



Transportation Report on Annual Mobility

Published annually in support of Bellingham's:

- Comprehensive Plan Transportation Element;
- Multimodal Transportation Concurrency Program;
- Pedestrian Master Plan;
- Bicycle Master Plan;
- Transportation Benefit District No. 1;
- Whatcom Transportation Authority Strategic Plan;
- Multimodal Transportation Impact Fees;
- Urban Village TIF Reduction Program; and
- Waterfront Biennial Monitoring Program.

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Executive Summary

Since 2006, the Transportation Report on Annual Mobility (TRAM) 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 TRAM provides 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 TRAM provides an assessment of the existing multimodal transportation system to help Public Works, the Transportation Commission, 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. The TRAM documents 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 TRAM serves as an annual progress report on how Bellingham provides mobility for people, goods, and services.

The 2019 TRAM is consistent with the [2016 Bellingham Comprehensive Plan](#) and reflects Bellingham's "Complete Networks" transportation planning policies, hierarchy of transportation modal priorities, as well as transportation mode share trends and 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 2019 TRAM is the 2017 Waterfront District Biennial Transportation 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 programs and resources are available on the City of Bellingham [Transportation Planning](#) web page.

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

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Chapter 1: Observations and Implications of the 2019 TRAM

Urban Villages (Green): As Table 3.1 shows, there are more Person Trips Available (PTA) [9,279] 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 (**95%**), availability of bicycle facilities planned in the Bicycle Master Plan (**34%**), the presence of multiuse recreational trail connections relative to the planned bicycle facilities (**12%**), and the prevalence of high-frequency transit routes running through the core urban villages to the downtown WTA transit station on Railroad Avenue.

Institutional Master Planned Areas (Blue): There are 3 distinct Institutional Master Planned areas in Bellingham, which have distinct mixed-use characteristics and special populations that they are serving.

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, but this is changing as the City constructs the Granary-Laurel arterial street and cycle track from Roeder Avenue to Cornwall Avenue. CSA #6 cannot evolve to a Type 1 CSA to merge with the other 4 core urban villages until WTA high-frequency transit service is available and a transit ridership base develops, which is not expected for many years.

Suburban Areas (Red): In 2018, the City annexed CSA #19 “Airport Industrial,” which has the fewest PTA as it is heavily auto-oriented with infrequent transit service and ridership. It should also be noted that the 2012 Pedestrian Master Plan did not include UGA and CSA 19 is not part of the primary pedestrian network.

2019 CSA Map Changes and Reclassification of CSAs:

Changes to CSA boundaries and typologies were made to the 2019 CSA map, as listed below.

- CSA 6: Waterfront District ‘Downtown’ mixed-use part changed to Type 1 Urban Village CSA (minus transit)
- CSA 8: Split at Woburn-Yew. West half Type 2; East half Type 3 and merged with CSA 20.
- CSA 11: New blue IMP created to represent St. Joseph’s Hospital campus and surrounding medical offices.
- CSA 13: Expanded south to Whatcom Creek, changed to Type 2, consistent with CSA 8 Type 2 to south.
- CSA 14: Expanded to absorb CSA 18. Propose to change to Type 2 CSA as homes are built along Mahogany Ave.
- CSA 15: Propose to change south portion to Type 2 CSA as more homes are built along Telegraph Road.
- CSA 16: Expanded east to absorb CSA 23.
- CSA 19: Created for Airport Industrial Area annexed in 2018.
- CSA 20: Combines east half of former CSA 8, 13, and newly annexed Mt. Baker Hwy area.
- UGA areas: Numerals eliminated because timing of annexation has not been consistent with numbering system.

Over time, private development will construct sidewalks on all public streets and bicycle facilities along all arterial streets and the City will construct capital street improvements, adding sidewalks, bicycle facilities, streets, and transit connections. All these future improvements will add PTA to CSA’s, but if there are not enough PTA to serve new development at the time of concurrency evaluation, then developers may need to earn PTA 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: The 2019 TRAM demonstrates that Bellingham’s Multimodal Transportation Concurrency methodology is integrating multimodal transportation system capacity with various land use contexts. This helps to promote Bellingham Comprehensive Plan and GMA goals to direct new development toward compact, mixed use urban areas where adequate transportation services and facilities are most available.

TRAM Recommendations Completed and Moving Forward

Each year, the TRAM reports 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. Actions Taken on 2018 TRAM Recommendations

1) Explore Further Refinements/Additions of Concurrency Service Areas

- Consider splitting the King Mountain CSA #15 into north and south halves and reclassify the south half from a Type 3 to Type 2 CSA. WTA high frequency transit service and significant high-density residential development is changing the land use context in the southern half of CSA #15.
 - ✓ Decision to hold off on this proposal until 2021-2022 when Public Works reconstructs Telegraph Road into a multimodal 3-lane urban arterial street.
- Consider reclassifying the South Cordata CSA #14 from Type 3 to Type 2 CSA. WTA high frequency transit service and significant commercial and high-density residential development is changing the land use context in CSA #14.
 - ✓ CSA 14 expanded northwest to absorb CSA 18, but kept as a Type 3 CSA for now. Propose to reclassify to Type 2 as homes are constructed along the north side of the newly completed Mahogany Avenue, which has complete sidewalks and bike lanes and may become a WTA transit route in the future.
- 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 submitted pre-application materials to update/amend the St. Joseph's Hospital IMP. Depending on progress in 2018, SJ Hospital should be made an Institutional CSA in the 2019 TRAM
 - ✓ New CSA 11 created to reflect the St. Joseph Hospital IMP campus and surrounding medical offices.
- Identify additional potential candidates for Urban Villages as future Type 1 "Urban Village" CSAs. Four potential future Urban Villages identified in the 2016 Land Use Element - (Lakeway Center, Sunnyland Square, Birchwood Center, and Cordata Center). Cordata Center should be considered for a Type 1 "Urban Village" CSA in the 2019 TRAM
 - ✓ Decision to hold off on reclassifying Cordata Center to Urban Village until completion of both Phase 1 and Phase 2 of Cordata Community park and the construction of homes surrounding the new park, as well as Public Works road diet of Cordata Parkway to install buffered bike lanes and rechannelization of West Horton Road and Stuart Road into a multimodal 3-lane urban arterial streets.

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

- ✓ 2018 traffic counts throughout the city incorporated into concurrency tracking system.

3) Monitor Multimodal Transportation Concurrency Methodology for Effectiveness

- Continue to publish TRAM and annually report observations of system effectiveness
- *This is an on-going and annual procedure. All TRAC/TRAM documents 2006 - 2019 are available at <http://www.cob.org/services/planning/transportation/Pages/multi-modal-trac.aspx>*

B. 2019 TRAM Recommendations – Moving Forward**4) Explore the Possibility of Integrating Connectivity Metrics (Used in Bicycle Master Plan project prioritization) into Multimodal Transportation Concurrency Evaluation and/or Transportation Impact Analysis (TIA) for Development Review**

- *Bellingham's TIA guidelines are in need of revision and will be updated in 2019-2020, consistent with national ITE recommendations for Multimodal TIA methodology. Significant staff time would be required to incorporate ViaCity, but still a priority for transportation planners. Policy direction included in adopted 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.

5) Explore Simplification of Concurrency Tracking and Monitoring System and Consolidation of CSA's

- Consider simplifying the automobile and transit inputs to the Concurrency Evaluation Tracking Tool to reduce the amount of time required to collect, analyze, and prepare the TRAM document each year.
- Consider reducing the overall number of CSAs by combining some of the CSA's that are of similar typology and are unlikely to experience noticeable changes from year-to-year. Example recommendations include:
- Combine Type 3 CSA 1 (Edgemoor-South) and Type 3 CSA 2 (Samish Hill)
- Combine Type 2 CSA 9 (Birchwood-Columbia) and Type 2 CSA 10 (Cornwall-Sunnyland-York)
- When the Orchard-Birchwood multimodal arterial beneath Interstate 5 is completed in 2020, then split CSA 15 (King Mountain) in half with the southern half merged with CSA's 9 and 10 (see above) and changed to Type 2 typology.
- As residential and mixed-use development continues along the West Bakerview corridor and when WTA high frequency transit service is provided on Meridian Street to Bellis Fair Mall, then reclassify the South Cordata CSA #14 from Type 3 to Type 2 CSA.

Chapter 2: Bellingham's Multimodal Transportation Planning Approach

Complete Networks Policies

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 "Complete Networks" policies for citywide multimodal transportation planning. Bellingham's ultimate goal is to complete, maintain, and enhance each modal network.



Figure 2.1. - Bellingham's "Complete Networks" Policies for 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 has adopted transportation policy for modal priority in the Transportation Chapter of the 2016 Bellingham Comprehensive Plan to:

Policy T-6: 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.

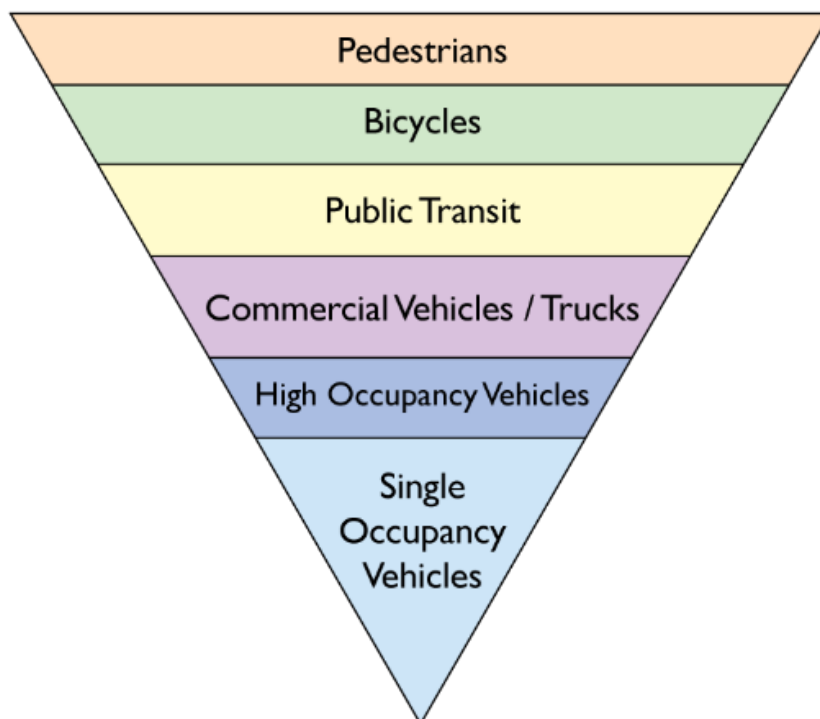


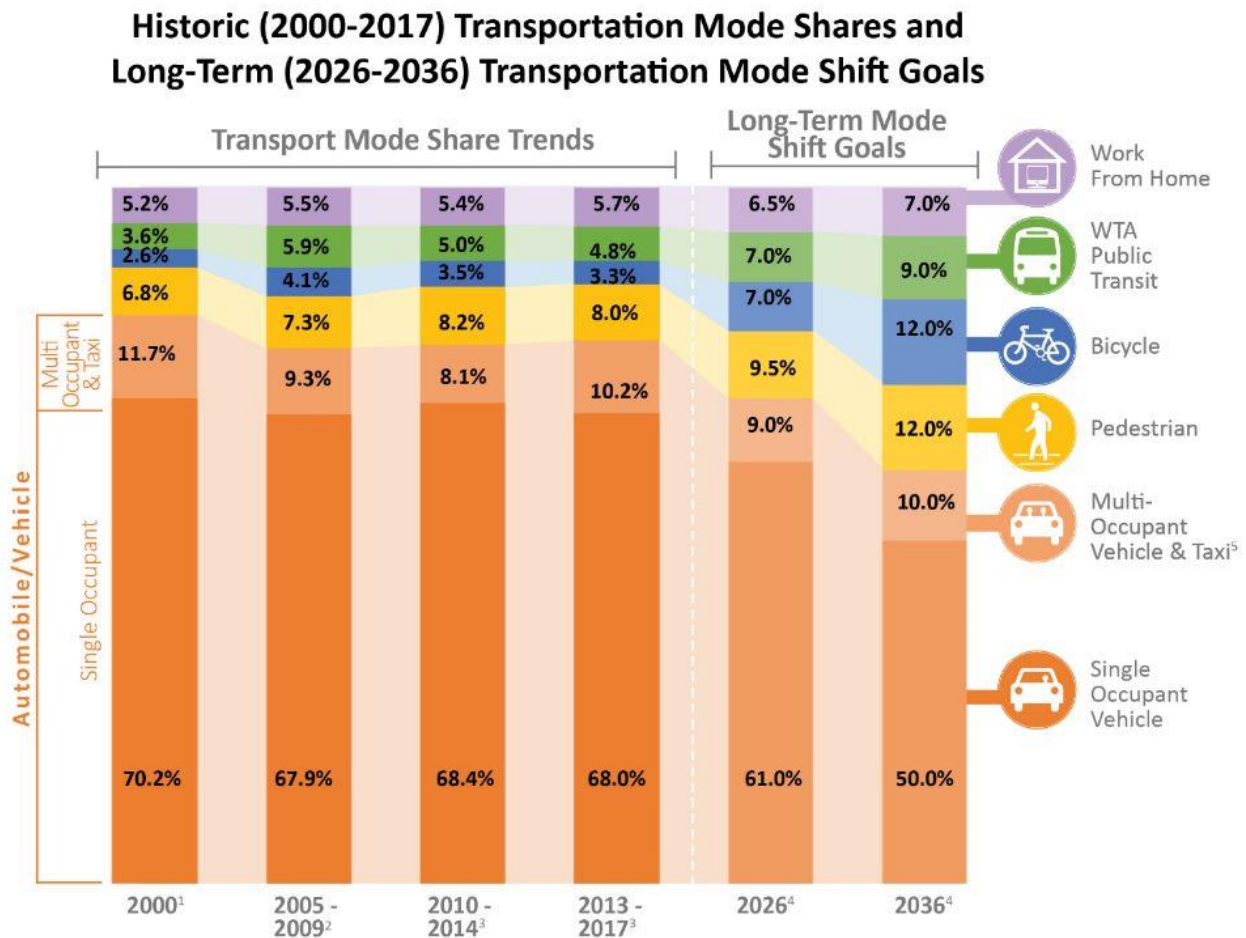
Figure 2.2. - Bellingham's Transportation Modal Priorities

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. Lists of completed sidewalk, crossings, and bikeway projects are included in Chapters 4, 5, and 6.

Transportation Mode Share Trends and Long-Term Mode Shift Goals

In 2006, Bellingham adopted long-term transportation mode shift goals, which were updated and readopted in the 2016 Bellingham Comprehensive Plan. Figure 3, below, illustrates transportation mode share trends for work trips from 2000 through 2017 based on American Community Survey data published by the U.S. Census Bureau. The long-term trends establish Bellingham's baseline and has allowed transportation planners to develop aspirational 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.



Notes:

- 1.) Table P030: 2000 U.S. Census Summary; Means of Transportation to Work
- 2.) Table B08301: 2005-2009 Average from American Community Survey (U.S. Census)
- 3.) Table S0801: 2010-2014 & 2013-2017 Average from American Community Survey (U.S. Census)
- 4.) 2016 baseline and long-term mode shift goals [Monitor annually in TRAM; update goals in 2026 Comp Plan]
- 5.) Taxi includes ridesharing organizations, such as "Uber" and "Lyft"

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

Observations of Transportation Mode Share Trends in 2019

Public Works tracks and monitors annual progress toward achieving these goals, which allows 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.

There are some very important realities to consider when making observations about Bellingham's transportation mode share data, including but not limited to:

- **Bellingham is the regional center** for employment, shopping, medical, education, and entertainment services. Regional trips made for all of these purposes are almost exclusively vehicle trips due to the distances traveled and the convenience of the private automobile compared to fixed route transit.
- **Bellingham's population (City limits + UGA) has grown by over 28%** between 2000-2017 from approximately 77,000 in 2000 to approximately 99,000 in 2017.
- **Bellingham housing has become much less affordable** for wage workers, which has resulted in home sales in Ferndale, Birch Bay, Blaine, Lynden, and Everson as well as rural Whatcom County. For those whose employment is in Bellingham, this translates to increased regional vehicle-based trip making.
- The U.S. Census American Community Survey data is reported as a rolling 5-year average, which allows general incorporation of national and regional trends that may not show up in annual statistics due to lag time of the data (Ex: 2017 data is reported in 2019).

In 2019, the national and the Pacific Northwest regional economies are strong and have been for several years. Historically when individuals have more disposable income, it often correlates with higher automobile sales, which then translates to higher vehicle miles traveled. This has been the trend for several years now and, coupled with historically low gasoline prices, has translated into more reliance on automobiles. Figures 2.4 and 2.5 show a more granular look at all rolling 5-year averages since 2010 and illustrates that:

- Both Single and Multi-Occupant Vehicle (SOV & MOV) mode share has increased (+1.1% & +0.3%). Bicycle mode share has held steady, but decreases have occurred for pedestrian (-0.3%), public transit (-0.7%), and work at home (-0.4%) mode shares.
- Decreases in mode share for public transit is consistent with national trends that show decreased transit ridership and increased vehicle miles traveled. This is likely the result of many factors that are out of Bellingham's local control (Availability of rideshare, a strong market economy allowing more disposable income, historically cheap fuel prices, etc.). See TRAM chapter 8 for more information on WTA.
- Bellingham is installing significant new bicycle infrastructure in 2019-2020 on Roeder Avenue, Chestnut Street, the Samish-Maple-Ellis corridor, Magnolia Street, and Cordata Parkway, which is very likely to spur additional interest in people choosing to bike for some local trips rather than driving.
- Bellingham should continue to build pedestrian, bicycle, and transit-supportive infrastructure, promote walking and bicycling for transportation, and work with bike share organizations to begin service.
- Bellingham should consider raising metered vehicle parking rates, expanding parking management areas, and implementing market-based dynamic parking prices in high-demand parking locations.

Figure 2.4. Transport Mode Share Trends 2000-2017 & Long-Term Mode Shift Goals

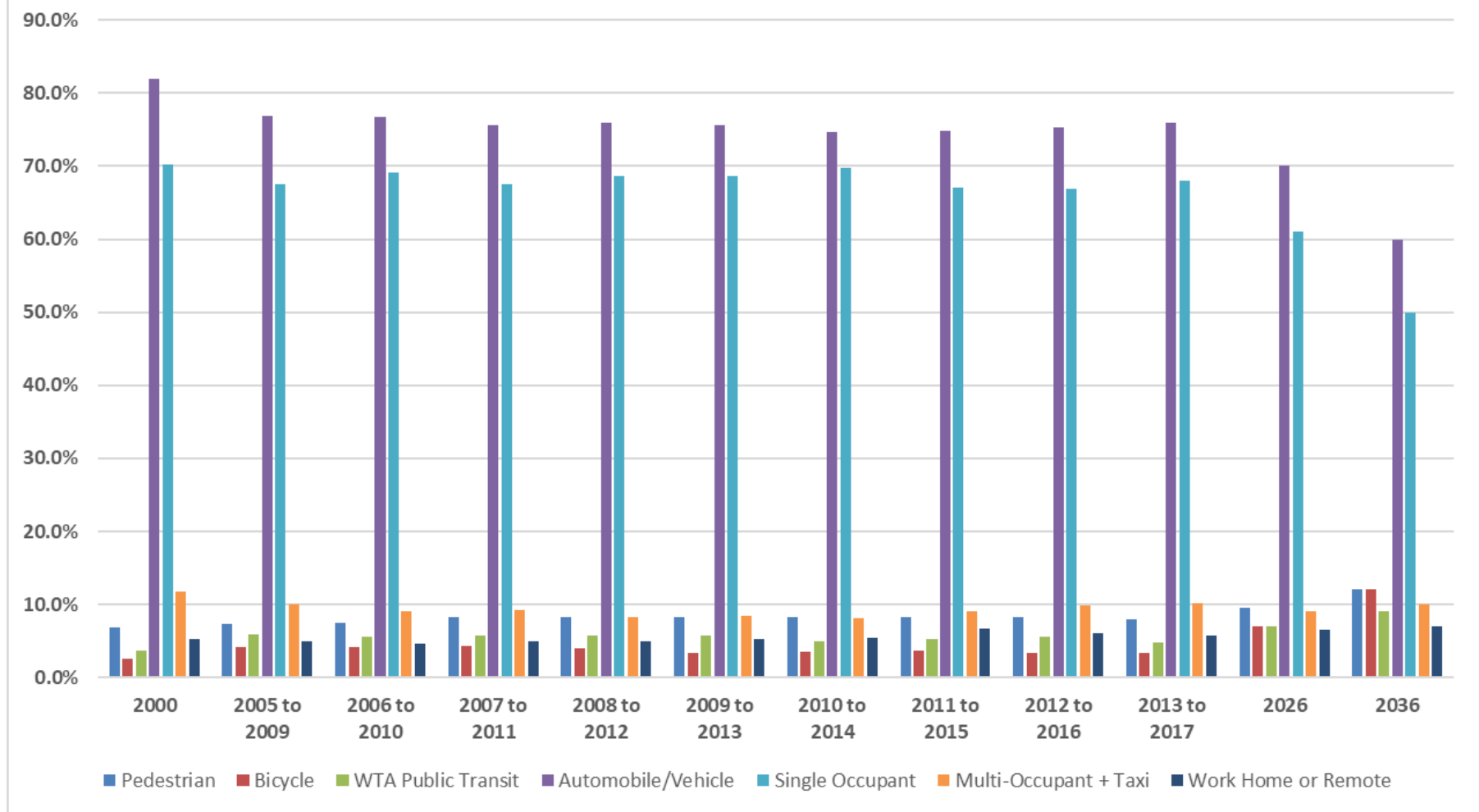
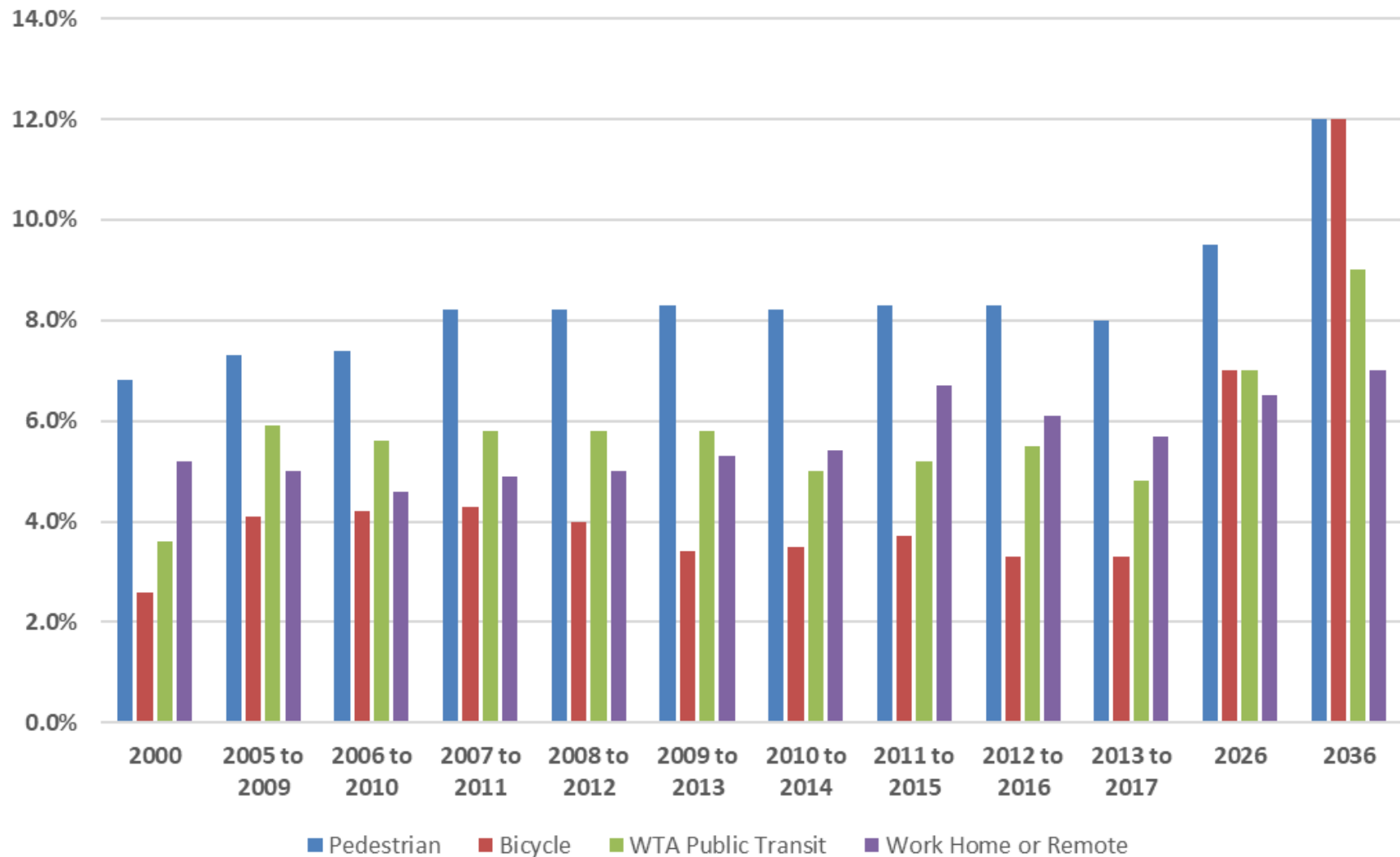


Figure 2.5. Non-Automotive Mode Share Trends



Chapter 3: Multimodal Transportation Concurrency Program in 2019

Evolution From Auto-based to Multimodal Transportation Metrics

In 2005, Bellingham transportation planners recognized that traditional auto-oriented level of service (LOS) methodology from the national Highway Capacity Manual (HCM) would not help Bellingham achieve its land use goals for infill development, but it wasn't until 2009 that a better method was devised to meet the Washington State's GMA transportation concurrency requirements:

Transportation element that implements, and is consistent with, the land use element (RCW 36.70A.70 (6)) and 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 3 years consistent with project funding on 6-Year TIP]*

In 2009, Bellingham implemented its innovative [Multimodal Transportation Concurrency Program](#), which received the **2009 APA/PAW Award for Transportation Planning in Washington State**. A full account of Bellingham's evolution from traditional auto-based metrics to innovative multimodal transportation metrics is available in an article titled [Moving Beyond the Automobile](#) on the City web site.

Since 2006, the City has evaluated 317 development proposals for transportation concurrency in citywide CSAs.

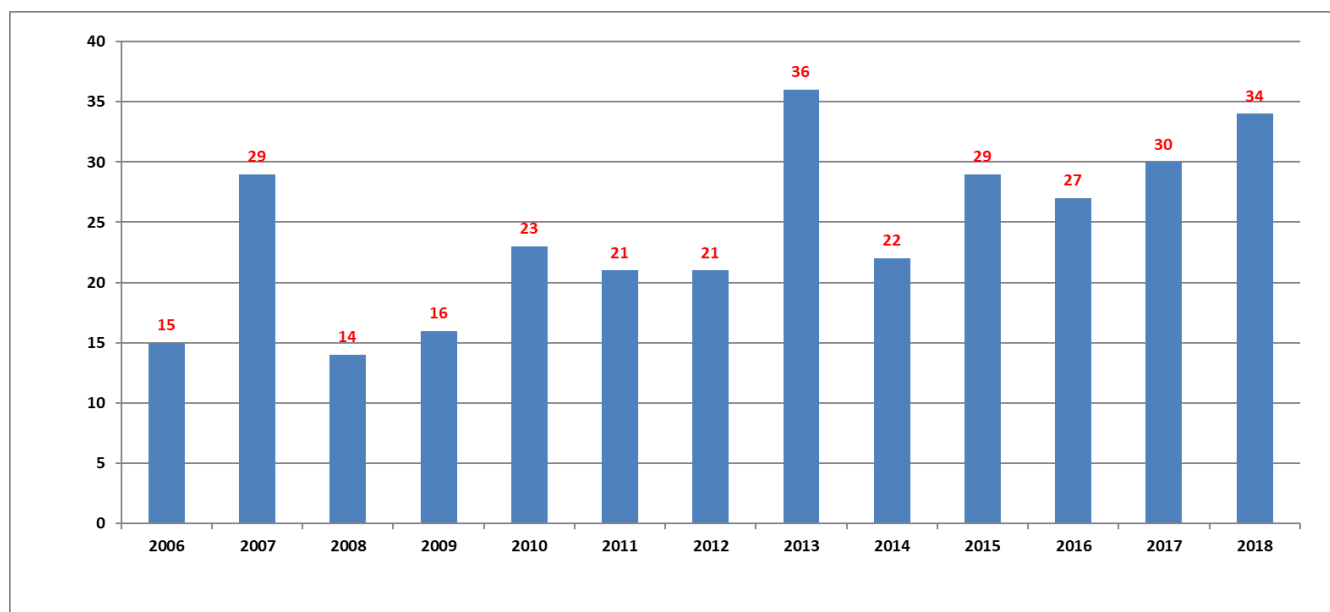


Figure 3.1. 317 Concurrency Certificates Issued from June 15, 2006* - December 31, 2018

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

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 20 Concurrency Service Areas (CSA) across the city (*Figure 3.2.*).

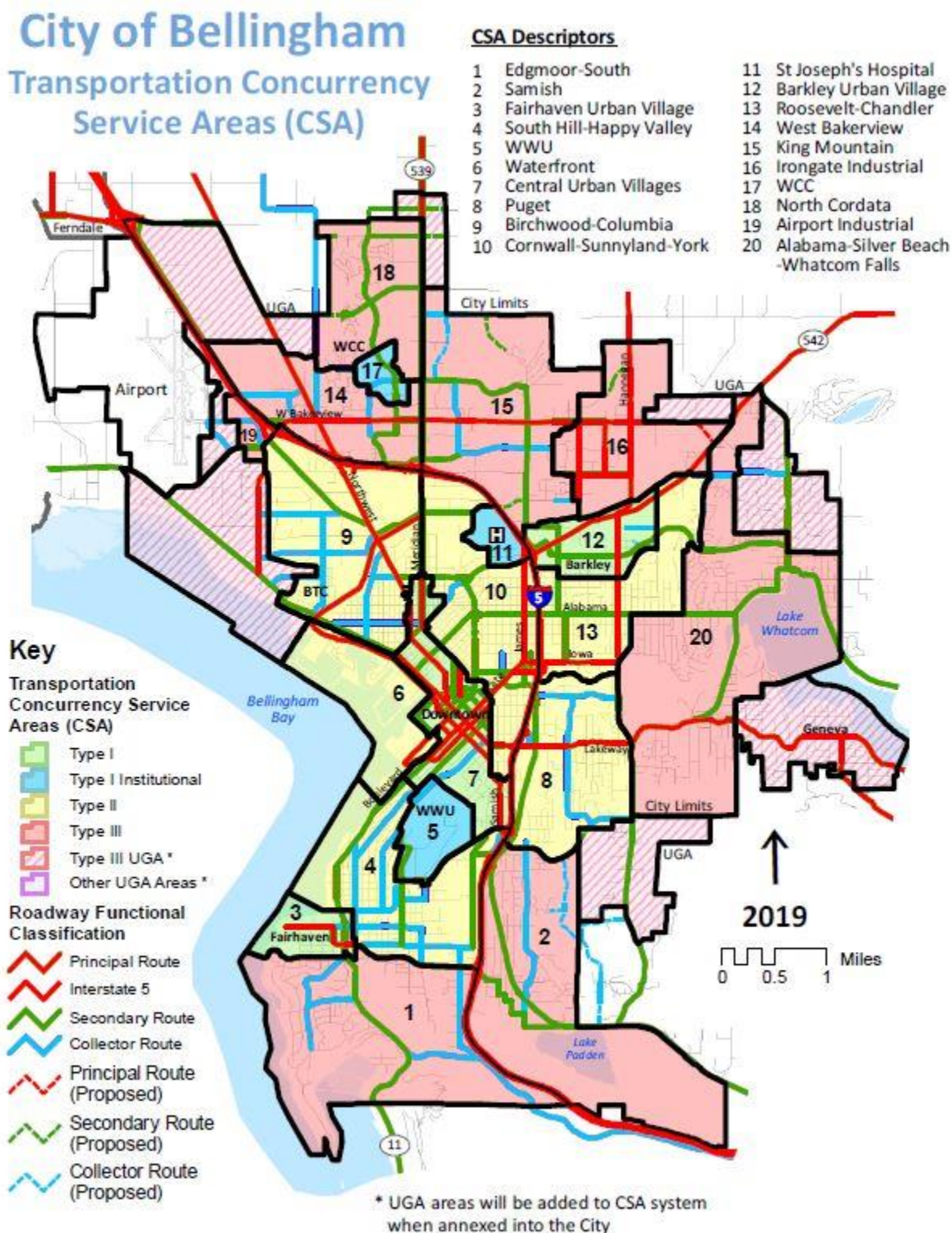


Figure 3.2. Bellingham's 20 Concurrency Service Areas (CSA) in 2019

Table 3.1 Person Trips Available (PTA) by Concurrency Service Area (CSA) in 2019

| Concurrency Service Area (CSA) | Sidewalks ¹ | | Multiuse Trails | | Bikeways ² | | WTA ^{3,4} | Auto ⁴ | 2019 |
|--------------------------------|------------------------|--------------|-----------------|--------------|-----------------------|--------------|--------------------|-------------------|------------------|
| | % | Credit | % | Credit | % | Credit | Transit | Arterial | Net |
| | Complete | PTA | Complete | PTA | Complete | PTA | PTA | PTA | PTA ⁵ |
| 1. Edgemoor/South | 32% | 0 | 42% | 420 | 34% | 0 | 49 | 1,265 | 1,734 |
| 2. Samish | 22% | 0 | 31% | 310 | 3% | 0 | 19 | 2,666 | 2,995 |
| 3. Fairhaven Urban Village | 85% | 700 | 13% | 130 | 32% | 0 | 270 | 1,652 | 2,752 |
| 4. South Hill-Happy Valley | 60% | 200 | 16% | 160 | 45% | 0 | 181 | 1,401 | 1,942 |
| 5. WWU IMP | 85% | 700 | 50% | 500 | 69% | 380 | 638 | 2,320 | 4,538 |
| 6. Waterfront District | 43% | 0 | 60% | 100 | 48% | 0 | 0 | 1,692 | 1,792 |
| 7. Urban Core (4 Villages) | 95% | 900 | 12% | 120 | 34% | 0 | 1,407 | 8,760 | 11,187 |
| 8. Puget | 63% | 260 | 38% | 380 | 41% | 0 | 203 | 4,806 | 5,649 |
| 9. Birchwood-Columbia | 61% | 220 | 14% | 140 | 58% | 160 | 385 | 2,412 | 3,317 |
| 10. Cornwall-Sunnyland-York | 86% | 720 | 24% | 240 | 39% | 0 | 696 | 3,131 | 4,787 |
| 11. St. Joseph's Hospital IMP | 39% | 0 | 0% | 0 | 25% | 0 | 110 | 3,035 | 3,145 |
| 12. Barkley Urban Village | 88% | 760 | 16% | 160 | 63% | 260 | 450 | 6,311 | 7,941 |
| 13. Roosevelt-Sussex-Chandler | 74% | 480 | 55% | 550 | 62% | 240 | 242 | 4,330 | 5,842 |
| 14. W. Bakerview-S. Cordata | 77% | 540 | 12% | 120 | 64% | 280 | 779 | 3,783 | 5,502 |
| 15. King Mountain | 44% | 0 | 20% | 200 | 28% | 0 | 0 | 2,336 | 2,536 |
| 16. Irongate Industrial Area | 5% | 0 | 0% | 0 | 28% | 0 | 0 | 2,658 | 2,658 |
| 17. WCC IMP | 95% | 900 | 0% | 0 | 39% | 0 | 522 | 2,657 | 4,079 |
| 18. North Cordata | 60% | 200 | 0% | 0 | 45% | 0 | 622 | 1,678 | 2,500 |
| 19. Airport Industrial (Annex) | 100% | 1,000 | 0% | 0 | 0% | 0 | 0 | 336 | 1,336 |
| 20. Whatcom-Alabama-Silver | 59% | 180 | 61% | 610 | 63% | 260 | 329 | 2,813 | 4,192 |
| Totals | 66% | 7,760 | 55% | 4,140 | 44% | 1,280 | 6,902 | 60,042 | 80,124 |

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.) On March 19, 2017, WTA began new transit service on several routes in Bellingham, including a re-route of Route 331, the Gold GO Line with high-frequency transit service on James Street, Telegraph Road, and Deemer Road in CSA 15. Additional service route changes will begin in June 2019.
- 4.) 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 Auto data is collected by Public Works.
- 5.) 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.

In November 2016, the City of Bellingham adopted an update to the [Bellingham Comprehensive Plan](#) and in the Multimodal Transportation Chapter, the City re-adopted its multimodal level of service (LOS) standards and BMC 13.70 as its Multimodal Transportation Concurrency Ordinance, as follows:

Policy T-21 Calculate “Person Trips Available by Concurrency Service Area” as Bellingham's adopted LOS standard to serve planned growth in different parts of the City. Per BMC 13.70 Multimodal Transportation Concurrency, Bellingham and the UGA are divided into Concurrency Service Areas (CSA) based on differing land use contexts and multimodal LOS is calculated for each CSA using the following performance measurements:

- Completeness of sidewalk network;
- Completeness of bicycle network;
- WTA transit capacity, transit route frequency, and transit ridership;
- Vehicle traffic volume to capacity; and
- Access to multiuse trails.

The City's LOS standards provide measurable criteria to judge the adequacy of the multimodal transportation system for new development by calculating person trips available for transportation concurrency evaluations, which are a pre-application requirement. As required by GMA, new development will be prohibited unless adequate person trips are available or multimodal transportation system improvements are made concurrent with the development. While adding vehicle capacity to an arterial street or intersection may be necessary in some circumstances, continual road widening is not a long-term solution to p.m. peak (rush-hour) traffic congestion. The City's transportation policies are focused on managing the multimodal transportation network safely, efficiently, and sustainably for all modes without unnecessarily widening arterial streets simply to add capacity for automobiles.

Policy T-22 Publish an annual report on adopted LOS standards and adequacy of the Citywide transportation system according to its Multimodal Transportation Concurrency Program (BMC 13.70) and the TRAM.

The **2019 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: Primary Pedestrian Network Completeness - 2019

Since 2006, pedestrian improvements have been listed in the Transportation Element of the Bellingham Comprehensive Plan. Planning for [Bellingham's Pedestrian Master Plan](#) (PMP) began in March 2011, included significant public involvement from residents of every neighborhood, and was approved by City Council in August 2012. The 2013 Transportation Report on Annual Mobility (TRAM) first reported the completeness of the Primary Pedestrian Network (Figure 4.2) by Concurrency Service Area (CSA). Table 4.2., below, shows how complete the citywide Primary Pedestrian Network is in 2017. The degree of completeness varies in different parts of the City, as shown in Figures 4.3, 4.4, 4.5 and Table 4.2. The 2012 PMP includes over 350 sidewalk and crossing improvement projects with planning level cost estimates* of \$225 million (2012 dollars), or more, over time. [**Does not include the cost of stormwater, environmental or critical areas mitigation, or right-of-way acquisition*].

Since 2011, many sidewalk and crosswalk projects have been constructed with Transportation Benefit District (TBD) funding (Table 6.2.), but Bellingham street standards also 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 been very successful at leveraging local funding to receive outside state and federal grant funding whenever possible. Occasionally, pedestrian projects can be added to other City-funded work (maintenance, storm water, Parks, etc.) that is being conducted. In addition, pedestrian improvements are sometimes funded with a combination of the above as well as funding from other public agencies and/or private development interests.

Since 2011, a significant number of improvements to the Primary Pedestrian Network listed in Tables 4.1. and 4.2., below, have been or are expected to be constructed by Public Works and private development interests. Over half (54%) of the 58 pedestrian crossing improvements in the PMP have been completed or are programmed for funding in the 6-Year TIP by 2020, which is the last full year of funding for the current TBD. In contrast, only a small portion (12%) of sidewalk projects have been constructed or are programmed for funding in the 6-Year TIP by 2020. This is because many of the crossing improvements also support bike boulevards and have been implemented with Bicycle Master Plan (BMP) projects as well. Sidewalks are always 100% new construction, include storm water conveyance and treatment requirements, often include moving large utility poles, can include environmental impacts, critical area permits, and mitigation, and, in some cases, right-of-way acquisition, which can be very expensive and take a very long time to complete.

| Pedestrian Sidewalk Improvements | Tier 1 | Tier 2 | Tier 3 | Total |
|---|-----------|----------|-----------|-----------|
| Percent Completed | 37% | 23% | 7% | 12% |
| Projects Completed | 16 | 8 | 19 | 43 |
| Projects Not Yet Completed | 27 | 27 | 260 | 314 |
| Total Sidewalk Projects | 43 | 35 | 279 | 357* |
| <i>*Some sidewalk projects divided into pieces for funding and constructability</i> | | | | |

| Pedestrian Crossing Improvements | Tier 1 | Tier 2 | Tier 3 | Total |
|---|-----------|----------|-----------|-----------|
| Percent Completed | 71% | 40% | 52% | 54% |
| Projects Completed | 12 | 6 | 13 | 31 |
| Projects Not Yet Completed | 5 | 9 | 12 | 26 |
| Total Crossing Projects | 17 | 15 | 25* | 57 |
| <i>*1 crossing at SR 539/Tremont eliminated as not feasible</i> | | | | |

Environmental Justice

Public Works incorporates social equity and socio-economic needs into all multimodal transportation plans. Low-income housing, social services, and public transit needs were weighted heavily in the project prioritization process for the Pedestrian and Bicycle Master Plans and Whatcom Transportation Authority (WTA) specifically focused on under-served populations in the 2016 WTA Strategic Plan Update, which is also incorporated into Bellingham's multimodal transportation planning and the annual six-year Transportation Improvement Program.

Figure 4.1. shows Bellingham's "Low to Moderate Income Neighborhoods" from the [2013-2017 Bellingham Consolidated Plan](#) and Tables 4.1. and 4.1.a. highlight pedestrian projects that have been or will be completed in these neighborhoods using the same orange-color shading as Figure 4.1. The 2016 Bellingham Comprehensive Plan Transportation Chapter includes the following goals and policies addressing environmental justice:

GOAL T-6 Ensure that social equity needs are addressed in all transportation projects.

Policy T-31 Provide accessible pedestrian and bicycle facilities for all through equity in public engagement, service delivery, and capital investment.

Policy T-32 Through a balanced prioritization process, invest in pedestrian and bicycle infrastructure in all Bellingham neighborhoods.

Policy T-33 Provide opportunities for Bellingham residents regardless of age, gender, ethnicity or income to engage in pedestrian and bicycle related activities.

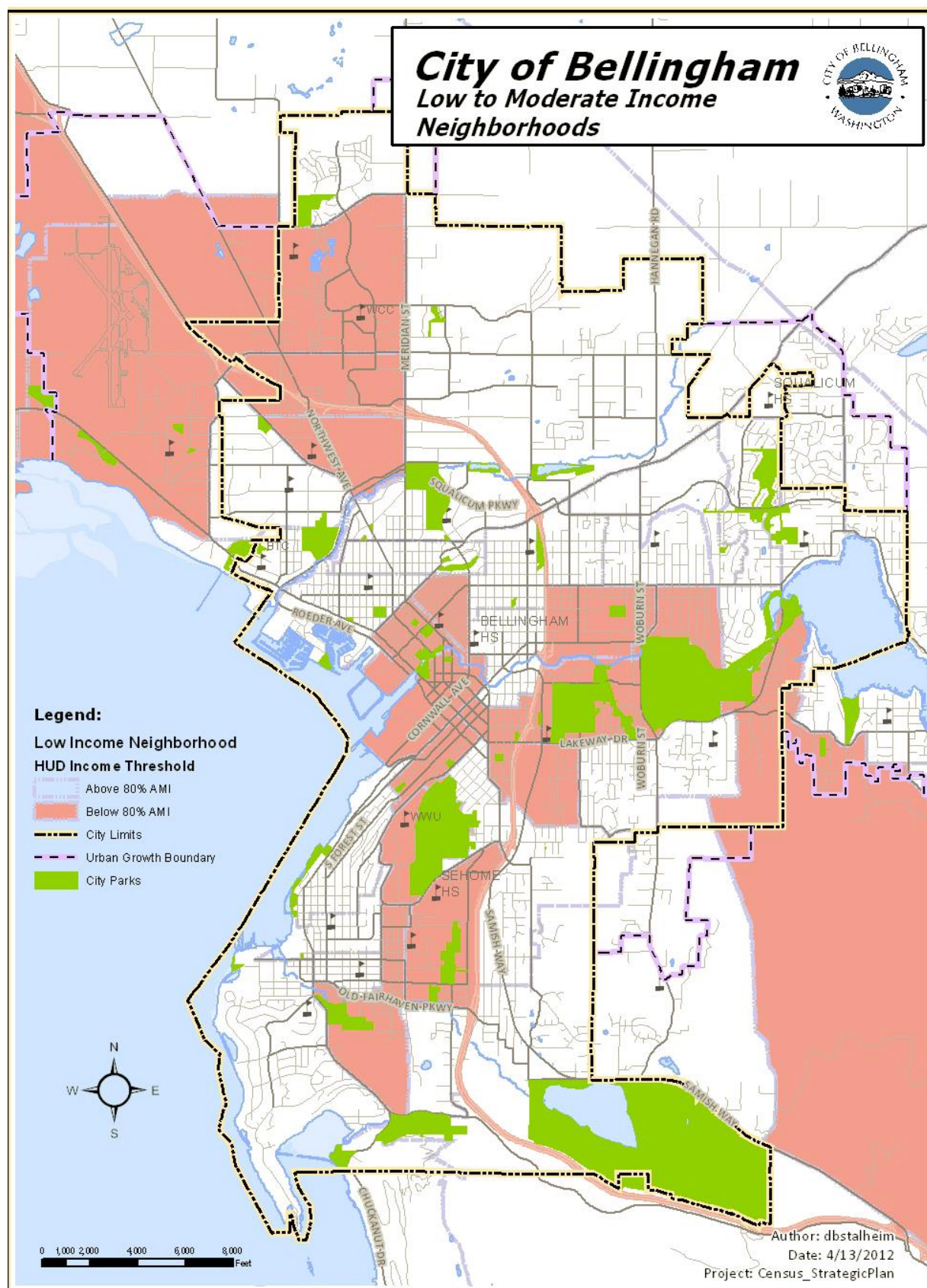


Figure 4.1. Low to Moderate Income Neighborhoods in Bellingham (See Tables 4.1., 5.1., 6.2., and 6.3.)

| Table 4.1. Pedestrian Improvements Constructed With Street Fund, State & Federal Grants, Partnerships, or Private Development - 2011 through 2018 | | | | | | |
|---|---|---------|---|---|----------|----------------------|
| Orange = Low to Moderate Income Neighborhood | | | | | | |
| 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/Samish UV |
| 2012 | Curb ramps, Ped refuge, Flashing Crosswalk | | N. Samish/Consolidation | | Tier 1* | Sehome/Samish UV |
| 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 | Guide-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 | Cordata |
| 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 | Ped Hybrid Beacon (Red) | | Alabama/Ellis | | Tier 1 | Sunnyland |
| 2015 | Ped Hybrid Beacon (Red) | | Alabama/Grant | | PMP | 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) | Both | Arctic Avenue: W. Bakerview to Mahogany | Tier 3 | | Cordata |
| 2016 | Sidewalk, Crosswalks (Private Development) | West | Lincoln Street: Maple to Fred Meyer | Tier 1 | | Puget |
| 2017 | Sidewalks, Crosswalks, Intersection | Both | James/Woodstock Intersection Realignment | Tier 1* | | King Mountain |
| 2017-18 | Sidewalk (1/2 mile) | East | W. Maplewood Avenue: Northwest to Alderwood | Tier 1 | | Birchwood |
| 2018 | Sidewalks, Traffic Signals, Crosswalks | Both | Mahogany Avenue: Northwest to Pacific Highway | Tier 3 | | Meridian |
| 2018 | Sidewalk, Traffic Signals, Crosswalks | Both | Granary-Bloedel: Roeder to Cornwall | Tier 3 | | Waterfront |
| 2018 | Sidewalk | West | Orleans Street: Lakeway to Potter | Tier 2 | | Puget |
| 2018 | Sidewalk | East | Nevada Street: Whatcom to Thimbleberry | Tier 3 | | Puget |
| 2018 | Ped Hybrid Beacon (Red) | | Lakeway/Grant | | upgrade | York |
| 2018 | Ped Hybrid Beacon (Red) | | Lakeway/Orleans | | upgrade | Puget |
| 2018 | Ped Hybrid Beacon (Red) | | Lakeway/Toledo | | Tier 1 | Puget |
| 2018 | Ped Hybrid Beacon (Red) | | Lincoln/Fred Meyer | | upgrade | Puget |
| 2018 | Curb ramps, Ped refuge, Flashing Crosswalk | | Otis/Maple/Samish | | BMP | Samish Urban Village |
| 2018 | Roundabout with ped refuge crosswalks | | Cordata/Stuart Roundabout | | Tier 3 | Cordata |
| | | | | *Project planned/funded prior to 2012 PMP | | |

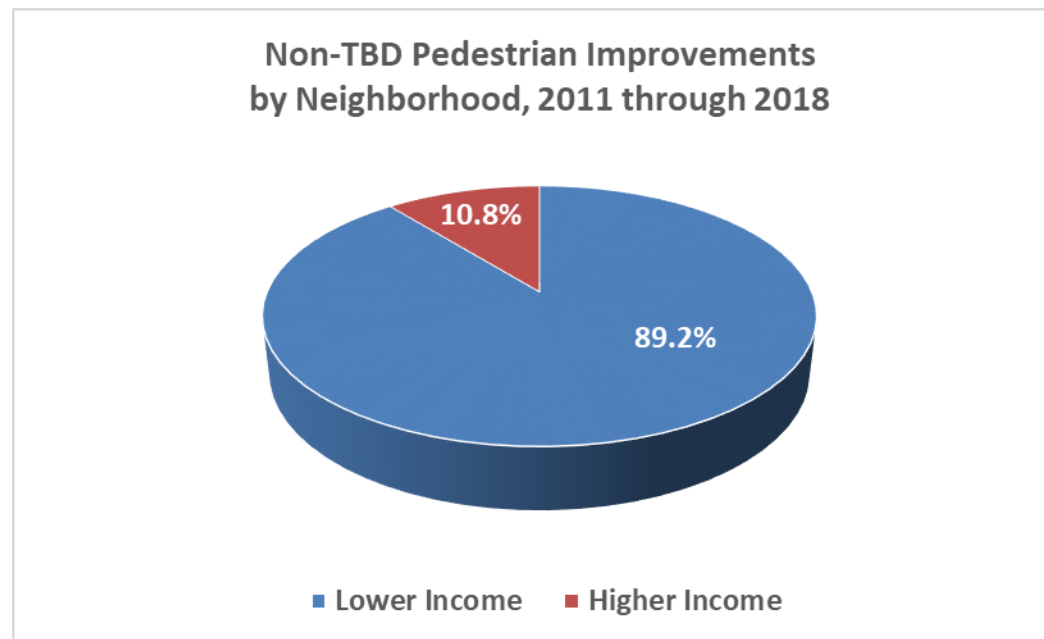


Figure 4.3. Since 2011, over 89% of non-TBD funded pedestrian projects have been in lower income neighborhoods

| Table 4.1.a. Pedestrian Improvements Constructed With Street Fund, State & Federal Grants, Partnerships, or Private Development - 2019 through 2021 | | | | | | |
|---|--|-------|--|--|---------|------------------------|
| 2019 | Sidewalk | East | Aldrich Road: Mahogany to Cordata ES | Tier 1 | | Cordata |
| 2019 | Sidewalks, Crosswalks | Both | West Horton Road: Pacific Rim to Aldrich | Tier 1 | | Cordata |
| 2019 | Sidewalk, crosswalk | North | Sunset Drive (SR 542): Applebee's to NB on-ramp | Tier 3 | | Barkley |
| 2019-20 | Sidewalk, Traffic Signal, Crosswalks | North | Orchard Extension: James to Birchwood Funded | Tier 1* | Tier 3* | King/Irongate/Cornwall |
| 2020 | Sidewalk | West | Otis Street: Maple to Abbott (BHA- Non-Profit) | Tier 3 | | Samish Urban Village |
| 2020 | Curb ramps, Ped refuge, Flashing Crosswalk | | Bill McDonald/34th Street (Pending WSDOT grant) | | Tier 1 | Sehome/Happy Valley |
| 2020 | Sidewalk | West | Cordata Pkwy: W. Bakerview to Bellis Fair (Private) | Tier 1 | | Meridian |
| 2020 | Sidewalk and crosswalk | North | E. Bellis Fair Pkwy: Eliza to Cordata (Private) | Tier 2 | | Meridian |
| 2021 | Sidewalks, crosswalks, traffic signals | Both | Telegraph Road: Deemer to James - Partial Funding | Tier 3 | | King Mountain |
| | | | | <i>*Project planned/funded prior to 2012 PMP</i> | | |

Figure 4.3. Bellingham's Citywide Primary Pedestrian Network

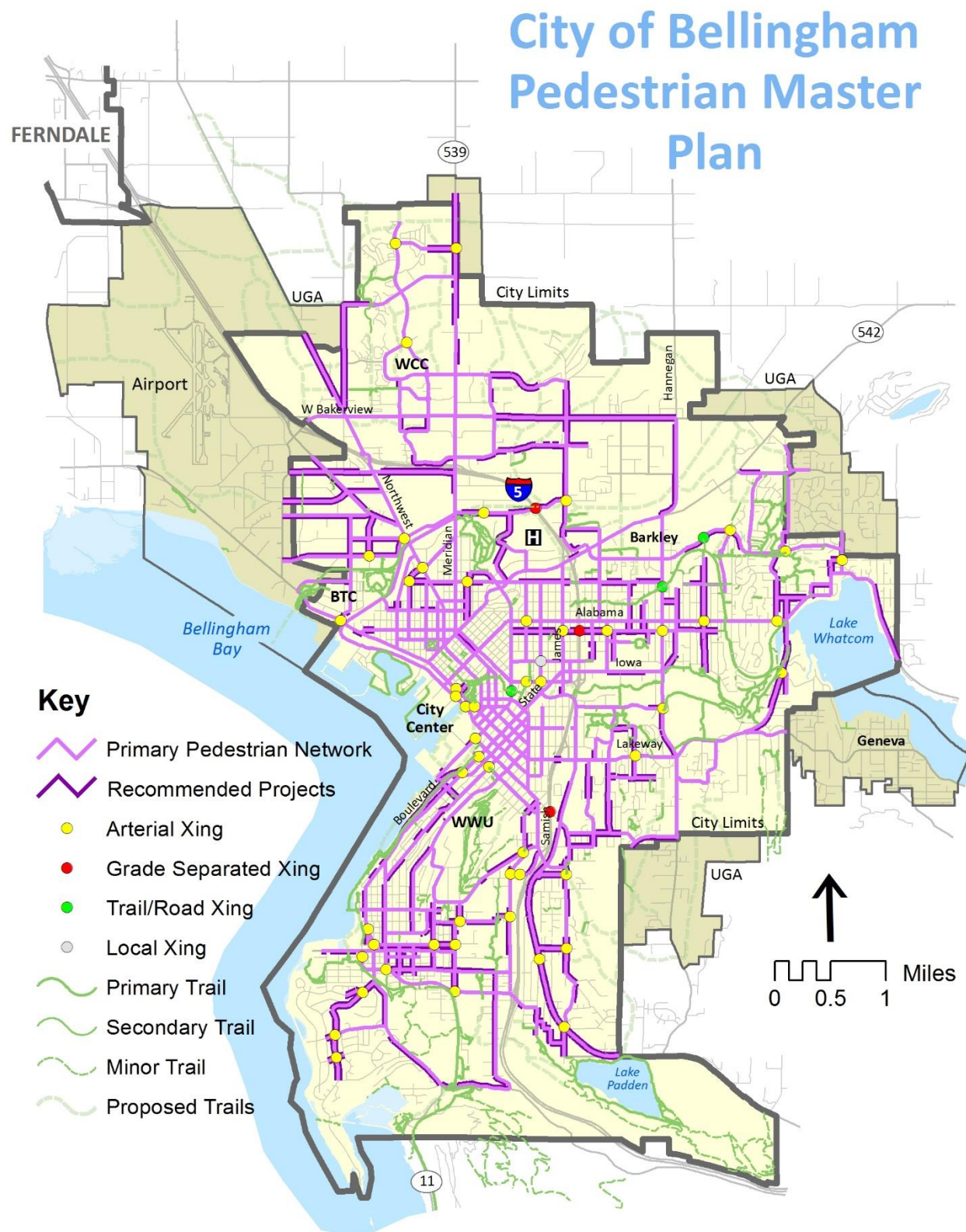


Figure 4.4

**Primary Pedestrian Network
2018 Sidewalk Extents**

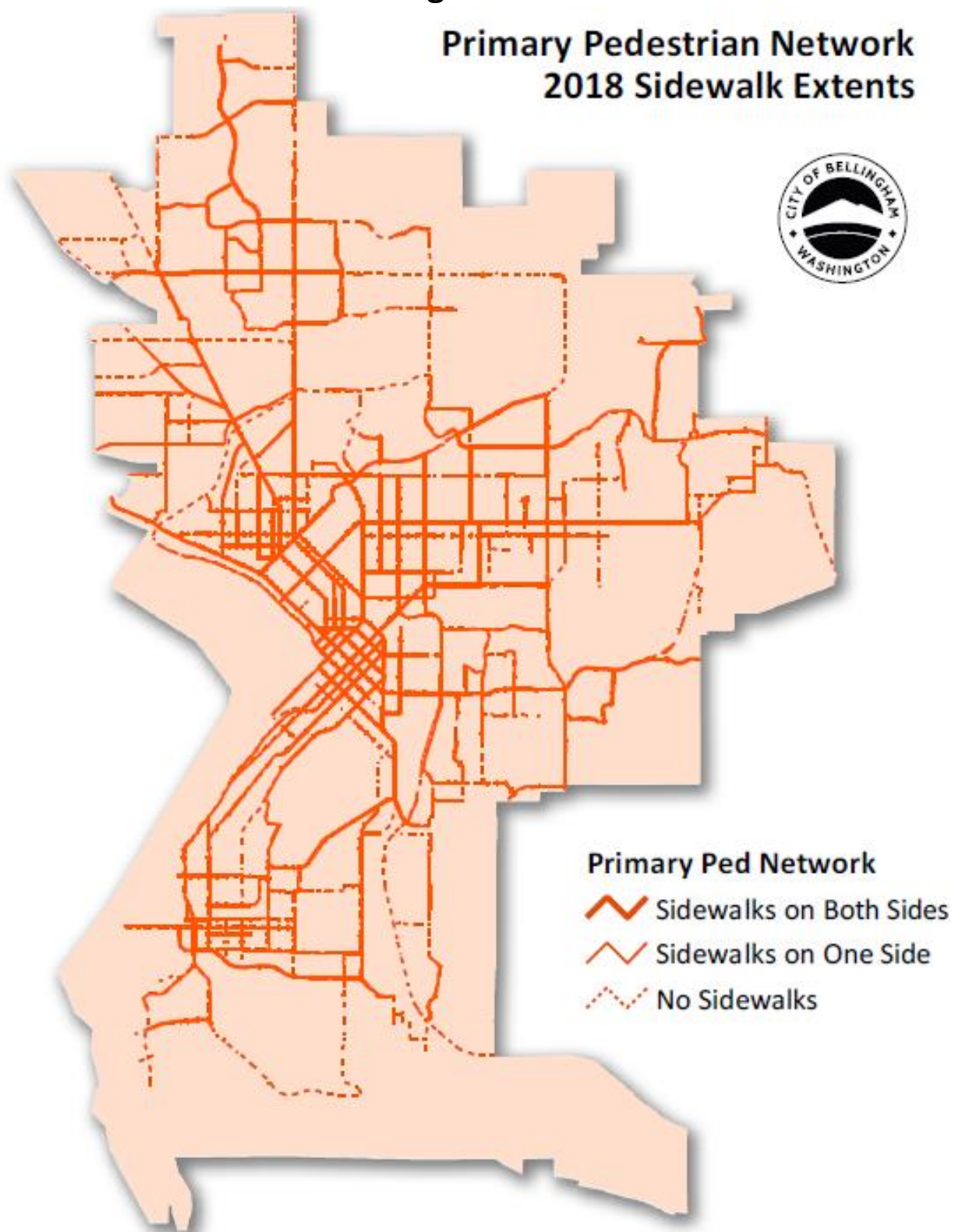


Figure 4.5.

Primary Pedestrian Network 2018 Sidewalk Extents By Concurrency Service Area

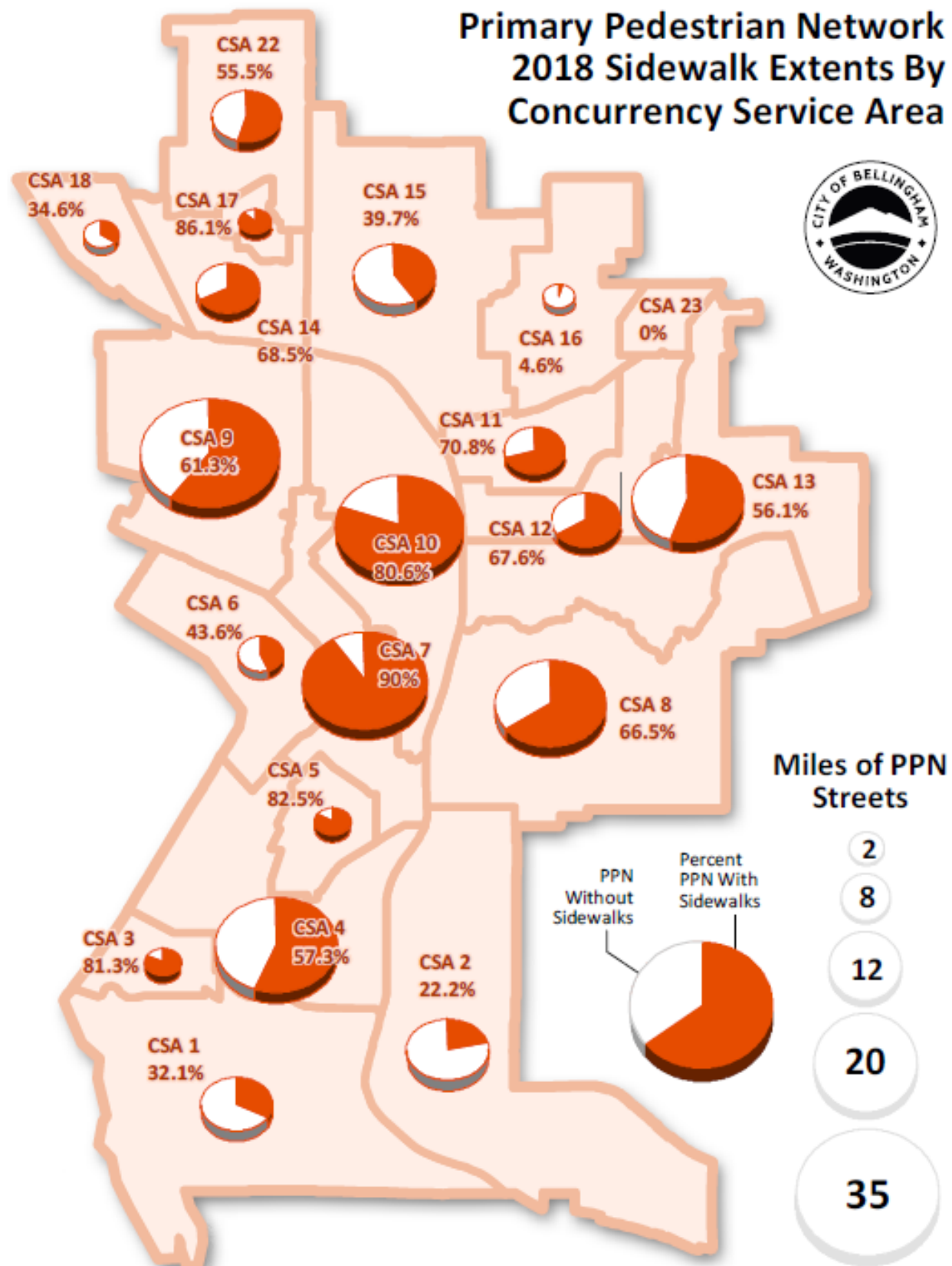


Table 4.2.



2018

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 | 57.3% |
| 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 | 15.4 | 66.5% |
| CSA 9 | 34.2 | 20.9 | 61.3% |
| 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 | 5.2 | 39.7% |
| 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 | 160.7 | 61.8% |

Chapter 5: Primary Bicycle Network Completeness - 2019

Since 2006, bicycle facility improvements have been listed in the Transportation Element of the Bellingham Comprehensive Plan. Planning for [Bellingham's Bicycle Master Plan](#) (BMP) began in March 2013, involved bicyclists and residents from every neighborhood, and was approved by City Council in October 2014. The 2015 TRAM provided the first report on the completeness of the Primary Bicycle Network (Figure 5.2) by Concurrency Service Area (CSA). The degree of network completeness varies in different parts of the City, as shown in Figures 5.2, 5.3, 5.4, and Table 5.2. The BMP includes 189 bicycle facility improvement projects that are estimated to cost between \$25 to \$50 million dollars over time.

Since 2011, Public Works has constructed significant improvements to the Primary Bicycle Network, as shown in Tables 5.1, 5.4, and 6.3. Many of these bicycle improvements have been constructed with TBD funds, as listed in Table 6.3 in Chapter 6 Transportation Benefit District Annual Report. Public Works has also constructed several non-TBD funded bicycle improvements, listed in Table 5.4, below. There are several reasons why bicycle projects have out-paced pedestrian projects for completion and funding from 2011-2020, including:

- All new arterial streets are required to have bike lanes, whether by local, state, federal, or private funding;
- Resurfacing and rechannelization of roadways allow bicycle facilities to be installed at relatively low cost;
- Road diets (removal of vehicle lanes and/or on-street parking) allow bicycle facility installation at low cost;
- Some bicycle improvements are funded with a combination of the above as well as funding from other public agencies and/or private development interests.

| Bicycle Network Links* | Tier 1 | Tier 2 | Tier 3 | Total |
|---|-----------|-----------|-----------|-----------|
| Percent Completed | 64% | 56% | 32% | 42% |
| Projects Completed | 14 | 30 | 36 | 80 |
| Projects Not Yet Completed | 8 | 24 | 77 | 109 |
| Total Bike Projects | 22 | 54 | 113** | 189 |
| <i>*Includes "Further Study Needed" Links</i> | | | | |
| <i>**2 links eliminated; determined as not feasible</i> | | | | |

| Bicycle Crossing Improvements | Total |
|--|-----------|
| Percent Completed | 79% |
| Projects Completed | 19 |
| Projects Not Yet Completed | 5 |
| Total Crossing Projects | 24* |
| <i>*2 at Meridian/I-5 interchange not feasible</i> | |

As in Chapter 4. Primary Pedestrian Network Completeness, Figure 4.1. shows Bellingham's "Low to Moderate Income Neighborhoods" from the 2013-2017 Bellingham Consolidated Plan and Tables 5.1. and Figure 5.1. highlight bicycle projects that have been or will be completed in these neighborhoods using the same salmon-color shading as Figure 4.1. In 2019, the bicycle facility improvements listed below are expected to be constructed by Public Works and private development interests.

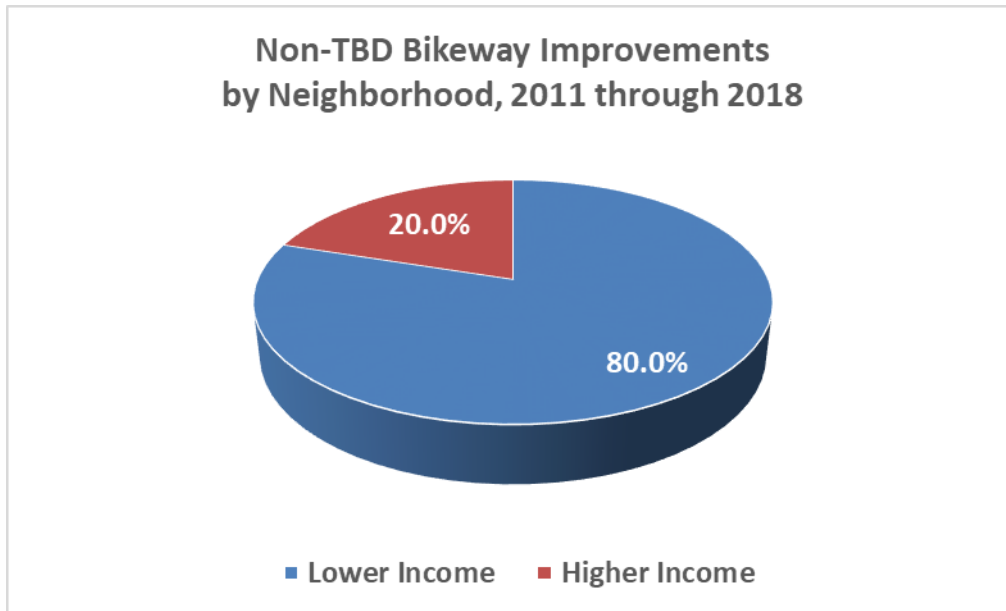


Figure 5.1. Since 2011, 80% of non-TBD funded bicycle projects have been in lower income neighborhoods

| Table 5.1. Bicycle Improvements Constructed With Street Fund, State & Federal Grants, Partnerships, or Private Development - 2010 through 2021 | | | | | | | |
|--|-----------------------------|-------------|---|--------------|--------------------|------|------------------------|
| Salmon = Low to Moderate Income Neighborhood | | | | | | | |
| 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 UV |
| 2011 | 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 | 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 UV |
| 2014 | Bike Lanes | North-South | James Street: Orchard to Sunset Pond Park | Tier 1 * | No | | King Mountain |
| 2015 | 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 | Bike Lanes | North-South | James Street: Gooding Rd to terminus | Tier 3 | No | | King Mountain |
| 2016 | Bike Lanes | North-South | Arctic Avenue: W. Bakerview to Mahogany | Tier 3 | No | | Cordata |
| 2017 | Bike Lanes | East-West | Mahogany Avenue: Northwest to Pacific Highway | Tier 3 | No | | Cordata |
| 2017-18 | Bike Lanes | East-West | Granary-Bloedel: Roeder to Cornwall | Tier 3 | No | | Waterfront |
| 2018 | Roundabout bike marks | Crossing | Cordata/Stuart | Tier 2 | No | | Cordata |
| 2019 | Bike Lane (East side) | North-South | Aldrich Road: Mahogany to W. Horton | Tier 1 | No | | Cordata |
| 2019 | Bike Lanes | East-West | W. Horton Road: Pacific Rim to Aldrich Funded | Tier 1 | No | | Cordata |
| 2019-20 | Bike lanes | East-West | Orchard Extension: James to Birchwood Funded | Tier 1 * | No | | King Mtn-Cornwall Park |
| 2020 | Buffered Bike Lanes | North-South | Samish-Maple-Ellis: I-5 to Lakeway (Pending Grant) | Tier 2 | No - Parking added | | Sehome/Samish UV |
| 2021 | Bike Lanes, Traffic Signals | East-West | Telegraph Road: Deemer to James - Partial Funding | Tier 3 | n/a | | King Mtn-Cornwall Park |
| *Project was planned or funded prior to 2014 BMP approval | | | | | | | |

Figure 5.2. Bellingham's Citywide Primary Bicycle Network

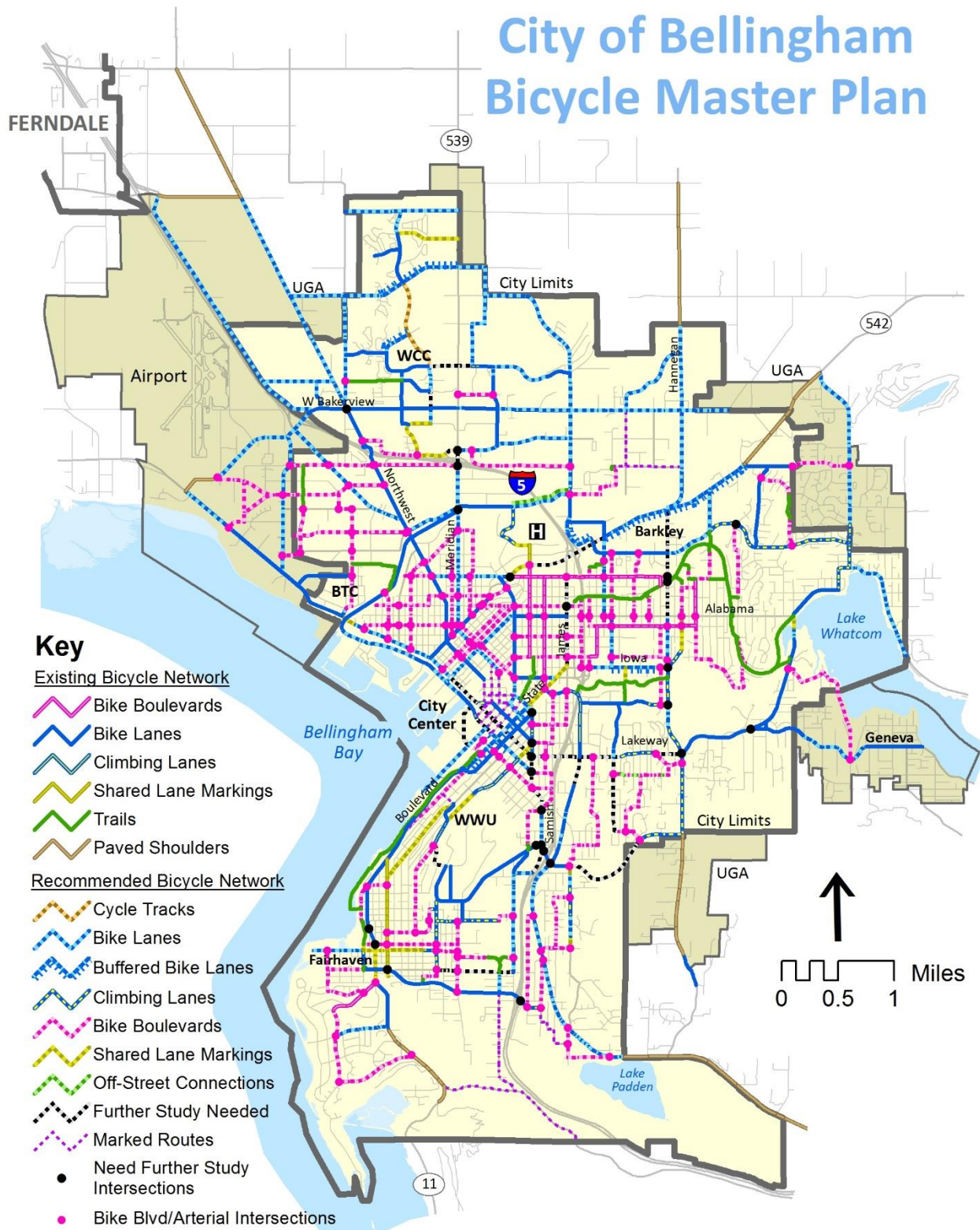


Figure 5.3.

**Bicycle Infrastructure Network
2018 Bike Lane Extents**

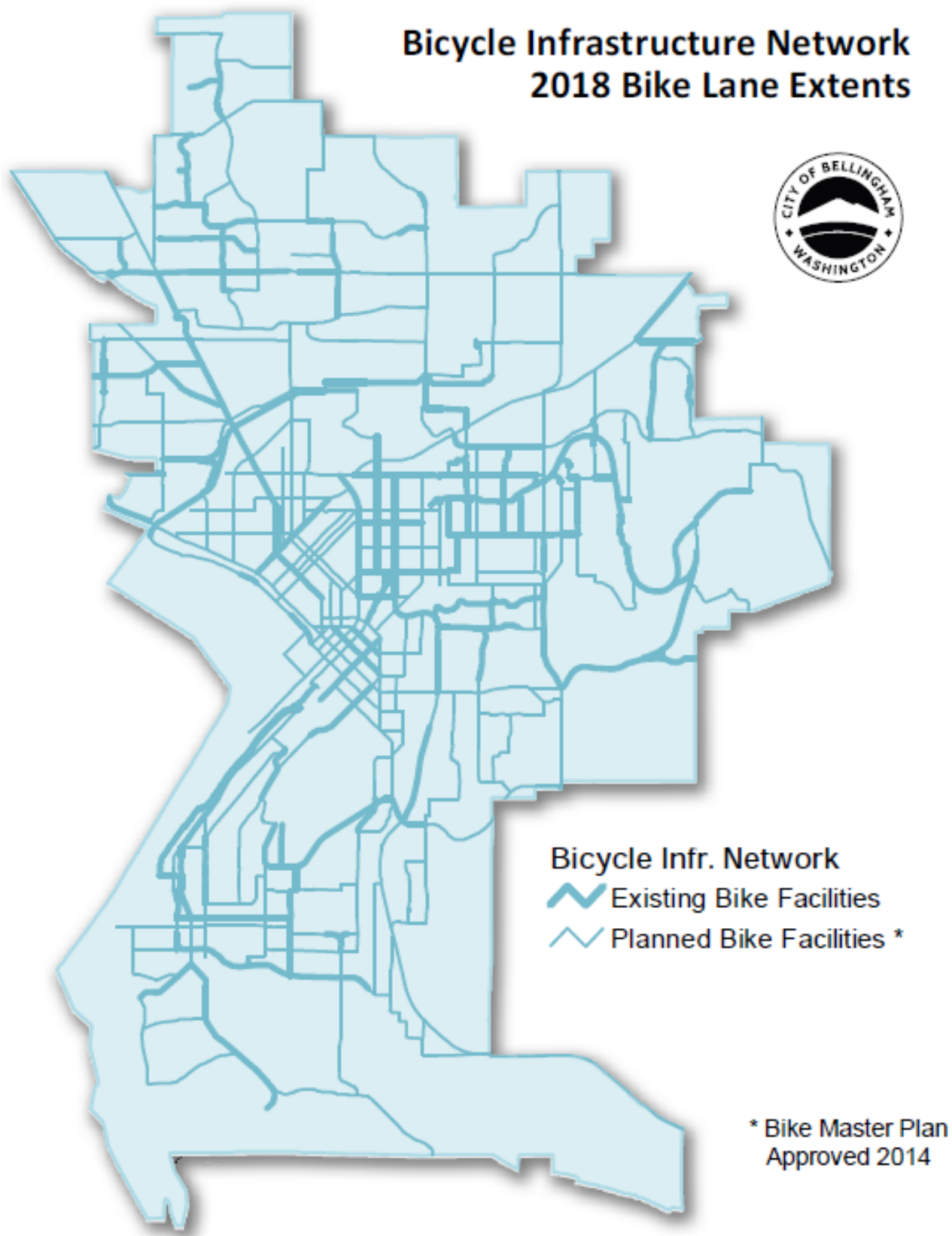


Figure 5.4.

Bicycle Infrastructure Network 2018 Facility Extents By Concurrency Service Area

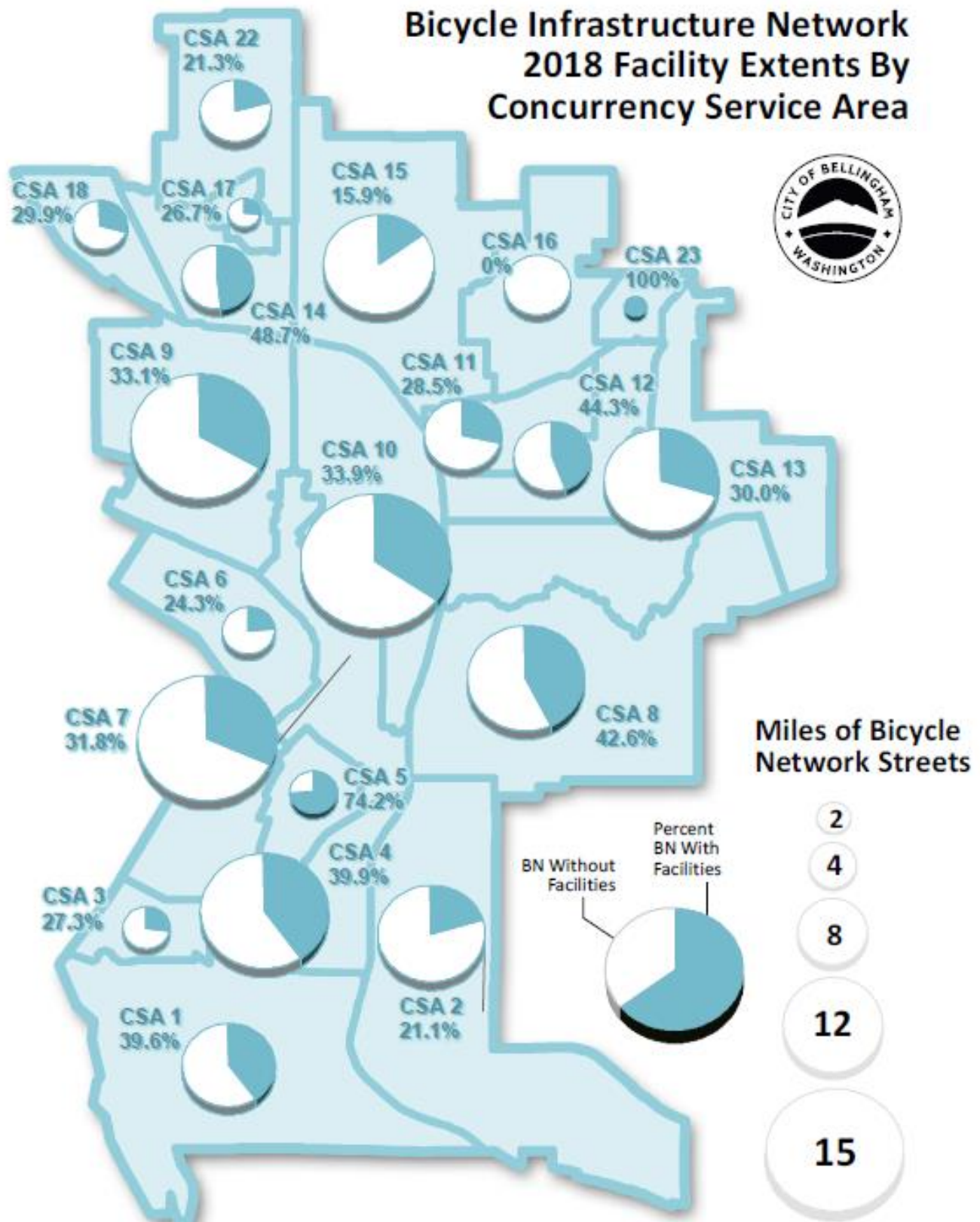


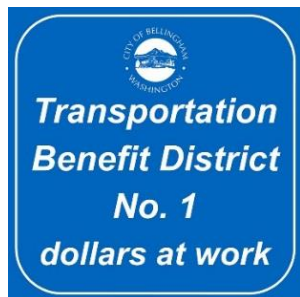
Table 5.2.



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 | 0.6 | 0.0 | 1.7 | 27.3% |
| CSA 4 | 13.5 | 5.4 | 0.0 | 8.1 | 39.9% |
| 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 | 5.0 | 0.0 | 10.7 | 31.8% |
| CSA 8 | 11.5 | 4.9 | 0.3 | 6.6 | 42.6% |
| CSA 9 | 15.5 | 5.1 | 0.0 | 10.4 | 33.1% |
| CSA 10 | 17.8 | 6.1 | 0.0 | 11.6 | 34.5% |
| CSA 11 | 5.6 | 1.6 | 1.5 | 4.0 | 28.5% |
| CSA 12 | 5.6 | 2.5 | 0.9 | 3.1 | 44.3% |
| CSA 13 | 11.1 | 3.3 | 0.9 | 7.8 | 30.0% |
| CSA 14 | 4.9 | 2.4 | 0.0 | 2.5 | 48.7% |
| CSA 15 | 10.5 | 1.7 | 0.0 | 8.8 | 15.9% |
| CSA 16 | 4.3 | 0.0 | 0.0 | 4.3 | 0.0% |
| CSA 17 | 1.2 | 0.3 | 0.1 | 0.9 | 26.7% |
| CSA 18 | 3.0 | 0.9 | 0.0 | 2.1 | 29.9% |
| 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 | 3.7 | 21.3% |
| CSA 23 | 0.6 | 0.6 | 0.0 | 0.0 | 100.0% |
| Grand Total | 160.4 | 51.0 | 4.6 | 109.4 | 31.8% |

Chapter 6: Bellingham Transportation Benefit District No. 1 - 2019



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.

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

The City contract with WTA has expired and the TBD Board has directed that the TBD revenues be dedicated to the following activities from 2017-2020:

- Enhance and improve pedestrian and bicycle transportation infrastructure
- Resurfacing streets to maintain the City of Bellingham's investment for all transportation users
- Transit-supportive capital projects considered with asphalt resurfacing and non-motorized priorities

Figure 6.1.
Projects by Funding Type
2010 – 2021 (160 Total Projects)

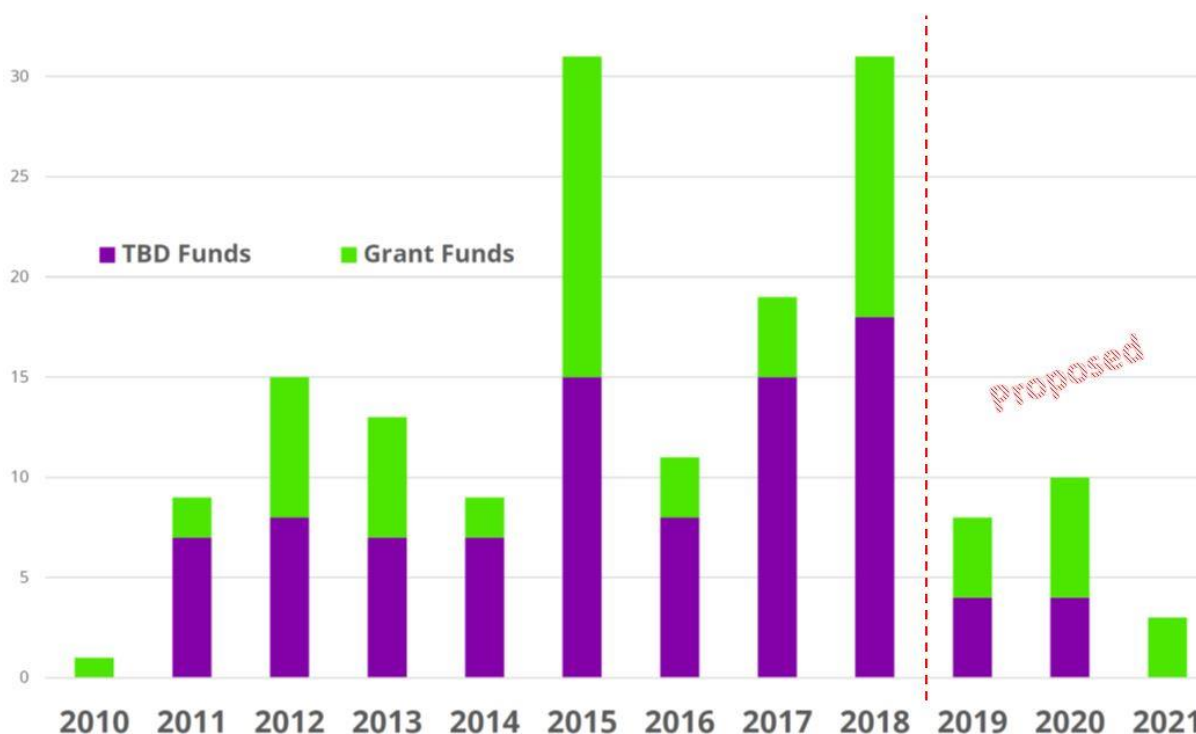


Table 6.1. Transportation Benefit District #1 Revenues & Expenditures *[Source: Bellingham Finance Department]*

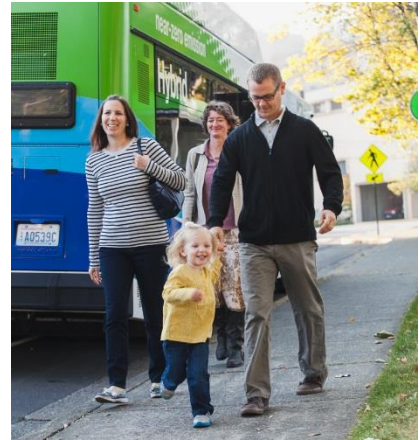
| | Actual | Actual | Actual | Actual | Actual | Actual | Actual | Actual | | 2011-18 |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--|---------------------|
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | | Total |
| Revenues | | | | | | | | | | |
| Sales Tax Receipts (.2%) | \$2,454,454 | \$4,350,591 | \$4,655,993 | \$4,700,864 | \$4,903,512 | \$5,169,348 | \$5,473,547 | \$5,898,842 | | \$37,607,151 |
| Other Revenues | \$4,235 | \$52,050 | \$464,539 | \$45,732 | \$92,623 | \$34,829 | \$198,403 | \$2,261,236 | | \$3,153,647 |
| Total Specific Revenue | \$2,458,689 | \$4,402,641 | \$5,120,532 | \$4,746,596 | \$4,996,135 | \$5,204,177 | \$5,671,950 | \$8,160,078 | | \$40,760,798 |
| Expenditures | | | | | | | | | | |
| Total Overhead / Administrative | \$96,605 | \$144,760 | \$315,019 | \$142,485 | \$59,654 | \$504,084 | \$638,606 | \$511,419 | | \$2,412,633 |
| Total WTA Transit | \$485,703 | \$1,116,031 | \$1,353,497 | \$1,596,099 | \$1,705,571 | \$1,062,351 | \$8,286 | \$0 | | \$7,327,537 |



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. The TBD 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 the [2016 WTA Strategic Plan](#). Bellingham no longer contracts with WTA for supplemental transit service inside the City and WTA funds Sunday transit service in Bellingham as part of its normal operations.



Further information about the WTA Primary Transit Network in Bellingham is available in Chapter 8.

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 funds 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 4.1., 5.1., 6.2, and 6.3.. From 2014-2019 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
- 2017 Holly Street – Railroad to Bay
- 2018 Texas Street – Valencia to Pacific
- 2019 Roeder Avenue – C Street to Squalicum Parkway

TBD-Funded Non-motorized Bicycle and Pedestrian Improvements

The City Council 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 2018, one vehicle travel lane in each direction was removed from Barkley Boulevard east of Barkley Urban Village in favor of robust buffered bike lanes. In 2019-2020, Public Works plans to install these same type of buffered bike lanes on Roeder Avenue, Chestnut Street, Samish-Maple-Ellis-York, and Cordata Parkway.

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 are listed in Tables 4.1. and 5.1.

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.

As demonstrated in the Tables 6.2. and 6.3., below, Public Works has already accomplished a great deal in the 9 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 TBD 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 to \$300 million and the BMP cost estimates are \$25 to \$50 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 to construct, as demonstrated here in the TRAM, and that voters will choose to renew the TBD for an additional 10 years, or longer.

As in Chapter 4. Primary Pedestrian Network Completeness, Figure 4.1. shows Bellingham's "Low to Moderate Income Neighborhoods" from the 2013-2017 Bellingham Consolidated Plan and Tables 6.2., 6.2.a., and 6.3., as well as Figures 6.2. and 6.3. highlight TBD-funded pedestrian and bicycle projects that have been or will be completed in these neighborhoods using the same orange-color shading as Figure 4.1.

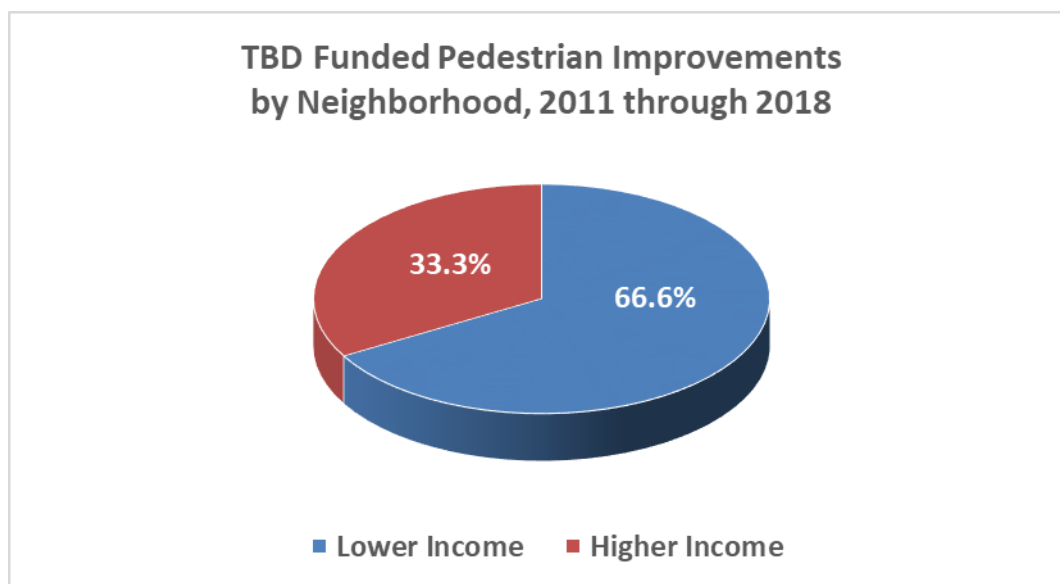


Figure 6.3. Since 2011, over 66% of TBD funded pedestrian projects have been in lower income neighborhoods

| Table 6.2. Pedestrian Improvements Constructed With TBD Non-Motorized and Arterial Resurfacing Funds - 2011 through 2018 | | | | | | |
|--|--|---------|--|----------|----------|------------------------|
| Orange = Low to Moderate Income Neighborhood | | | | | | |
| Year | Improvement | Side(s) | Location | Sidewalk | Crossing | Neighborhood |
| 2011 | Sidewalk, Curb Extensions, Crosswalk | Both | Prospect Avenue: Lottie to Bay | n/a | n/a | Downtown UV |
| 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 UV |
| 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 UV |
| 2013 | Sidewalk, Curb Extensions, Crosswalk | South | State/E. Maple | | Tier 1* | Downtown UV |
| 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 UV |
| 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 UV |
| 2015 | Curb Extensions, Crosswalks | | Ohio/Grant | | Tier 3 | Sunnyland/Downtown UV |
| 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 UV |
| 2016 | Curb Extensions, Crosswalk | | Mill/24th St | Tier 1 | | Happy Valley |
| 2016-17 | Intersection Study | | Barkley/Sussex | | Tier 3 | Barkley |
| 2018 | Upgrade to flashing crosswalk | | Woburn/Fraser/Whatcom Falls Trail | | Tier 1 | Puget |
| 2018 | Reconstruct intersection, add crosswalks | | Woburn/Kentucky | | n/a | Roosevelt |
| 2018 | Curb Extensions, Crosswalks | | Orleans/Illinois | Tier 1 | | Roosevelt |
| 2018 | Curb Extensions, Crosswalks | | 14th/Mill | Tier 1 | | South Hill |
| 2018 | Curb Extensions, Crosswalks | | 21st/Mill | Tier 1 | | Happy Valley |
| 2018 | Curb Extensions, Crosswalks, Sidewalk | | Woburn/Kentucky | | | Roosevelt |
| 2018 | Sidewalk Infill to HAWK signal | East | Undine Street: Alabama to Texas | Tier 1 | HAWK | Roosevelt |
| 2018 | Sidewalk Infill | South | Texas Street: Pacific to Valencia | Tier 1 | | Roosevelt |
| *Project planned/funded prior to 2012 PMP | | | | | | |

| Table 6.2.a. Pedestrian Improvements Funded or Planned With TBD Non-Motorized and Arterial Resurfacing Funds - 2019 and 2020 | | | | | | |
|--|--|------|--|--|---------|--------------------|
| 2019 | Sidewalk | West | 24th Street: Donovan to Old Fairhaven Parkway | Tier 1 | | Happy Valley |
| 2019 | Crosswalks | West | W. Illinois St/Vallette St (Fountain Urban Village) | | Tier 3* | FUV/Cornwall Park |
| 2019 | Flashing crosswalk | | Northwest Ave/Connecticut St | | Tier 3 | Barkley |
| 2019 | Crosswalks at compact roundabout | | Cordata/Horton | | n/a | Cordata |
| 2019 | Traffic Signal | | State/Maple | | Tier 1 | Downtown UV |
| 2019 | Traffic Signal | | State/Laurel (Partner w 480-bed Student Housing) | | Tier 3 | Downtown UV |
| 2019 | Traffic Signal | | Holly/High St | | n/a | Downtown UV |
| 2020 | Curb ramps, ped refuges, crosswalks | | Northwest/Bakerview | | n/a | Meridian |
| 2020 | Undefined Crossing Improvements | TBD | Vicinity of 14th Street/Old Fairhaven Parkway | | Tier 1 | Happy Valley/South |
| 2021 | Sidewalks, crosswalks, traffic signals | Both | Telegraph Road: Deemer to James - Partial Funding | Tier 3 | | King Mountain |
| | | | | <i>*Project planned/funded prior to 2012 PMP</i> | | |

Additional pedestrian improvements may be programmed for 2020-2021 TBD funding as opportunities are identified through the annual [6-Year Transportation Improvement Program \(TIP\)](#) public process.

| Table 6.3. Bicycle Improvements Constructed With TBD Non-Motorized and TBD Arterial Resurfacing Funds - 2011 through 2018 | | | | | | | |
|---|----------------------|-------------|---|---|--------------------------|-------|------------------------|
| Orange = Low to Moderate Income Neighborhood | | | | | | | |
| 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 | | WWU |
| 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 (Phase 1) | 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 | Marked bike lanes | North-South | Champion Street: Ellis to Cornwall | Tier 2 | No | | Downtown |
| 2016-17 | Corridor Study | East-West | Lakeway Drive: Ellis to Queen | Tier 1 | No | | Puget/York/Downtown |
| 2016-17 | Corridor Study | North-South | Samish-Maple-Ellis | Tier 2 | No | | Samish UV/Sehome/York |
| | | | | *Project was planned or funded prior to 2014 BMP approval | | | |

Table 6.3. continued on next page

| Table 6.3. continued - Bicycle Improvements Constructed With TBD Non-Motorized and TBD Arterial Resurfacing Funds - 2011 through 2018 | | | | | | | |
|---|-----------------------|-------------|--|--------------|-------------------------|------|-------------------------|
| Orange = Low to Moderate Income Neighborhood | | | | | | | |
| 2017 | Marked bike lanes | North-South | West Maplewood Ave: Northwest to Alderwood | Tier 1 | No | | Birchwood |
| 2017 | Bicycle Boulevard | East-West | Alderwood Ave: Northwest to Bennett | Tier 1 | No | | Birchwood |
| 2017 | Marked bike lanes | North-South | James St: Sunset to Woodstock (Sunset Square) | Tier 3 | No | | King Mtn |
| 2017 | Marked bike lanes | North-South | Orleans Street: Alabama to Barkley | Tier 2 | Yes: Alabama to Barkley | West | Roosevelt |
| 2017 | Bicycle Boulevard | North-South | Orleans Street: Alabama to Texas | Tier 2 | No | | Roosevelt |
| 2017 | Marked bike lanes | North-South | Woburn Street: Texas to Iowa | Tier 2 | Yes: Alabama to Iowa | West | Roosevelt |
| 2017 | Climbing/Shared Lane | North-South | Woburn Street: Iowa to Lakeway | Tier 2 | No | | Puget |
| 2017 | Bike Lane Enhancement | East-West | Lakeway Drive: Queen to City Limit | Tier 1 | No | | Puget & Whatcom Falls |
| 2017 | Bicycle Boulevard | North-South | Undine Street: Texas to Railroad Trail | Tier 2 | No | | Roosevelt |
| 2017 | Bicycle Boulevard | North-South | St. Paul Street: Railroad Trail to Texas | Tier 2 | No | | Roosevelt |
| 2017 | Buffered Bike Lane | East-West | State Street: York to Wharf | Tier 2 | No - Upgrade Bike Lane | | Downtown |
| 2017 | Buffered Bike Lane | East-West | Forest Street: Wharf to Rose | n/a | No - Parking added | | Downtown |
| 2017 | Shared Lane | North-South | High Street: West College Way to Highland Drive | Tier 2 | No | | WWU |
| 2017 | Bicycle Boulevard | East-West | Mill Avenue: 12th Street to 24th Street | Tier 1 | No | | Fairhaven/Happy Valley |
| 2017 | Bike Wayfinding Signs | | Citywide | BMP Priority | No | | 2 major bike routes |
| 2018 | Marked bike lanes | East-West | Barkley Blvd: Woburn Street to Britton Road | Tier 1 | No-Rechannelize/Upgrade | | Barkley |
| 2018 | Bicycle Boulevard | North-South | Byron/34th/Pasco/Whatcom/Grant/Humboldt | Tier 1 | Concert w WSDOT grant | | Sehome/Samish UV/York |
| 2018 | Bicycle Boulevard | North-South | James/Gladstone (Meador to Ellis) | Tier 2 | Concert w WSDOT grant | | York |
| 2018 | Bicycle Boulevard | East-West | Whatcom (Ellis to Grant) | Tier 2 | Concert w WSDOT grant | | York |
| 2018 | Bicycle Boulevard | North-South | Humboldt (Meador to Gladstone) | Tier 3 | Concert w WSDOT grant | | Samish/Puget |
| 2018 | Bicycle Boulevard | North-South | 40th/Dumas/Ashley/Byron/44th/Nevada | Tier 2 | Concert w WSDOT grant | | Samish/Puget |
| 2018 | Bike Lanes | North-South | Puget Street: Lakeway to Civic Field parking lot | Tier 2 | Concert w WSDOT grant | | Puget |
| 2018 | Bike Lanes | East-West | Lakeway Drive: Puget to Undine HAWK | Tier 1 | Concert w WSDOT grant | | Puget |
| 2018 | Bike Lane Enhancement | North-South | Cornwall Avenue: Ohio to Illinois | n/a | No | | Letter St/Cornwall Park |
| 2018 | Bike Lane Enhancement | North-South | Northwest Avenue: Lottie to W. Bakerview | n/a | No | | Dwtn/Ltr/Col/Birchwood |
| *Project was planned or funded prior to 2014 BMP approval | | | | | | | |

Figure 6.3. and Table 6.3.a. displayed on next page

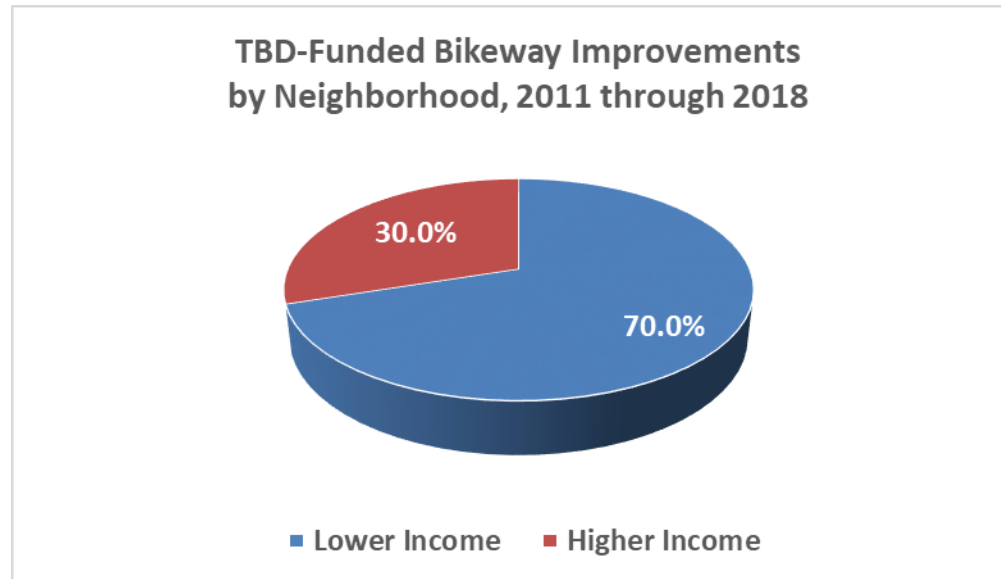


Figure 6.3. Since 2011, 70% of TBD funded bicycle projects have been in lower income neighborhoods

| Table 6.3.a. Bicycle Improvements Planned for Construction With TBD Non-Motorized and TBD Arterial Resurfacing Funds - 2019 through 2020 | | | | | | | |
|--|--|---------------------|--|---|-----------------------|--|------------------------|
| 2019 | Buffered Bike Lanes | North-South | Roeder Avenue: Squalicum Pkwy to C Street | Tier 2 | Yes - Resurfacing | | Waterfront |
| 2019 | Bike Climbing Lane | NW - SE | Chestnut Street: Railroad to Ellis (Road Diet) | Tier 1 | No | | CBD/Sehome |
| 2019 | Buffered Bike Lane | North-South | Cordata Pkwy: Kellogg to Kline (Road Diet) | Tier 2 | No | | Cordata |
| 2019 | Bike Lane Enhancement | East-West | W. Horton Rd: Meridian (SR 539) to Pacific Rim | n/a | No | | Cordata |
| 2019 | Bike Lane Enhancement | North-South | Stuart-Kellogg: Cordata to Eliza | n/a | No | | Cordata |
| 2019 | Off-Street Multiuse Path | South | Lakway Drive: Undine St to Old Lakeway | Tier 1 | No | | Puget |
| 2019 | Bike Boulevard | East-West | Old Lakeway Drive: Lakeway to Yew Street | Tier 1 | No | | Puget |
| 2019 | Bike Boulevard | North-South | Halleck Street: Cornwall Avenue to Broadway Street | Tier 2 | No | | Lettered Streets |
| 2019 | Bike Boulevard | North-South | Vallette Street: Broadway Street to Cornwall Park | Tier 3 | No | | Fountain Urban Village |
| 2019 | Shared Lane Markings | North-South | Cornwall Avenue: Ohio Street to Champion Street | Tier 2 | No | | Downtown Urban Village |
| 2020 | Curb ramps, ped refuges, crosswalks | Northwest/Bakerview | | n/a | n/a | | Meridian |
| 2020 | Bike Climbing Lane | North-South | Ellis Street: Lakeway to Forest (w Samish grant) | Tier 2 | No - Rechannelization | | Downtown UV |
| 2020 | Additional bikeway projects yet to be programmed for TBD funding | | | | | | |
| | | | | *Project was planned or funded prior to 2014 BMP approval | | | |

Additional bicycle improvements may be programmed for 2020-2021 TBD funding as opportunities are identified through the annual [6-Year Transportation Improvement Program \(TIP\)](#) public process.

Chapter 7: Off-Street Greenways Multiuse Recreation Trails - 2019

(Provide less direct and mostly unpaved alternate, or secondary, 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. However, these multiuse trail connections can be very appealing to less confident and “interested, but concerned” bicyclists.

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 Squalicum Creek Trail are included in the citywide bicycle network, see Figure 5.1.

Figure 7.1.

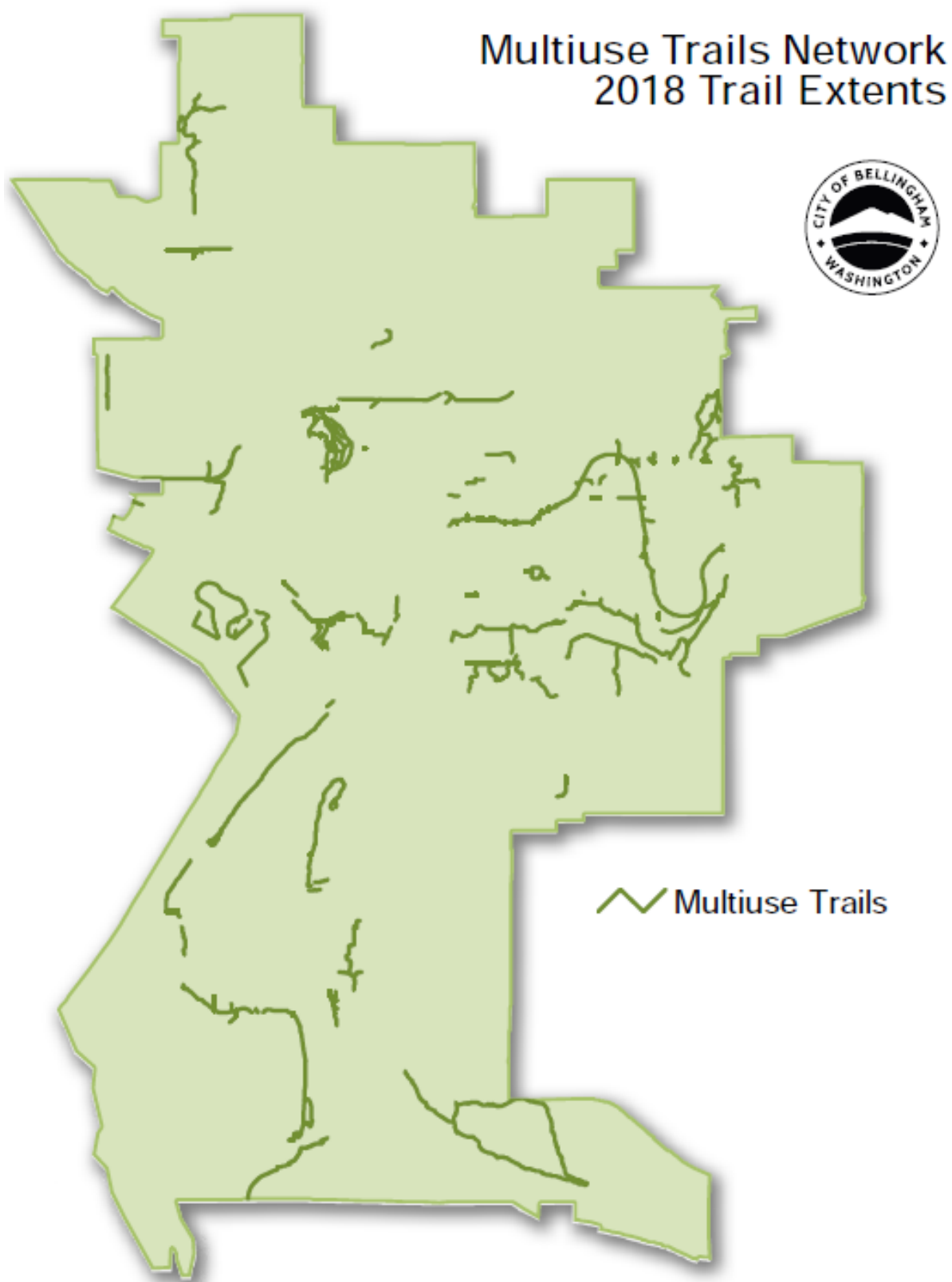


Figure 7.2.

Multiuse Trail Network 2018 Trail Mileage By Concurrency Service Area

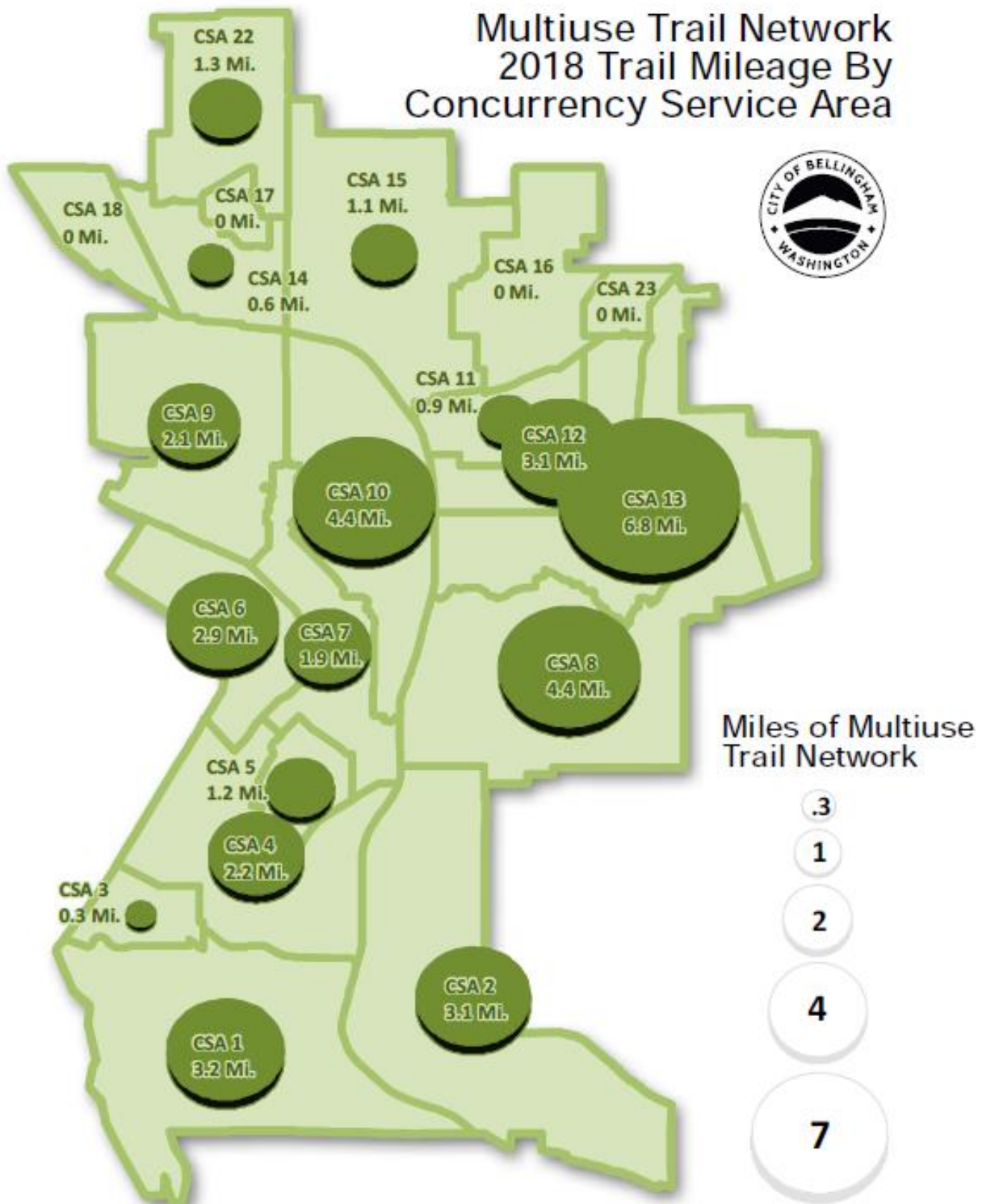


Table 7.1.**2018**

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 | 4.4 |
| CSA 11 | 0.9 |
| CSA 12 | 3.1 |
| CSA 13 | 6.8 |
| CSA 14 | 0.6 |
| CSA 15 | 1.1 |
| 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 | 1.3 |
| CSA 23 | 0.0 |
| Grand Total | 40.8 |

Chapter 8: WTA Primary Transit Network - 2019

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 [Whatcom Transportation Authority \(WTA\)](#) web site.

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 2003 and 2018, WTA ridership increased by 63%, but in 2018 overall ridership decreased by 1%, which is consistent with the downward ridership trend being experienced by transit agencies across the United States
- In 2007, WWU students voted to self-fund transit passes for every student through their tuition costs and WWU students comprised 40% of WTA's overall fixed route ridership
- In 2008, WTA was recognized by the Federal Transit Administration for achieving the highest annual ridership increase in the nation
- In 2018, WTA provided 4.55 million fixed route boardings, or approximately 15,800 fixed route boardings per weekday
- In 2017 WTA implemented a Strategic Plan which included expanded service to rural areas
- WTA continues to play a critical role in 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

Paratransit Services

WTA's Paratransit span of service mirrors the WTA fixed route transit bus service and area. WTA provides an average of 600 Paratransit trips per weekday. Demand was down 2% in 2017. Paratransit service was expanded in 2017 to mirror fixed route evening and Sunday expansion to more rural areas.

Fleet and Facilities

WTA's fleet includes 60 full-size buses (including eight hybrid electric buses), 37 Paratransit minibuses, and 30 vanpool vans. WTA operates four transit centers: Bellingham Station, Cordata Station (in North Bellingham), Ferndale Station and Lynden Station. Demand for vanpool service has decreased in recent years but the service will continue to be provided. The vanpool fleet size will be reduced in 2019.

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 and 2016 WTA Strategic Plans and WTA staff worked directly with City transportation planners in the development of the 2006 and 2016 Transportation and Land Use Elements of the Bellingham Comprehensive Plan so that City and WTA plans are fully integrated with one another.

**All transit data above provided by WTA staff*

Figure 8.1.

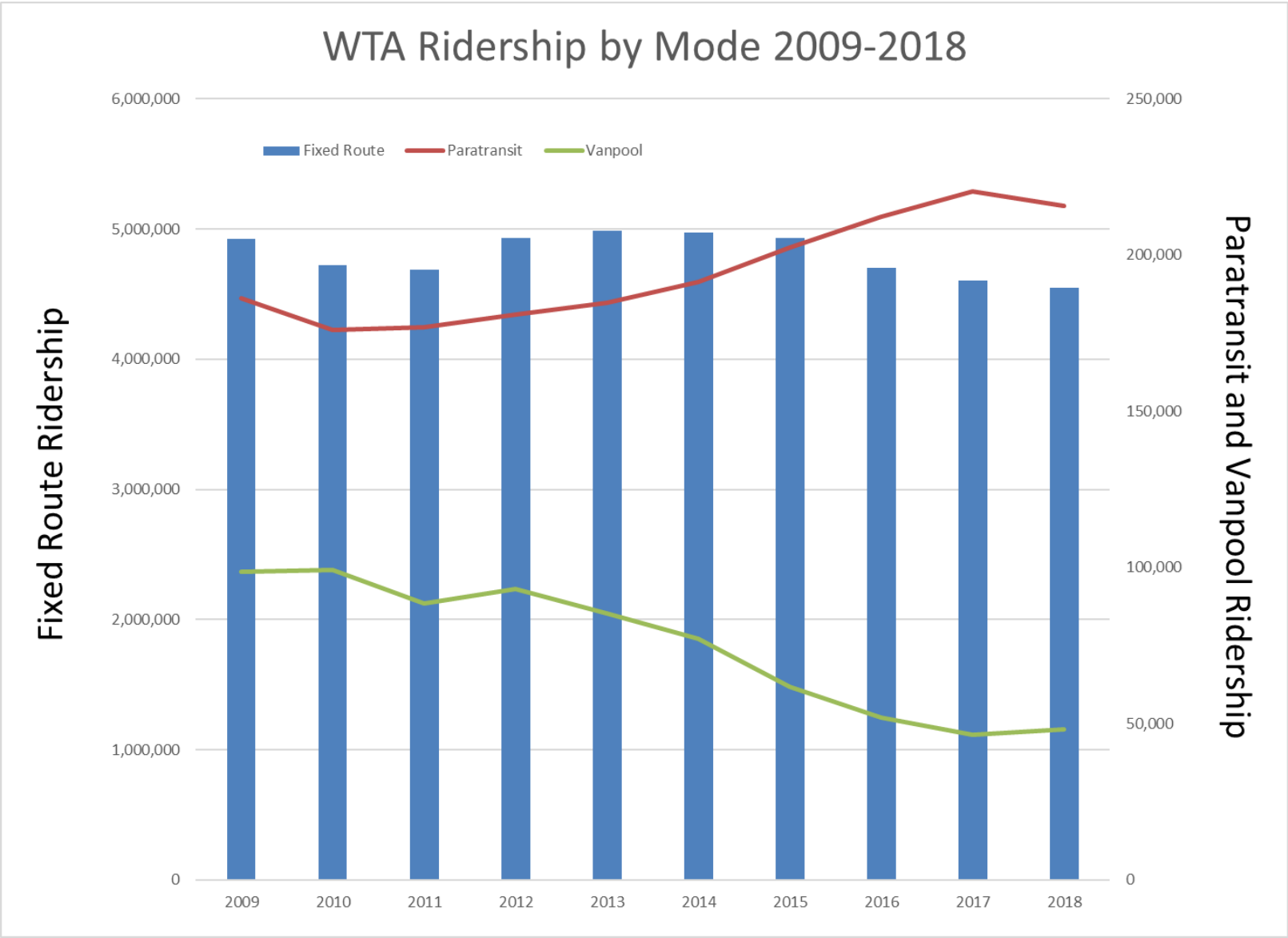


Figure 8.2.

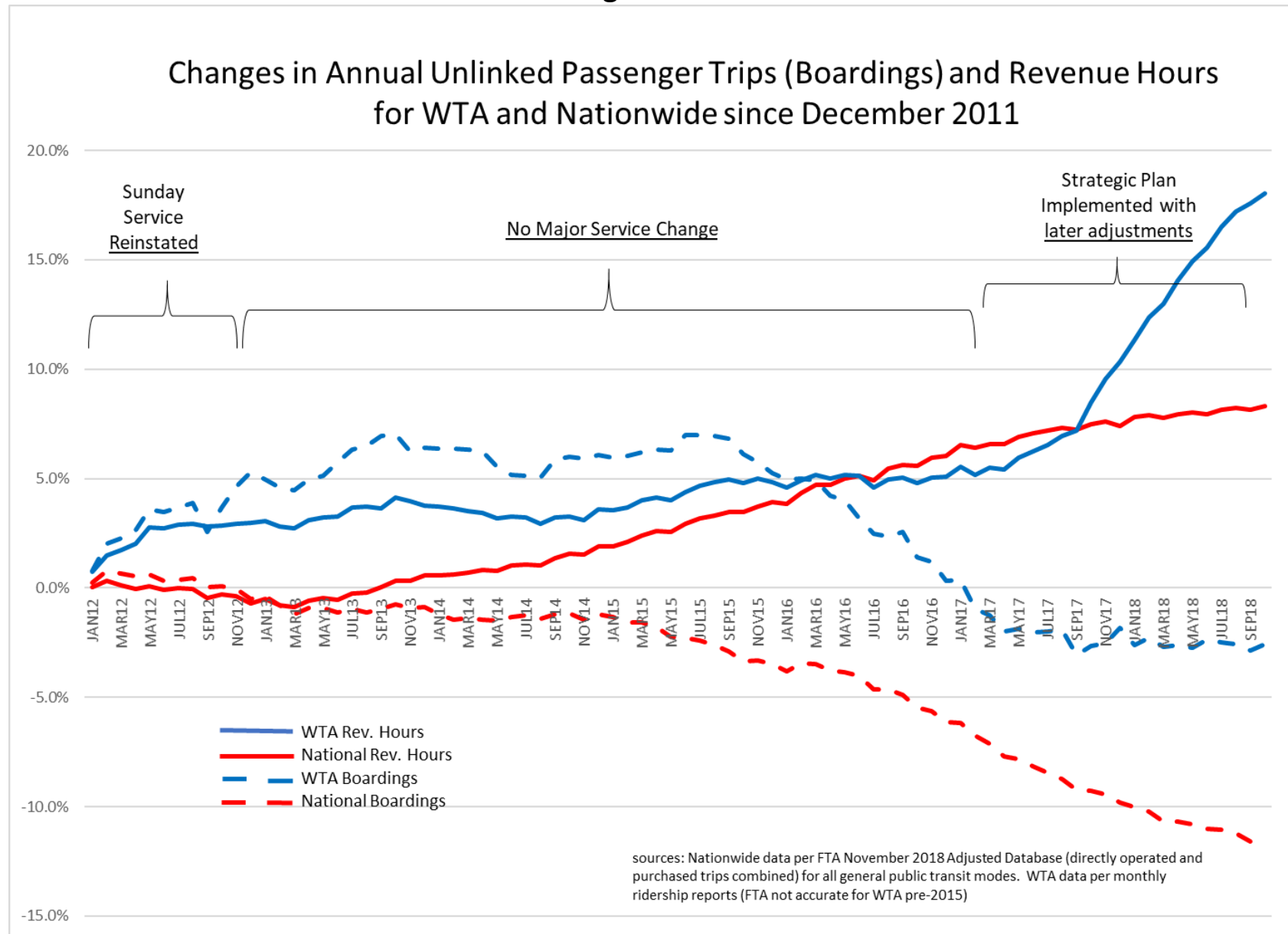
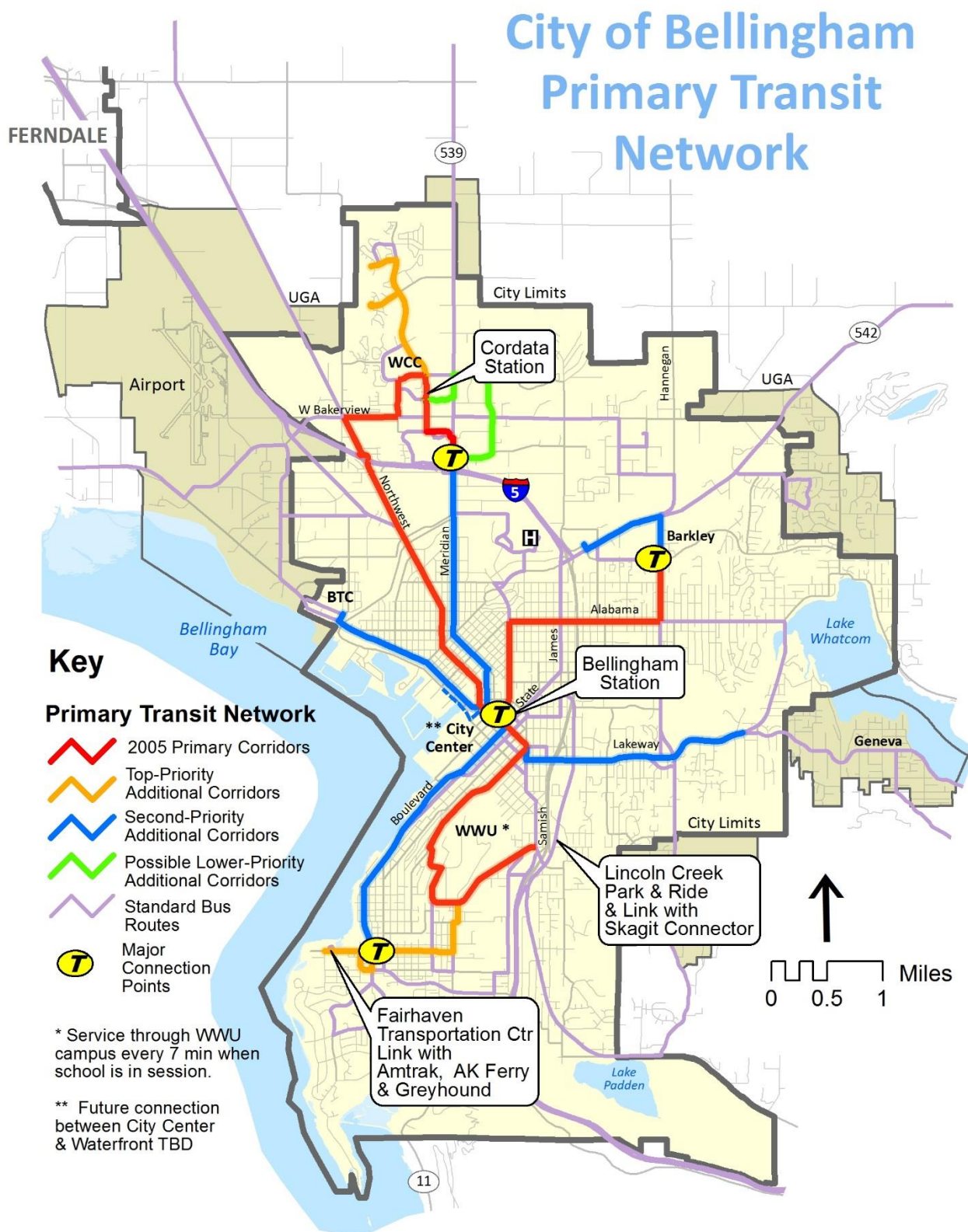


Figure 8.3. WTA Primary Transit Network



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 [Multimodal Transportation Chapter of the Bellingham Comprehensive Plan](#) 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.

Major transportation improvements take several years to strategically plan, fund, and construct at great cost. Bellingham adopts a rolling [6-Year Transportation Improvement Program \(TIP\)](#) each June that shows how the City plans to fund and construct major transportation projects.

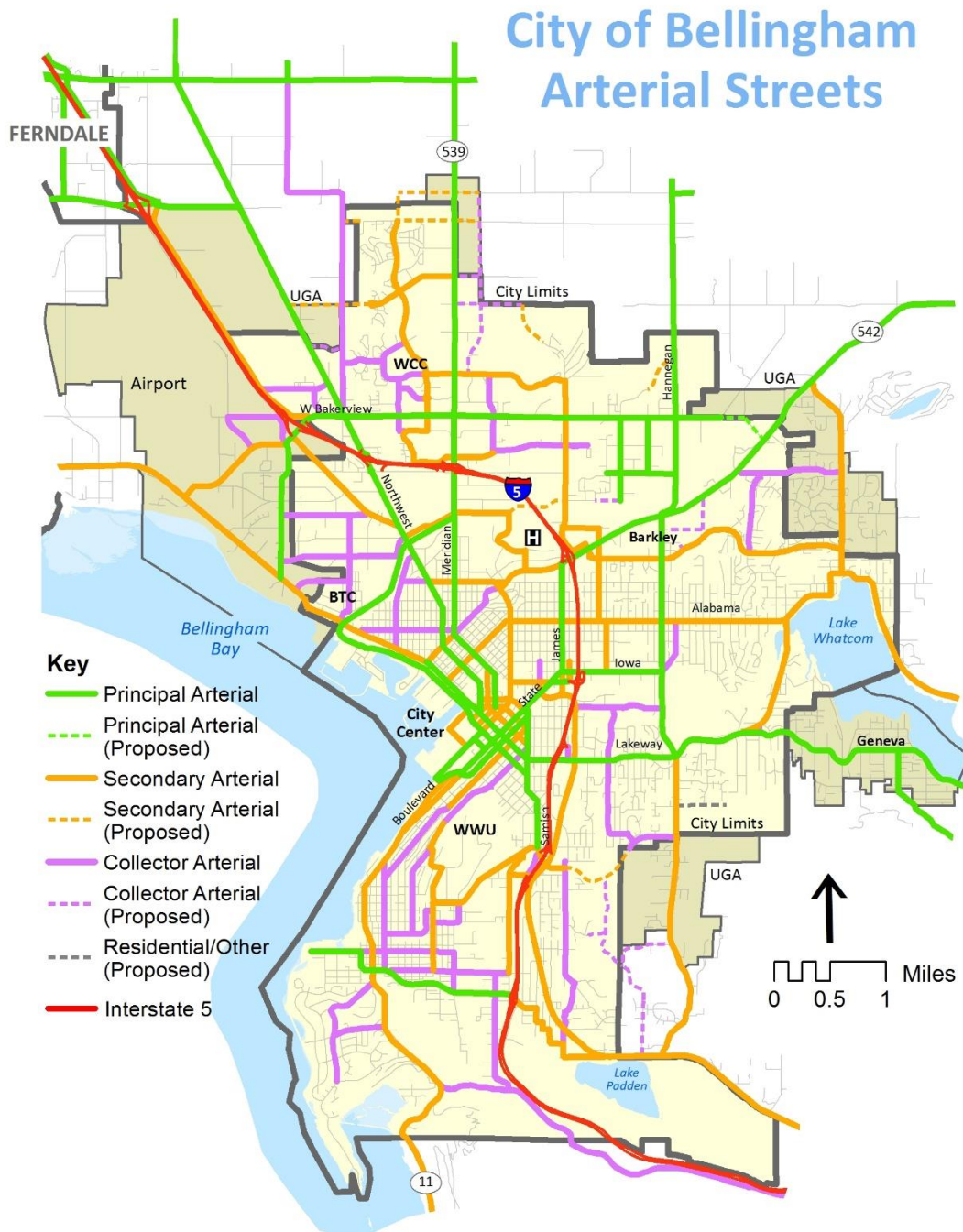
Bellingham's arterial street network is locally classified into Principle, Secondary, and Collector arterials, with 2017 lane mile totals as follows:

- Principal Arterial: Major regional transportation corridors, including State and federal highways, that provide connections into Bellingham from other cities, Whatcom and Skagit Counties, and British Columbia, Canada. Typically very high traffic volumes.
- Secondary Arterial: Major local transportation corridors that provide connections across, within, and between different parts of Bellingham. Typically higher to medium traffic volumes.
- Collector Arterial: Local transportation corridors that provide connections from neighborhood residential streets to secondary and principal arterial streets. Typically medium to lower traffic volumes.
- Residential Street: Local access to individual driveways within residential neighborhoods. Typically lower traffic volumes.

In 2018, Bellingham's 273-mile arterial street network includes the following major features:

- 110 lane miles of principal arterial;
- 104 lane miles of secondary arterial;
- 59 lane miles of collector arterial;
- 385 lane miles of residential streets;
- 137 intersection traffic signals (+3 in planning stages);
- 6 multimodal roundabouts (+3 in planning stages);
- 28 pedestrian-activated amber flashing crosswalks (+2 in planning stages);
- 10 pedestrian hybrid red (HAWK) signals (+2 in planning stages);
- 47 automated school zone flashing signs; 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 |

In 2019, Bellingham is again working with WCOG to collect freight truck counts and update Designated Freight Truck Route classifications by annual freight tonnage. The classifications shown above and on maps in Bellingham transportation planning documents are subject to change based on the findings of these freight traffic counts.

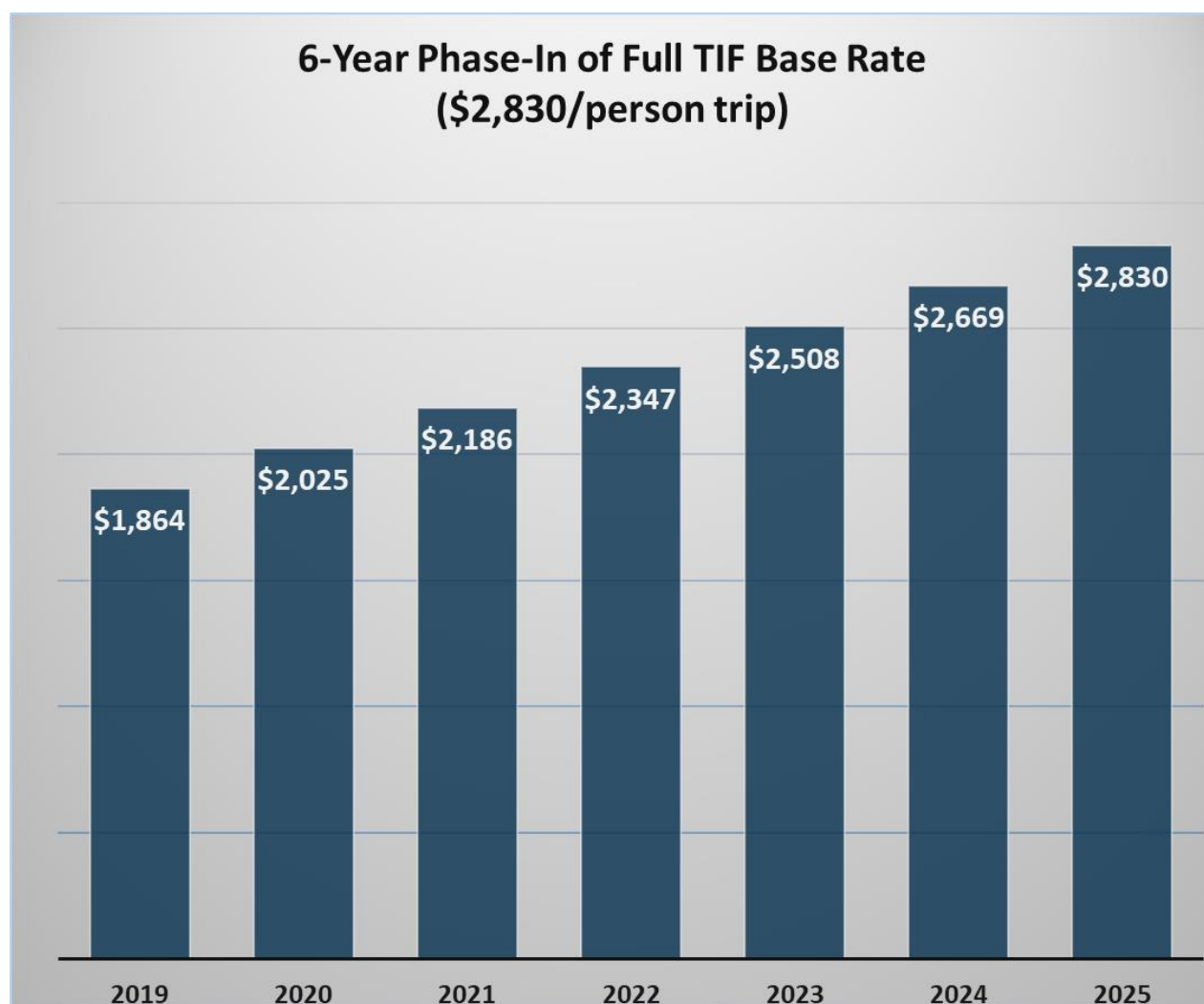
Figure 9.2. Bellingham Designated Truck Route Network



Chapter 10: Urban Village Transportation Impact Fee (TIF) Reduction Program and new Multimodal TIF System with fees adopted 2019 through 2025

In 2010, Public Works created Bellingham's Urban Village Transportation Impact Fee (TIF) Reduction Program to provide an economic incentive for developers to help the City achieve its goals for infill growth in compact, mixed use Urban Villages served with complete sidewalk and bikeway networks and WTA high-frequency transit service. Success with this land use strategy is also expected to help the City achieve its long-term transportation mode shift goals (Figure 2.3 and Table 2.1). A case study on the creation of this program is available in an article titled [The Urban Village TIF Reduction Program in Bellingham](#) on the City web site. As shown in Figure 10.1 (next page), in the 7 ½ years from March 2011 through December 2018, the Urban Village TIF Reduction Program has saved developers of 86 projects in Urban Villages over **\$763,671*** in TIFs, which is an average of over **\$100,000 per year**. ***NOTE: Many redevelopment projects do not require TIFs due to 100% credit for previous uses**

Consistent with Bellingham Transportation Element policy, December 2018, Bellingham adopted a new [Multimodal Transportation Impact Fee System](#) based on 'person trips' rather than 'vehicle trips' with increasing TIF rates adopted for 2019-2025 (see below), which was implemented on January 1, 2019. Bellingham is one of only four cities in Washington with Multimodal TIFs and this new program will help to provide critical funding contributions from private development to help complete the citywide pedestrian and bicycle networks.



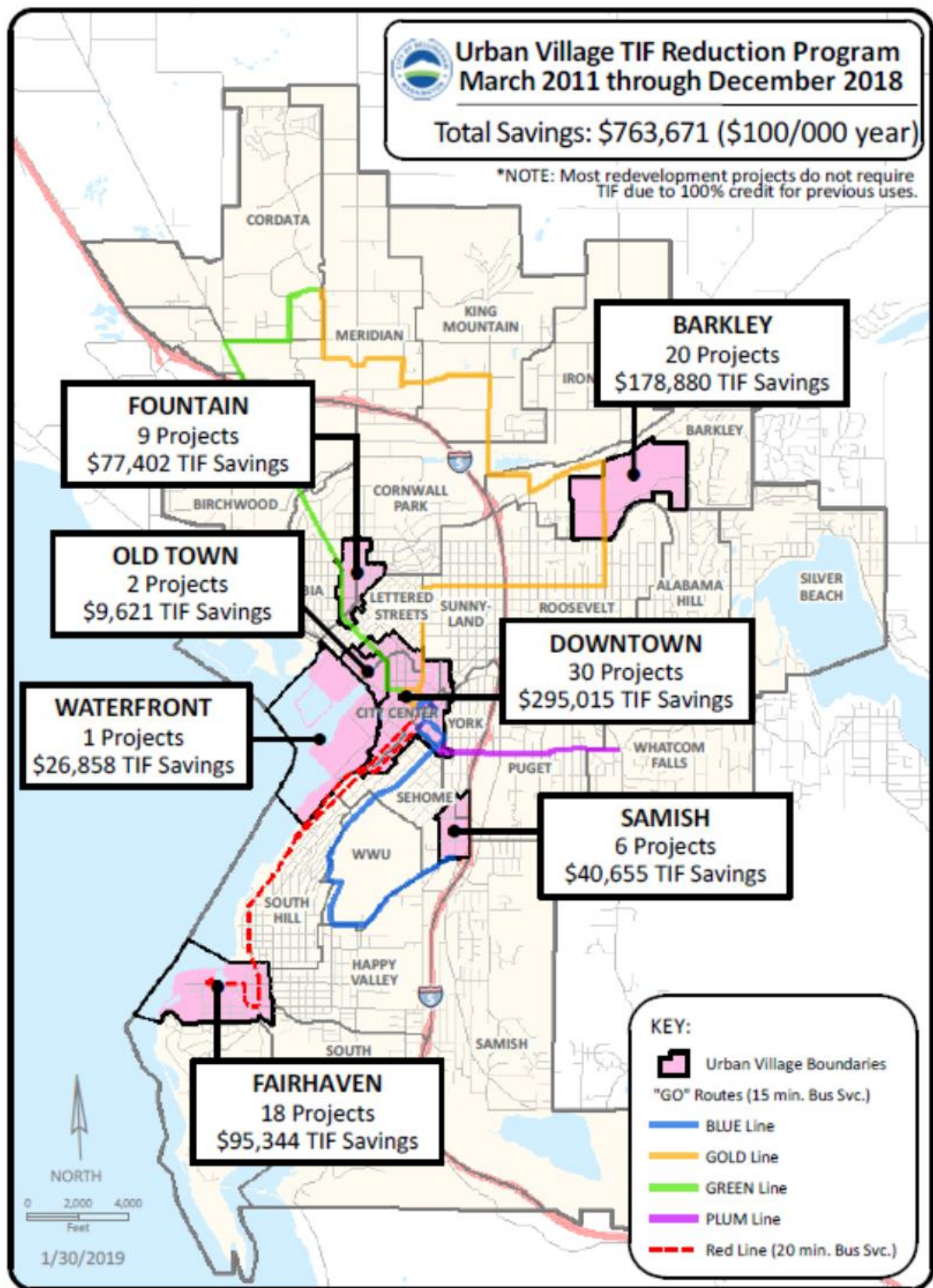


Figure 10.1. Urban Villages Eligible for TIF Reduction Program

Chapter 11: Waterfront District Biennial Monitoring Program

In 2010, Public Works created Concurrency Service Area (CSA) #6 for the Waterfront District in preparation for the adoption of a Waterfront District Master Plan. In 2019, CSA #6 has 1,792 PTA with no credits given yet 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 – all of which are under construction in 2018-2019. 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 construct the Granary-Laurel arterial street in 2018-2019 in the “Downtown” portion of the Waterfront (Figure 11.1.), which will have sidewalks on both sides and a two-way bikeway/cycletrack on one side. When completed, these improvements will add Person Trips Available in CSA #6.
- The historic Granary Building began redevelopment in 2016 as the first major project in the redevelopment of the 200-acre Waterfront District and may be completed in 2019.
- All-American Marine Boats has relocated its manufacturing site from the Fairhaven Shipyards industrial area to the I-J Waterway in the Waterfront District.
- Itek, a major solar panel manufacturer, has relocated its manufacturing site from the Irongate Industrial Area to 800 Cornwall Avenue 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 on the City web site 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 and every two years after, 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 2017, TranspoGroup, Inc. completed the second Biennial Monitoring Report for the Waterfront District. Highlights from this report are included in the following pages. **The Port is required to update the Biennial Monitoring Report again in late 2019 and the results will be included in the 2020 Transportation Report on Annual Mobility.**

Figure 11.1. Bellingham Waterfront District Boundaries

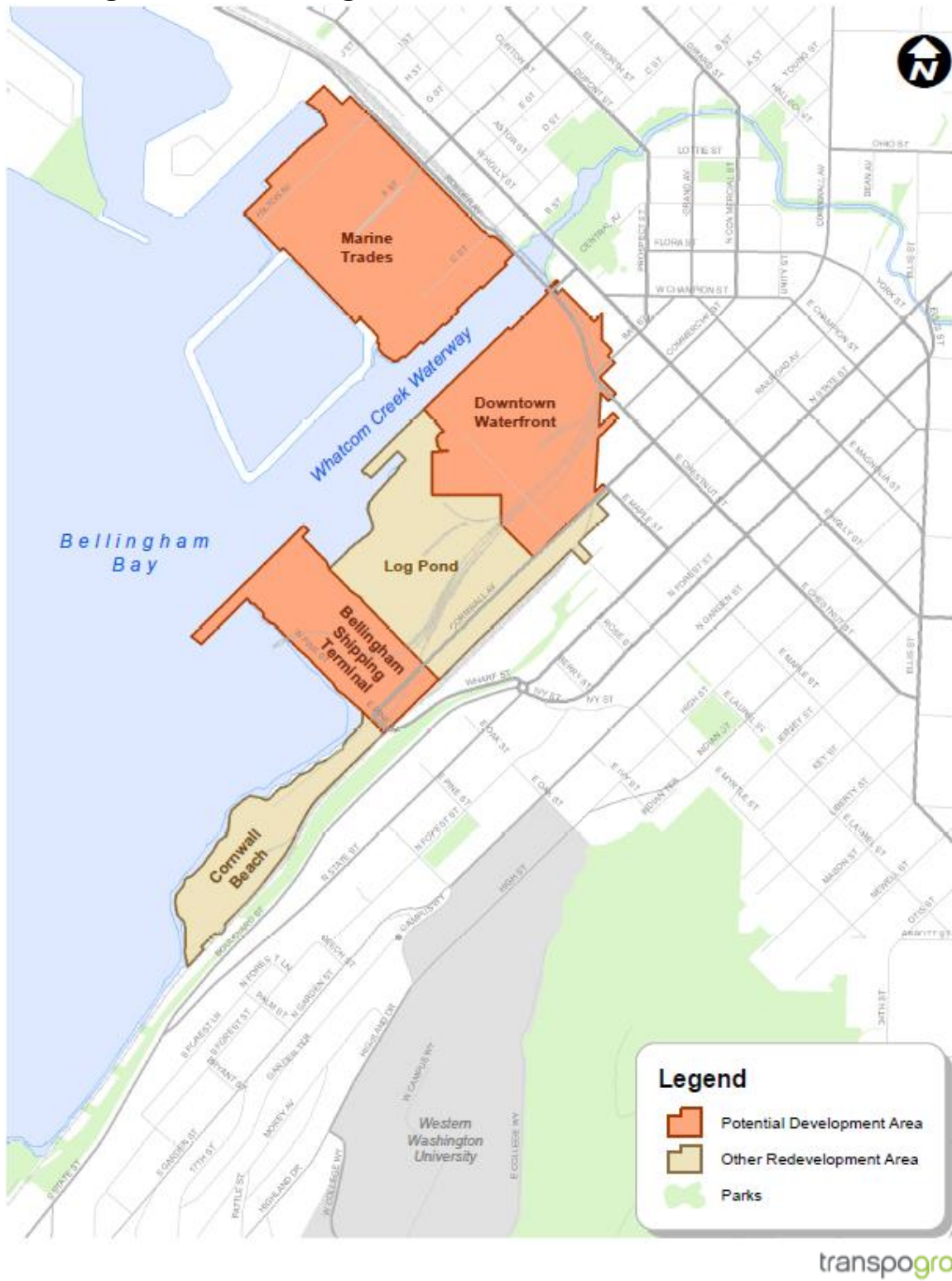
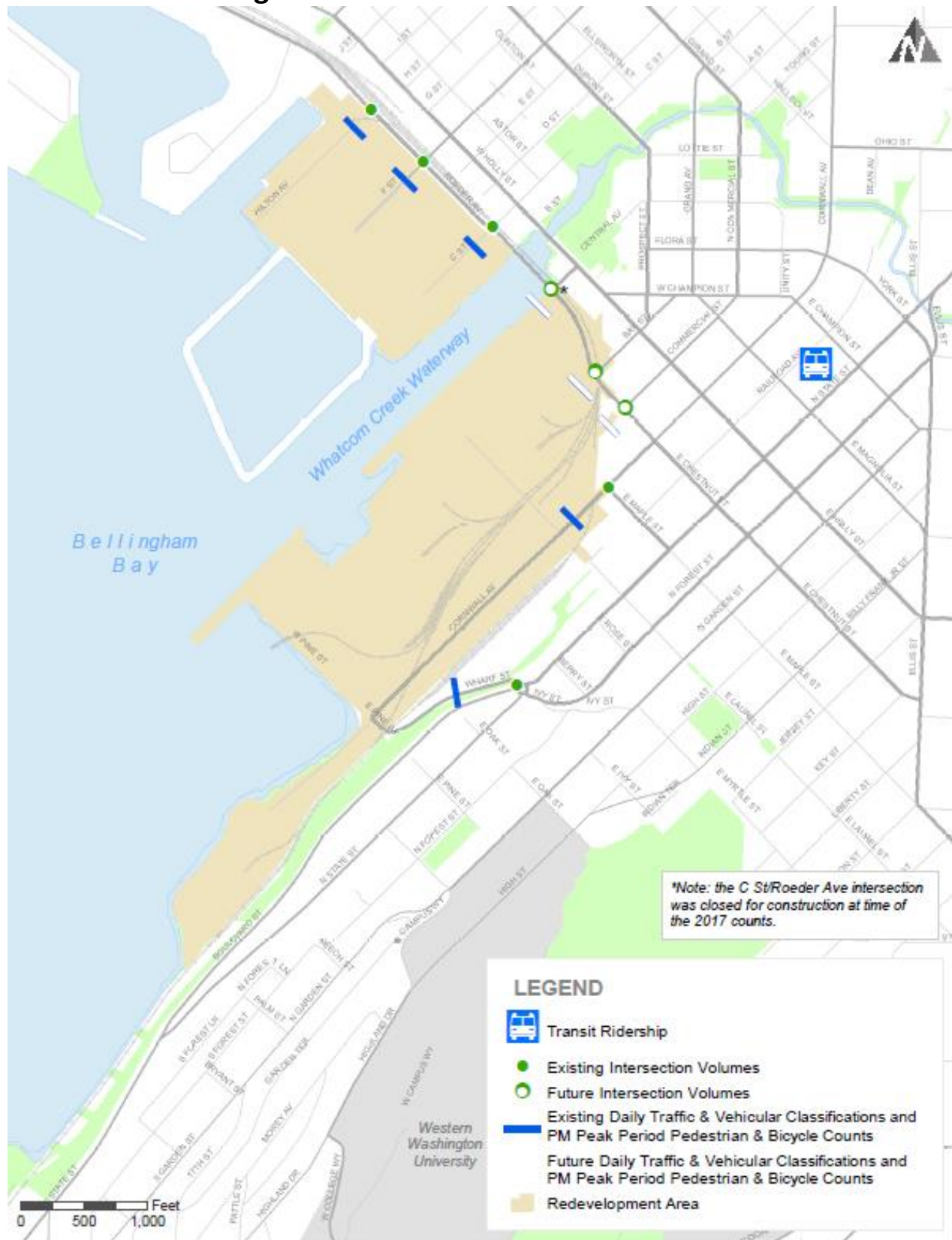


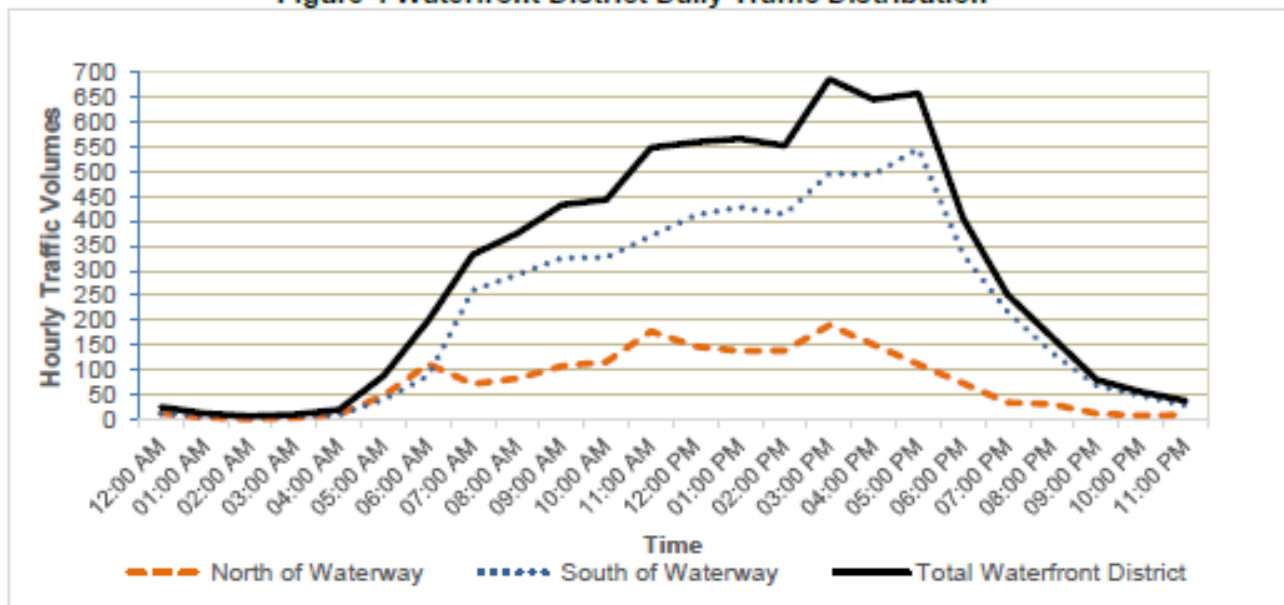
Figure 11.2. Data Collection Locations



Current Conditions

Figure 4 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 4 Waterfront District Daily Traffic Distribution



Vehicle classifications were also collected at the access points. A review of the specific data shows travel by car represents the majority of the vehicles to and from the site both north and south of the Waterway. The number of trucks is higher north of the Waterway than south, representing 46 percent of total traffic in the north versus 24 percent to the south. Figure 5 illustrates the average daily vehicle classifications for the Waterfront District.

Figure 5 Waterfront District Average Daily Vehicle Classification

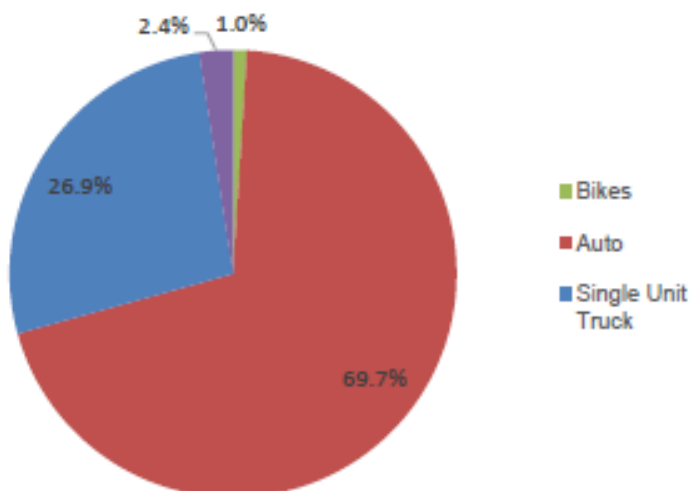


Table 2. Existing (2017) Weekday Vehicular Traffic Volumes¹

| | Inbound | Outbound | Total |
|----------------------------------|---------|----------|-------|
| North of Waterway | | | |
| Daily Volumes | 880 | 900 | 1,780 |
| PM Peak Hour Volumes | 50 | 121 | 171 |
| PM Peak Hour % of Daily Volumes | 6% | 13% | 10% |
| South of Waterway | | | |
| Daily Volumes | 2,675 | 2,670 | 5,345 |
| PM Peak Hour Volumes | 314 | 350 | 664 |
| PM Peak Hour % of Daily Volumes | 12% | 13% | 12% |
| Waterfront District Total | | | |
| Daily Volumes | 3,555 | 3,570 | 7,125 |
| PM Peak Hour Volumes | 364 | 471 | 835 |
| PM Peak Hour % of Daily Volumes | 10% | 13% | 12% |

1. Based on data collected in October 2017.

Table 3 summarizes vehicle and non-motorized trips as well as the mode splits for north and south of the Waterway.

Table 3. Existing (2017) Weekday PM Peak Hour Trips and Mode Splits

| Site Access | Trips ¹ | | | | Mode Splits ¹ | |
|--------------------------------|--------------------|------------|------------|---------------|--------------------------|---------------|
| | Inbound | Auto | Total | Non-Motorized | Auto | Non-Motorized |
| | | Outbound | | | | |
| North of Waterway | | | | | | |
| Hilton Avenue | 9 | 49 | 58 | 7 | 89% | 11% |
| F Street | 16 | 31 | 47 | 4 | 92% | 8% |
| C Street | <u>25</u> | <u>41</u> | <u>66</u> | <u>8</u> | <u>89%</u> | <u>11%</u> |
| Subtotal | 50 | 121 | 171 | 19 | 90% | 10% |
| South of Waterway ² | | | | | | |
| Cornwall Avenue | 149 | 236 | 385 | 81 | 83% | 17% |
| Wharf Street | <u>165</u> | <u>114</u> | <u>279</u> | <u>22</u> | <u>93%</u> | <u>7%</u> |
| Subtotal | 314 | 350 | 664 | 103 | 87% | 13% |
| Waterfront District Total | | | | | | |
| Total | 364 | 471 | 835 | 41 | 87% | 13% |

1. Based on data collected in October 2017.

2. Central Avenue is not included because it is closed for construction.

As shown in Table 3, 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 770 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.

As discussed previously, the current development is mainly industrial. While Cornwall Avenue has the highest percentage of non-motorized traffic at 17 percent, there is still limited non-auto activity. 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 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 presented in Table 1 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 2017 data collected.
- **Mode Splits:** The future 2021 mode splits were based on the existing 2017 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. While the amount of planned development in the next two years has increased since the previous monitoring study, it was unknown if the internal trip rate would be as high as 15 percent. 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 estimated to be approximately 8 percent.

Table 4 provides a summary of the future vehicle trip generation for the Waterfront District. Detailed trip generation calculations are provided in Attachment 2.

Table 4. Estimated Future (2021) Weekday PM Peak Hour Vehicle Trip Generation

| | Inbound | Outbound | Total |
|--|------------|------------|--------------|
| North of Waterway | | | |
| Existing Development ¹ | 50 | 121 | 171 |
| Future Pipeline Development ² | 5 | 26 | 31 |
| Internal ³ | -8 | -7 | -15 |
| Net Offsite | 46 | 140 | 187 |
| South of Waterway | | | |
| Existing Development | 314 | 350 | 664 |
| Future Pipeline Development | 400 | 380 | 780 |
| Internal | -50 | -51 | -101 |
| Net Offsite | 664 | 679 | 1,343 |
| Waterfront District Total | | | |
| Existing Development | 364 | 471 | 835 |
| Future Pipeline Development | 405 | 406 | 811 |
| Internal | -58 | -58 | -116 |
| Net Offsite | 711 | 819 | 1,530 |

1. Based on data collected in October 2017.

2. Calculated based on person trip methodology outlined in the Waterfront District EIS with updates to reflect Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition.

3. Based on methods described in Waterfront District EIS with data updated to reflect ITE *Trip Generation Handbook*, 3rd Edition and consideration of the size of the future 2021 development.

As shown in Table 4, the future total net offsite trip generation for the Waterfront District would be 1,530 vehicles during the weekday PM peak hour with 187 vehicles within the area north of the Waterway and 1,343 vehicles south of the Waterway.

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. Table 5 provides a summary of the existing and future outbound PM peak hour trips for each site access point as well as the remaining capacity with the future development over the next 4-years and the planned infrastructure.

Table 5. Future (2021) Infrastructure Capacity Summary

| PM Peak Hour Outbound Vehicle Trips | | | Estimated Vehicle Capacity (Trips) ³ | Remaining Capacity | |
|-------------------------------------|----------------------------|--------------|---|--------------------|--------------------------|
| Existing Trips ¹ | Net New Trips ² | Future Trips | | Trips | Square-feet ⁴ |
| North of Waterway | | | | | |
| 121 | 19 | 140 | 400 | 260 (65%) | 360,000 |
| South of Waterway | | | | | |
| 350 | 329 | 679 | 900 | 221 (25%) | 380,000 |

1. Based on October 2017 traffic counts.

2. Calculated based on person trip methodology outlined in the Waterfront District EIS and assigned based on the location of development with consideration of planned infrastructure improvements and offsite travel patterns.

3. Based on the infrastructure phasing analysis as documented in the memorandum subjected *The Waterfront District Subarea Plan Transportation Analysis Update for 2012 SEIS Addendum*, October 2012 with consideration of planned improvements by 2021.

4. Approximate millions of square-feet (sf) of development is provided for reference and is based on the average outbound vehicle trip rate as documented in the memorandum subjected *The Waterfront District Subarea Plan Transportation Analysis Update for 2012 SEIS Addendum*, October 2012.

As shown in Table 4, 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 35 percent of the infrastructure capacity leaving 65 percent of the capacity available for future development. South of the Waterway, the proposed development is anticipated to use approximately 75 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 2021 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.