Transportation Report on Annual Concurrency

In support of BMC 13.70 Multimodal Transportation Concurrency

March 1, 2013

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Section 1: Executive Summary

In June 2006, the Bellingham City Council adopted BMC 13.70, the City's first GMA-compliant Transportation Concurrency Management Ordinance, in conjunction with the June 2006 Bellingham Comprehensive Plan and GMA requirements for:

> *"A transportation element that implements, and is consistent with, the land use element*" (RCW 36.70A.70 (6)).

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

> *"After adoption of the comprehensive plan by jurisdictions required to plan or who choose to plan under RCW 36.70A.040, local jurisdictions must adopt and enforce ordinances which prohibit development approval if the development causes the level of service on a locally owned transportation facility to decline below the standards adopted in the transportation element of the comprehensive plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. These strategies may include increased public transportation service, ride sharing programs, demand management, and other transportation systems management strategies. For the purposes of this subsection (6) "concurrent with the development" shall mean that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within *six* years"* (RCW 36.70A.70 (6) (b)).
>
> *[*Note*: Bellingham requires financial commitment within 3 years consistent with requirements for fully funded project on 6-Year TIP]*

In early 2007, consistent with 2006 transportation planning staff warnings that traditional auto-oriented LOS methodology would not help to achieve either the City's nor GMA infill land use goals, an LOS violation occurred and a 9-month-long moratorium on new development was imposed along Northwest Avenue. In response, Bellingham transportation planners hired TranspoGroup, Inc. in 2008 to help develop an innovative new method to include all major transportation modes (pedestrian, bicycle, transit, and automobile) rather than the traditional auto-only method used by most jurisdictions. On January 1, 2009, Bellingham fully implemented the innovative new Multimodal Transportation Concurrency Program and in November received the **2009 American Planning Association/Planning Association of Washington Award for Transportation Planning in Washington State.**

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 (See Section 7). A full account of Bellingham's past experience and struggles with auto-oriented LOS measurements and the innovative new multimodal approach to transportation concurrency titled ***"Moving Beyond the Automobile"*** is available on the City web site at http://www.cob.org/documents/pw/transportation/multimodal-case-study-AICP.pdf

Bellingham's Multimodal Transportation Concurrency Program annually measures sidewalks, bicycle lanes, multi-use trails, WTA transit service, and arterial streets in the context of various land use environments found within Bellingham, currently divided into 16 Concurrency Service Areas (CSA) ***(Map page 17)***. All of these measurements are compiled and converted into Person Trips Available (PTA) by each CSA, which is Bellingham's GMA-required adopted level-of-service standard in the Transportation Element of the Bellingham Comprehensive Plan.

The Transportation Report on Annual Concurrency (TRAC) is an annual monitoring and reporting system that Public Works has published since March 2006 to inform the City Council, 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 - PTA by CSA ***(See Table 1)***. As such, the TRAC is Bellingham's annual documentation that the City is in full compliance with the Washington State Growth Management Act (GMA) requirements.

In addition to tracking transportation impacts from new development, the TRAC provides an assessment of the existing multimodal transportation system to help Public Works and City Council plan future transportation infrastructure investments for the City's annual 6-Year Transportation Improvement Program (TIP). The 6-Year TIP must be adopted by July 1 each year and must be consistent with the Transportation Element of the Comprehensive Plan.

The 2013 TRAC incorporates recommendations made in the 2012 TRAC. The 2013 TRAC also 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.

Section 2: Status of Recommendations from 2012 TRAC

Public Works staff explored each 2012 TRAC recommendations for enhancement to the Multimodal Transportation Concurrency Program and took the actions listed below.

- **Explore Further Refinements/Additions of Concurrency Service Areas**

  - As portions of the Bellingham UGA are annexed to the City and as urban village plans are created within Bellingham, the creation of new CSAs will be necessary.

    There are two active annexation proposals in the northwestern portion of the Bellingham UGA: the 174-acre Bennett-Bakerview area between Interstate 5 and the Bellingham International Airport and the 261-acre Pacific Highway-Northwest area just north of Bakerview Road between Pacific Highway and Northwest Avenue. New CSA's will need to be created for these areas in advance of annexation to the City, which may also require reconfiguration of adjacent CSA boundaries (See below). This may require significant staff time to develop.

  - Continue to monitor the level of development activity surrounding the Whatcom Community College area and the WTA Cordata transit hub. A new Type 1, or Type 1 Institutional, CSA should be created for this area if an urban village plan is created for it in the future.

    In 2010, the City approved mixed use zoning for Area 11 of the Cordata Neighborhood immediately northeast of Cordata/Stuart and a private developer is proposing 600 homes and 35,000 SF of commercial/retail development. In 2012, WCC began construction on the southeast corner of Cordata/Stuart for a of a 23,500 SF "Health Professions Building" to offer courses toward a new Nursing degree. In 2013, WCC will work with City staff to officially create an Institutional Master Plan (IMP) for WCC landholdings in the Cordata Neighborhood. A new Type 1 "Urban Village" / 1A "Institutional" CSA should be created in conjunction with the WCC IMP to encompass the WCC campus, the WTA Cordata Station, and land immediately surrounding these institutional focal points. This would also require reconfiguration of adjacent CSA boundaries and may require significant staff time to develop.

  - Continue to monitor the level of development activity surrounding the Saint Joseph's Hospital area. A new Type 1 Institutional CSA may need to be created for this area in the future.

    The 2006 Saint Joseph's Hospital IMP (Area 7 Cornwall Park Neighborhood) allows approximately 500,000 SF of additional development and the hospital-medical complex along the Squalicum-Birchwood corridor is characteristically different than the surrounding residential neighborhood. The 2006 SJH IMP requires additional sidewalks and bicycle routes internal to the hospital campus, WTA transit service is available, and PeaceHealth has implemented a robust Commute Trip Reduction (CTR) program employing multiple transportation demand management strategies for employees on the St. Joseph Hospital campus. In 2012, PeaceHealth staff met with City staff to discuss their intent to update the 2006 SJH IMP. When SJH updates the IMP, a Type 1A "Institutional" CSA should be created to encompass the SJH campus and land immediately

surrounding this institutional focal point. This would also require reconfiguration of adjacent CSA boundaries and may require significant staff time to develop.

- **Continued Refinement of Multimodal Transportation Concurrency Methodology**
  - Public Works staff should continue work to develop connectivity analysis and metrics for both project-specific impact analysis and overall multimodal transportation system planning and measurement of system effectiveness.

    There is no funding currently provided for this, but it remains a priority for transportation planning staff. In 2013, TranspoGroup and Toole Design will employ ViaCity software for bicycle system connectivity analysis in the Bicycle Master Plan work. City staff is hopeful that this will provide a first step toward the development of a connectivity metric for transportation concurrency purposes.

- **Monitor Multimodal Transportation Concurrency Methodology for Effectiveness**
  - Continue to publish TRAC and annually report observations of system effectiveness to Planning Commission, Transportation Commission, and City Council. The methodology is still relatively new and continued monitoring and reporting is needed to assess long-term effectiveness in promoting infill development in Bellingham. Over time, staff anticipates that there will be a need for further refinements and adjustments to be made to support infill and multimodal policies.

    This is an on-going and annual procedure. All TRAC documents 2006 - 2013 are available at http://www.cob.org/services/planning/transportation/multi-modal-trac.aspx

- **Maintain and Update the Concurrency Evaluation Tracking Tool with new data**
  - The Concurrency Evaluation Tracking Tool (CETT) maintains an inventory of arterial traffic counts and capacities, high-frequency transit capacity and ridership data obtained directly from WTA, and the degree of completeness for sidewalk and bicycle facilities adopted in the Transportation Element of the Comprehensive Plan. The CETT is also used to track and monitor the number of person trips withdrawn for new development for each CSA. To maintain the effectiveness of this tool, staff must maintain upkeep of arterial traffic counts, WTA transit ridership, completeness of sidewalks and bike lanes, and, where applicable, trails that serve a transportation function.

    Since January 1, 2013, the CETT has been updated to incorporate:

    1.) Transportation Concurrency Certificates issued in 2012;

    2.) Arterial traffic counts collected in 2010-2011;

    3.) WTA public transit ridership and service frequency data collected in 2011;

    4.) Marked bike lane facilities constructed in 2012;

    5.) A 2013 inventory of sidewalk facilities comprising the "Primary Pedestrian Network" in the Pedestrian Master Plan;

    6.) Sidewalks on the Primary Pedestrian Network constructed in 2012; and

    7.) "Multi-use trail" (bicycle-friendly) data inventoried in 2013 and incorporated into each CSA where these trails serve a clear transportation function.

Section 3: 2013 TRAC Recommendations

- **Explore Further Refinements/Additions of Concurrency Service Areas**
  - As portions of the Bellingham UGA are annexed to the City and as Institutional Master Plans and Urban Village Plans are created within Bellingham, the creation of new CSAs or adjustments to existing CSA categories will be necessary, as listed below.
    - **a) 174-acre Bennett-Bakerview Annexation Area**
    - **b) 261-acre Pacific Highway Annexation Area**
    - **c) Whatcom Community College IMP area, WTA Cordata Station, and immediate surrounding land in Cordata Neighborhood**
    - **d) St. Joseph's Hospital IMP area and immediate surrounding land along Squalicum Parkway**
    - **e) Bellingham Waterfront District, when approved by Bellingham City Council**
    - **f) Others as opportunities arise.**

- **Continued Refinement of Multimodal Transportation Concurrency Methodology**
  - Public Works staff should continue work to develop connectivity analysis and metrics for both project-specific impact analysis and overall multimodal transportation system planning and measurement of system effectiveness.

    There is no funding currently provided for this, but it remains a priority for transportation planning staff. ***In 2013, TranspoGroup and Toole Design will employ ViaCity software for bicycle system connectivity analysis in the Bicycle Master Plan work. City staff is hopeful that this will provide a first step toward the development of a connectivity metric for transportation concurrency purposes.***

- **Maintain and Update the Concurrency Evaluation Tracking Tool with new data**
  - ***Update both CETT and Person Trip Calculator to reflect 2012 (9th Edition) ITE Trip Generation Manual. There is no funding currently provided for this, but this is a high priority for transportation planning staff.***

Section 4: Detail of Existing Conditions for 2013 TRAC Findings

The 2013 TRAC identifies Person Trips Available by Concurrency Service Area using 2010-2011 traffic count data, 2011 WTA capacity and ridership statistics, and January 1, 2013 inventories of marked bicycle lanes and multiuse trails. The 2013 TRAC also accounts for all pipeline trips reserved for development in the Concurrency Evaluation Tracking Tool (CETT) for current conditions through January 1, 2012. In addition, the 2013 TRAC incorporates the newly created citywide "Primary Pedestrian Network" in the Pedestrian Master Plan (Approved August 2012) with inventories of network completeness by CSA.

Concurrency Evaluation Tracking Tool (CETT)

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

Pipeline Development Projects

Person trips generated from the 139 total development proposals evaluated for transportation concurrency between June 15, 2006 and December 31, 2011 have been assigned to and withdrawn from affected CSAs.

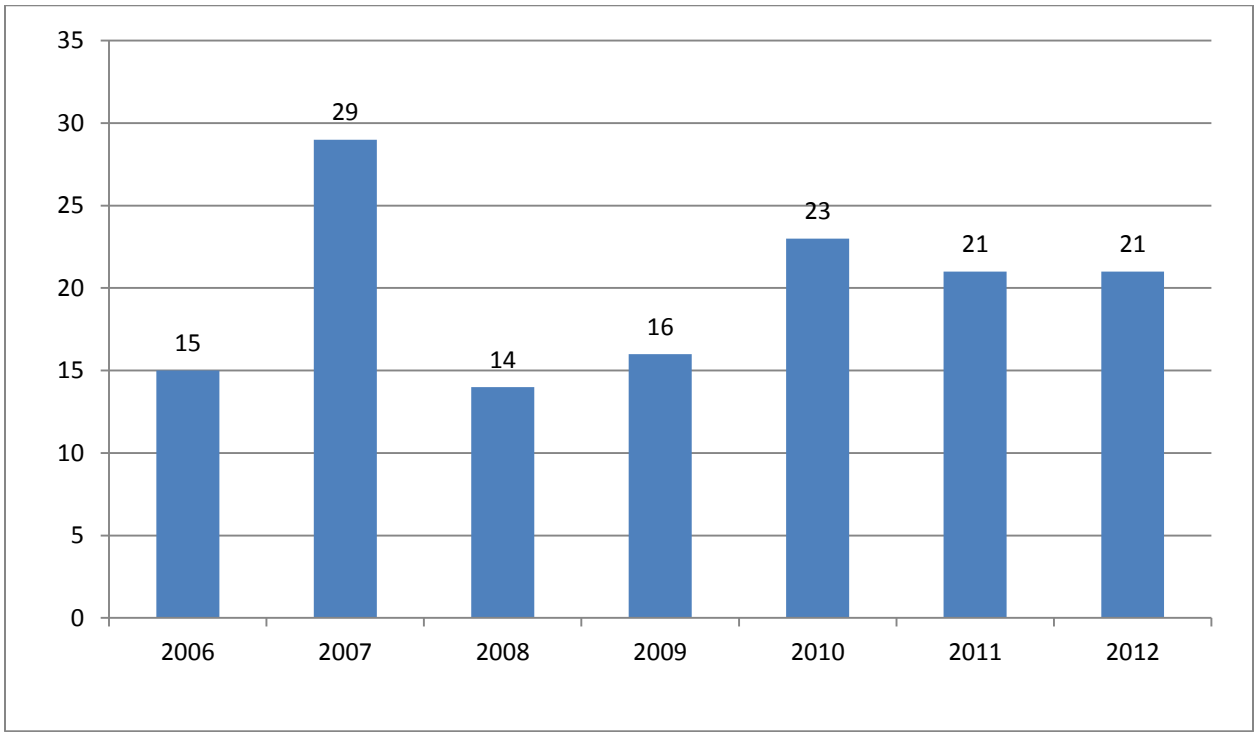

Figure 1. 139 Concurrency Certificates Issued from June 15, 2006* - December 31, 2012

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

Table 1. Person Trips Available (PTA) by Concurrency Service Area (CSA) in 2013									
	Sidewalks[1]		Multiuse Trails		Bicycle Lanes[2]		WTA[3]	Auto[3]	2013
	%	Credit	%	Credit	%	Credit	Transit	Arterial	Net
CSA	Comp	PTA	Comp	PTA	Comp	PTA	PTA	PTA	PTA[4]
1. Edgemoor-South	31%	0	44%	442	79%	464	53	975	1,431
2. Samish	23%	0	27%	269	16%	0	21	2,367	2,158
3. Fairhaven Urban Village	84%	680	61%	611	50%	0	201	1,276	2,198
4. South Hill-Happy Valley	54%	72	50%	502	85%	630	127	1,611	2,427
5. WWU	80%	600	13%	125	95%	900	748	307	2,179
6. Waterfront District[5]	51%	18	39%	388	40%	0	0	880	570
7. Urban Core (4 Villages)	89%	780	15%	148	81%	620	1,088	6,952	8,614
8. Puget-Whatcom Falls	65%	240	86%	856	71%	336	309	3,599	4,624
9. Birchwood-Columbia	59%	162	11%	113	74%	432	305	2,071	2,497
10. Cornwall-Sunnyland-York	81%	558	14%	142	71%	378	375	3,257	3,868
11. Barkley Urban Village	80%	600	14%	136	83%	660	329	3,565	2,751
12. Roosevelt	70%	360	56%	564	68%	324	394	1,098	2,234
13. Alabama-Silver Beach	62%	192	88%	879	85%	560	74	2,551	3,748
14. Cordata-Meridian	69%	304	3%	28	52%	32	820	7,294	6,715
15. King Mtn	39%	0	1%	6	15%	0	20	2,412	913
16. Irongate	5%	0	0%	0	0%	0	0	3,529	2,715
Citywide									49,642

Notes:

1.) “Percent complete” sidewalks reflects degree of completeness by CSA of "Primary Pedestrian Network" in March 2012 Draft Pedestrian Master Plan (adoption expected July 2012) from the list of over 300 sidewalk infill projects.

2.) “Percent complete” bicycle lanes reflects status of facilities adopted in the Comprehensive Plan, where construction is realistically feasible, rather than absolute total of all facilities identified by the former BPAC.

3.) PTA for WTA transit and Auto arterials are derived from select transit and auto data collection measurement points throughout the City. Transit data is collected by WTA and auto data is collected by Public Works.

4.) 2013 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.

5.) Waterfront District eligible to become Type 1 Urban Village in future with Master Plan and fixed route transit.

Section 5: 2013 Primary Pedestrian Network Completeness

(From 2012 Pedestrian Master Plan; approved August 2012)

Figure 2.

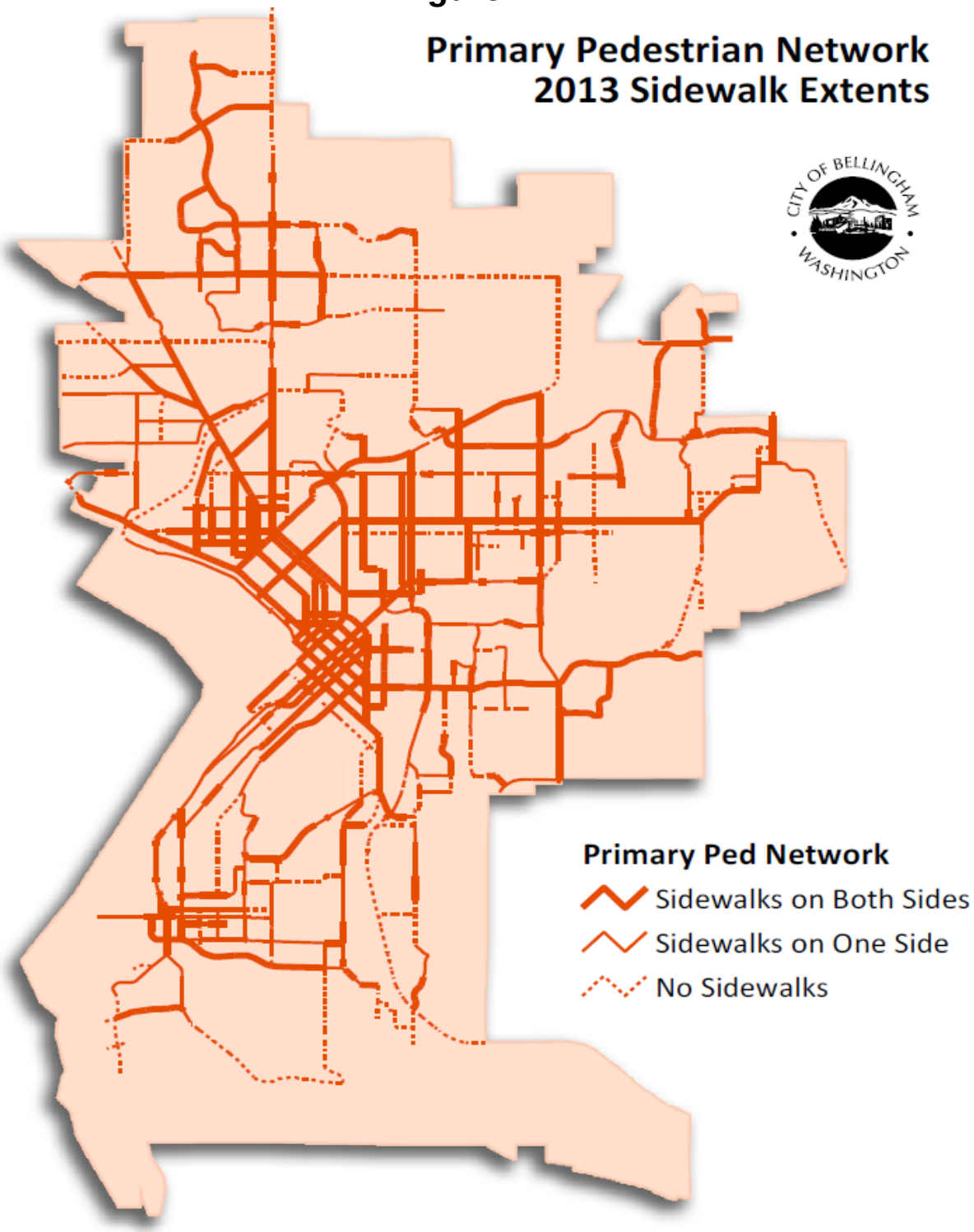

Figure 3.

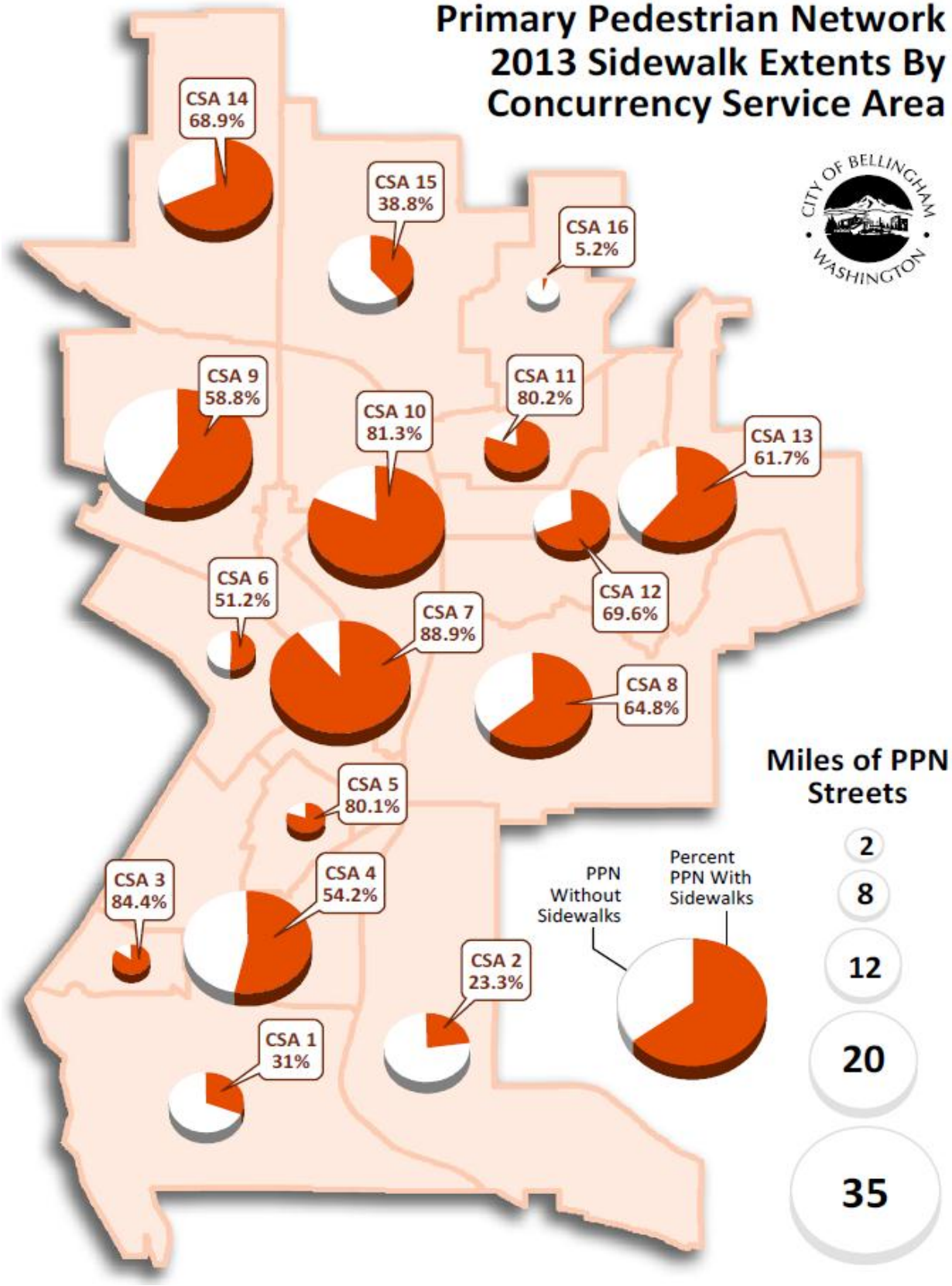
Primary Pedestrian Network
2013 Sidewalk Extents By
Concurrency Service Area
CITY OF BELLINGHAM
WASHINGTON
CSA 14
68.9%
CSA 15
38.8%
CSA 16
5.2%
CSA 9
58.8%
CSA 10
81.3%
CSA 11
80.2%
CSA 13
61.7%
CSA 12
69.6%
CSA 6
51.2%
CSA 7
88.9%
CSA 8
64.8%
CSA 5
80.1%
CSA 3
84.4%
CSA 4
54.2%
CSA 2
23.3%
CSA 1
31%
PPN
Without
Sidewalks
Percent
PPN With
Sidewalks
Miles of PPN
Streets
2
8
12
20
35

Table 2.

2013

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	10.7	3.3	31.0%
CSA 2	13.6	3.2	23.3%
CSA 3	3.2	2.7	84.4%
CSA 4	27.3	14.8	54.2%
CSA 5	3.3	2.7	80.1%
CSA 6	5.0	2.5	51.2%
CSA 7	32.0	28.5	88.9%
CSA 8	23.5	15.3	64.8%
CSA 9	35.4	20.8	58.8%
CSA 10	30.8	25.1	81.3%
CSA 11	8.4	6.7	80.2%
CSA 12	10.9	7.6	69.6%
CSA 13	24.2	14.7	61.7%
CSA 14	22.5	15.5	68.9%
CSA 15	13.4	5.2	38.8%
CSA 16	2.5	0.1	5.2%
Grand Total	**266.8**	**168.7**	**63.0%**

Section 6: 2013 Primary Bicycle Infrastructure Completeness

(From 2006 Transportation Element in advance of 2014 Bicycle Master Plan)

Figure 4.

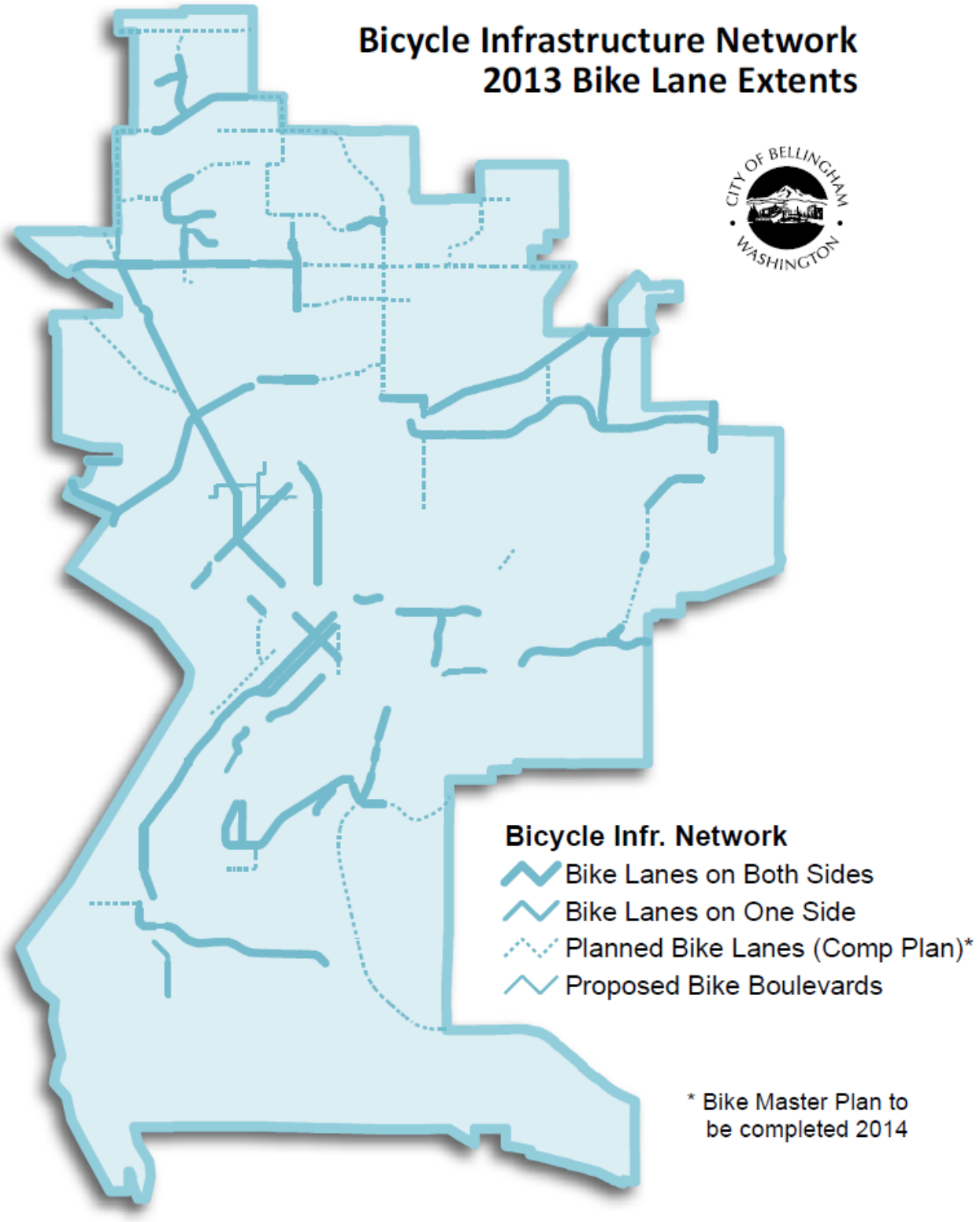

Figure 5.

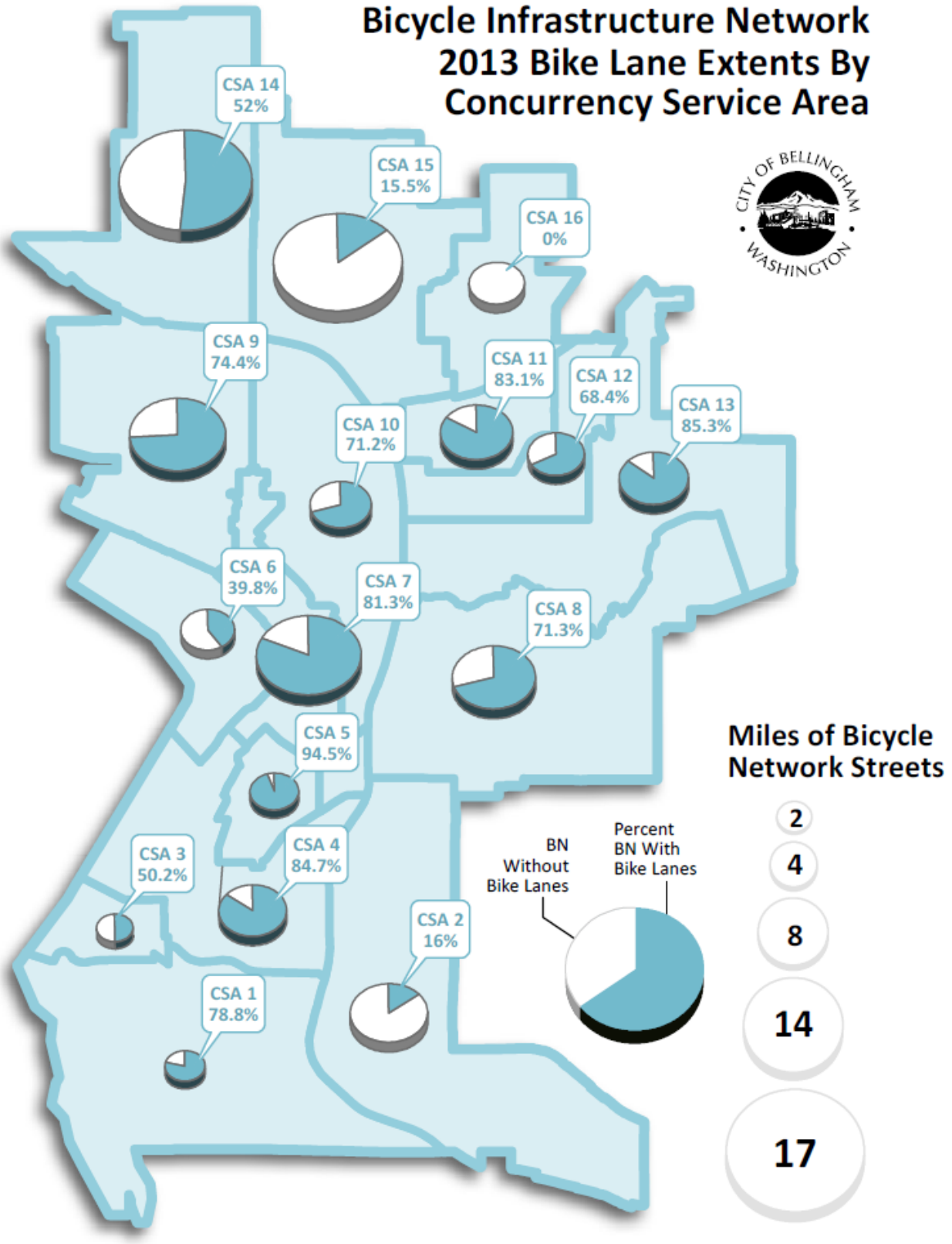
Bicycle Infrastructure Network
2013 Bike Lane Extents By
Concurrency Service Area
CITY OF BELLINGHAM
WASHINGTON
CSA 14
52%
CSA 15
15.5%
CSA 16
0%
CSA 9
74.4%
CSA 11
83.1%
CSA 12
68.4%
CSA 13
85.3%
CSA 10
71.2%
CSA 6
39.8%
CSA 7
81.3%
CSA 8
71.3%
CSA 5
94.5%
CSA 3
50.2%
CSA 4
84.7%
CSA 2
16%
CSA 1
78.8%
BN
Without
Bike Lanes
Percent
BN With
Bike Lanes
Miles of Bicycle
Network Streets
2
4
8
14
17

Table 3.

2013

Bicycle Infrastructure Extents by Concurrency Service Area

CSA	Bike Lane Network Street Length Both Sides (Miles)	Bike Lane Length (Miles)	Bike Lane Network Percent Complete
CSA 1	2.1	1.7	78.8%
CSA 2	6.7	1.1	16.0%
CSA 3	1.8	0.9	50.2%
CSA 4	5.4	4.5	84.7%
CSA 5	3.0	2.8	94.5%
CSA 6	3.6	1.4	39.8%
CSA 7	11.4	9.3	81.3%
CSA 8	7.6	5.4	71.3%
CSA 9	9.8	7.3	74.4%
CSA 10	4.5	3.2	71.2%
CSA 11	6.0	5.0	83.1%
CSA 12	3.9	2.7	68.4%
CSA 13	5.5	4.7	85.3%
CSA 14	17.3	9.0	52.0%
CSA 15	16.3	2.5	15.5%
CSA 16	3.8	0.0	0.0%
Grand Total	**108.6**	**61.5**	**56.6%**

Section 7: 2013 Off-Street Greenways Multiuse Recreation Trails

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

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

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

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

1.) Off-street multiuse trails that can serve a clear transportation function, in addition to the recreational benefits that they provide, and a safe alternative to unmarked bicycle routes on arterial streets;

2.) Prepared gravel/crushed rock surface trails, or smooth dirt. Trails 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 bike system adopted in the Transportation Element of the Comprehensive Plan. 10 rather than 20 person trip credits are awarded for each 1% of the total planned bike system in recognition that not all bicyclists will be able to use off-street gravel trails as alternatives to on-street bike routes.

Figure 6.

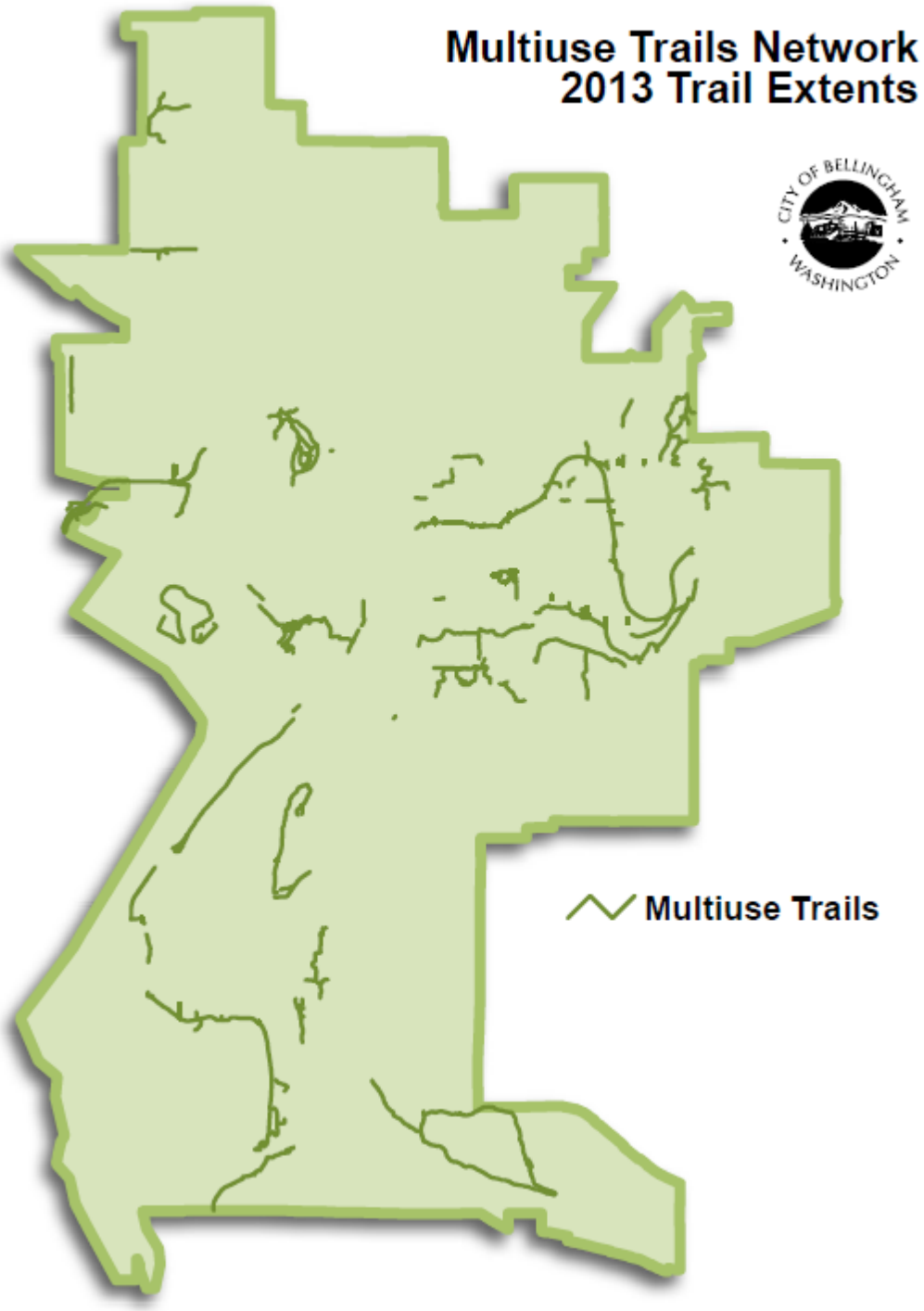
Multiuse Trails Network
2013 Trail Extents
CITY OF BELLINGHAM
WASHINGTON
Multiuse Trails

Figure 7.

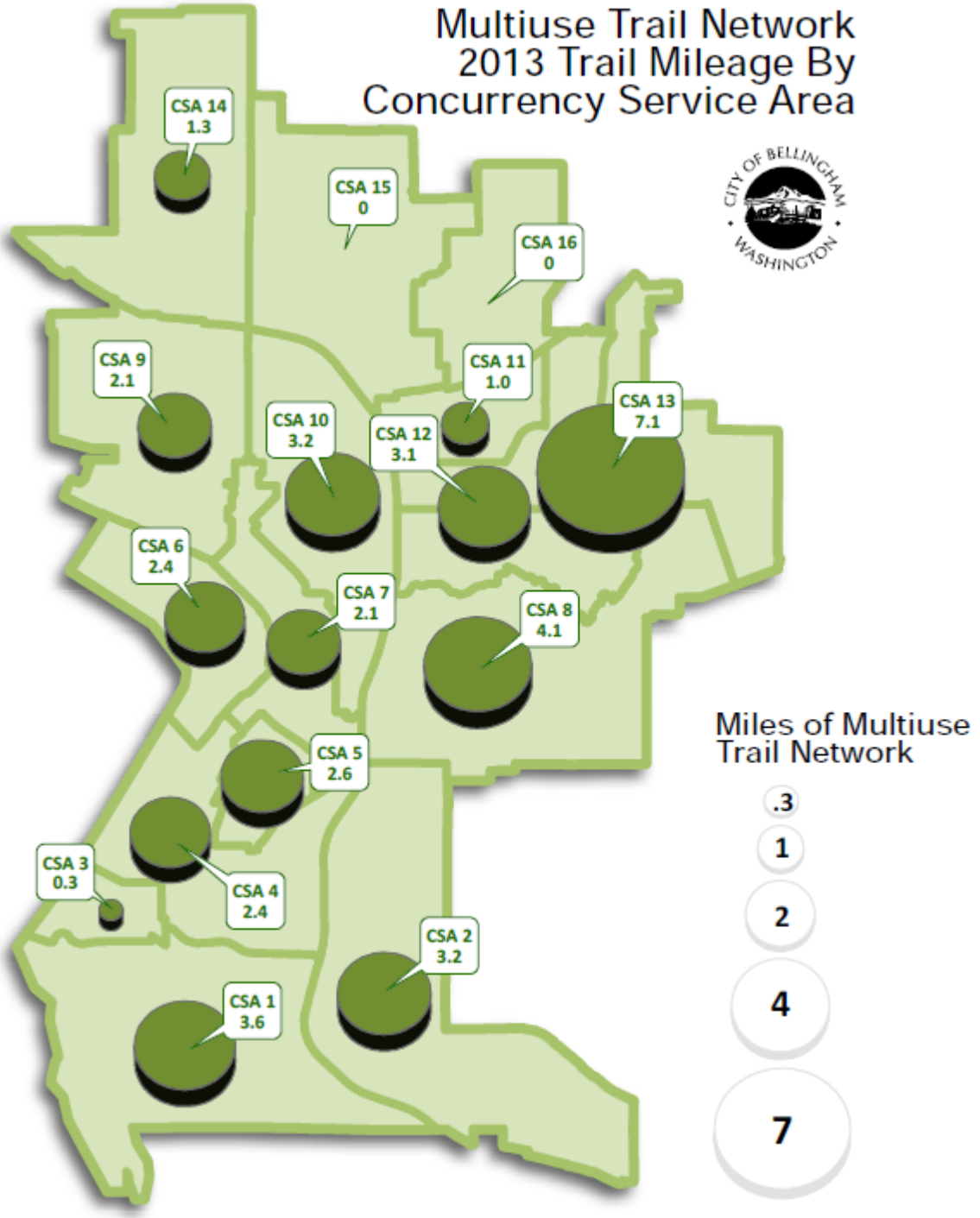
Multiuse Trail Network
2013 Trail Mileage By
Concurrency Service Area
CITY OF BELLINGHAM
WASHINGTON
CSA 14
1.3
CSA 15
0
CSA 16
0
CSA 9
2.1
CSA 11
1.0
CSA 13
7.1
CSA 10
3.2
CSA 12
3.1
CSA 6
2.4
CSA 7
2.1
CSA 8
4.1
CSA 5
2.6
CSA 3
0.3
CSA 4
2.4
CSA 2
3.2
CSA 1
3.6
Miles of Multiuse
Trail Network
.3
1
2
4
7

Table 4.

2013

Mutiuse Trails Mileage by Concurrency Service Area

CSA	Multiuse Trails Network (Miles)
CSA 1	3.6
CSA 2	3.2
CSA 3	0.3
CSA 4	2.4
CSA 5	2.6
CSA 6	2.4
CSA 7	2.1
CSA 8	4.1
CSA 9	2.1
CSA 10	3.2
CSA 11	1.0
CSA 12	3.1
CSA 13	7.1
CSA 14	1.3
CSA 15	0.0
CSA 16	0.0
Grand Total	**38.4**

Section 8: Observations and Implications of 2013 TRAC

Urban Core: As Table 1. shows, there are more PTA **(8,614)** in the central urban core **CSA #7**, which includes the Downtown, Old Town, Samish, and Fountain Urban Villages, than in any other parts of the City. This is due to the high degree of completeness of the primary pedestrian network (89%), marked bicycle lanes adopted in Comprehensive Plan (81%), the presence of multiuse recreational trail connections (15%), and the prevalence of high-frequency transit routes (1,088 PTA) running through the core to the downtown WTA transit hub.

Waterfront: The Waterfront District, **CSA #6**, has the fewest PTA **(570)** with only 18 credits given for pedestrian facilities and no credits provided for bicycle lanes or transit services. 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. Cornwall Avenue measures 44-feet between curb faces and on-street parking is currently allowed on both sides of the street. There is not enough physical space between existing curbs to accommodate both 12' wide truck travel lanes and 6' wide marked bicycle lanes unless on-street parking is removed from one side of the street in the future. 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 for the Waterfront, WTA does not 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. Additional person trip credits will not be awarded until the Waterfront District Master Plan is adopted by the City Council and construction of new arterials, sidewalks, and bicycle lanes increases the PTA to serve new Waterfront development. Additional person trip credits will also be awarded if and when fixed route WTA transit service becomes available to the public in the Waterfront.

Suburban Area: Outside of the Waterfront District, **CSA #15** (King Mountain annexed in 2009) has the second fewest PTA **(913)**. While there are several arterial streets serving this north-central portion of the City, it is primarily low density residential development lacking in sidewalks, bicycle lanes, and multi-use trail corridors, with minimal WTA transit service. This area is also segregated from central Bellingham by the presence of Interstate 5, which creates a major barrier to travel for pedestrians, bicyclists, trail users, drivers, and transit riders. As build-out of this area occurs over time, private development will be required to construct sidewalks on all public streets and bicycle lanes along all arterial streets. The City will also construct capital street improvements that will add sidewalks, bicycle lanes, new street and transit connections, as well as new multiuse recreational trails. While all of these future improvements will add PTA to CSA 15, if there is not enough PTA to serve new development at the time of concurrency evaluation, then PTA may have to be earned through ***concurrency mitigation***, such as the off-site construction of sidewalk identified on the "Primary Pedestrian Network" in the Pedestrian Master Plan, in order for the City to issue a Certificate of Concurrency.

General Conclusion: With the highest number of PTA in the urban core (CSA 7) and lower numbers of PTA in the outer suburban areas (CSAs 1, 2, 8, 13, 14, 15, & 16) the 2013 TRAC demonstrates that Bellingham's Multimodal Transportation Concurrency methodology is effectively integrating multimodal transportation system capacity and availability with various land use contexts within City limits. This helps to promote the Bellingham Comprehensive Plan and GMA goal to direct new development toward compact, mixed use urban areas where adequate transportation services and facilities are most available.

Section 9: How Multimodal Transportation Concurrency Works

Adopting an appropriate level of service (LOS) for the community is required under the Growth Management Act, as follows:

(6) A transportation element that implements, and is consistent with, the land use element.

(a) The transportation element shall include the following subelements:

(B) Level of service standards for all locally owned arterials and transit routes to serve as a gauge to judge performance of the system. These standards should be regionally coordinated;

Bellingham's Comprehensive Plan Transportation Element adopts the following LOS:

TP-11 Establish Level of Service (LOS) standards for a range of multimodal transportation modes to identify deficiencies and need for improvements.

Bellingham's adopted LOS standard is "**Person Trips Available by Concurrency Service Area**" based on arterial and transit capacity for motorized modes and on the degree of network completeness for pedestrian and bicycle modes, as listed below. The individual thresholds for each transportation mode available in each Concurrency Service Area are listed in Table 1 of BMC 13.70 Multimodal Transportation Concurrency requirements.

Motorized Transportation Modes

- **Arterial Streets:** Peak Hour LOS Person Trips Available (PTA) during weekday p.m. peak hour based on data collected at designated Concurrency Measurement Points for each Concurrency Service Area;

- **Transit:** Determine seated capacity, measure ridership, and equate to person trips available via public transit service during weekday p.m. peak hour based on data collected at designated Concurrency Measurement Points for each Concurrency Service Area;

Non-motorized Transportation Modes

- **Bicycle:** Credit person trips according to degree of bicycle network completeness for designated system facilities/routes for each Concurrency Service Area;

- **Pedestrian:** Credit person trips according to degree of pedestrian network completeness for designated system facilities/routes for each Concurrency Service Area; and

- **Trails:** Credit person trips according to degree of bicycle and pedestrian network completeness, where trails serve a clear transportation function for a Concurrency Service Area.

Bellingham is divided into 16 Concurrency Service Areas (CSA) classified into Types 1, 1A, 2, or 3 according to location, land use environment, and availability of multimodal transportation modes ***(See Figure 8)***.

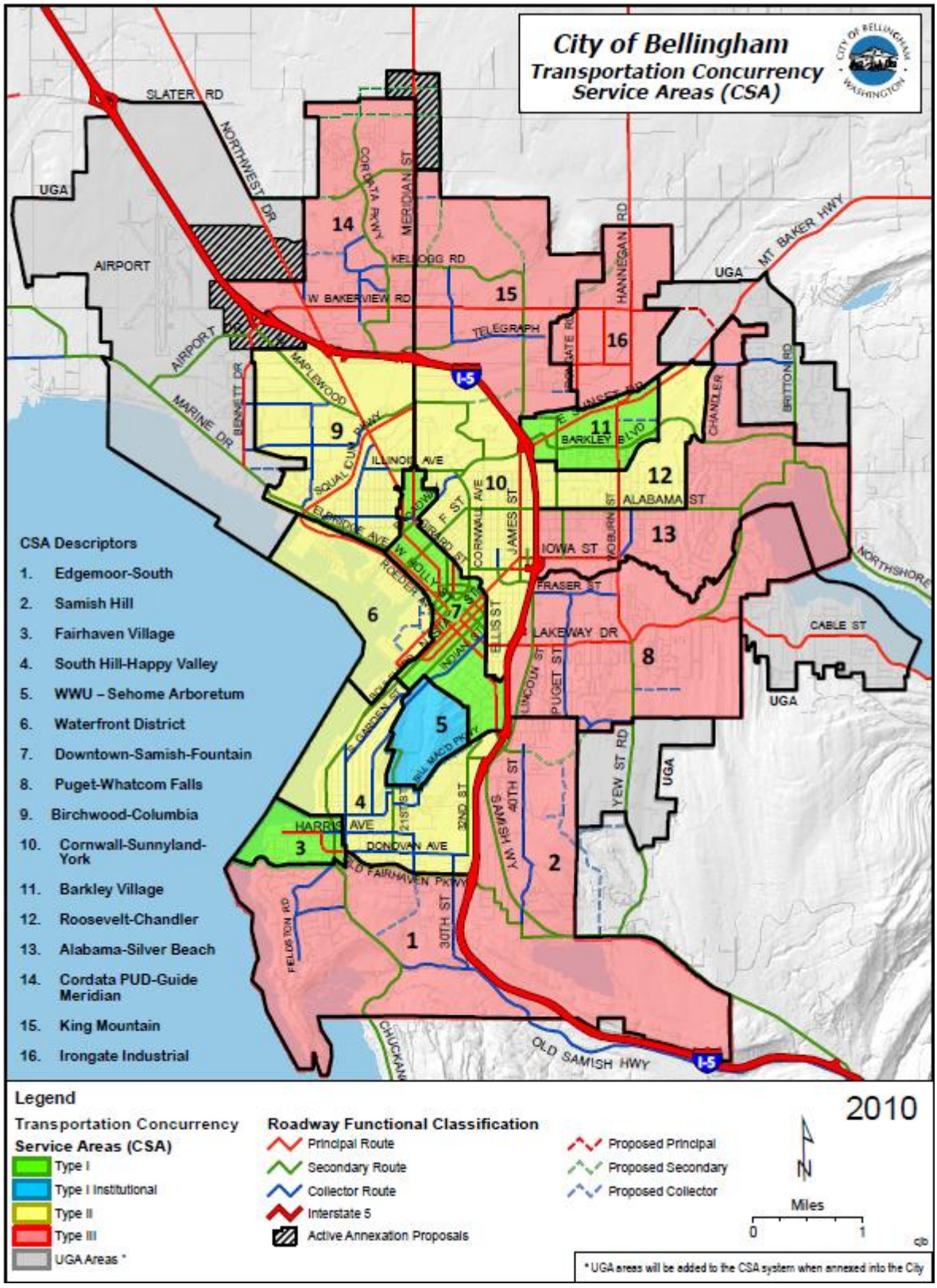

Figure 8. Bellingham's 16 Concurrency Service Areas (CSA)

The intent of BMC 13.70 Multimodal Transportation Concurrency is to further implement the multimodal transportation policies of the Transportation Element and the infill land use strategies of the Land Use Element. Consistent with Washington's Growth Management Act and the Bellingham Comprehensive Plan, the Multimodal Transportation Concurrency methodology promotes infill development where the greatest degree of multimodal transportation facilities are already available or have funding secured for construction.

Concurrency Service Area (CSA) Classifications

Type 1 CSA ***(Green)*** are Urban Villages with adopted Master Plans (Downtown, Old Town, Samish, and Barkley) or active planning processes leading toward the adoption of a Master Plan (Fountain). Type 1 CSA are characterized by a high percentage of pedestrian and bicycle facilities, high frequency transit service, and higher density land uses with a good mix of services. WWU (CSA #5) is an exception and is classified as "Type 1 Institutional" due to the extremely high transit service and ridership, campus parking limitations, and the adopted WWU Institutional Master Plan. The combination of land use characteristics and availability of transportation alternatives in Type 1 CSAs generally creates a lower degree of reliance on the private automobile for transportation mobility.

Type 1A CSA ***(Blue)*** are areas that have very similar transportation characteristics to Type 1 CSA's (Green), but have different land use characteristics in that they are primarily "Institutional Uses" and/or have "Institutional Master Plans (IMP)." Western Washington University (WWU-CSA 5) is the only Type 1A CSA at present, but the Saint Joseph's Hospital campus area, the Whatcom Community College campus area, and the Bellingham Technical College (BTC) campus area are all potential future Type 1A (Blue) CSA's.

Type 2 CSA ***(Yellow)*** are essentially transition areas between Urban Villages and outlying suburban areas. With the exception of the Roosevelt-Chandler CSA #12, Type 2 CSAs are located west and south of Interstate 5. Type 2 CSA are generally characterized by grid pattern residential streets, a moderate percentage of pedestrian and bicycle facilities, some high frequency transit service, and moderate density land uses that are primarily residential with a smaller degree of mixed uses and neighborhood commercial services. The combination of land use characteristics and availability of transportation alternatives in Type 2 CSAs generally creates a moderate degree of reliance on the private automobile for transportation mobility.

Type 3 CSA ***(Red)*** are located furthest from the urban core at the outer edges of Bellingham and, with the exception of Edgemoor-South CSA #1, are primarily located east and north of Interstate 5. Type 3 CSA are characterized by a low percentage of pedestrian and bicycle facilities, moderate to low transit service availability, moderate to low density land use with a small to non-existent degree of mixed uses. The combination of land use characteristics and availability of transportation alternatives in Type 3 CSAs generally creates a higher degree of reliance on the private automobile for transportation mobility.

In order to promote infill development where adequate multimodal transportation facilities already exist, higher emphasis and Person Trip Availability is awarded to Type 1 CSAs, moderate emphasis and Person Trip Availability is awarded to Type 2 CSAs, and lower emphasis and Person Trip Availability is awarded to Type 3 CSAs. This is done through weighting factors called "Policy Dials" adopted in BMC 13.70 Table 1., on the next page.

Table 5. Multimodal Transportation Policy Dials Applied To Land Use Environments

	Transportation Concurrency Service Areas		
Mode	**Type 1[1]**	**Type 2[2]**	**Type 3[3]**
Motorized			
Auto			
Mode weight factor[4]	**0.70**	**0.80**	**0.90**
Transit			
Mode weight factor[5]	**1.00**	**1.00**	**0.80**
Non-Motorized			
Pedestrian			
Percent threshold for minimum system complete[6]	**50%**	**50%**	**50%**
Person trip credit for 1% greater than minimum threshold[7]	**20**	**20**	**20**
Mode weight factor[8]	**1.00**	**0.90**	**0.80**
Bicycle			
Percent threshold for minimum system complete	**50%**	**50%**	**50%**
Person trip credit for 1% greater than threshold	**20**	**20**	**20**
Mode weight factor[9]	**1.00**	**0.90**	**0.80**
Multi-Use Trails[10]			
Person trip credit for 1% greater than threshold[11]	**10**	**10**	**10**
Mode weight factor[12]	**1.00**	**0.90**	**0.80**

1. Type 1 = Urban Village areas with adopted master plans, high-density mixed use zoning, or an active master plan process.
2. Type 2 = Medium density areas adjacent to and influenced by Urban Villages.
3. Type 3 = Lower density and auto-oriented areas outside of Urban Villages.
4. Auto mode weight factor considers the importance of roadways to a service area, relative to the availability of other mode alternatives.
5. Transit mode weight factor considers the availability/viability of the transit mode to a service area.
6. This is the minimum level of the planned system completed for it to be considered a viable mode alternative.
7. Person trips credited to service area based on the amount of the system completed minus the minimum threshold.
8. Pedestrian mode weight factor considers the importance of pedestrian facilities to a service area, relative to land use and travel patterns.
9. Bicycle mode weight factor considers the importance of bicycle facilities to a service area, relative to land use and travel patterns.
10. Multi-Use Trails = relatively level, multi-use trails connecting activity centers, destinations, and biking facilities.
11. Person trips credited to service area based on each comparative 1% of the total planned bike system adopted in Comprehensive Plan.
12. Multi-Use Trail mode weight factor considers the importance of bike-friendly trails to a service area, relative to land use and travel patterns.

Calculations to establish the number Person Trips Available for each CSA are made as follows:

Motorized Vehicle Person Trips Available

The City regularly collects vehicle traffic counts at designated Concurrency Measurement Points on arterials streets serving Concurrency Service Areas (CSA). Vehicle traffic volumes are converted to person trips using local and national data for average car occupancy rates. Motorized vehicle person trips are then used as one variable to calculate total Person Trips Available within each Concurrency Service Area (CSA). Adjustments are made based on the directional use of the corridor.

Transit Person Trips Available

Transit trips are determined by counting seated capacity available on WTA buses, measurements of ridership on selected routes at Concurrency Measuring Points, and conversion to Person Trips Available within Concurrency Service Areas (CSA). Transit person trips are used as one variable to calculate total Person Trips Available within Concurrency Service Areas (CSA). The City works with WTA to determine seated capacity on transit routes, regularly collect transit ridership statistics, and to calculate the number of transit person trips available in each Concurrency Service Areas (CSA) within the City. Adjustments are made based on the ability of the off-peak transit service to actually serve travel demands during the PM peak hour.

For example, each WTA high-frequency transit "GO Line" (15-minute headways) can provide the seated capacity equivalent of up to 320 person trips per hour (40-seat bus x 4 runs per hour in each direction).

Non-Motorized Bicycle and Pedestrian Person Trips Available

Sidewalks, bicycle lanes, and, in some cases, off-street multi-use trails also provide person trips in the multimodal transportation network. Pedestrian and bicycle trips are determined by measuring the degree of completeness of selected pedestrian and bicycle routes serving Concurrency Service Areas (CSA), and converting this to credits for Person Trips Available. The City directly measures the degree of completeness of existing vs planned pedestrian and bicycle facilities serving Concurrency Service Areas (CSA). Pedestrian and bicycle person trip credits are used as one variable to calculate total Person Trips Available within Concurrency Service Areas (CSA). The City awards 20 person trip credits for every 1% of bicycle or pedestrian facility completed above 50%.

As an example, assume that the existing inventory shows 45,000 linear feet of marked bicycle lanes serving Concurrency Service Areas (CSA) "X". Assume that an additional 27,000 linear feet of planned bicycle lanes have been adopted in the Transportation Element and/or fully funded within the 6-Year TIP. This equates to 72,000 linear feet of "planned" bicycle network for the CSA "X". The 72,000 planned network divided by the 45,000 existing inventory results in a 62.5% complete network, which is 12.5% above the minimum 50% threshold for awarding person trip credit. At 20 credits for every 1% above 50%, this would convert to 250 bicycle person trips available for CSA "X". The more complete the bicycle network is, the more person trip credits are available.

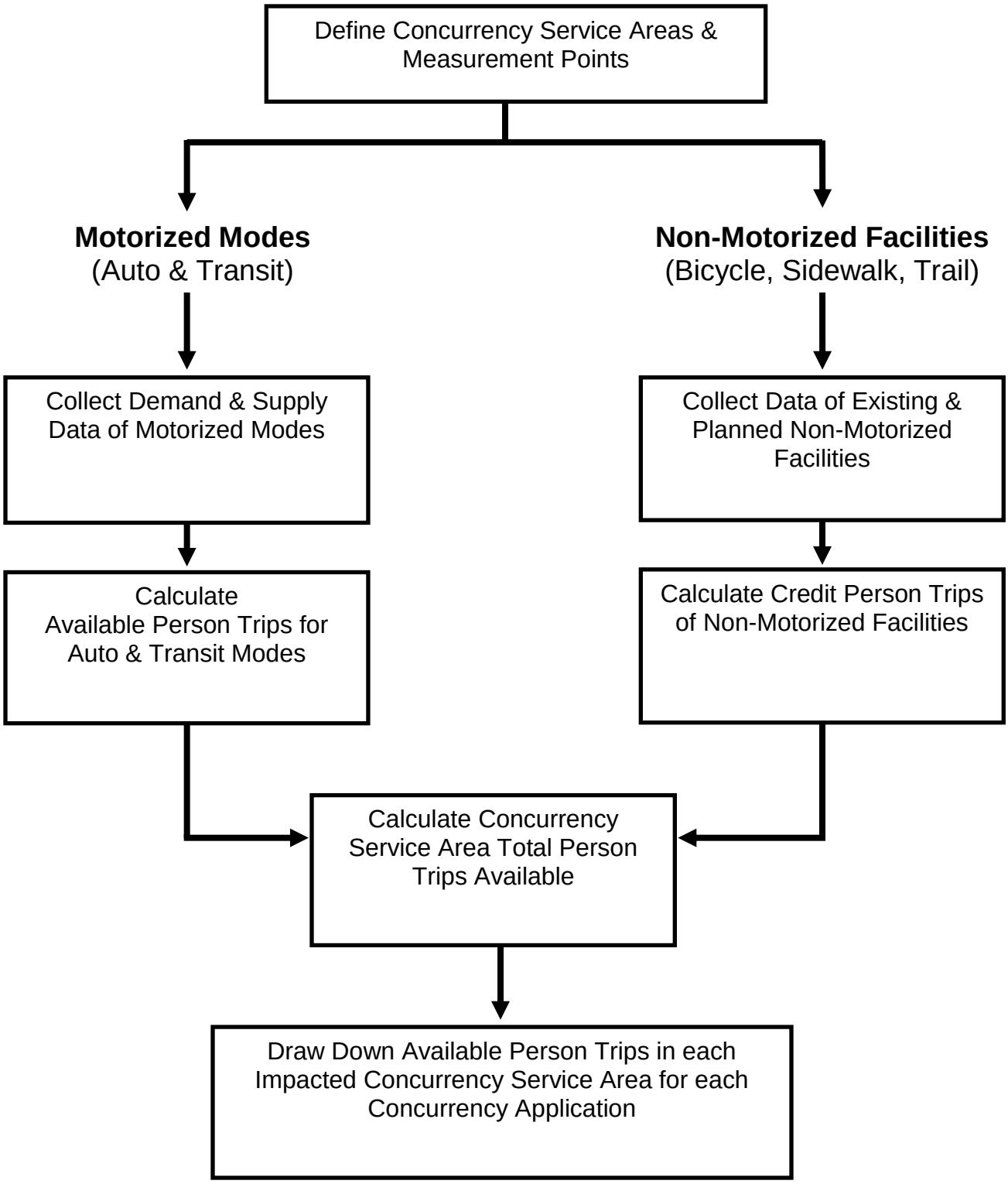

Figure 9. Calculation of Person Trips Available and Used Within Each CSA

Section 10: Procedures for New Development and Redevelopment Under BMC 13.70 Multimodal Transportation Concurrency

Multimodal Transportation Concurrency evaluation is a pre-application requirement. When new development is proposed, the project is evaluated to ensure that there are enough Person Trips Available in the CSA to serve the new development. If there are enough PTA, then the number of PTA needed are extracted from the system and a Temporary Certificate of Transportation Concurrency is issued with a one-year window to submit a complete application for the proposed development. If a complete application is not received by the City before the one year expiration date, then the certificate expires and the reserved PTA are restored to the system.

As per RCW 36.70A.070 (6) (b), new developments must be prohibited unless there are an adequate number of Person Trips Available within the Concurrency Service Area (CSA) of the development, or improvements to the multimodal transportation system to accommodate the impacts are made concurrent with the development or unless the multimodal transportation network affected by the new development meets one of the three exceptions listed below, consistent with the concurrency management requirements of the Growth Management Act.

Consistent with transportation concurrency requirements of the Growth Management Act (RCW 36.70A.070 (6) (b)), land use and building permits for new developments may be issued as long as:

1.) The Concurrency Service Area (CSA) affected by the proposed development has an adequate number of Person Trips Available (PTA), or

2.) The Concurrency Service Area (CSA) affected by the proposed development has new or expanded multimodal transportation facilities or services scheduled and fully funded for improvement within the first, second, or third year of the City's Six-Year Transportation Improvement Program or within WTA's adopted budget; or

3.) The transportation facilities affected by the proposed development are designated as "Highways of Statewide Significance" not subject to local transportation concurrency standards. *As per RCW 36.70A.070 (6)(a)(iii)(C) "Highways of Statewide Significance" (HSS), such as Interstate 5 and Guide Meridian (SR 539) within Bellingham, are not subject to transportation concurrency requirements. The Washington State Department of Transportation (WSDOT) is responsible for setting LOS standards for Highways of Statewide Significance (HSS) and has established LOS D in urban growth areas.*

If there are not enough Person Trips Available in the CSA to serve a proposed development, then the applicant may propose to reduce or delay project or implement concurrency mitigation measures (sidewalk, bike lane, transit, TDM, etc) to provide the number of person trips needed to serve the proposed development. For motorized modes, this may require the addition of capacity for vehicles or transit through a variety of measures. For non-motorized modes, this may include the construction of sidewalk or bicycle lanes.

Development Review Elements

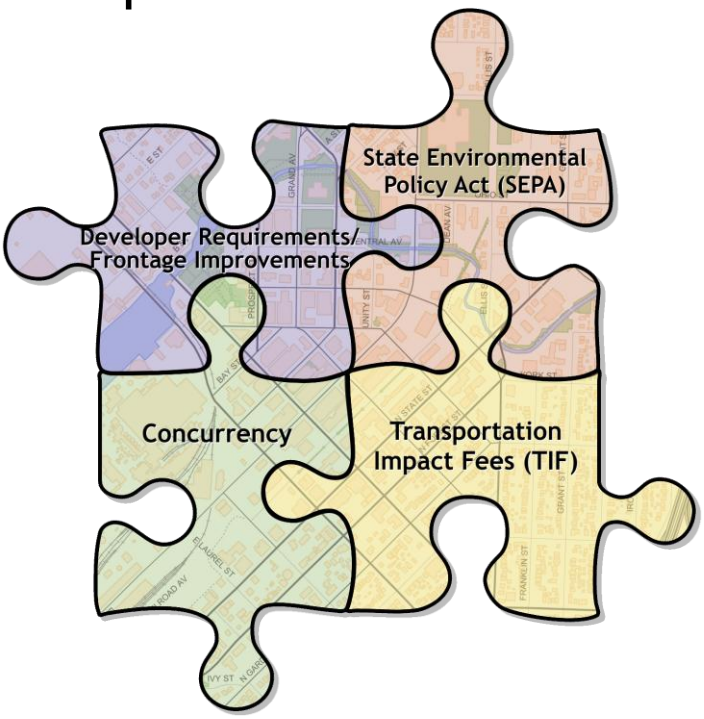

Figure 10. Multimodal Transportation Concurrency Development Requirements

Transportation concurrency mitigation refers only to the addition of motorized transportation capacity or completeness of non-motorized transportation network, whether through the addition of a new travel lane or turn lane for vehicles, sidewalks, bicycle lanes, ride-sharing and other TDM programs, or transit service. Figure 3. above, shows that "Concurrency" is only one piece of the transportation mitigation puzzle.

In addition to the pre-application requirements of BMC 13.70 Multimodal Transportation Concurrency, all new development proposed in Bellingham is also required to:

1.) Conduct a traffic impact analysis study for any project expected to generate 50 or more p.m. peak hour vehicle trips or where known level of service issues exist on arterials or at intersections;
2.) Fund and construct street frontage improvements (curb, gutter, sidewalk) that are required by City development regulations;
3.) Fund and construct transportation improvements that are required to mitigate impacts identified through the State Environmental Policy Act (SEPA) project review process; and
4.) Pay Transportation Impact Fees (TIF) at the time of building permit issuance consistent with the base rate applied on the date of application for building permit (2011 TIF = $1,927 per p.m. peak hour vehicle trip).

Section 11: Multimodal Transportation Concurrency Resources

All questions regarding Bellingham's Multimodal Transportation Concurrency requirements, the Transportation Report on Annual Concurrency (TRAC), Transportation Impact Fees (TIF), or the Transportation Element of the Bellingham Comprehensive Plan should be directed to:

Chris Comeau, AICP, Transportation Planner
Public Works Engineering
210 Lottie Street
Bellingham, WA 98225
(360) 778-7900 telephone; (360) 778-7901 fax;
Email: ccomeau@cob.org

Bellingham Transportation Planning Documents

Public Works web site: www.cob.org, click on "Departments", click on "Public Works"

City of Bellingham 2006 Comprehensive Plan, Transportation Element
http://www.cob.org/documents/planning/comprehensive-plan/2006-chapter3.pdf

BMC 13.70 Multimodal Transportation Concurrency
http://www.cob.org/services/planning/transportation/multi-modal-trac.aspx

BMC 19.06 Transportation Impact Fees (TIF)
http://www.cob.org/services/planning/transportation/transportation-impact-fees.aspx

2000-2018 Adopted 6-Year Transportation Improvement Programs (TIP)
http://www.cob.org/services/planning/transportation/tip.aspx

NOTE: Draft 2014-2014 TIP will be available in May 2013; must be adopted by July 1, 2013.

Web Sites for Bellingham/Whatcom Transportation Information

Bellingham Public Works Department ..... www.cob.org/pw
Bellingham Planning Department ..... www.cob.org/pcd
Whatcom Transportation Authority ..... www.ridewta.com
Whatcom County ..... www.co.whatcom.wa.us
Port of Bellingham ..... www.portofbellingham.com
Whatcom Council of Governments ..... www.wcog.org
Washington State Department of Transportation ..... www.wsdot.wa.gov
U.S. Federal Highway Administration ..... www.fhwa.dot.gov
U.S. Department of Transportation ..... www.dot.gov