



Transportation Report on Annual Mobility

Published annually in support of:

- Comprehensive Plan Transportation Element
- Multimodal Transportation Concurrency Program
- Transportation Benefit District No. 1
- Pedestrian Master Plan
- Bicycle Master Plan
- WTA Strategic Plan

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Prepared by:

**Chris Comeau, AICP-CTP
Transportation Planner
Public Works Engineering**

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Executive Summary

Since 2006, the Transportation Report on Annual Concurrency (TRAC) has provided an annual assessment of Bellingham's multimodal transportation system in terms of its ability to accommodate the amount of growth and development planned for in the Land Use Element of the Bellingham Comprehensive Plan. This is done by measuring the multimodal transportation needs of new growth and development against the adopted "Level of Service (LOS) Standard" in the Transportation Element of the Bellingham Comprehensive Plan, as required by the Washington State Growth Management Act (GMA).

The TRAC has provided an opportunity to identify concurrency issues proactively and offer recommendations for changes to the program, when and where necessary. In addition to tracking transportation impacts from new development, the TRAC provided an assessment of the existing multimodal transportation system to help Public Works and City Council plan future transportation infrastructure investments for the City's annual 6-Year Transportation Improvement Program (TIP). RCW 35.77.010 requires that the City adopt the 6-Year TIP by July 1 each year and the TIP must be consistent with the Transportation Element of the Bellingham Comprehensive Plan.

In 2009, Bellingham adopted an innovative [Multimodal Transportation Concurrency Program](#) and since then, the TRAC has documented the annual improvements to, and completeness of, Bellingham's pedestrian, bicycle, transit, and vehicle networks as well as recognizing that the multiuse Greenways trails provide a secondary transportation function in some parts of Bellingham. The TRAC has been evolving and serving as an annual report card for the multimodal transportation system and with the completion of the 2014 Bicycle Master Plan, in 2015 the title was changed to the **Transportation Report on Annual Mobility (TRAM)** to reflect the comprehensive examination it provides for each major transportation mode (Pedestrian, Bicycle, Transit, Freight, and Automobile). In essence, the TRAM provides a progress report on how Bellingham provides mobility for people, goods, and services.

The 2016 TRAM is also consistent with the 2016 update to Bellingham Comprehensive Plan and reflects Bellingham's "Complete Networks" approach to transportation planning, hierarchy of transportation modal priorities, transportation mode share trends, and transportation mode shift goals. The TRAM includes chapters on Bellingham's pedestrian, bicycle, transit, automobile, and freight truck networks, as well as a chapter on Bellingham Transportation Benefit District No. 1 (TBD), which serves as the annual TBD Report to the City Council. The last chapter in the 2016 TRAM is the Waterfront District Biennial Monitoring Report, completed in accordance with the Planned Action Ordinance (PAO) for the Waterfront District Master Plan. The Port of Bellingham is required to produce a full Biennial Monitoring Report every two years to monitor transportation impacts and mode shares entering and exiting the Waterfront District as redevelopment occurs, which will lead to various transportation infrastructure mitigation measures agreed to by the Port and the City.

Further explanation of Bellingham's multimodal transportation planning is available on the City of Bellingham Transportation Planning web page at <http://www.cob.org/services/transportation>

Questions about the TRAM and Bellingham's multimodal transportation planning should be directed to:

Chris Comeau, AICP-CTP, Transportation Planner
Bellingham Public Works Engineering
(360) 778-7946 telephone; Email: ccomeau@cob.org

Chapter 1: Observations and Implications of the 2016 TRAM

Major Change in Bicycle Network Completeness: The most noticeable difference in the number of Person Trips Available by Concurrency Service Area (CSA) between the 2014 TRAC and the 2015 TRAM is that the bicycle completeness percentages have dropped precipitously. This is simply the result of incorporating a much more extensive Primary Bicycle Network (160 miles) with the approval of the 2014 Bicycle Master Plan than the bicycle facilities (107 miles) adopted in the Transportation Element of the Bellingham Comprehensive Plan, which is what all previous TRACs had been based on. The net effect is that the bicycle network in most CSA's is less than 50% complete and therefore no longer have credits for the availability of bicycle facilities. This will change over the next several years as transportation planners continue to maximize investments in bicycle and pedestrian infrastructure.

Urban Villages (Green): As Table 2.1 shows, there are more Person Trips Available (PTA) [8,562] in the central urban core **CSA #7**, which includes the Downtown, Old Town, Samish, and Fountain Urban Villages, than in any other part of the City. This is due to the high degree of completeness of the primary pedestrian network (90%), availability of some of the bicycle facilities planned in the Bicycle Master Plan (23%), the presence of multiuse recreational trail connections relative to the planned bicycle facilities (12%), and the prevalence of high-frequency transit routes (1,407 PTA) running through the core to the downtown WTA transit hub.

Transition Areas (Yellow): The Bellingham Waterfront District **CSA #6** currently has the lowest number of PTA for any of the Type 2 transition areas in Bellingham. This is expected to change in the next few years as the City constructs new multimodal transportation infrastructure in the Waterfront District with the extension of the Granary-Laurel arterial from Roeder Avenue to Cornwall Avenue in 2017-2018. This Type 2 CSA cannot evolve to a Type 1 CSA until WTA high-frequency transit service is available within the CSA. This service is not likely to be provided until a justifiable transit ridership base develops, which is not expected for many years.

Suburban Areas (Red): A tremendous amount of major new commercial development has entered the development review pipeline in the northwest portion of Bellingham on the West Bakerview corridor, **CSA #18**. This CSA now has 1,701 PTA, the second fewest for any Type 3 suburban CSA. Additional development proposals have already been made in the first quarter of 2016, which will draw the PTA in CSA #18 down further. Other Type 3 suburban CSA's with low PTA are CSA #19 (UGA: Airport Industrial - 748 PTA) and CSA #15 (King Mountain - 1,024 PTA). There is an active annexation proposal to bring 174-acres in CSA #19 into the City, but there are many unanswered questions regarding the transportation infrastructure needs in this area and how they should be funded and constructed. The City is currently working with WSDOT on several transportation studies for Interstate 5 and the interchange at West Bakerview/I-5. As build-out of these CSA's continues over time, private development will be required to construct sidewalks on all public streets and bicycle lanes along all arterial streets. The City will also construct capital street improvements, adding sidewalks, bicycle lanes, streets, and transit connections. While all of these future improvements will add PTA to CSA's when completed, if there are not enough PTA to serve new development at the time of concurrency evaluation, then PTA may have to be earned through **concurrency mitigation** in order for the City to issue a Certificate of Concurrency. Concurrency mitigation can include off-site construction of sidewalk or bicycle facilities identified in the Primary Pedestrian and Bicycle Networks in the Pedestrian and Bicycle Master Plans.

General Conclusion: With the highest number of PTA in the urban core (CSA #7) and lower numbers of PTA in the outer suburban areas CSAs, the 2016 TRAM demonstrates that Bellingham's Multimodal Transportation Concurrency methodology is effectively integrating multimodal transportation system capacity and availability with various land use contexts within City limits. This helps to promote the Bellingham Comprehensive Plan and GMA goal to direct new development toward compact, mixed use urban areas where adequate transportation services and facilities are most available.

TRAM Recommendations Moving Forward

Each year, transportation planners report on what was accomplished over the past year and what type of transportation planning is recommended for staff to focus on in the year ahead.

A. 2015 TRAM Recommendations

1) Explore Further Refinements/Additions of Concurrency Service Areas

- As portions of the Bellingham UGA are annexed to the City and as Institutional Master Plans and Urban Village Plans are created within Bellingham, the creation of new CSAs or adjustments to existing CSA categories will be necessary.
 - ✓ *Concurrency Service Area 23 was annexed into the city limits of Bellingham in 2015.*
- A new Institutional CSA (coded blue on CSA map; Ex. WWU & WCC) should be created if PeaceHealth amends the 2006 St. Joseph Hospital IMP with new transportation system.
 - ✓ *PeaceHealth has not updated or amended the St. Joseph's Hospital IMP.*
- Identify additional potential candidates for Urban Villages as future Type 1 "Urban Village" CSAs.
 - ✓ *Four potential future Urban Villages identified in the DRAFT 2016 Land Use Element - (Lakeway Center, Sunnyland Square, Birchwood Center, and Cordata Center).*

2) Fully Integrate the Biennial Monitoring Program Required for the Bellingham Waterfront District into the 2016 TRAM.

- In December 2013, the Bellingham City Council and the Port of Bellingham approved the long-term master plan for the Bellingham Waterfront District.
 - ✓ *2015, TranspoGroup, Inc. completed Biennial Monitoring Report, included as Chapter 10.*

3) Explore the Possibility of Integrating Connectivity Metrics into Multimodal Transportation Concurrency Evaluation and Transportation Impact Analysis (TIA) for Development Review

- *Bellingham's TIA guidelines are in need of revision. No specific time or funding budgeted. Significant staff time required, but still a priority for transportation planners. Policy direction included in DRAFT Transportation Chapter of the 2016 Bellingham Comprehensive Plan:*

Policy T-25

Develop innovative new methodology to measure, forecast, and mitigate negative impacts that new vehicle traffic may have on pedestrians, bicyclists, and public transit bus service when Transportation Impact Analyses are completed for new development.

4) Maintain and Update the Concurrency Evaluation Tracking Tool with new data

- ✓ *CETT has been updated. 2014 - 2015 arterial counts included, 2015 WTA ridership data included, 2015 completeness of pedestrian and bicycle networks included.*
- ✓ *Public Works staff has been involved with 2016 WTA Strategic Plan update since beginning and WTA staff has been involved in development of DRAFT Transportation Chapter of the 2016 Bellingham Comprehensive Plan.*

5) Monitor Multimodal Transportation Concurrency Methodology for Effectiveness

- Continue to publish TRAM and annually report observations of system effectiveness to the Planning Commission, Transportation Commission, and City Council.

This is an on-going and annual procedure. All TRAC/TRAM documents 2006 - 2016 are available at <http://www.cob.org/services/planning/transportation/Pages/multi-modal-trac.aspx>

B. 2016 TRAM Recommendations

1.) Integrate transit service changes resulting from the WTA 2016 Strategic Plan into the TRAM.

- a. Work with WTA to develop new transit measurement points for data collection.

2.) Provide annual update on transportation mode shares to help achieve mode shift goals.

- a. U.S. Census American Community Survey Data for Bellingham is published in early December each year.

3.) Prepare CSA 19 Bennett-Bakerview for annexation in 2016-2017.

- a. Will need a comprehensive inventory of sidewalks, bikeways, and transit service.
- b. CSA 19 will be required to be consistent with recommendations for transportation improvements in the Bakerview/I-5 Interchange Justification Report completed by Bellingham, WSDOT, FHWA, County, Port, WTA, and other agencies.

4.) Adopt a Complete Networks Ordinance in 2016 to qualify for TIB grant funding.

- a. In 2015, the State legislature included \$106 million over the next 16 years in the Washington Transportation Improvement Board (TIB) grant budget for "Complete Streets"-type transportation improvements. Bellingham's Complete Networks approach, adopted in the Transportation Chapter of the Bellingham Comprehensive Plan, more than qualifies, but In order to be eligible for these TIB grant funds, cities must adopt ordinances establishing how their practices comply with the principles of the Complete Streets movement because this is the way that the legislation was worded.

5.) Work to revise Bellingham's Transportation Impact Analysis (TIA) guidelines consistent with the 2016 Comprehensive Plan goals and policies.

Policy T-25

Develop innovative new methodology to measure, forecast, and mitigate negative impacts that new vehicle traffic may have on pedestrians, bicyclists, and public transit bus service when Transportation Impact Analyses are completed for new development.

Chapter 2: Bellingham's Multimodal Transportation Planning Approach

Complete Networks

Prior to the popular rise of the national "Complete Streets" movement, Bellingham created a local prototype of a complete-streets approach to transportation planning by expanding the focus of citywide transportation planning to include multiple modes of transportation (multimodal) with goals, policies, and project recommendations to accommodate pedestrians, bicyclists, and transit riders, as well as vehicle drivers on public streets. Bellingham worked directly with Whatcom Transportation Authority (WTA) in the development of the 2004 WTA Strategic Plan and adopted the WTA Primary Transit Network into the 2006 Bellingham Transportation Element. In addition to the citywide arterial street network, Bellingham created a citywide Freight Truck Route Network in 2007, a Primary Pedestrian Network in 2012, and a Primary Bicycle Network in 2014. Over the past 10 years, Bellingham's prototypical complete-streets approach has evolved into a "Complete Networks" approach to citywide multimodal transportation planning. Bellingham's ultimate goal is to complete, maintain, and enhance each modal network.



Figure 2.1. - Bellingham's "Complete Networks" Approach to Transportation Planning

Transportation Modal Hierarchy

A fundamental component of Bellingham's Complete Networks approach to transportation planning is a transportation modal hierarchy, which prioritizes the needs of the most vulnerable users (pedestrians and bicyclists) above the needs of less vulnerable (motorized) users. To this end, Bellingham is in the process of adopting a formal transportation policy for modal priority in the Transportation Chapter of the 2016 Bellingham Comprehensive Plan to:

"Design multimodal transportation improvements on existing and new streets with the safety and mobility needs of all user groups considered and with priority emphasis placed on the most vulnerable user groups", as illustrated in Figure 2., below.

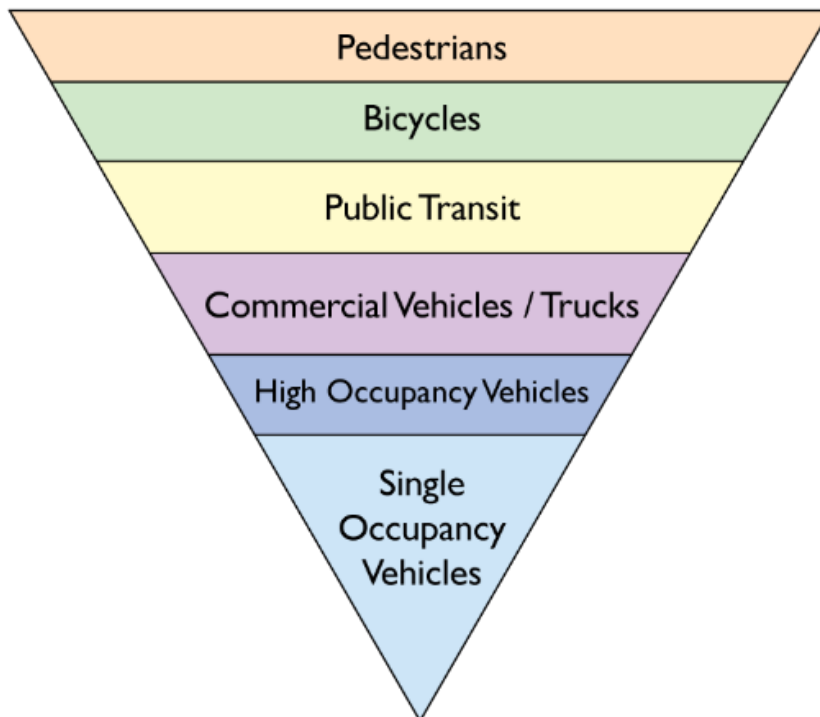


Figure 2.2. - Bellingham's Transportation Modal Priorities

Bellingham's Pedestrian and Bicycle Master Plans include extensive crosswalk, sidewalk, and bikeway project lists, which are prioritized to maximize connectivity benefit for these most vulnerable user groups. In addition, Bellingham requires private developers to fund and construct sidewalks and bike lanes on all new or reconstructed arterial streets. When Bellingham Public Works engages in maintenance or repair of arterial streets, opportunities to include improvements identified in the Pedestrian and Bicycle Master Plans are always considered. Bellingham transportation planners also prioritize improvements identified in the Pedestrian and Bicycle Master Plans when seeking state or federal grants for transportation improvements.

Transportation Mode Share Trends and Long-Term Mode Shift Goals

In 2006, Bellingham adopted long-term transportation mode shift goals for 2022 and is now in the process of updating and adopting new long-term mode shift goals for 2036 in the Transportation Chapter of the 2016 Bellingham Comprehensive Plan. Figure 3, below, illustrates transportation mode share trends for work trips from 2000 through 2014 based on American Community Survey data published by the U.S. Census Bureau. This 15-year trend establishes Bellingham's baseline and has allowed transportation planners to develop reasonable targets to aim for in the future based on similar data for peer cities around the U.S. as well as Bellingham's context as the regional center for employment, shopping, education, medical, and entertainment.

The long-term transportation mode shift goals are consistent with City Council Legacies and Strategic Commitments and are designed to increase the mode shares for people walking, biking, riding transit, and sharing rides to work, while decreasing the number of people driving single occupant vehicles to work. Advancements in technology are expected to allow an increase in the number of people working from home, which can also reduce single occupant vehicle trips to work. Bellingham expects walking and bicycling for short, local, and non-work trips to increase in tandem with sidewalk and bicycle network completeness as well as increases in density of land use throughout the city.

Beginning in 2016, Public Works will annually track and monitor progress toward achieving these goals and provide a status report here in the TRAM. This will allow Bellingham to make strategic transportation planning adjustments if trends indicate that the City is not making progress toward its long-term transportation mode shift goals.

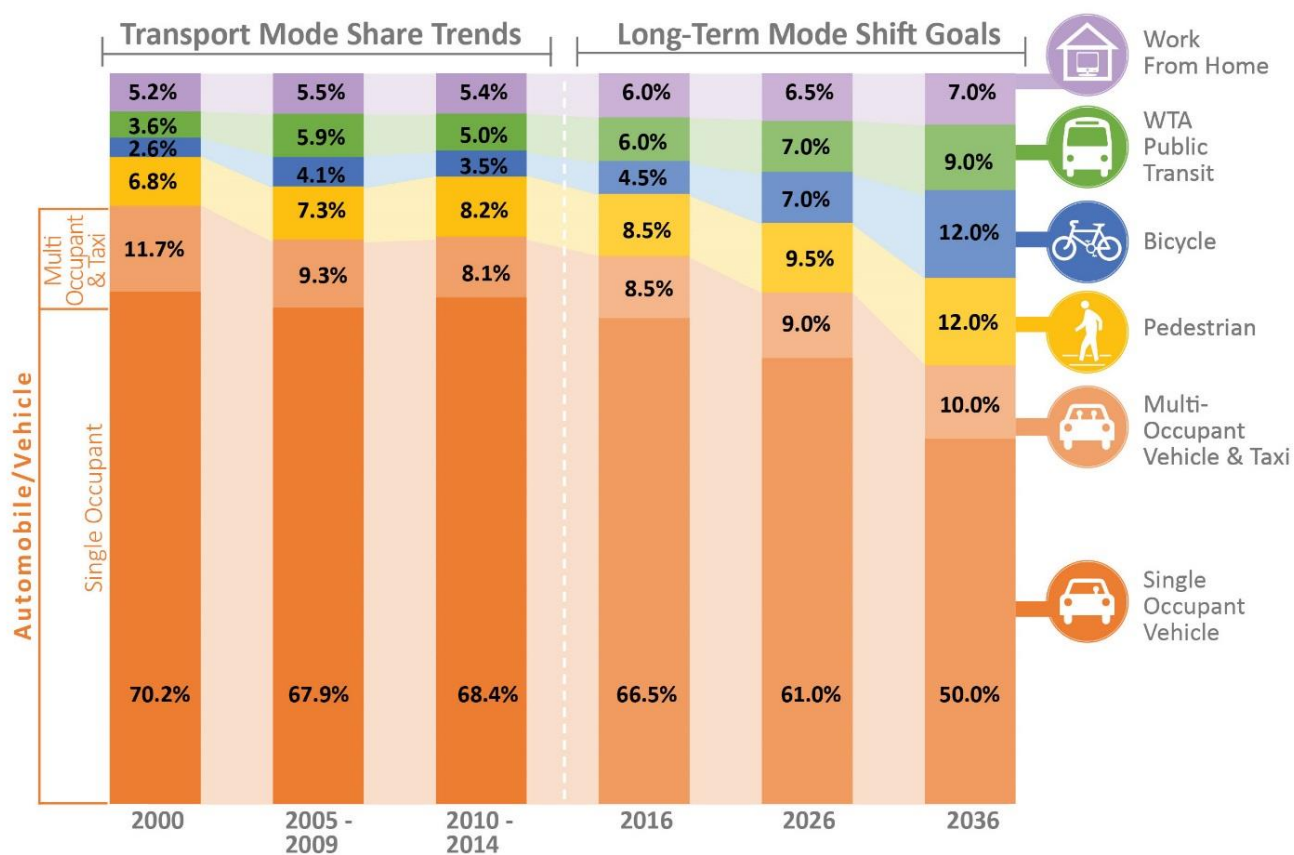


Figure 2.3. - Bellingham's Long-Term Transportation Mode Shift Goals

Chapter 3: Multimodal Transportation Concurrency Program in 2016

Evolution From Auto-based to Multimodal Transportation Metrics

In 2005, during the update to the Bellingham Comprehensive Plan, staff advised both the Planning Commission and the City Council that reliance on traditional auto-oriented level of service (LOS) methodology from the national Highway Capacity Manual (HCM), which had become the default LOS standard for most cities, would not help Bellingham achieve the land use element goals for infill development and Urban Villages. In June 2006, the City Council adopted BMC 13.70, the City's first GMA-compliant Transportation Concurrency Management Ordinance, in conjunction with the June 2006 Bellingham Comprehensive Plan and GMA requirements for a:

Transportation element that implements, and is consistent with, the land use element (RCW 36.70A.70 (6)).

BMC 13.70 established an interim program, based on traditional HCM automobile-oriented LOS standards, similar to other jurisdictions, to monitor and maintain adequate transportation facilities in support of the City's infill land use strategy and GMA requirements:

"After adoption of the comprehensive plan by jurisdictions required to plan or who choose to plan under RCW 36.70A.040, local jurisdictions must adopt and enforce ordinances which prohibit development approval if the development causes the level of service on a locally owned transportation facility to decline below the standards adopted in the transportation element of the comprehensive plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. These strategies may include increased public transportation service, ride sharing programs, demand management, and other transportation systems management strategies. For the purposes of this subsection (6) "concurrent with the development" shall mean that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years" (RCW 36.70A.70 (6) (b)).*

*[*Bellingham requires financial commitment within three years consistent with project funding on 6-Year TIP]*

As predicted, in early 2007, a LOS violation occurred and a 9-month-long moratorium on new development was imposed along Northwest Avenue. Public Works hired TranspoGroup, Inc. to help Bellingham transportation planners develop an innovative new method to include all major transportation modes (pedestrian, bicycle, transit, and automobile) to replace the traditional HCM auto-only methodology. In 2009, Bellingham implemented its innovative [Multimodal Transportation Concurrency Program](#), which received the 2009 American Planning Association/Planning Association of Washington Award for Transportation Planning in Washington State and has gained recognition and interest from cities all over North America. A full account of Bellingham's past experience and struggles with auto-oriented LOS measurements and the innovative new multimodal approach to transportation concurrency titled ***"Moving Beyond the Automobile"*** is available on the City web site at <http://www.cob.org/documents/pw/transportation/multimodal-case-study-AICP.pdf>

Bellingham's Multimodal Transportation Concurrency Program annually measures sidewalks, bicycle facilities, multiuse trails, WTA transit service, and arterial streets in the context of various land use environments found within 23 Concurrency Service Areas (CSA) across the city (**Figure 3.1.**).

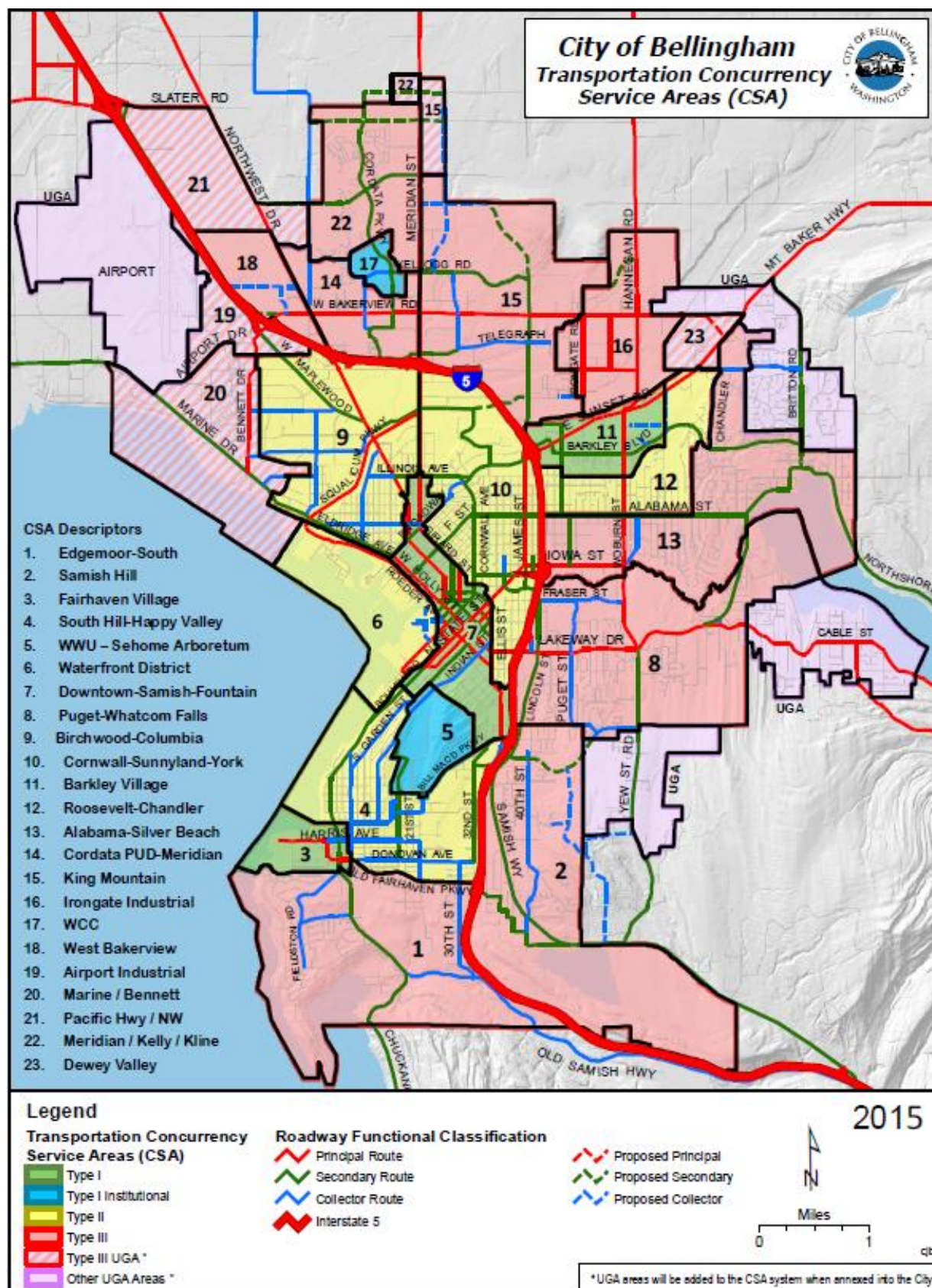


Figure 3.1. Bellingham's 23 Concurrency Service Areas (CSA) in 2016

Data Inventories

The 2016 TRAM identifies Person Trips Available (PTA) by Concurrency Service Area using arterial street traffic count data, WTA transit bus frequency, seated capacity and ridership statistics, and inventories of sidewalk and bicycle facilities, as well as select multiuse trails used for transportation purposes. The 2016 TRAM also accounts for all pipeline trips reserved for development in the Concurrency Evaluation Tracking Tool (CETT) for current conditions through December 31, 2015. The measurements of the various travel modes are compiled and converted into Person Trips Available (PTA) by each CSA, which is officially Bellingham's GMA-required adopted level-of-service standard in the Transportation Element of the Bellingham Comprehensive Plan.

Concurrency Evaluation Tracking Tool (CETT)

The Concurrency Evaluation Tracking Tool (CETT) is a spreadsheet-based tool that contains current arterial traffic volumes and capacities, seated transit capacities and ridership volumes, and completeness of bicycle and pedestrian networks. The CETT is used for Transportation Concurrency evaluations to determine whether enough Person Trips are Available, or can be provided concurrent with, development proposed within Concurrency Service Areas. The CETT provides a snapshot-in-time of the status of the citywide multimodal transportation network and its ability to accommodate new development.

Pipeline Development Projects

Person trips generated from the 226 total development proposals evaluated for transportation concurrency between June 15, 2006 and December 31, 2015 have been assigned to and withdrawn from affected CSAs.

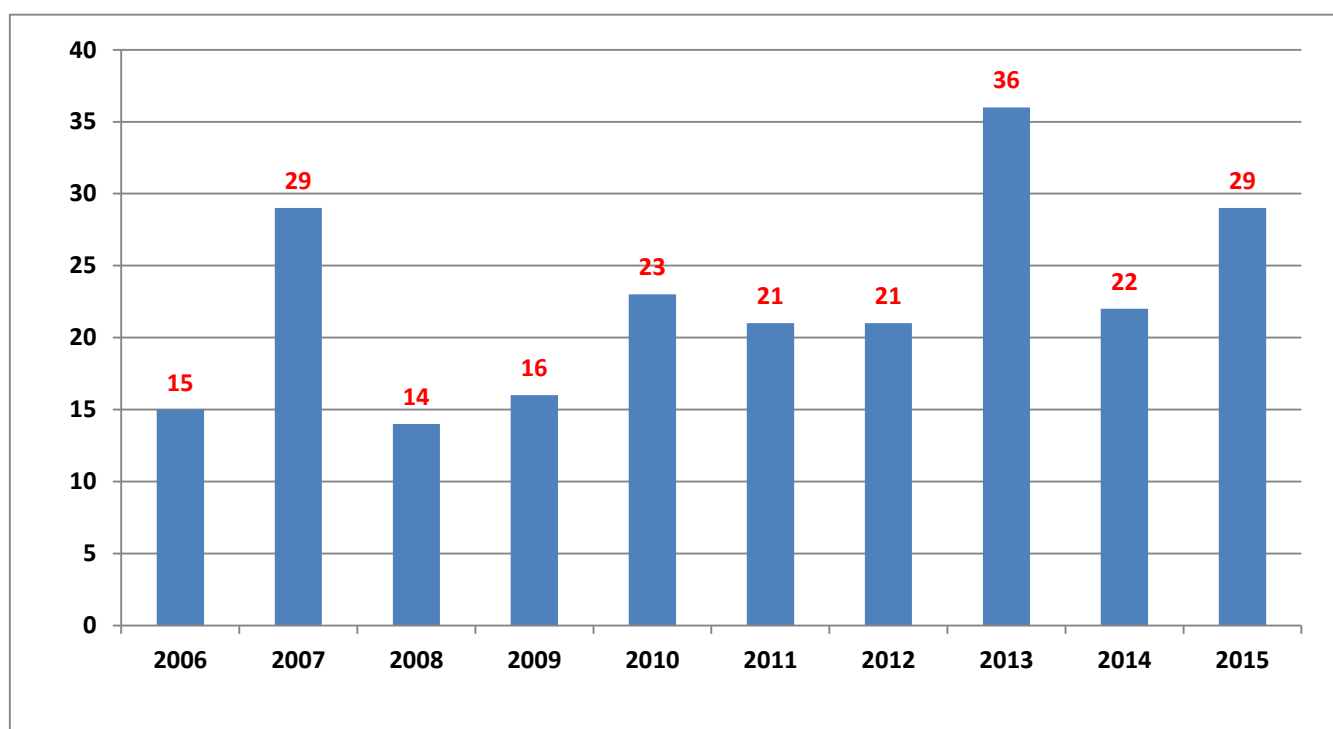


Figure 3.2. 226 Concurrency Certificates Issued from June 15, 2006* - December 31, 2015

*NOTE: BMC 13.70 effective date = June 15, 2006, consistent with 2006 Bellingham Comprehensive Plan.

Table 3.1. Person Trips Available (PTA) by Concurrency Service Area (CSA) in 2016

	Sidewalks ¹		Multiuse Trails		Bicycle Facilities ²		WTA ³	Auto ³	2015
	%	Credit	%	Credit	%	Credit	Transit	Arterial	Net
CSA	Comp	PTA	Comp	PTA	Comp	PTA	PTA	PTA	PTA ⁴
1. Edgemoor-South	32.1%	0	39%	390	39.6%	0	49	975	1,397
2. Samish Hill	22.2%	0	31%	310	21.1%	0	19	2,367	2,690
3. Fairhaven Urban Village	81.3%	620	13%	130	19.3%	0	270	1,276	2,164
4. South Hill-Happy Valley	57.1%	126	16%	160	30.5%	0	181	1,611	1,963
5. WWU	82.5%	660	50%	500	74.2%	480	638	307	2,578
6. Waterfront District	43.6%	0	86%	860	24.3%	0	0	880	1,282
7. Urban Core (4 Villages)	90.0%	800	12%	120	23.1%	0	1,407	6,952	8,562
8. Puget-Whatcom Falls	64.9%	240	37%	370	35.9%	0	203	3,599	3,343
9. Birchwood-Columbia	59.6%	180	14%	140	24.1%	0	385	2,071	2,646
10. Cornwall-Sunnyland-York	80.6%	558	20%	200	30.4%	0	696	3,257	4,326
11. Barkley Urban Village	70.8%	420	16%	160	23.4%	0	450	3,565	2,408
12. Roosevelt-Chandler	67.6%	324	55%	550	24.4%	0	242	1,098	2,203
13. Alabama-Silver Beach	56.1%	96	61%	610	20.1%	0	329	2,551	3,543
14. Cordata South	68.5%	304	12%	120	48.7%	0	779	7,294	7,092
15. King Mountain	38.8%	0	0%	0	14.8%	0	0	2,412	1,024
16. Irongate Industrial	4.6%	0	0%	0	0%	0	0	3,529	3,157
17. WCC	86.1%	576	0%	0	26.7%	0	522	2,300	3,398
18. West Bakerview	34.6%	0	0%	0	19.7%	0	612	2,093	1,701
19. UGA: Airport Industrial	1.7%	0	0%	0	0%	0	0	748	748
20. UGA: Marine-Bennett	0.8%	0	25%	250	27.6%	0	0	1,683	1,933
21. UGA: Pacific Hwy Industrial	0%	0	0%	0	0%	0	0	1,334	1,334
22. Cordata North	55.5%	96	15%	150	21.3%	0	75	4,410	4,552
23. UGA: East Bakerview	0.0%	0	0%	0	100.0%	800	0	1,721	2,521
Citywide									66,567

Notes:

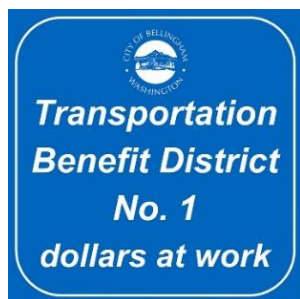
- 1.) "Percent complete" sidewalks reflects degree of completeness by CSA of "Primary Pedestrian Network" in 2012 Pedestrian Master Plan from the list of 343 sidewalk infill and crosswalk projects.
- 2.) "Percent complete" bikeways reflects degree of completeness by CSA of "Primary Bicycle Network" in 2014 Bicycle Master Plan from the list of 186 Bikeway improvement projects.
- 3.) PTA for WTA transit and Auto/Vehicle are derived from select transit and vehicle data collection measurement points on arterial streets throughout the City. Transit data is collected by WTA and vehicle data is collected by Public Works.
- 4.) Annual net PTA is derived from the compilation of all five variables (Sidewalk, Bike Lane, Multiuse Trails, WTA Transit, and arterial traffic counts); minus PTA used by development proposals; minus a 500 PTA reserve in each CSA to avoid violating Bellingham's adopted multimodal LOS standards.

Compliance with Washington State Planning Law

The Transportation Report on Annual Mobility (TRAM) is an annual monitoring and reporting system that Public Works has published since March 2006 (*previously titled Transportation Report on Annual Concurrency (TRAC)*). The TRAM informs the City Council, Planning Commission, Transportation Commission, the general public, and the development community which portions of the City are best suited for infill development based on adequate transportation infrastructure and services - reported as Person Trips Available (PTA) by each Concurrency Service Area (CSA) (**See Table 3.1.**). As such, the TRAM is Bellingham's annual documentation that the City is in full compliance with the Washington State Growth Management Act (GMA) requirements.

The 2016 TRAM demonstrates that Bellingham's Multimodal Transportation Concurrency methodology is integrating multimodal transportation system capacity within various land use contexts in Bellingham and is further promoting both the Comprehensive Plan and GMA goal of directing new development toward compact, mixed-use urban areas where adequate transportation services and facilities are most available.

Chapter 4: Bellingham Transportation Benefit District No. 1 - 2016



In July 2010, the Bellingham City Council created Transportation Benefit District Number 1 (TBD), contiguous with the City of Bellingham corporate limits. In November 2010, Bellingham voters approved a ballot measure in the general election that authorized the TBD to collect a two tenths of one percent sales tax within TBD boundaries (city limits) for a 10-year period to fund transportation infrastructure and transit service. The TBD revenue will expire in 2021, unless re-approved by voters in 2020. The TBD is governed by a Board of Directors, which is comprised of the current elected members of the Bellingham City Council <http://www.cob.org/government/tbd/index.aspx>

The TBD began receiving sales tax receipts in July 2011 and the TBD Board directed that the TBD revenues be dedicated to the following activities in generally equal amounts (about 1/3 for each):

- Purchase of additional WTA transit bus service hours via contract between the City and WTA
- Enhance and improve pedestrian and bicycle transportation infrastructure
- Resurfacing streets to maintain the City of Bellingham's investment for all transportation users

Figure 4.1. Allocation of Total TBD Revenues 2011-2016

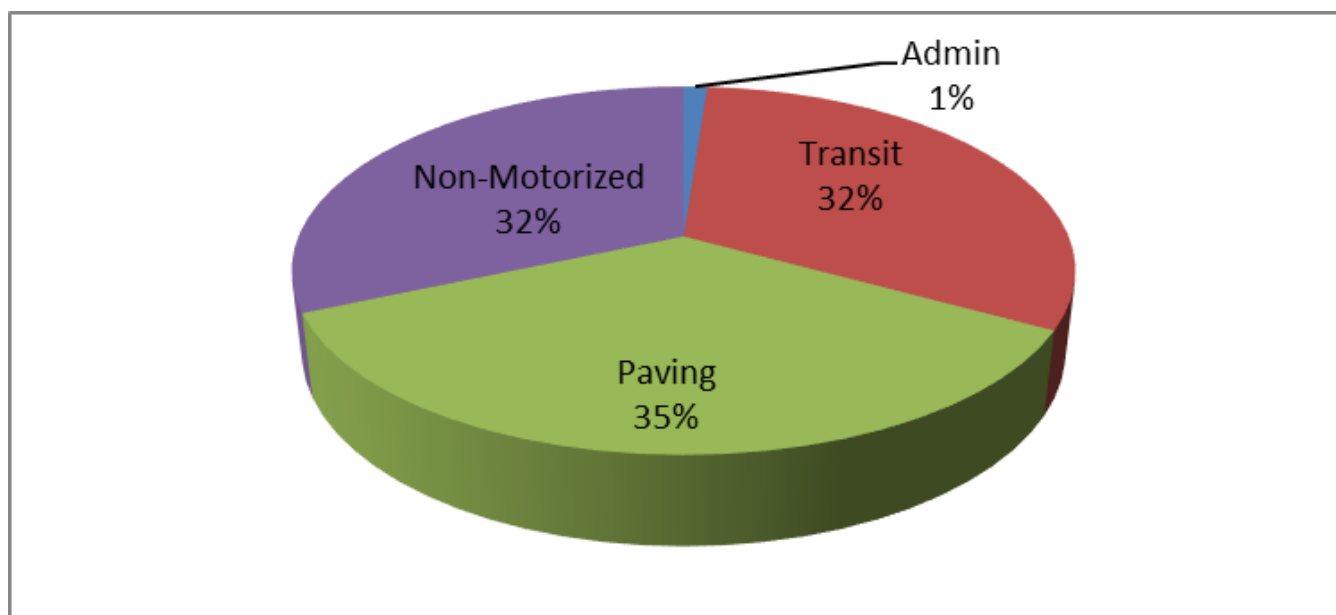


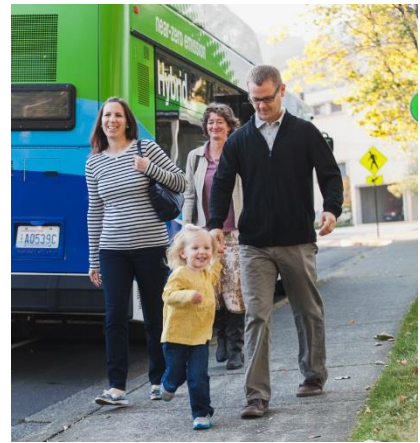
Table 4.1. - Transportation Benefit District #1 [Source: Bellingham Finance Department]

	Actual	Actual	Actual	Actual	Actual	Budget
	2011	2012	2013	2014	2015	2016
REVENUES						
Sales Tax Receipts (.2%)	\$2,454,454	\$4,350,591	\$4,655,993	\$4,700,864	\$4,903,512	\$4,728,800
Interest	\$1,947	\$24,650	\$28,068	\$27,747	\$31,434	\$12,244
Intergovernmental Revenue-Grant		\$27,400	\$436,471	\$17,985	\$61,189	
Total Specific Revenue	\$2,456,401	\$4,402,641	\$5,120,532	\$4,746,596	\$4,996,135	\$4,741,044
EXPENDITURES						
Interfund Charges-Admin/Other	\$36,750	\$33,765	\$39,649	\$47,948	\$57,246	\$57,246
5% reserve allocation	\$122,820	\$87,180				
Total reduction in available cash flow	\$159,570	\$120,945	\$39,649	\$47,948	\$57,246	\$57,246
REVENUE/RESERVES AVAILABLE	\$2,296,831	\$4,281,696	\$5,080,883	\$4,698,648	\$4,938,889	\$4,683,798
WTA Transit						
Contractual services-WTA	\$485,703	\$1,068,531	\$1,353,497	\$1,346,099	\$1,431,250	\$1,450,000
Transit capital projects-		\$47,500		\$250,000	\$266,002	
WTA Transit Total	\$485,703	\$1,116,031	\$1,353,497	\$1,596,099	\$1,697,252	\$1,450,000
Asphalt Resurfacing (Includes ADA and Bikeways)						
Capital Projects	\$600,297	\$1,070,279	\$1,537,468	\$1,497,118	\$500,000	\$2,420,000
Engineering		\$0	\$0		\$165,576	
Asphalt Resurfacing Total	\$600,297	\$1,070,279	\$1,537,468	\$1,497,118	\$665,576	\$2,420,000
Non-motorized Capital (Sidewalks, Bikeways)						
Capital Projects	\$390,296	\$814,312	\$1,010,186	\$1,703,637	\$1,631,689	\$1,630,000
Engineering		\$0	\$0		\$496,181	
Non-motorized Total	\$390,296	\$814,312	\$1,010,186	\$1,703,637	\$2,127,870	\$1,630,000
Total expenditures	\$1,635,866	\$3,121,567	\$3,940,800	\$4,844,802	\$4,547,944	\$5,557,246



TBD-Funded Transit Services

In 2011, the Bellingham TBD Board of Directors signed an Interlocal Agreement with the Whatcom Transportation Authority for a 5-year period to purchase supplemental transit service in Bellingham. Initially, the TBD-funded transit service restored the Sunday transit bus service that had been cut by WTA in 2010. It has also extended evening transit service on some routes and funded an experimental transit route to see if a ridership base existed for commercial and industrial employers on the Waterfront.



The TBD - WTA Interlocal Agreement expired in 2015 and the TBD Board decided to cut TBD transit funding in half for 2016 while WTA completed their Strategic Plan update. By the end of 2016, the City will no longer contract with WTA for supplemental transit service in Bellingham and WTA has indicated that it intends to fund the Sunday transit service that Bellingham had been contracting for as part of its normal operations.

In 2014, WTA reported 257,664 fixed route boarding/trips and 9,517 paratransit trips on service the City of Bellingham purchased. In 2015, WTA reported a decrease of 254,244 fixed route boardings and an increase of 10,581 paratransit trips.

Further information about the WTA Primary Transit Network in Bellingham is available in Chapter 7.

TBD-Funded Street Resurfacing

Over the past century, Bellingham has made a significant investment in providing a public street system throughout the City. Public streets have a functional lifespan that varies according to the amount of use that the street receives and, at some point, all public streets require maintenance, repair, and resurfacing. Traditional sources of funding for street construction and resurfacing, such as Street and Real Estate Excise Tax (REET) funds, have been significantly diminished through budgeting decisions.

Since 2011, TBD revenue allocated to street resurfacing has helped to replace some of the Street and REET funding lost for street resurfacing projects. Approximately \$1.4 million in TBD funds have been spent each year to help maintain the City's investment in arterial streets, providing mobility for all transportation users. When streets are resurfaced, pedestrian and bicycle facilities approved in the Pedestrian and Bicycle Master Plans are also installed, whenever possible, as reflected in Tables 3.3, 3.4, 3.5, and 3.6. From 2014-2016 Public Works prioritized resurfacing the arterial streets listed below.

- 2014 Hawthorn Road - 12th Street to Fieldston Road
- 2014 Electric Avenue - Ohio Street to Portal Drive
- 2014 14th Street - Garden Street to Douglas Avenue
- 2015 Alabama Street - Cornwall Avenue to St Clair Street
- 2015 Kellogg Road - Cordata Parkway to Eliza Avenue
- 2015 Eliza Avenue - Kellogg Road to Westerly Road
- 2016 Bill McDonald Parkway - College Way to 21st Street
- 2016 30th Street - Old Fairhaven Parkway to Connelly Avenue
- 2016 Billy Frank Jr. Street - Chestnut Street to Holly Street *(Only if funding allows)*

TBD-Funded Non-motorized Bicycle and Pedestrian Improvements

The TBD Board of Directors annually approves TBD funding for a number of non-motorized transportation projects that have been approved in Bellingham's Pedestrian and Bicycle Master Plans (PMP and BMP) and recommended for construction by Public Works and the Transportation Commission. As shown in the tables below, since TBD revenue became available for the construction of non-motorized transportation improvements in 2011, Bellingham TBD funding has helped transportation planners and engineers to make significant progress in implementing the 343 improvement projects in the PMP and the 185 improvement projects in the BMP.



In 2014, transportation planners received TBD Board approval to set aside 10% of annual TBD revenue to use as local matching funds to leverage additional state and federal grant funding for pedestrian and bicycle projects, which will allow TBD funds to be maximized. Successful examples of using TBD funds to leverage additional state and federal grant funds for pedestrian and bicycle facilities include:

- 2012 Flashing Crosswalks at N. Samish/Abbott and N. Samish/Consolidation
- 2012 Resurfacing Indian Street to add uphill climbing bike lane and downhill shared lane
- 2012 Pedestrian improvements at Indian/Maple, Indian/Laurel, and Indian/Ivy
- 2013 Curb extensions and crosswalks at State/Laurel and new sidewalk on south side of Laurel from State to South Bay Trail
- 2013 Curb extensions and crosswalks at Lincoln/Potter and new sidewalk on north side of Gladstone from Puget to St. Paul
- 2015 Sidewalk reconstruction on the east side of Yew Street from Alabama to Texas
- 2015 New sidewalk on the WWU Lincoln Street Park-N-Ride from Maple to Byron
- 2016 12th/Mill intersection realignment and sidewalk reconstruction in Fairhaven Urban Village
- 2017 New sidewalk on the east side, storm water improvements, and asphalt resurfacing and rechannelization to include bike lanes on West Maplewood from Northwest to Alderwood
- 2018 Complete sidewalk and bike lane gaps on the east side of Aldrich Road between Mahogany and Cordata Elementary School

In November 2014, the TBD Board also approved a 2.5% annual TBD reserve fund for transportation planners to use in the design and preliminary engineering phases of pedestrian and bicycle projects which require further study before a specific capital improvement recommendation can be made to the Transportation Commission and the TBD Board. There are several pedestrian crossing improvements listed in the Pedestrian Master Plan and several important network links in the Bicycle Master Plan that will require further study by transportation planners before engineering and construction recommendations can be made. TBD Board approved the Public Works and Transportation Commission recommendations for the following studies:

- 2015 Feasibility study for a yet-to-be-determined bicycle facility improvement on Holly Street from Ellis to Bay (On-going)
- 2016 Feasibility study for a yet-to-be-determined bicycle facility improvement on Lakeway Drive from Ellis to Woburn (Underway)

Additional near-term studies pending staff time and resources:

- Parking survey on Pacific Street to determine feasibility of removing parking on one side of street to install bike lanes
- Parking survey on Orleans Street to determine feasibility of removing parking on one side of street to install bike lanes
- Parking survey on Woburn Street to determine feasibility of removing parking on one side of street to install bike lanes
- Feasibility study for a yet-to-be-determined pedestrian crossing improvement at the intersection of Barkley/Sussex

As demonstrated in the tables below, Public Works has already accomplished a great deal in the 5 years that TBD funding has been available for bicycle, pedestrian, and street resurfacing projects, but there is much more work to be done. The TBD will continue to play a critical role in funding and completing Bellingham's PMP and BMP in the most expeditious manner possible. While the PMP and the BMP are a key part of the Bellingham Comprehensive Plan Transportation Element, they are not 20-year plans. The \$1.5 million revenue currently allocated for non-motorized transportation projects will not be enough to complete the 343 improvement projects in the PMP and the 185 improvement projects in the BMP. The planning level costs to complete the PMP are estimated to be \$225 million and the BMP cost estimates are over \$25 million. The PMP and the BMP will be completed over multiple generations.

Public Works transportation planners intend to accomplish a great deal more through the strategic efforts to capitalize on opportunities to link land use, development, and other infrastructure projects, use TBD funds for local match requirements to leverage larger state and federal grant funds, and by including pedestrian and bicycle improvements wherever possible in street resurfacing projects (see tables below). As the 2020 sunset date of the TBD draws closer, it is hoped that the public will recognize the transportation benefits that the TBD revenue has allowed the City and that voters will choose to renew the TBD for an additional 10 years, or longer.

Table 4.2. Pedestrian Improvements Constructed With TBD Non-Motorized and Arterial Resurfacing Funds - 2011 through 2016						
Year	Improvement	Side(s)	Location	Sidewalk	Crossing	Neighborhood
2011	Sidewalk, Curb Extensions, Crosswalk	Both	Prospect Avenue: Lottie to Bay	n/a	n/a	Downtown
2011	Sidewalk, Curb Extensions, Crosswalk	South	Birchwood/Meridian	n/a	n/a	Birchwood
2011	Curb Extensions, Crosswalk	Both	Meridian/Connecticut	n/a	n/a	Columbia/Cornwall Park
2011	Sidewalk, Curb Extensions, Crosswalk	Both	Electric/Birch/Portal	Tier 1*	Tier 1*	Whatcom Falls
2011	Curb Extensions, Flashing Crosswalk		Electric/Bloedel-Donovan Park	Tier 1*	Tier 1*	Silver Beach
2012	Sidewalk, Curb Extensions, Crosswalk	West	Yew Street: Alabama to Texas/Yew	Tier 1*	Tier 1*	Roosevelt
2012	Curb Extensions, Crosswalk		Woburn/Texas		Tier 1	Roosevelt
2012	Curb ramps, Flashing Crosswalk		Alabama/St. Paul		Tier 1*	Roosevelt
2012	Curb Extensions, Crosswalk		Alabama/Yew		Tier 1*	Roosevelt
2012	Curb ramps, Traffic Signal		Woburn/Rimland (TBD + Private\$)		Tier 1*	Barkley
2012	Curb ramps, Flashing Crosswalk		Pine/Boulevard		Tier 1*	Sehome
2012	Curb ramps, extensions, and crosswalks		Dupont/Elm/Northwest		Tier 1*	Dwtn/Ltr/Col/Birchwood
2013	Sidewalk Infill	North	Bill McDonald Pkwy: 35th to Birnham Wood	Tier 1	n/a	Sehome
2013	Sidewalk, Curb Extensions, Crosswalk	South	E. Maple/Cornwall	Tier 1	Tier 2	Downtown
2013	Sidewalk, Curb Extensions, Crosswalk	South	State/E. Maple		Tier 1*	Downtown
2013	Curb Extensions, Crosswalk		E. Illinois/James		Tier 1*	Sunnyland
2013	Crosswalk, Ped Refuge		W. College Way/High Street (WWU)		n/a	WWU
2014	Sidewalks, Curb Extensions, Crosswalk	Both	25th Street: Bill McDonald to Douglas/24th	Tier 1	n/a	Happy Valley
2014	Ped/Bike Bridge Reconstruction (Parks)		Whatcom Creek Trail: Ellis to York		n/a	Downtown
2014	Sidewalk, Curb Extensions, Crosswalk	South	Hawthorn: 12th to Fieldston; Hawthorne/Bayside	Tier 3	Tier 3	Edgemoor
2015	Ped/Bike Trail/Rail Crossing (Parks)		South Bay Trail: BNSF Tracks at Boulevard Park		n/a	South Hill
2015	Sidewalk Infill	West	Eliza Avenue: Kellogg to Westerly	Tier 1	n/a	Cordata
2015	Curb Extensions, Crosswalks		Ohio/Ellis		Tier 1	Sunnyland/Downtown
2015	Curb Extensions, Crosswalks		Ohio/Grant		Tier 3	Sunnyland/Downtown
2016	Sidewalk	South	Birchwood: Northwest to Cedarwood	Tier 3	Tier 3	Birchwood
2016	Sidewalk, Curb Extensions, Crosswalk	East	12th/Mill	Fhvn UV	Fhvn UV	Fairhaven
2016	Curb Extensions, Crosswalk		Mill/24th St	Tier 1		Happy Valley
2016	Intersection Study		Barkley/Sussex		Tier 3	Barkley
				*Project planned/funded prior to 2012 PMP		

Table 4.3. Bicycle Improvements Constructed With TBD Non-Motorized and Arterial Resurfacing Funds - 2011 through 2016							
Year	Improvement	Direction	Location	BMP Priority	Parking Removed?	Side	Neighborhood
2011	Marked bike lanes	East-West	Lakeway Drive: Woburn to City limit	n/a*	Yes: Birch to City limit	West	Whatcom Falls
2011	Marked bike lanes	East-West	Birchwood Avenue: Meridian to Squalicum Pkwy	n/a*	No		Cornwall Park
2012	Marked bike lanes	North-South	Northwest Avenue: Lottie to I-5	Tier 1*	Yes: Lottie to McLeod	West	Dwtn/Ltr/Col/Birchwood
2013	Climbing/Shared Lane	North-South	Highland Drive: High Street to W. College Way	n/a*	No		
2013	New Shoulders	East-West	Electric Avenue: Alabama to Ohio	Tier 3	No		Silver Beach
2014	Shared Lanes	North-South	Hawthorne: 12th Street to Fieldston	Tier 3	No		Edgemoor
2014	Shared Lanes	North-South	14th Street: Edwards to Douglas	Tier 3	No		South Hill
2014	New Shoulders	East-West	Electric Avenue: Lakeway to Ohio	Tier 3	No		Whatcom Falls
2014	Marked bike lanes	North-South	25th Street: Bill MacDonald to Douglas	Tier 1*	No		Happy Valley/WWU
2015	Marked bike lanes	North-South	Eliza Avenue: Kellogg to Westerly	Tier 1	No		Cordata
2015	Marked bike lanes	East-West	Ohio Street: Grant to Cornwall	Tier 1	Yes: Dean to Grant	South	Sunnyland/Downtown
2015	Bicycle Boulevard	North-South	Grant Street: Illinois to N. State	Tier 2	No		Sunnyland/Downtown
2015	Bicycle Boulevard	North-South	Ellis: Squalicum Pkwy to Ohio	Tier 2	No		Sunnyland/Downtown
2015	Bicycle Boulevard	North-South	Moore-Texas-Nevada	Tier 2	No		Roosevelt
2015	Bicycle Boulevard	East-West	Kentucky: Moore to Cornwall	Tier 1	No		Sunnyland/Downtown
2015	Bicycle Boulevard	East-West	E. Illinois Street: Valencia to Sunset	Tier 1	No		Roosevelt/Sunnyland
2015	Bicycle Boulevard	North-South	Michigan Street: E. Illinois to Texas	Tier 2	No		Roosevelt
2015	Bicycle Boulevard	East-West	Texas Street: Michigan to Nevada	Tier 1	No		Roosevelt
2015	Climbing/Shared Lane	North-South	Lincoln: Lakeway to Meador	Tier 1	No		Puget
2015	Corridor Study	East-West	Holly Street: Ellis to Bay	Tier 1	Unknown	?	Downtown
2016	Bicycle Boulevard	North-South	24th Street: Old Fairhaven Pkwy to Douglas	Tier 1	No		Happy Valley
2016	Bicycle Intersection	East-West	Cornwall/Kentucky/Young	Tier 1	No		Lettered Streets
2016	Corridor Study	East-West	Lakeway Drive: Ellis to Queen	Tier 1	No		Puget/York/Downtown
2017	Bicycle Boulevard	East-West	Mill Avenue: 12th Street to 24th Street	Tier 1	No		Fairhaven/Happy Valley
<i>*Project was planned or funded prior to 2014 BMP approval</i>							

Chapter 5: Primary Pedestrian Network Completeness - 2016

Since 2006, pedestrian improvements have been listed in the Transportation Element of the Bellingham Comprehensive Plan. [Bellingham's Pedestrian Master Plan](#) (PMP) was approved by City Council in August 2012 and the 2013 Transportation Report on Annual Concurrency (TRAC) first reported the completeness of the Primary Pedestrian Network by Concurrency Service Area (CSA).

As shown in Table 5.2., below, in 2016 the citywide Primary Pedestrian Network is 61.4% complete. The degree of completeness varies in different parts of the City, as shown in Figures 5.2, 5.3, and Table 5.2. The 2012 PMP includes 343 sidewalk and crossing improvement projects that are estimated to cost about \$225 million over time.

Since 2011, many sidewalk and crosswalk projects have been constructed with Transportation Benefit District (TBD) funding (Table 4.2.), but Bellingham street standards require private developers to construct ADA-compliant sidewalks for any new development on public streets and state and federal grant funding agencies require sidewalks to be included on all arterial street improvement projects.

Public Works staff has also been very successful at leveraging local funding to receive outside funding whenever possible. Some pedestrian projects are funded by the Washington State Transportation Improvement Board (TIB) Sidewalk Program, some are funded by state and federal Safe Route to School Programs, and some are funded with federal funding administered by Washington State, such as the Surface Transportation Program (STP), Transportation Alternatives Program (TAP), or the Highway Safety Improvement Program (HSIP). Occasionally, pedestrian projects can be added to other grant-funded work (storm water, Parks, etc.) that is being conducted. In addition, some pedestrian improvements are funded with a combination of the above as well as funding from other public agencies and/or private development interests.

The pedestrian improvements to the Primary Pedestrian Network listed in Table 5.1 below are expected to be constructed by Public Works and private development interests. There are likely to be additional pedestrian improvements constructed by private developers throughout Bellingham in 2016 and, if so, then those will be accounted for in the 2017 Transportation Reports on Annual Mobility.

Table 5.1. Pedestrian Improvements Constructed With Street Fund, State & Federal Grants, Partnerships, or Private Development - 2011 through 2018						
Year	Improvement	Side(s)	Location	Sidewalk	Crossing	Neighborhood
2011	Sidewalk, Curb Extensions, Crosswalk	South	Ellis-Kansas-Meador	n/a		Sunnyland/York/Dwtn
2012	Multimodal Roundabout		Northwest/McLeod/I-5		Tier 1*	Birchwood
2012	Sidewalk Infill	North	McLeod Road: Northwest to E. Rusley	n/a	n/a	Birchwood
2012	Curb ramps, Ped refuge, Flashing Crosswalk		N. Samish/Abbott		Tier 1*	Sehome
2012	Curb ramps, Ped refuge, Flashing Crosswalk		N. Samish/Consolidation		Tier 1*	Sehome
2012	Curb Extensions, Crosswalks		Indian/Maple; Indian/Laurel; Indian/Ivy		Tier 1*	Sehome
2013	Sidewalk, Crosswalk	West	Eliza Ave: Matanuska to Bellis Fair Pkwy		n/a	Meridian
2013	Multimodal Roundabout		State/Forest/Wharf/Blvd		Tier 3	Downtown
2013	Sidewalk, Crosswalks, Ped Refuges	North	West Bakerview: Arctic to Bennett	n/a	n/a	Meridian
2013	Curb ramps, Ped refuge, Crosswalk		West College Way/High Street (WWU)		n/a	WWU
2014	Sidewalk, Crosswalk	East	James Street: Orchard to Sunset Pond Park	Tier 3		King Mountain
2015	Sidewalk	East	Yew Street: Alabama to Texas	Tier 2		Roosevelt
2015	Sidewalk, Curb Extensions, Crosswalk	South	State/Laurel to Laurel/South Bay Trail	Tier 3	Tier 3	Downtown
2015	Curb Extensions, Crosswalks		Lincoln/Potter		n/a	Puget
2015	Sidewalk, Crosswalk	North	Gladstone Street: Puget to St. Paul	Tier 2		Puget
2015	Sidewalk, Crosswalk	East	Lincoln Street: Byron to Maple	Tier 2		Puget
2015	Crosswalks		Chestnut/Bay (Bridge Rehabilitation)		n/a	Downtown
2015	Flashing Crosswalk (Yellow)		Alabama/Ellis		Tier 1	Sunnyland
2015	Ped Hybrid Beacon (Red)		Alabama/Moore		PMP	Roosevelt
2015	Ped Hybrid Beacon (Red)		Alabama/St. Paul		PMP	Roosevelt
2015	Ped Hybrid Beacon (Red)		Alabama/Undine		PMP	Roosevelt
2015	Ped Hybrid Beacon (Red)		Alabama/Michigan		PMP	Roosevelt
2016	Sidewalks, Crosswalks (Private Development)		Arctic Avenue: W. Bakerview to Mahogany	Tier 3		Meridian
2016	Sidewalks, Crosswalks, Intersection		James/Woodstock Intersection Realignment	Tier 1*		King Mountain
2016	Sidewalk, Crosswalks (Private Development)	West	Lincoln Street: Maple to Fred Meyer	Tier 1		Puget
2017	Sidewalks, Traffic Signals, Crosswalks		Mahogany Avenue: Northwest to Pacific Highway	Tier 3		Meridian
2017	Roundabout with ped refuge crosswalks		Cordata/Stuart		Tier 3	Cordata
2017	Sidewalk	East	W. Maplewood Avenue: Northwest to Alderwood	Tier 1		Birchwood
2017	Sidewalk, Traffic Signals, Crosswalks		Granary-Bloedel: Roeder to Cornwall	Tier 3		Waterfront
2018	Sidewalk, Traffic Signals, Crosswalks		Birchwood Avenue Extension	Tier 1*	Tier 3*	King Mountain
2018	Sidewalks, Crosswalks		West Horton Road: Pacific Rim Dr to Aldrich Rd	Tier 1		Cordata
2018	Sidewalk	East	Aldrich Road: Mahogany to Cordata ES	Tier 1		Cordata
				*Project planned/funded prior to 2012 PMP		

Figure 5.1. Bellingham's Citywide Primary Pedestrian Network

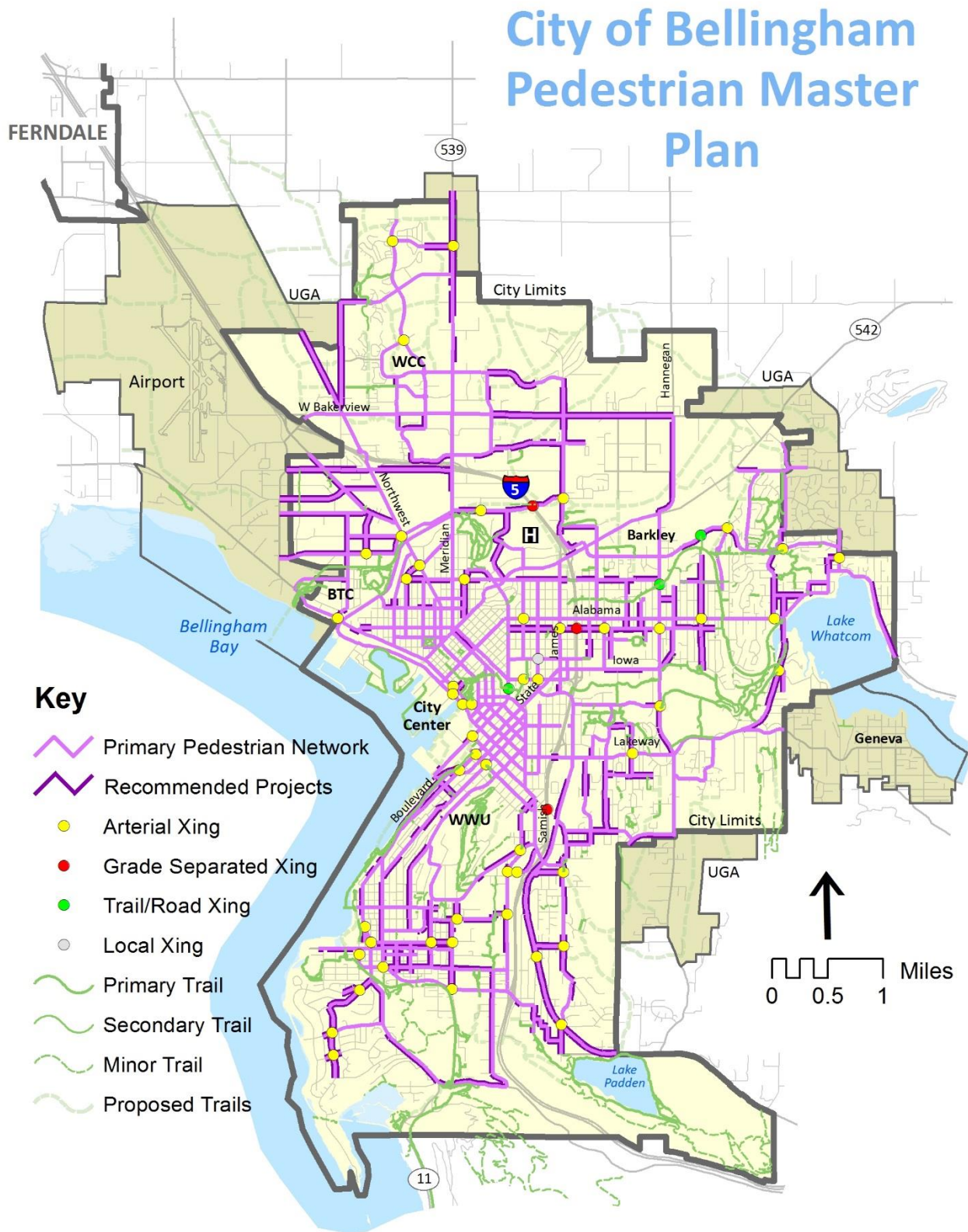


Figure 5.2

**Primary Pedestrian Network
2016 Sidewalk Extents**

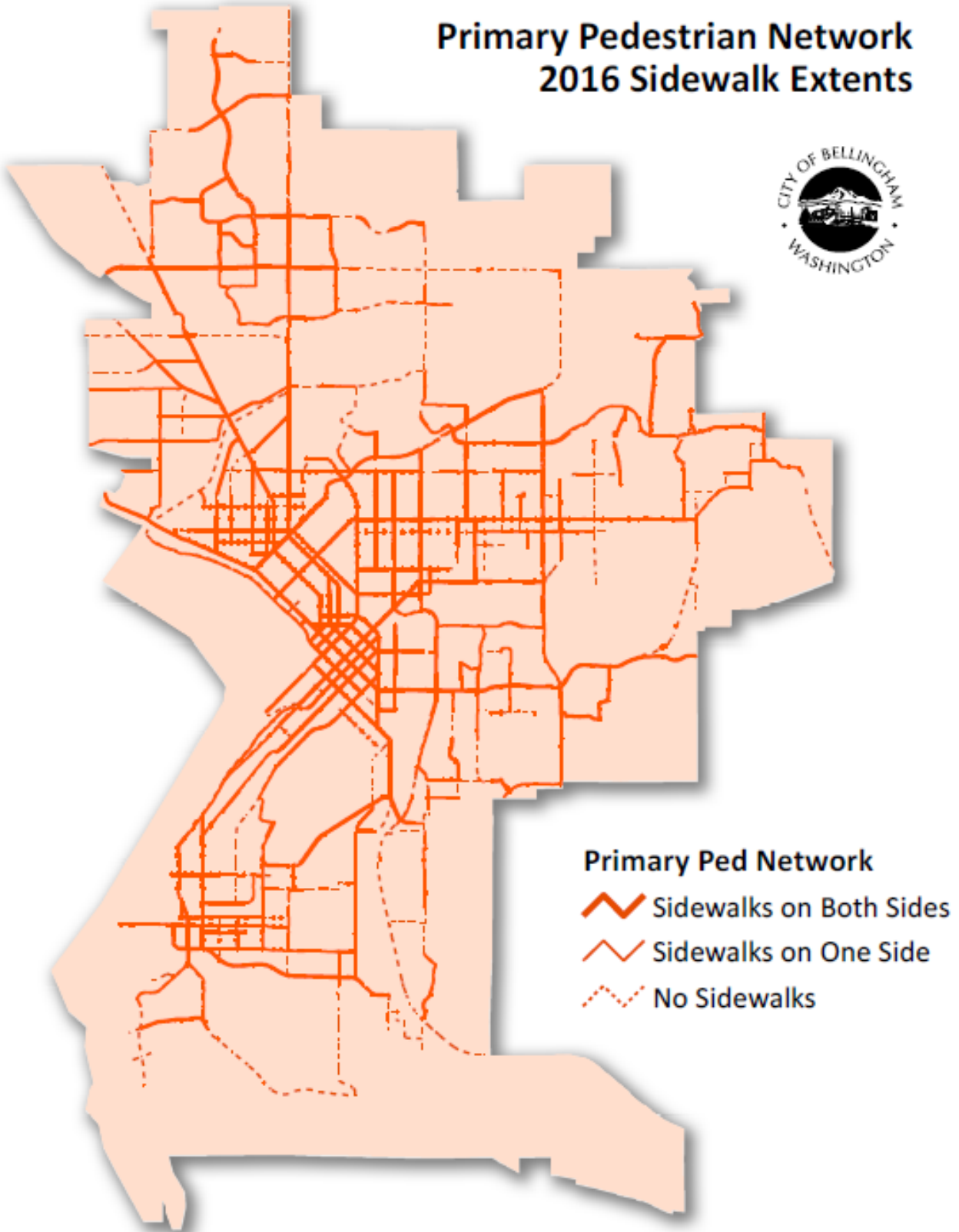


Figure 5.3.

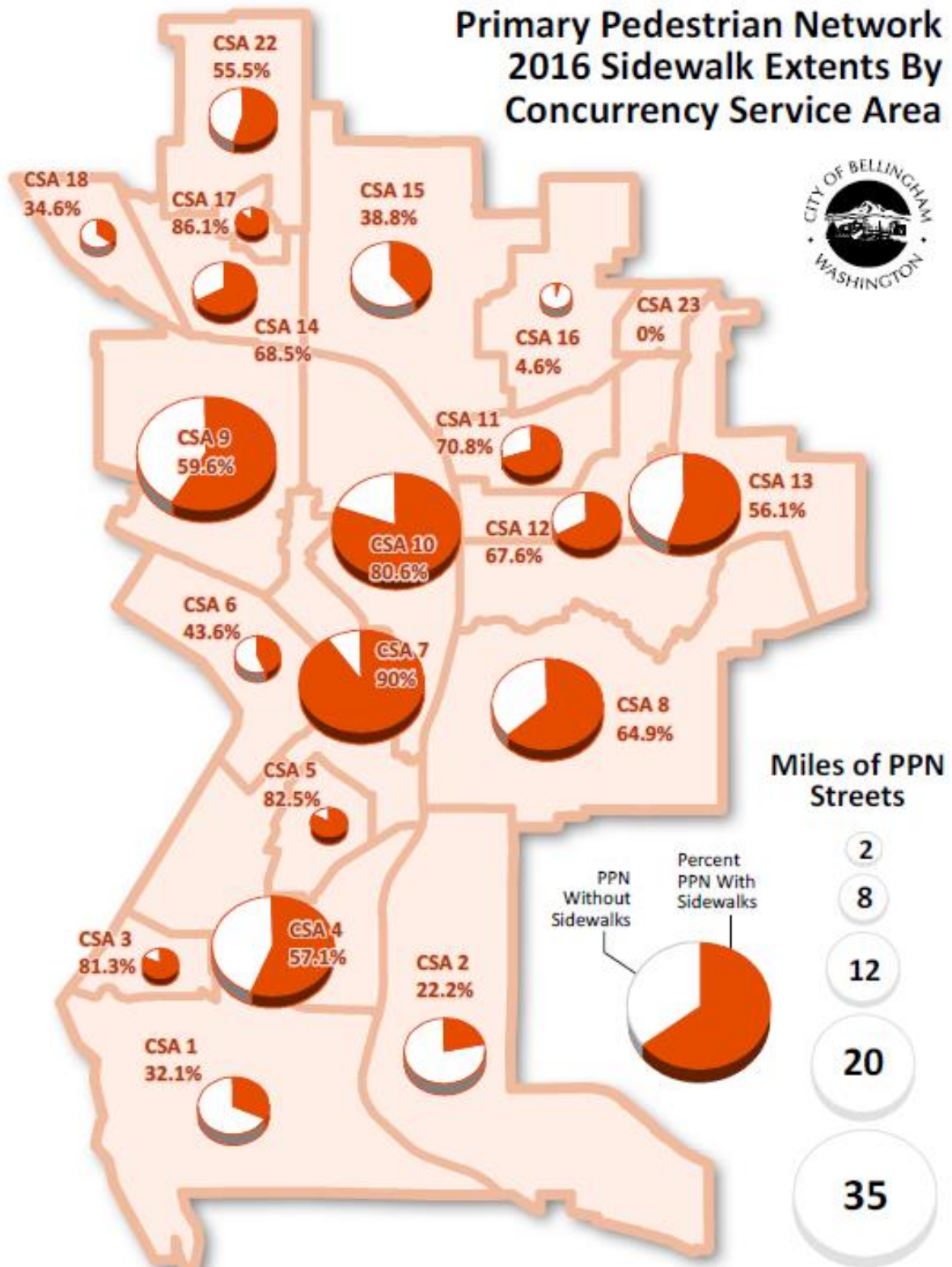


Table 5.2.



Primary Pedestrian Network Sidewalk Extents by Concurrency Service Area

CSA	PPN Street Length Both Sides (Miles)	PPN Sidewalk Length (Miles)	PPN Sidewalk Percent Complete
CSA 1	10.6	3.4	32.1%
CSA 2	13.3	3.0	22.2%
CSA 3	3.3	2.6	81.3%
CSA 4	27.3	15.6	57.1%
CSA 5	3.2	2.7	82.5%
CSA 6	4.9	2.1	43.6%
CSA 7	28.3	25.5	90.0%
CSA 8	23.1	15.0	64.9%
CSA 9	34.2	20.4	59.6%
CSA 10	29.5	23.8	80.6%
CSA 11	8.0	5.6	70.8%
CSA 12	10.1	6.8	67.6%
CSA 13	23.2	13.0	56.1%
CSA 14	8.7	6.0	68.5%
CSA 15	13.2	5.1	38.8%
CSA 16	2.5	0.1	4.6%
CSA 17	2.7	2.3	86.1%
CSA 18	3.1	1.1	34.6%
CSA 19	0.0	0.0	1.7%
CSA 20	0.7	0.0	0.8%
CSA 21	0.4	0.0	0.0%
CSA 22	9.8	5.4	55.5%
CSA 23	0.0	0.0	0.0%
Grand Total	260.1	159.6	61.4%

Chapter 6: Primary Bicycle Network Completeness - 2016

Since 2006, bicycle facility improvements have been listed in the Transportation Element of the Bellingham Comprehensive Plan. [Bellingham's Bicycle Master Plan](#) (BMP) was approved by City Council in October 2014 and the 2015 TRAM provided the first report on the completeness of the Primary Bicycle Network by Concurrency Service Area (CSA). In 2015, Public Works constructed several significant improvements to the Primary Bicycle Network.

As shown in Table 6.2., below, in 2016 the citywide Primary Bicycle Network is only 26.5% complete because, in 2015, the planned network was expanded from 107 mile to 160 miles with the approval of the BMP. The degree of network completeness varies in different parts of the City, as shown in Figures 5.1, 5.2, 5.3, and Table 5.2. The BMP includes 185 bicycle facility improvement projects that are estimated to cost about \$25 million over time.

Since 2011, most bicycle improvement projects listed in the Transportation Element of the Comprehensive Plan have been constructed with TBD funding. Bellingham street standards require private developers to construct bike lanes on arterial streets and state and federal grant funding agencies require bike lanes to be included on all arterial street improvement projects.

Public Works staff tries to leverage local funding for additional outside funding whenever possible. Some bicycle improvement projects are funded by the Washington State Transportation Improvement Board (TIB) Urban Arterial Program as larger street projects, some are funded by state and federal Safe Route to School Programs, and some are funded with federal funding administered by Washington State, such as the Surface Transportation Program (STP), Transportation Alternatives Program (TAP), or the Highway Safety Improvement Program (HSIP). In addition, some bicycle improvements are funded with a combination of the above as well as funding from other public agencies and/or private development interests.

In addition to the TBD-funded bicycle improvements listed in Chapter 4, Public Works has constructed several bicycle improvements to the Primary Bicycle Network with funding from non-TBD sources, as listed in Table 5.1., below. Prior to the 2014 approval of the Bicycle Master Plan, these bicycle improvements were listed in the Transportation Element of the Bellingham Comprehensive Plan.

From 2016 - 2018, the bicycle facility improvements listed below are expected to be constructed by Public Works and private development interests. There could be additional bicycle improvements constructed by private developers throughout Bellingham in 2015 and 2016. If so, then those will be accounted for in the 2015 or 2016 Transportation Report on Annual Mobility.

Table 5.1. Bicycle Improvements Constructed With State & Federal Grants, Partnerships, or Private Development - 2011 through 2014							
Year	Improvement	Direction	Location	BMP Priority	Parking Removed?	Side	Neighborhood
2010	Road diet for bike lane	East-West	Forest Street: State St to York Street	n/a*	No		Downtown
2011	Marked bike lanes	East-West	Meador Avenue: N. State to James	n/a*	No		Sunnyland/Downtown
2012	Climbing/Shared Lane	North-South	Indian Street: Chestnut to Oak (WWU)	n/a*	No		Dwtn/Sehome/WWU
2012	Multimodal Roundabout		Northwest/McLeod	n/a*	No		Birchwood
2013	Marked bike lanes	North-South	Eliza Avenue: Bellis Fair to W. Bakerview	n/a*	No		Meridian/Cordata
2013	Multimodal Roundabout		State/Forest/Wharf/Boulevard	n/a*	No		Downtown
2014	Marked bike lanes	North-South	James Street: Orchard to Sunset Pond Park	Tier 1*	No		King Mountain
2015	Marked bike lanes	East-West	Alabama Street: Cornwall to Iron	Tier 2	No		Sunnyland
2015	Bicycle Boulevard	East-West	Laurel Street: State to Railroad	Tier 2	No		Downtown
2015	Climbing/Shared Lane	East-West	Chestnut Street: Bay to Roeder	Tier 2	No		Downtown
2015	Marked bike lanes	North-South	James Street: Gooding Rd to terminus	Tier 3	No		King Mountain
2016	Marked bike lanes	North-South	Arctic Avenue: W. Bakerview to Mahogany	Tier 3	No		Meridian
2016	Marked bike lanes	East-West	Mahogany Avenue: Northwest to Pacific Highway	Tier 3	No		Meridian
2016	Marked bike lanes	North-South	Pacific Highway: W. Bakerview to Mahogany	Tier 3	No		Meridian
2016	Marked bike lanes	East-West	Granary-Bloedel: Roeder to Cornwall	Tier 3	No		Waterfront
*Project was planned or funded prior to 2014 BMP approval							

Figure 6.1. Bellingham's Citywide Primary Bicycle Network

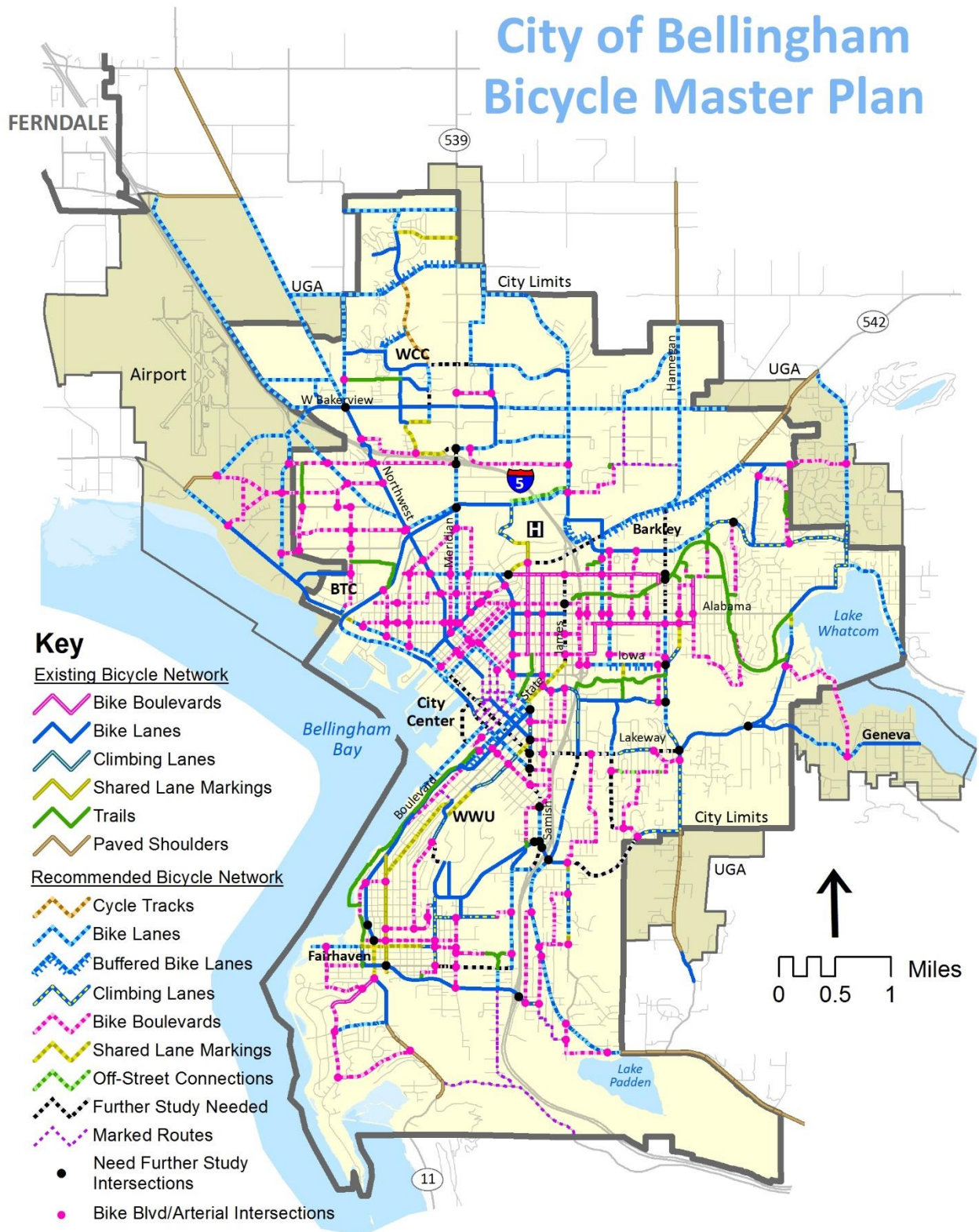


Figure 6.2.

Bicycle Infrastructure Network 2016 Bike Lane Extents

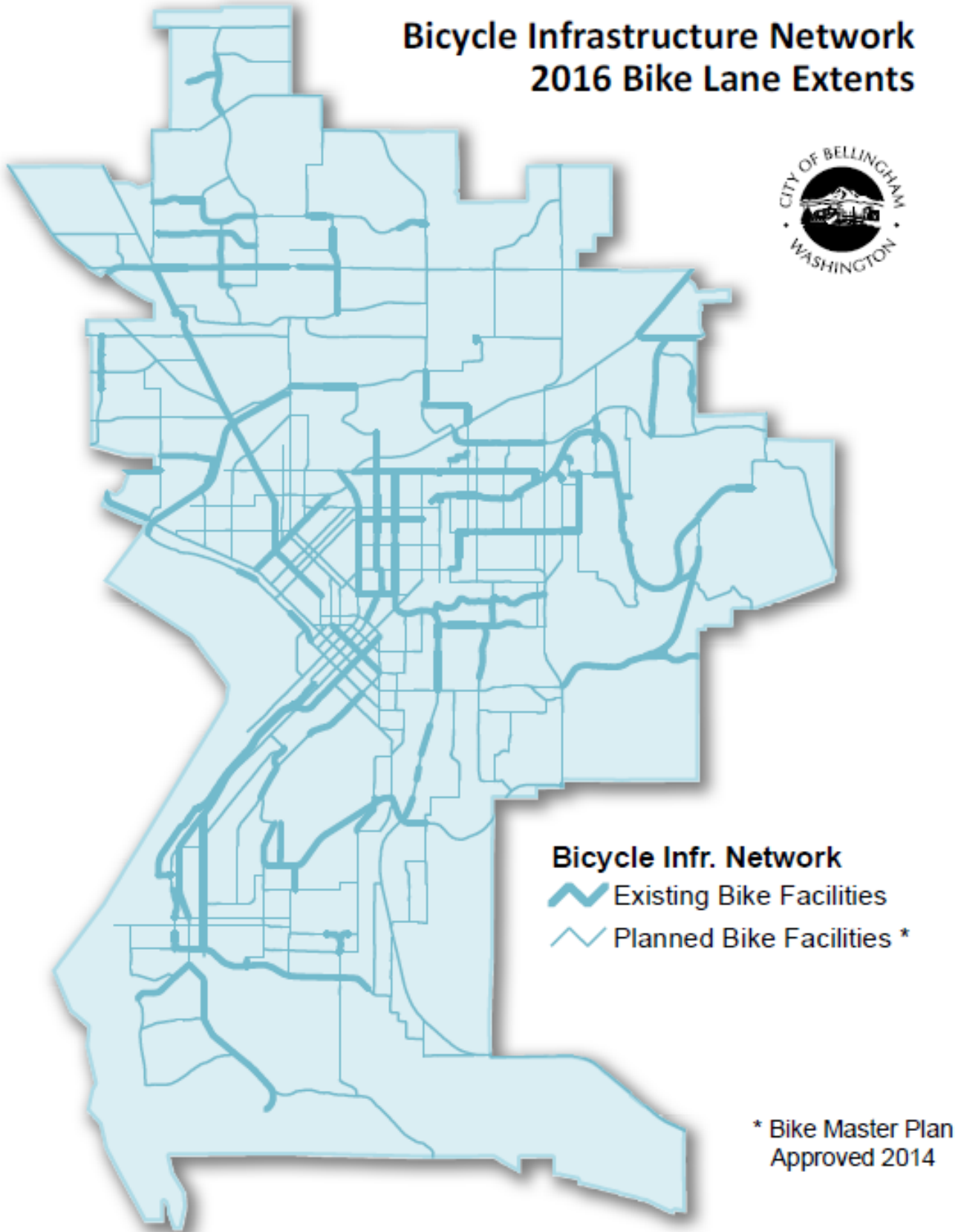


Figure 6.3

Bicycle Infrastructure Network 2016 Facility Extents By Concurrency Service Area

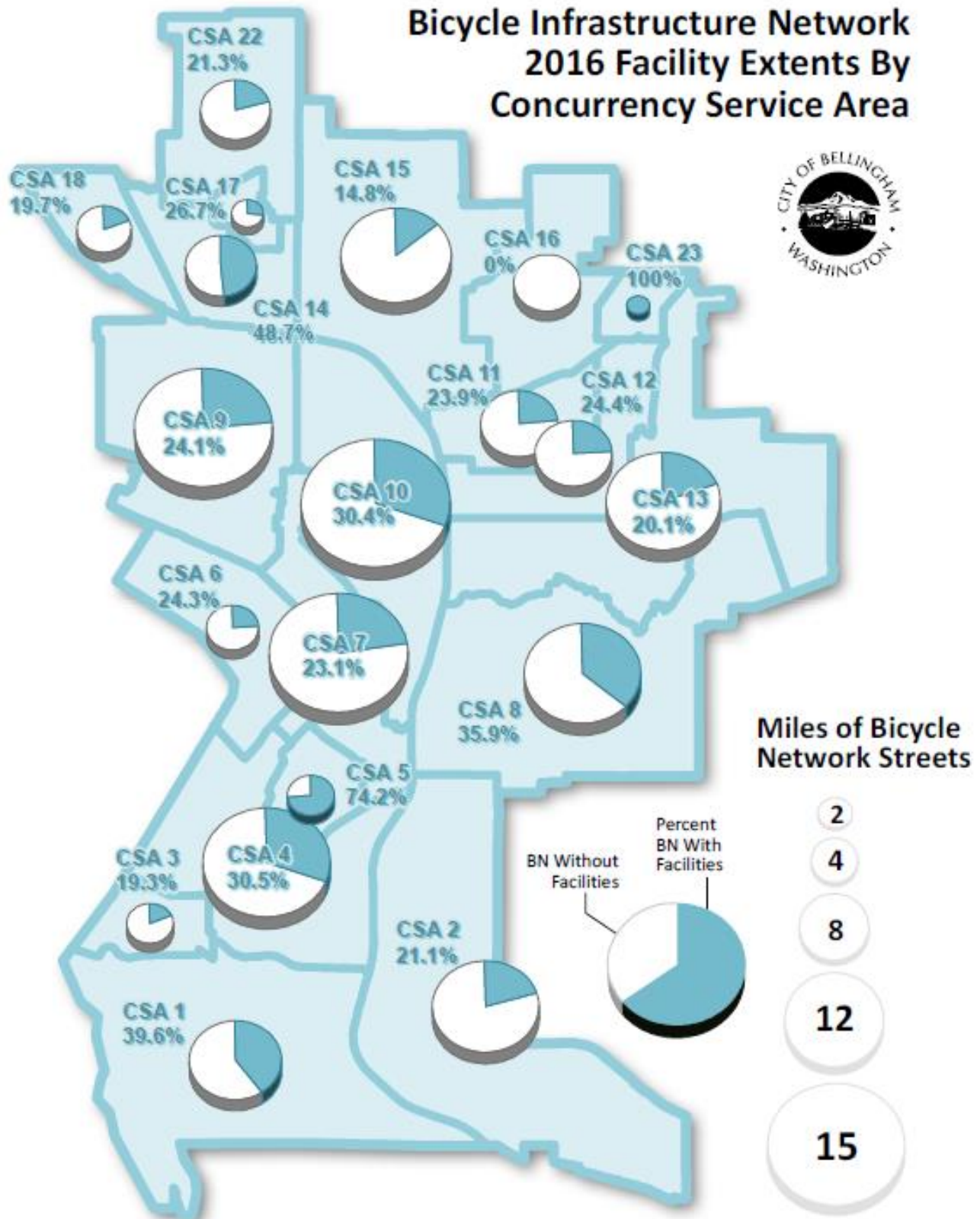


Table 6.2.



Bicycle Infrastructure Extents by Concurrency Service Area

CSA	Total Recommended Network Length (Miles)	Existing Facility Miles	Recommended Upgrade Facility Miles	Recommended New Facility Miles	Recommended Network Percent Complete
CSA 1	7.7	3.0	0.0	4.6	39.6%
CSA 2	9.9	2.1	0.0	7.8	21.1%
CSA 3	2.3	0.5	0.0	1.9	19.3%
CSA 4	13.5	4.1	0.0	9.4	30.5%
CSA 5	2.4	1.8	0.0	0.6	74.2%
CSA 6	2.8	0.7	0.0	2.1	24.3%
CSA 7	15.6	3.6	0.7	11.3	23.1%
CSA 8	11.5	4.1	0.3	7.1	35.9%
CSA 9	15.5	3.7	0.0	11.8	24.1%
CSA 10	17.8	5.4	0.0	12.4	30.4%
CSA 11	5.6	1.3	1.5	2.8	23.9%
CSA 12	5.6	1.4	0.9	3.3	24.4%
CSA 13	11.1	2.2	0.9	8.0	20.1%
CSA 14	4.9	2.4	0.0	2.5	48.7%
CSA 15	10.5	1.6	0.0	8.9	14.8%
CSA 16	4.3	0.0	0.0	4.3	0.0%
CSA 17	1.2	0.3	0.1	0.7	26.7%
CSA 18	3.0	0.6	0.0	2.4	19.7%
CSA 19	1.2	0.0	0.0	1.2	0.0%
CSA 20	4.8	1.3	0.0	3.5	27.6%
CSA 21	4.1	0.7	0.0	3.3	0.0%
CSA 22	4.7	1.0	0.9	2.8	21.3%
CSA 23	0.6	0.6	0.0	0.0	100.0%
Grand Total	160.4	42.4	5.3	112.7	26.5%

Chapter 7: Off-Street Greenways Multiuse Recreation Trails - 2016

(Provide less direct and mostly unpaved alternate routes than on-street transportation network)

In 2009, Bellingham transportation planners amended the multimodal transportation concurrency ordinance to make several changes to Urban Village Concurrency Service Areas and also incorporated a select inventory of bike-friendly multiuse recreational trails. ***The inclusion of the bike-friendly multiuse recreational trails was not to declare them as an integral part of the citywide transportation network, but rather to acknowledge that some bicyclists do use these recreational trails as indirect and/or alternative routes to the on-street Primary Bicycle Network identified in the 2014 Bicycle Master Plan (BMP).*** Most of these recreational trails are not suitable for road/racing bicycles because they are primarily crushed limestone gravel surfaces, vary in width and steepness, and often do not connect to major destinations.

These bicycle-friendly trail routes were identified and field verified for ride-ability over many years by individual members of City and County Bicycle and Pedestrian Advisory Committees, the Mt. Baker Bicycle Club, as well as City staff and Parks and Recreation Advisory Board and Greenways Committee members involved in an effort called “Green Streets.” Technical data came from the City’s GIS layers for trails and bicycle routes, digital air photos, and digital terrain models.

The criteria that staff used to add select bike-friendly multiuse recreational trails to the list of BMC 13.70.020 Definitions Specific to Concurrency Management included:

- 1.) Off-street multiuse trails that can serve a clear transportation function, in addition to the recreational benefits that they provide, and a safe alternative to unmarked bicycle routes on arterial streets
- 2.) Prepared gravel/crushed rock surface trails, or smooth dirt with adequate drainage, and smooth even surface facilitating safe travel by cyclists. Trails with stairs, large roots, rocky sections, off-camber cross-sections, or areas with persistent standing water/puddles are generally not included
- 3.) Trails that average at least 5-feet, but preferably 8-feet, in width to facilitate safe bi-directional passage of cyclists and pedestrians
- 4.) Trails with slopes/grades of generally less than 6% average with maximum grades of generally less than 12%.

The bike-friendly multiuse recreational trails identified in the multimodal transportation concurrency inventory generally adhere to the specified criteria above. Some exceptions exist where lack of an alternative on-street route and the need for a critical connection dictates use of trail network sections that may have sub-standard surfaces, narrow widths, or steep grades.

Bike-friendly multiuse recreational trails are credited person trips to each Concurrency Service Area based on each comparative 1% of the total planned Primary Bicycle Network identified in the 2014 BMP. Ten (10) rather than 20 person trip credits are awarded for each 1% of the total planned on-street Primary Bicycle Network in recognition that not all bicyclists will be able to use off-street gravel trails as alternatives to on-street bike routes. It should be noted, however, that several regional multiuse trails, such as the Whatcom Creek Trail, Railroad Trail, and Bay to Baker Trail are included in the citywide bicycle network, see Figure 6.1.

Figure 7.1.

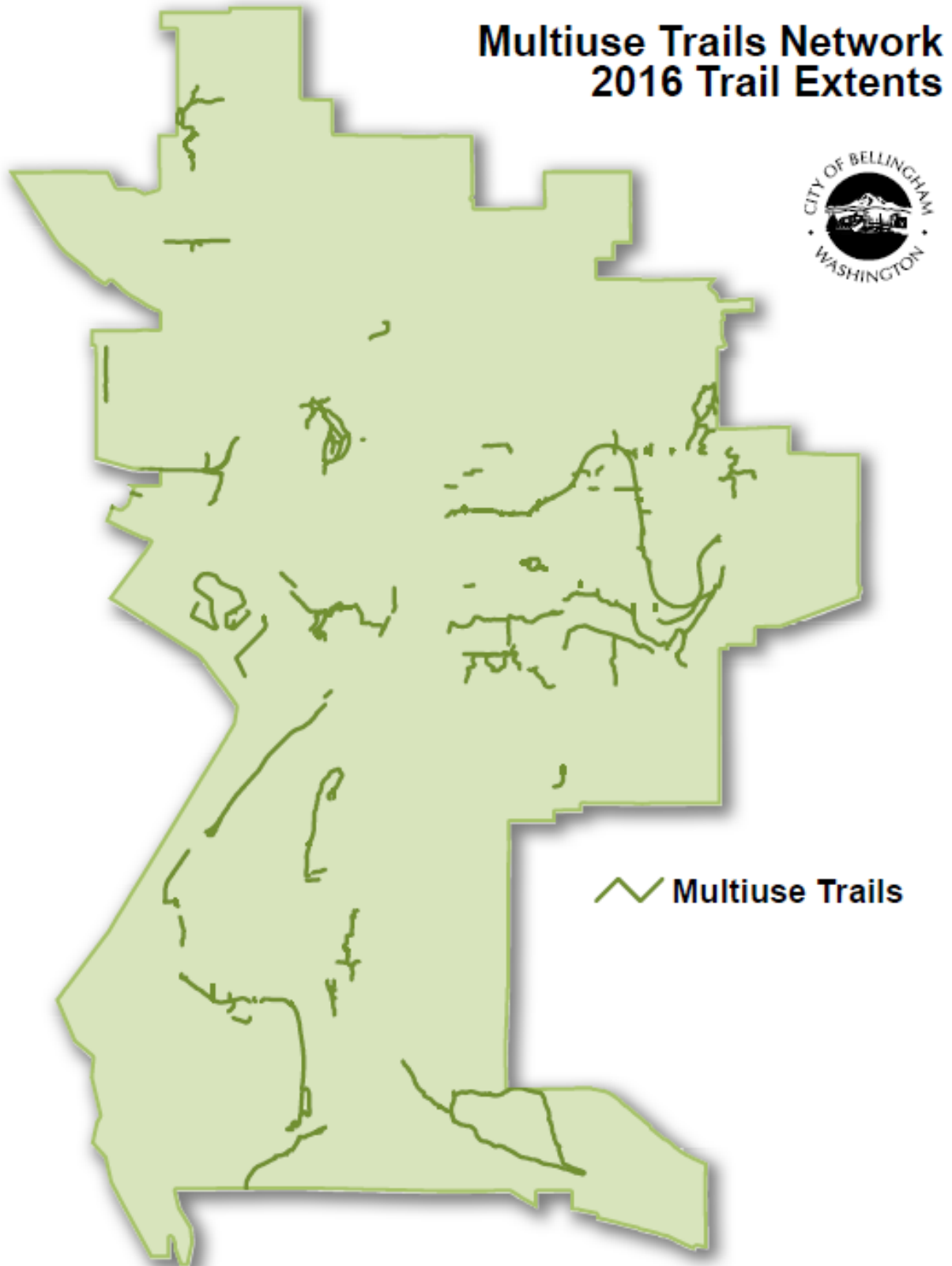


Figure 7.2.

Multiuse Trail Network 2016 Trail Mileage By Concurrency Service Area

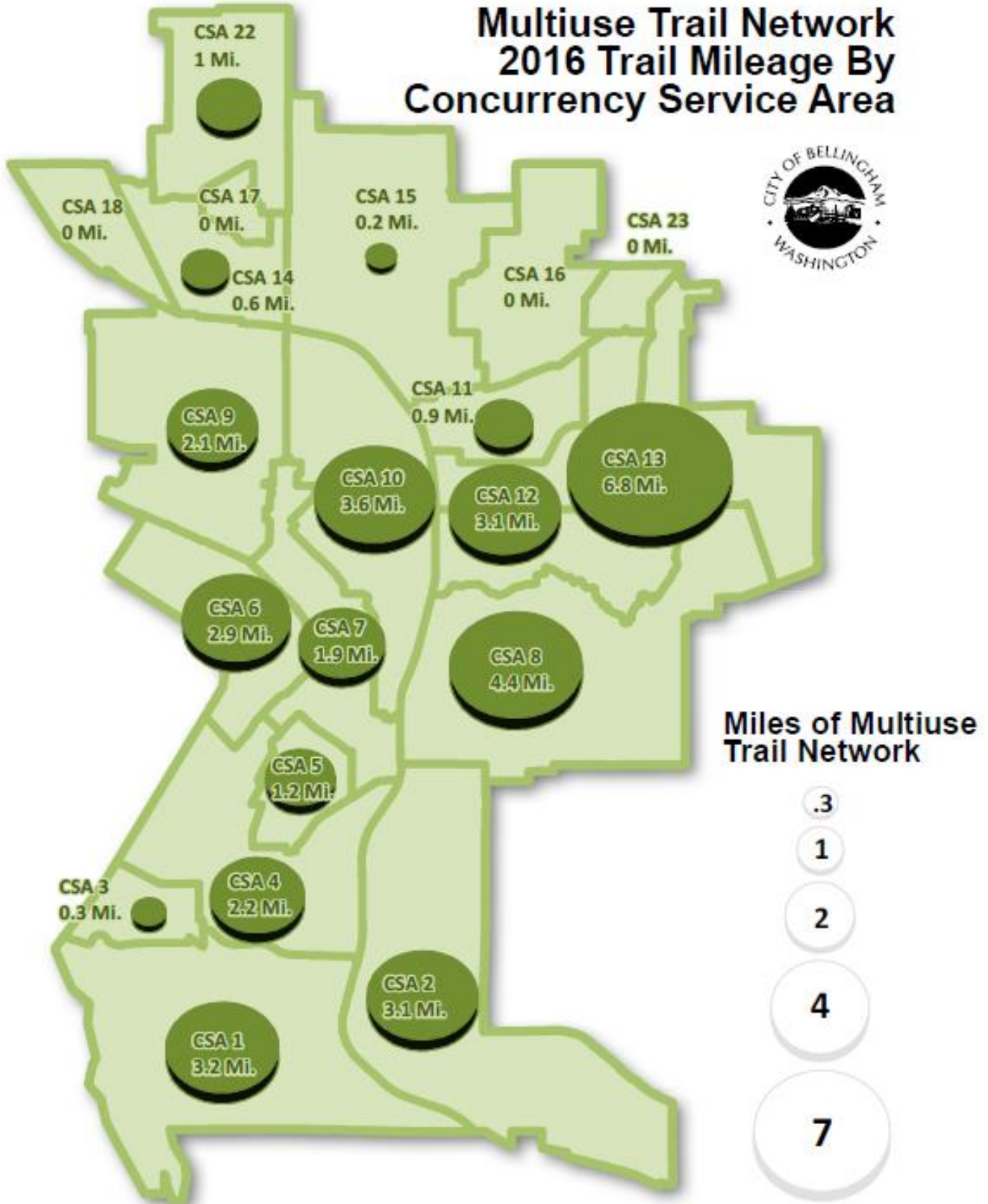


Table 7.1.



Mutiuse Trails Mileage by Concurrency Service Area

CSA	Mutiuse Trails Network (Miles)
CSA 1	3.2
CSA 2	3.1
CSA 3	0.3
CSA 4	2.2
CSA 5	1.2
CSA 6	2.9
CSA 7	1.9
CSA 8	4.4
CSA 9	2.1
CSA 10	3.6
CSA 11	0.9
CSA 12	3.1
CSA 13	6.8
CSA 14	0.6
CSA 15	0.2
CSA 16	0.0
CSA 17	0.0
CSA 18	0.0
CSA 19	0.0
CSA 20	1.2
CSA 21	0.0
CSA 22	1.0
CSA 23	0.0
Grand Total	38.8

Chapter 8: WTA Primary Transit Network - 2016

Whatcom Transportation Authority (WTA) provides public fixed route transit bus service, Paratransit bus service, and a vanpool program available to the public and employers. WTA is funded by sales tax revenue generated in a Public Transit Benefit Area (PTBA) that is contiguous with the boundaries of Whatcom County. WTA serves the City of Bellingham as well as the smaller towns and communities of Ferndale, Lynden, Blaine and Birch Bay, Lummi Nation, Sudden Valley, Kendall, Everson, Nooksack and Sumas. WTA also cooperates with Skagit Transit in neighboring Skagit County, to provide service between Bellingham and Mount Vernon. More information is available on the WTA web site at <http://www.ridewta.com/>

Fixed Route Transit Bus Service

WTA's fixed route transit bus service features 30 routes, including a network of four high-frequency corridors within Bellingham. Service is offered seven days a week, with more limited service on Saturdays, Sundays and evenings.

- Between 2002 and 2014, WTA ridership increased by 86%
- In 2008, we were recognized by the Federal Transit Administration for achieving the highest annual ridership increase in the nation
- In 2014, WTA provided 4.97 million fixed route transit bus boardings, or approximately 17,000 fixed route transit bus boardings per weekday
- WTA plays a major role transporting students and employees to and from Western Washington University (WWU), Whatcom Community College, Bellingham Technical College, and Northwest Indian College, as well as Bellingham middle schools and high schools
- WWU students voted to self-fund transit passes for every student through their tuition costs and in 2014, WWU students comprised 38% of WTA's overall fixed route ridership

Paratransit Services

WTA's Paratransit service area and span of service mirrors the WTA fixed route transit bus service and area. WTA provides an average of 600 Paratransit trips per weekday.

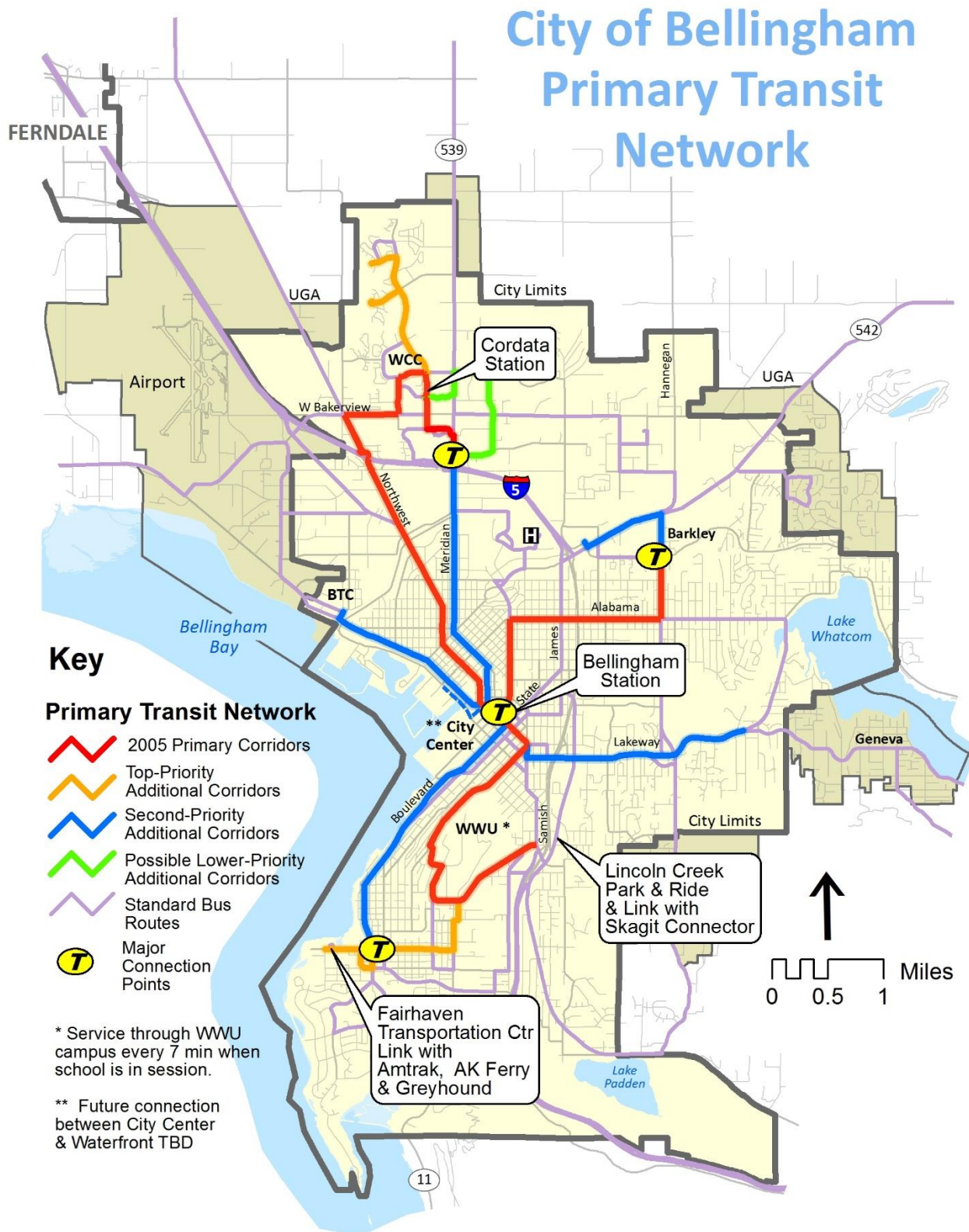
Fleet and Facilities

WTA's fleet includes 60 full-size buses (including eight hybrid electric buses), 37 Paratransit minibuses, and 39 vanpool vans. WTA operates four transit centers: Bellingham Station, Cordata Station (in North Bellingham), Ferndale Station and Lynden Station.

Integrated Transit and Transportation Planning

The City of Bellingham works directly with WTA on both land use and transportation issues and all of Bellingham's Urban Villages are served with high-frequency 15-minute transit service. City transportation planners worked directly with WTA in the development of the 2004 WTA Strategic Plan and WTA staff worked directly with City transportation planners in the development of the 2006 Transportation and Land Use Elements of the Bellingham Comprehensive Plan so that City and WTA plans are fully integrated with one another. The City and WTA are working directly with each other once again as both agencies update the WTA Strategic Plan and the Transportation Element in 2016.

Figure 8.1. WTA Primary Transit Network



Chapter 9: Automobile and Freight Truck Arterial Networks

Arterial Streets and Traffic Signals

Arterial streets and traffic signals are available and provide benefit to all users (pedestrian, bicycle, transit, automobile, and freight truck), but previous chapters have discussed pedestrian, bicycle, and transit networks and this chapter focuses on arterial streets and infrastructure as it relates to automobile and freight trucks use. The Transportation Element of the Bellingham Comprehensive Plan is available at <http://www.cob.org/services/planning/transportation/long-range-planning.aspx> and describes the existing and planned arterial street network needed to support motorized transportation, such as transit busses, private automobiles, and freight trucks. Arterial streets and traffic signal devices are depicted on Figure 8.1.

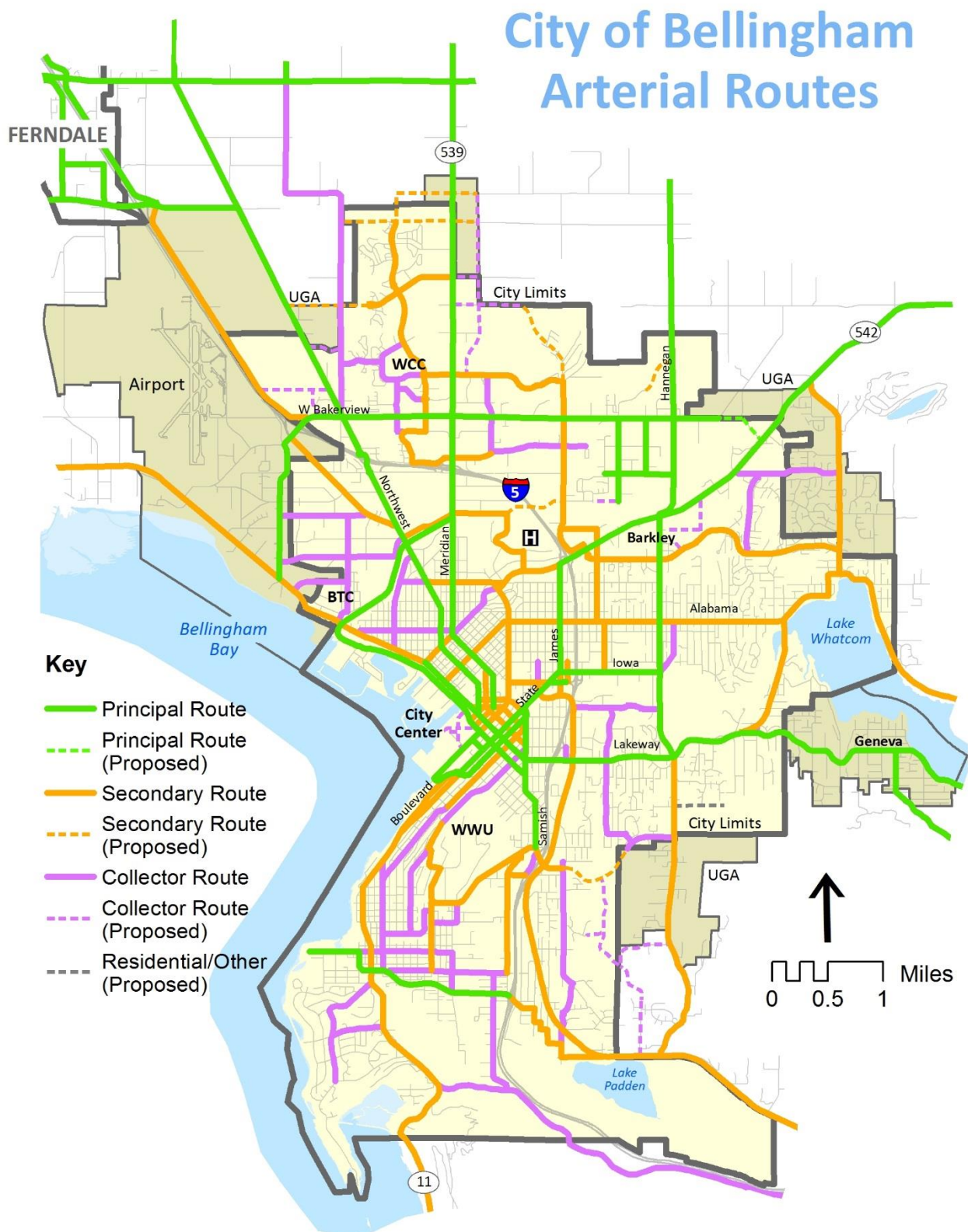
Bellingham's arterial street network is locally classified into Principle, Secondary, and Collector arterials, with 2016 lane mile totals as follows:

- Principal Arterial: Major regional transportation corridors and State and federal highways that provide connections into Bellingham from other cities, Whatcom and Skagit Counties, and Canada. 2016 = 105 lane miles.
- Secondary Arterial: Major local transportation corridors that provide connections within and between different parts of Bellingham. 2016 = 104 lane miles.
- Collector Arterial: Local transportation corridors that provide connections from neighborhood residential streets to secondary and principal arterial streets. 2016 = 57 lane miles.

In 2016, Bellingham's 266-mile arterial street network includes the following major features:

- 105 lane miles of principal arterial;
- 104 lane miles of secondary arterial;
- 57 lane miles of collector arterial;
- 118 intersection traffic signals;
- 5 multimodal roundabouts;
- 27 pedestrian-activated flashing crosswalks;
- 6 pedestrian hybrid signals [aka - High-Intensity Activated Crosswalks (HAWKs)];
- 26 automated school zone flashers; and
- 2 variable message radar speed signs.

Figure 9.1. Bellingham's Arterial Street Network



Designated Freight Truck Network

Bellingham has classified several arterial streets and all state and federal highways as Designated Freight Truck Routes, as depicted below. The City encourages major freight shipping companies to direct their drivers to primarily use the designated freight truck routes, but freight delivery trucks cannot be prevented from using any public street for deliveries unless there are weight restrictions on bridges or other public safety access restrictions. As an example, if a family is moving into or out of a house and has hired a moving company to load or unload their belongings, then the large semi-sized moving van must have access to their house via the local residential street. The same is true for large construction vehicles arriving to residential remodel sites.

In 2015, Bellingham worked with WCOG to collect freight truck counts and update Designated Freight Truck Route classifications by annual freight tonnage according to [WSDOT Freight and Goods Transportation System](#) requirements, as shown below.

Bellingham Designated Freight Truck Route Classifications		
Classification	Annual Tonnage	Example (see map)
T-1	> 10 million	Interstate 5
T-2	4 - 10 million	SR 539 (Guide Meridian)
T-3	300,000 - 4 million	SR 542 (Mt. Baker Highway)
T-4	100,000 - 300,000	12th St-State-Boulevard
T-5	< 100,000	None designated

City of Bellingham Truck Routes

Key

FGTS Classification

Truck Routes (BMC 11.63.140)

- FGTS Class T1
- FGTS Class T2
- FGTS Class T3
- FGTS Class T4

NOTE: All state and federal highways are designated truck routes except SR 11 south of the 12th St bridge

Chapter 10: Waterfront District Biennial Monitoring Program

In 2010, transportation planners created **CSA #6** for the Waterfront District in preparation for the adoption of a Waterfront District Master Plan. In 2016, CSA #6 has **1,740 PTA** with no credits given for pedestrian facilities, bicycle lanes, or transit services, but 860 credits provided for multiuse trails.

- Cornwall Avenue has continuous sidewalks on both sides between Wharf Street and West Laurel Street and from Maple to Chestnut, but lack of sidewalk on either side of the Cornwall Avenue Bridge creates a major barrier to pedestrian travel between downtown and the Waterfront.
- Wharf Street is a steep and narrow street without sidewalks or bicycle lanes and construction of either will require major excavation of the hillside, construction of retaining walls, and significant environmental impact mitigation.
- WTA transit service does not exist within the Waterfront District boundary. WTA does not currently have plans to serve the Waterfront, and it will be a very long time before fixed route transit service becomes a viable option to serve the Waterfront District.

From a concurrency standpoint, additional person trip credits will not be awarded until new arterials, sidewalks, and bicycle lanes are constructed to increase the PTA to serve new Waterfront development. Additional person trip credits will also be awarded if and when fixed route WTA transit service becomes available to the public in the Waterfront.

- Public Works will be constructing the Granary-Laurel arterial street in 2017 (Figure 10.1.), which will have sidewalks and bikeways on both sides. This will add a significant number of Person Trips Available in CSA #6.
- The historic Granary Building will be redeveloped in 2016-2017 as the first major project in the redevelopment of the 200-acre Waterfront District.
- All-American Marine Boats is relocating its manufacturing site from the Fairhaven Shipyards industrial area to the I-J Waterway in the Waterfront District.

Biennial Monitoring Program Report

In December 2013, the City of Bellingham and the Port of Bellingham adopted the Bellingham Waterfront District Master Plan to guide the redevelopment of over 200 acres of industrial waterfront land into a vibrant, new neighborhood filled with a mix of industrial, commercial, institutional, residential, and public uses. The Bellingham Waterfront District Master Plan and Interlocal Agreement between the City and Port of Bellingham is available at <http://www.cob.org/services/planning/urban-villages/waterfront.aspx>

Section 20 of the Interlocal Agreement for Facilities within the Waterfront District requires the Port of Bellingham to provide the City with a Biennial Monitoring Program report by December 31, 2015, which will document transportation mobility into and out of the Waterfront District on arterial streets for pedestrians, bicyclists, transit busses, automobiles, and freight trucks.

In December 2015, TranspoGroup, Inc. completed the first Biennial Monitoring Report for the Waterfront District to establish a baseline that future reports will be measured against. Highlights from this report are included in the following pages.

Figure 2-10 Bellingham Waterfront District Boundaries

Legend

- Potential Development Area
- Other Redevelopment Area
- Parks

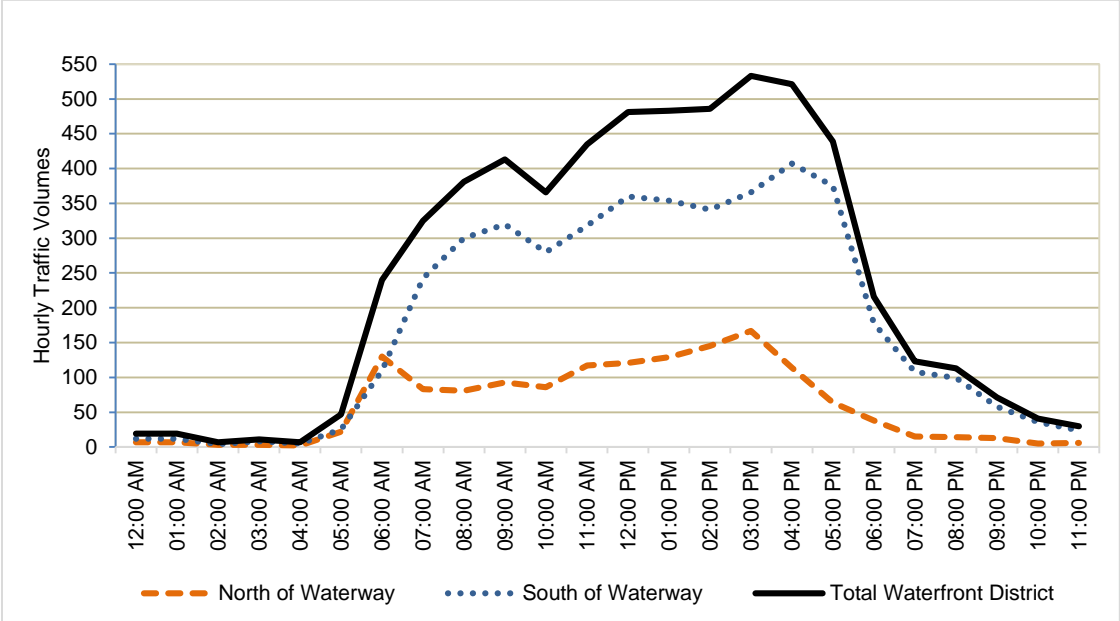
Figure 10.2. Data Collection Locations



Current Conditions

Figure 10.3 illustrates the average hourly distribution of traffic to and from the Waterfront District. This includes all trucks, cars, and bicycles to and from the site. The highest traffic levels for the site occurs in the evening between approximately 3 and 6 p.m. Based on this data, it is recommended that weekday PM peak period intersection turning movement volumes be collected between 3 and 6 p.m. for the next Biennial Traffic Monitoring Study to ensure data captures the peak hour.

Figure 10.3. Waterfront District Daily Traffic Distribution



Vehicle classifications were also collected at the access points. A review of the specific data shows the vehicle classifications are generally consistent north and south of the Waterway with travel by car representing the majority of the vehicles to and from the site. Figure 10.4 illustrates the average daily vehicle classifications for the Waterfront District.

Figure 10.4. Waterfront District Average Daily Vehicle Classification

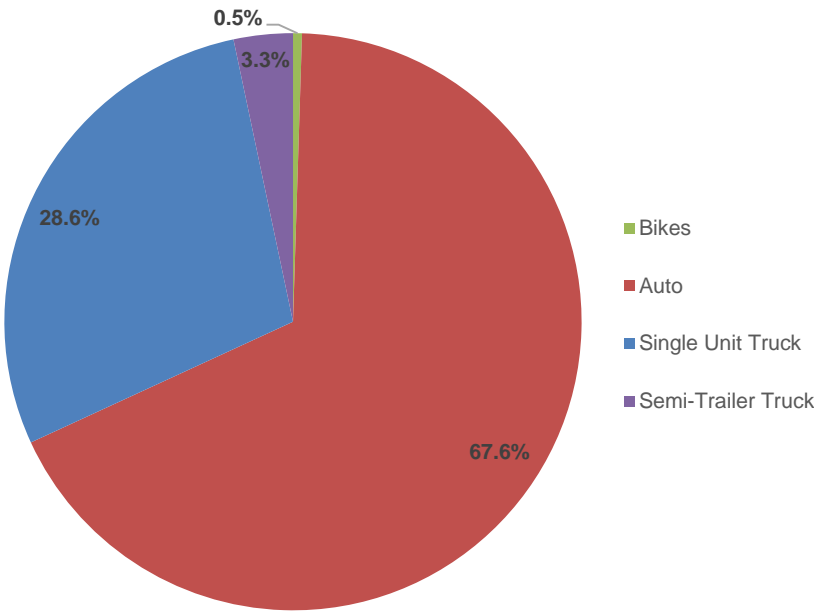


Figure 10.3 summarizes the weekday daily and PM peak hour traffic volumes for the Waterfront District. The data collected was used to determine the weekday PM peak hour trips and mode splits for north and south of the Waterway.

As shown in Figure 10.4., the primary mode of travel to the site is currently via

auto. The evaluation of mode splits only considers auto and non-motorized (pedestrian and bicycle) trips. There are no WTA bus stops located within the site. The nearest transit route operates along Holly Street. The Downtown Transit Station, which is the closest transit hub, currently has an average daily ridership of approximately 4,000 riders with approximately 775 riders during the weekday PM peak period. Existing transit riders are captured as pedestrian trips to and from the site; however, with on-site transit routes and bus stops Waterfront District transit ridership could be isolated in future studies. The current development is mainly industrial and limited non-auto activity occurs. As more mixed-use (i.e., office, retail, residential, etc.) development occurs on-site and the infrastructure becomes more walkable, it is anticipated that pedestrian, bicycle, and transit activity would increase and should be monitored more closely.

Future Development Trip Generation

Future weekday daily and PM peak hour trip generation for the Waterfront District was developed based on the land use assumptions and the methodologies described in the Waterfront District EIS. Key assumptions for the trip generation analysis include:

- **Existing Trips:** Existing weekday daily and PM peak hour traffic volumes for the development areas were updated based on the 2015 data collected.
- **Mode Splits:** The future 2019 mode splits were based on the existing 2015 data collected for north and south of the Waterway. It is anticipated as mixed-use development occurs there will be a shift towards non-auto modes; however, the evaluation assumes for the next 4-years mode splits would be consistent with existing conditions with a high use of auto modes.
- **Internal Trips:** Consideration was also given to internal trips that would occur between uses within the site. An internal trip rate of approximately 15 percent was assumed as part of the Waterfront District EIS; however, given the limited development anticipated in the next 4-years, the rate is anticipated to be less than assumed with full build-out of the site. Internal trips were calculated based on the methods described in the Waterfront District EIS and a review of the current Institute of Transportation Engineers (ITE) *Trip Generation Handbook*, 3rd Edition procedures and data. The internal trip rate was estimate to be approximately 7 percent or approximately half the percent anticipated with build-out of the District.

Future Traffic Volumes and Transportation Infrastructure Phasing Plan

The future trips were distributed to the site access points based on the location of the proposed development as well as consideration of planned infrastructure improvements and offsite travel patterns. The existing trips were not reassigned since there are no new site access points proposed. The new Granary Avenue site access point will replace the existing Central Avenue access. The proposed infrastructure would accommodate the anticipated development over the next 4-years. North of the Waterway, the proposed development is anticipated to use approximately 24 percent of the infrastructure capacity leaving 76 percent of the capacity available for future development. South of the Waterway, the proposed development is anticipated to use approximately 50 percent of the infrastructure capacity. The remaining capacity would accommodate additional development; however, the location of future development will also need to be considered when determining if it can be accommodated without additional infrastructure improvements. Conducting traffic monitoring study every 2-years will capture changes in development estimates, location of the development and verify infrastructure needs.

Findings

Based on the review presented above, no additional infrastructure improvements are recommended. Plans for development beyond what has been analyzed herein should consider the available capacity for each area. In addition, the evaluation of infrastructure capacity remaining for the site after the projected 2019 development is conservative since all existing site uses are anticipated to remain and as development occurs existing uses would be redeveloped reducing trips from the site.