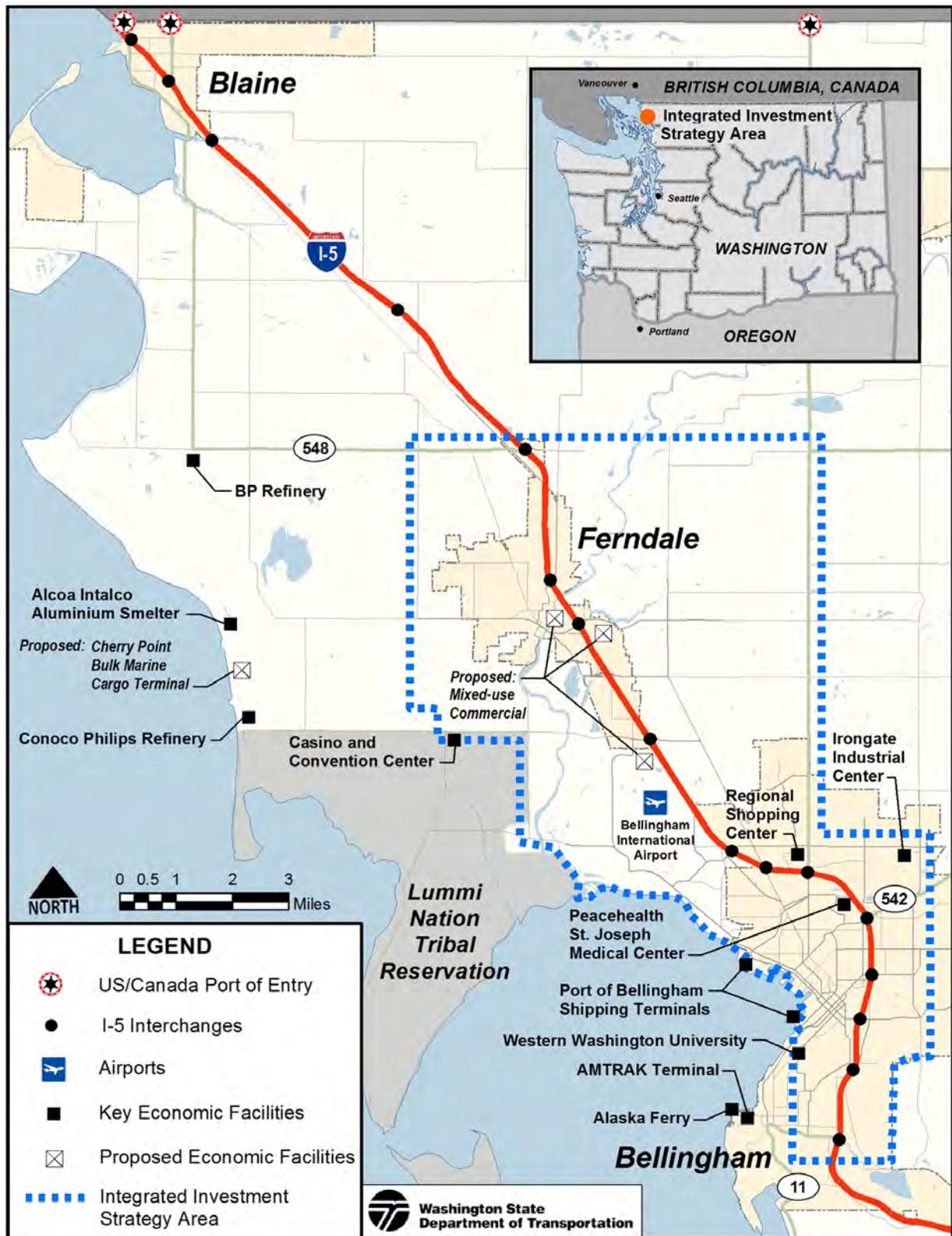


Truck line ups Northbound into Canada - 2013

Based on cross-border travel surveys completed last year, BC residents visiting Whatcom County account for 20% of the city of Bellingham's day-time population. Border connections, along with the regional transportation systems, provide valuable economic links for a growing retail sector, freight exports, and cross-border tourism and services.

The Interstate 5 and SR 543 (Pacific Highway) border crossings are together home to the second busiest passenger vehicle crossing and the fourth busiest commercial truck

crossing on the entire US/Canada border. On Interstate 5 within the IISA, commercial truck traffic is expected to nearly quadruple in volume by 2035; growing from nine percent of overall traffic in 2008, to 17 percent in 2035 (2008 WSDOT Fairhaven to Slater Interstate Master Plan).

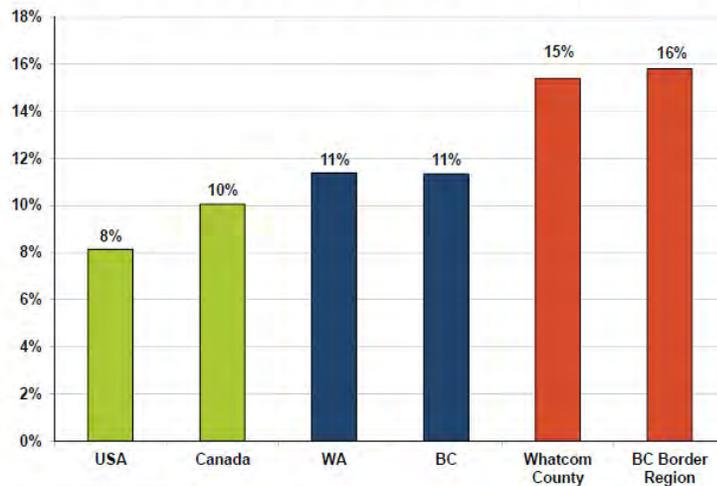


Cascade Gateway Integrated Investment Strategy Area & Associated Economic Drivers

Over the last 10 years, the populations of Lower Mainland British Columbia and Whatcom County have increased by 15% and 21%, respectively, while the general Canadian and U.S. growth rates are 10% and 8%, respectively.

Many of the previously proposed improvements identified in the planning for this area are costly and some would require many years and hundreds of millions of dollars to construct. Much of the infrastructure is undeveloped (stop controlled intersections) allowing for very little throughput capacity and creating increasingly higher risk conditions as drivers take smaller gaps to make turning movements.

POPULATION INCREASES, 2002-2012

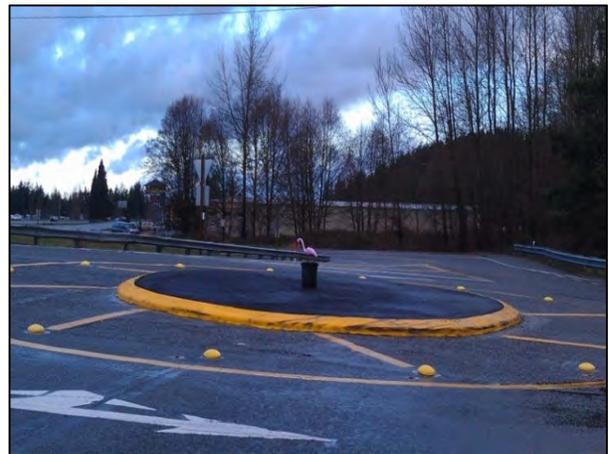


1. 2013 IMTC Passenger Intercept Survey (preliminary results)
2. U.S. Census Bureau, Statistics Canada, BC Stats, WA State OFM. Border region includes Abbotsford, Chilliwack, Delta, Township of Langley, District of Langley, Surrey, and White Rock.

Currently jurisdictional budgets are largely inflexible with respect to programming funds toward multi-jurisdictional projects, not only in terms of calculating or measuring the relative benefit, but also indicating reluctance in sharing resources. For example, WSDOT has a robust planning process for multi-jurisdictional projects that may offer benefit to WSDOT owned facilities but no programming process to integrate funding for these multi-jurisdictional projects.

TIGER VI opportunity: This TIGER VI regional planning grant proposal will build on nearly ten years of planning and project development, and over \$250 million in construction projects already completed.

The funding will allow the partners to continue implementing discrete projects, scaled to more realistic funding levels. When designed and sequenced properly, smaller scale projects can serve as short-, mid- and long-term building blocks that will eventually integrate into a much more significant set of improvements.



Interim - Practical Design Roundabout

The TIGER VI regional planning grant will support structured development of intergovernmental partnerships needed to implement short- and long-term transportation strategies. The following is an outline of the integrated investment strategy work elements:

Estimated Integrated Investment Strategy Schedule: 01/01/2015 through 07/31/2016

Activity/Deliverable	Start Date	Complete Date	Financial	Comments
TIGER VI funds obligated	Oct 1, 2015	Dec 31, 2015		Obligation date is dependent upon award and contract administration development.
<p>1. Document outcomes of the Whatcom Metropolitan Planning Organization's (MPO) urban area 2005-2015 planning processes (land use, transportation, & economic development policy and plans).</p> <p>Technical Report 1.0. – All relevant improvement investment potential toward strategy goals.</p>	Jan 1, 2015	June 30, 2015	\$50,000	<p>Examples of planning processes (see page 14 for complete list):</p> <ul style="list-style-type: none"> • Interstate 5/Bakerview Value Planning Study (2009-2011) • Interstate 5 , Bakerview to Grandview sub-regional plan (2012-2014) http://wcog.org/planning/bakerview-grandview/ • Port of Bellingham's Airport Master Plan (2013-2014)
<p>2. Assess all transportation investment opportunities that can contribute to mobility for disadvantage populations and enhance economic development opportunities.</p> <p>Technical Report 2.0. – Focused improvement investment potential toward strategy goals.</p>	May 1, 2015	Aug 31, 2015	\$40,000	Using the demographic data from the WCOG & census bureau combined with the transportation network (both roadway, non-motorized and transit systems), assess and evaluate the potential for system improvements to increase access to jobs and other economic opportunity.

<p>3. Develop criteria to prioritize investments into short and long term categories.</p> <p>Technical Report 3.0. – Criteria report.</p>	July 1, 2015	Oct 31, 2015	\$25,000	Based on state, regional and local economic development policy, Whatcom MPO Surface Transportation Program (STP) and Transportation Alternatives Program (TAP) evaluation criteria.
<p>4. Prioritize investments.</p> <p>Technical Report 4.0. – Prioritized improvement investments.</p>	Oct 31, 2015	Nov 30, 2015	\$25,000	This effort will develop a priority array of improvement investments.
<p>5. Develop methodology to determine benefit to each potentially participating public/private interest.</p> <p>Technical Report 5.0. – Improvement investments benefit attributed to each partner agency and connection to each agencies programming process.</p>	Nov 30, 2015	Apr 30, 2016	\$100,000	This effort will demonstrate how integrated practical approaches to funding partnerships, planning and design of projects can be implemented and brought into greater practice among partner agencies.
<p>6. Scope and begin design on highest priority investments that will further the economic development and access to disadvantaged populations.</p> <p>Technical Report 6.0. – Scoping / pre-design report.</p>	Dec 1, 2015	July 31, 2016	\$100,000	Preparation of the beginning stages of design/procurement of highest priority investments.
<p>7. Documentation of repeatable multijurisdictional-multimodal planning implementation process.</p> <p>Technical Report 7.0. – Methodology documentation.</p>	Apr 1, 2016	July 31, 2016	\$35,000	<u>This is an important aspect of this work; to ensure it is repeatable throughout the state of Washington and perhaps the entire US.</u>

Cascade Gateway Integrated Investment Strategy Deliverables																								
<i>Estimated Timeline</i>																								
	2015												2016											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Technical Report 1.0	█	█	█	█	█																			
Technical Report 2.0					█	█	█	█																
Technical Report 3.0								█	█	█	█													
Technical Report 4.0											█	█												
Technical Report 5.0													█	█	█	█	█	█						
Technical Report 6.0																								
Technical Report 7.0																								

II. Parties

Each of the representative agencies involved in the current sub-regional planning process have a position on the Steering Committee, represented by an elected official or an executive within the organization. This level of involvement shows the necessary commitment to enable success.

Each of the parties to this TIGER VI grant request is a committed participant in the planning and project development process.

Washington State Department of Transportation –Lead Applicant
 Steering Committee – Assistant Regional Administrator
 Lead Staff – Planning and Engineering Services Manager
 Staff – Planning Manager, Transportation Planner and Transportation Technical Engineer

Whatcom Council of Governments/Metropolitan Planning Organization – Co Applicant
 Steering Committee – WCOG Executive Director
 Lead Staff – Planning Manager
 Staff –Transportation Planner and Modeler

Lummi Nation - Co Applicant
 Steering Committee – Tribal Chairman or designee
 Lead Staff – Planning Director
 Staff – Assistant Planning Director

Other Participants

Whatcom County
 Steering Committee – County Executive
 Lead Staff – County Engineer
 Staff – Planner

City of Ferndale

Steering Committee – Mayor
Lead Staff – Planning Director and Public Works Director

City of Bellingham

Steering Committee – Mayor
Lead Staff – Assistant Public Works Director and Transportation Planner

Port of Bellingham

Steering Committee – Port Executive Director or designee
Lead Staff – Planning Director
Staff –Transportation Engineer

Whatcom Transportation Authority

Steering Committee – Executive Director
Lead Staff –Service Manager

WSDOT is the lead applicant and each of the partner agencies will be fully engaged with their respective implementation needs and will work toward a region-wide solution set that best meets the criteria of the investment strategy.

III. Grant Funds and Sources

Non-Federal Funding Source	Funding Commitment	% Funding for Project
Local government , Tribal and MPO “in-kind” contribution (consultant \$40,000; staff time \$30,000; meeting resources/venues \$5,000)	\$75,000	20.0%
WSDOT (non-federal) contribution	\$50,000	13.3%

Federal Funding Source	Funding Requested	% Funding for Project
TIGER VI	\$250,000	66.7%

Total Funding	% Funding for Project
\$375,000	100%

Federal Fund Source (previously provided)	Amount
Previous SPR and PL funds	\$100,000

IV. Relevance to Primary Selection Criteria:

i. State of Good Repair

The integrated investment strategy will build upon recently completed analysis of the local and state transportation system to prioritize short- and long-term projects that are scalable to available resources and improve system resiliency. One of the goals of systems analysis is to link the facility with the purpose.



Major cracking on asphalt

Travel data from Interstate 5 has demonstrated that significant travel occurs on the urban interstate that represent trip lengths that can be accommodated more efficiently on the local transportation system and potentially in modes other than low occupant vehicular travel. By linking or matching the facility to the most appropriate travel characteristic we will develop an integrated investment strategy that maximizes the efficiency and useful life of existing infrastructure (Interstate 5) and puts greater emphasis on other components and services of the local and state transportation system. The outcome will be a system that provides more travel choices, improved connectivity within and between modes, and a higher degree of resiliency to disruptions caused by collisions, construction work, or extreme weather events such as flooding.

ii. Economic Competitiveness

Leveraging funding for projects is needed to support expanding economic activity in the sub-region. The transportation system is vital to trade between the US and Canada.

Significant numbers of travelers are choosing to fly out of the Port of Bellingham International Airport (BLI). Over the past several years, the BLI has experienced dramatic growth in commercial passenger traffic. From 2011 to 2012, the number of customers traveling through the airport's main passenger terminal jumped from 1,022,000 to 1,140,000, an increase of 11.5%. More considerable has been the average annual growth rate of 25% over the past five years. BLI has also experienced an increase in the number of businesses operating at the airport, including an increase in the number of businesses providing ground transportation services to airport customers.

There are two oil refineries (BP and Conoco Phillips) that are strategically important to Western US markets and are served by state and local roadway connections for

movements of process chemicals into their facilities as well a portion of their outbound production. A large aluminum smelter (Alcoa-Intalco) relies on the local and state transportation network for many of their inbound and outbound shipments. Cherry Point is a specific location served by the transportation network and is seen regionally and nationally as a strategic location for the development of a large marine bulk cargo terminal (proposed Gateway Pacific Terminal - <http://gatewaypacificterminal.com/>).



BP Oil Refinery at Cherry Point

iii. Quality of Life

Developing improvements on the state and local transportation system will address the growing need for convenient and affordable multimodal travel choices for all users.



Lummi Nation: Haxton Way Pedestrian Pathway Project

persons with disabilities can't afford or are unable to drive a car or ride a bike to jobs, training, education or services. They rely on public transportation, walking (if a mile or less, and they are physically able) or family and friends for transportation, or they forgo travel altogether.

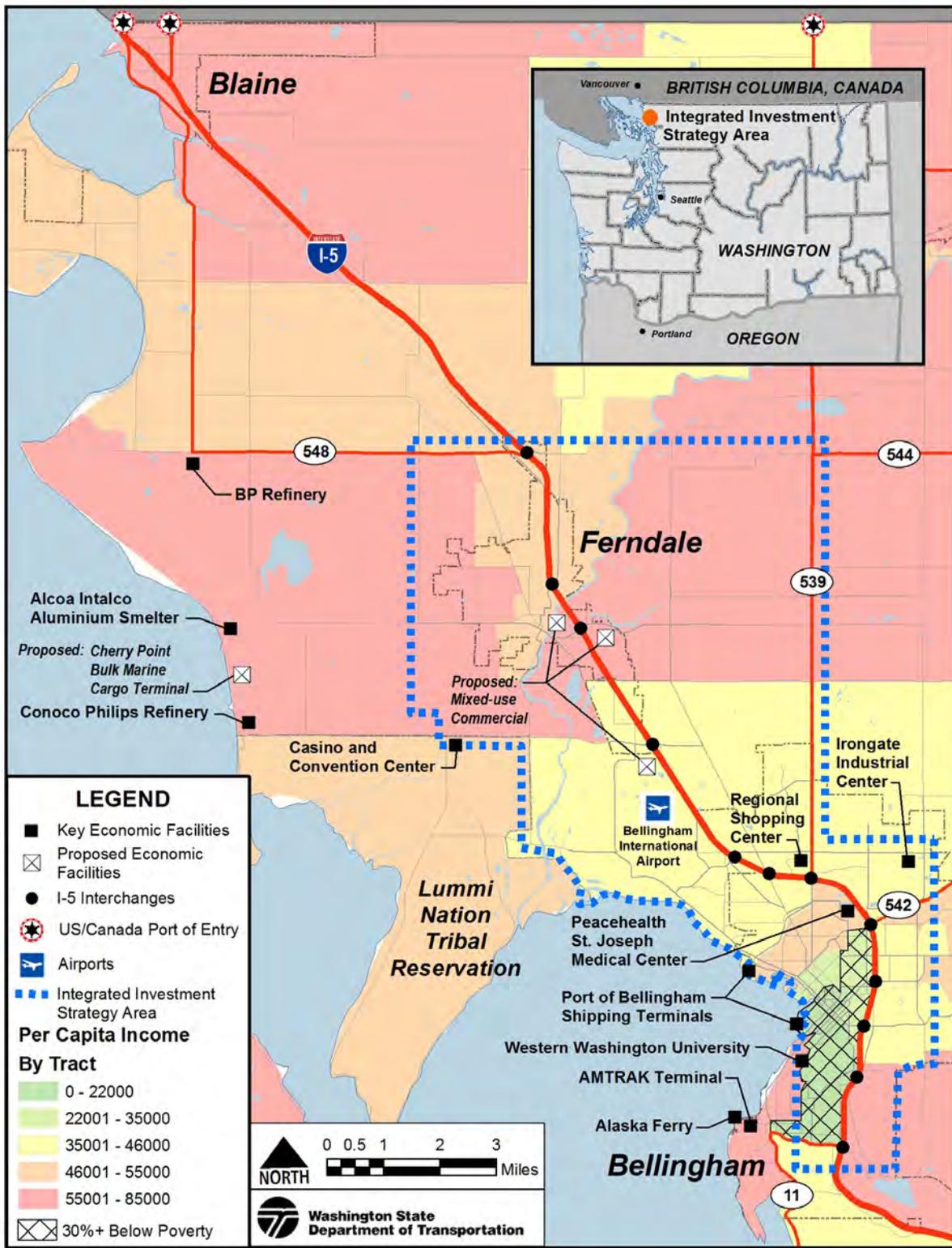
Economically disadvantaged populations reside throughout the county and the Integrated Investment Strategy Area. There is a significantly high concentration of low income residents living within the city of Bellingham west of Interstate 5, yet most key employment and service centers are not located nearby (see map on page 15). Many low income residents, senior citizens, and



WTA arriving at Transit Station

The integrated investment strategy will develop an integrated local and state investment strategy that supports recommendations from the plans listed below. It will focus on discrete projects and services, scaled to more realistic funding levels, addressing the needs of all transportation system users, including those who face challenges with affordable and convenient transportation choices.

- Whatcom Council of Governments Metropolitan and Regional Transportation Plan (2012)
- Whatcom Council of Governments *Employment Access and Coordinated Human-services (EACH) Plan* (currently being updated)
- Whatcom Transportation Authority's Six Year Strategic Business and Service Plans. (currently being updated)
- City of Bellingham's Pedestrian Master Plan (2012) and Bicycle Master Plan (2014)
- Lummi Nation's Transportation Plan (2007)
- Port of Bellingham Airport Master Plan (2014)
- Comprehensive Plan Updates, cities and county (currently being updated)
- WSDOT's I-5 Fairhaven to Slater Interstate Master Plan (2008)
- Bakerview to Grandview Sub-regional Transportation Plan (currently in development with all the partners)



Cascade Gateway Integrated Investment Strategy Area - Per Capita Income and Percentage Below Poverty

iv. Environmental Sustainability

At present, only one electric vehicle charging station is located in the IISA. More stations will be needed. This integrated investment strategy will work to integrate electric charging stations into the network particularly at commercial activity centers with fast chargers. We will integrate the work already underway in WSDOT regarding expansion of charging stations and other potential vehicle propulsion systems.



Electric vehicle charging station in Bellingham

v. Safety

Safety recommendations from past analysis work will need to be integrated into the integrated investment strategy. Collision frequency and severity are the highest where congestion occurs at the intersection of the local road system, state highways and Interstate 5 and also along high



Interim Practical Design Roundabout

speed undivided rural two lane roadways. This integrated investment strategy will further prioritize these needs with a special attention to low cost/high benefit practical improvements (e.g., left turn channelization within existing pavement where shoulder width allows and where existing pavement is available, constructing very low cost interim roundabouts with as little as raised pavement markers, thermoplastic splitter island and crosswalk striping, methyl methacrylate lane markings, and signage).

V. Relevance to Secondary Selection Criteria:

i. Innovation

Local and state planning efforts that precede this project’s integrated investment strategy will have evaluated *long-term travel demand, safety, multimodal connectivity, and infrastructure needs* in the IISA. Key findings to date indicate that parts of the transportation system, I-5 along with a number of local and state primary and secondary arterials, are already at capacity, or will be at capacity in the future for many hours of the day. In the urbanized area, the primary mode of travel is single occupant vehicles making local trips of five miles or less. Current development proposals point to dramatic growth in travel demand in the northern part of the study area, further exacerbating capacity, safety and mobility problems for people and goods.

Planning efforts that precede this integrated investment strategy will have identified innovative technology strategies such as ramp metering, expansion of advanced traveler information systems, variable speed limits, and managed lanes for high-occupant vehicles and/or dynamic toll pricing. These strategies require additional analysis and coordination between local and state agencies to craft an integrated investment strategy that ensures efficient and reliable *travel alternatives* are in place when innovative technology is needed to manage demand.

ii. Partnership

This TIGER VI regional planning grant is focusing on continuing the implementation of projects and programs based on the multi-year multi-agency planning effort.

An example of the type of partnership project this grant will support is the I-5/Bakerview Value Planning Study and subsequent \$3.2 million project, managed by the City of Bellingham and funded by six partners.

I-5/Bakerview Interchange Project Financial Contributions	
\$250,000	- City of Bellingham
\$500,000	- Port of Bellingham
\$750,000	- Whatcom County
\$100,000	- Fred Meyer Corporation
\$1,500,000	- Transportation Improvement Board
\$100,000	- WSDOT

The planning study used the Least Cost Planning approach to determine the most cost effective alternative that could be designed and constructed within three years to address congestion and non-motorized access.



I-5 Bakerview Bridge – Before (2010)
5' shoulder, no sidewalk, one westbound lane



I-5 Bakerview Bridge - After (2013)
Raised sidewalk, bridge safety rail, additional westbound lane, 1.5' shy, new signal controllers and illumination without widening the bridge.

Future projects and programs may include other local street and transit projects that better link the community and provide alternatives to not only vehicular traffic but removing trips from I-5 that are both better served on the local street system and provide for more economic development.

One significant finding from the 2008 I-5 Master Plan is that ramp metering could provide nearly enough capacity to handle traffic growth through the 2035 plan year; as opposed to spending over \$1.5 billion on interstate improvements to meet that same demand. The study recommended that the state and local agencies partner together to implement strategies and projects that mitigate the impacts of ramp metering on the local street network.

With this proposed TIGER VI regional planning grant the partners will be able to leverage the momentum of many years of planning together and integrating needed investments sooner.