Attachment J.2.

Exhibit A

Transportation Plan

Part 2 – Technical Information

City of Tumwater 2025 Comprehensive Plan

Balancing Nature and Community: Tumwater's Path to Sustainable Growth

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CITY OF TUMWATER

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Abbreviations Used in Document

AWSC – All Way Stop Control

EB – Eastbound

EXT – Extension

LOS – Level of Service

NB – Northbound

NBL – North Bound Left

NBR – North Bound Right

NBT – North Bound Through

RAB – Roundabout

RCW – Revised Code of Washington

SB – Southbound

SBL – South Bound Left

SBR – South Bound Right

SBT – South Bound Through

TWSC – Two Way Stop Control

V/C – Volume to Capacity

WAC – Washington Administrative Code

WB – Westbound

WBL – West Bound Left

WBR – West Bound Right

1. Introduction

A. Background

The Transportation Plan is part of Tumwater's Comprehensive Plan and was prepared in response to Washington State Growth Management Act (Chapter 36.70A RCW).

The Plan covers the 20-year planning period from 2025-2045, and guides transportation investments. Community values and broader community goals influence the direction to meet the community's needs emphasizing safety and accessibility and improving connectivity.

Tumwater is experiencing significant growth that is expected to continue over the next two decades. The Washington Growth Management Act includes legal requirements for Tumwater to plan for growth through regular Comprehensive Plan updates.

Part 2 of the Transportation Plan provides the technical analysis to address the requirements of RCW 36.70A.070(1) for transportation system planning. To plan for the next 20 years, growth estimates and land use assumptions from the Land Use Element form the basis of forecasts which point to infrastructure needs.

B. How to Read this Part of the Plan

Part 2 of the Transportation Plan is organized into the following chapters:

1. **Introduction**: Provides an overview of the plan.
2. **Transportation Planning Context**: Describes the current state of Tumwater's transportation network for all modes and identifies existing challenges and trends.

TRANSPORTATION

State requirements (WAC 365-196-435) that the Comprehensive Plan must meet include:

- Land use assumptions used in estimating travel.
- Estimated traffic impacts to state-owned transportation facilities.
- Facility and service needs, including air, water, and ground facilities and services, level of service standard for local and state owned facilities, specific actions to correct facilities that are out of compliance, 10 year traffic forecasts and identification of state and local needs.
- Analysis of funding capability, multiyear financing plan, and discussion of how shortfalls will be met.
- Intergovernmental coordination efforts, including an assessment of the impacts of adjacent jurisdictions.
- Demand-management strategies.
- Pedestrian and bicycle component to include collaborative efforts to identify and designate planned improvements and corridors that address and encourage enhanced community access and promote healthy lifestyles.
- The transportation plan, and the six-year plan required by RCW 35.77.010 must be consistent.

3. **Public Outreach**: Details outreach efforts as part of the update.
4. **Tumwater's Future Transportation System**: Details how Tumwater's transportation system is expected to operate in the future with only funded or very likely to be funded and completed projects and establishes Level of Service standards for each mode.
5. **Transportation Project List**: Provides a prioritized capital project list to help Tumwater work towards the future transportation vision.
6. **Implementation**: Evaluates Tumwater's projected financial capacity for transportation improvements and provides guidance on implementing the plan. It also includes non-capital measures to make Tumwater's transportation system more efficient.

C. Connections to Other Elements

The Transportation Plan works with the Land Use Element since the location of goods and services impacts how people access them. Similarly, the other Elements of the Comprehensive Plan also impact transportation by making demands of the system:

- More housing leads to greater congestion on roadways.
- Creating new parks and open spaces requires appropriate access to those places.
- Utilities are affected by the need to provide service for electric vehicles.

The Comprehensive Plan is an attempt to balance those demands with protection for natural areas and sustainable growth. For example, when considering where roadways should be widened, the Conservation Element provides information about critical areas which may constrain the location of transportation connections.

Coordination with all the Elements of the Comprehensive Plan is important to be able to ensure orderly, cost-efficient development that is phased outward from the urban core and corridors. All Elements of the Comprehensive Plan are consistent.

2. Transportation Planning Context

A. Partnering Agencies

As part of the planning process, Tumwater coordinated this update with planning efforts made by other agencies and government bodies that have an interest in the transportation system in Tumwater. These agencies included:

- Cities of Olympia, Lacey, and Yelm
- Intercity Transit
- Thurston County
- Thurston Regional Planning Council
- Washington State Department of Transportation

B. Existing Plans

1) Tumwater

a) Transportation Improvement Plan

Tumwater updates its Six Year Transportation Improvement Plan every year, as required by Washington State law. The Transportation Improvement Plan identifies near-term improvements to the transportation network and allocates funding for each year.

The Transportation Improvement Plan includes projects from Transportation Plan and other Tumwater subarea plans. The Transportation Improvement Plan is designed to provide a framework for prioritizing, scheduling, and implementing transportation projects in the near term. These projects include corridor and intersection improvements, investments in active transportation infrastructure, traffic calming programs, and maintenance.

b) Parks, Recreation and Open Space Plan

The Parks, Recreation and Open Space Plan (2016) includes projects that serve both recreational and transportation purposes, such as trails. Existing trails maintained by Tumwater include:

- Deschutes Valley Trail
- Historic Park / Tumwater Falls Trail – 1.2 miles of dirt, paved, and brick trail connecting to Capitol Lake Interpretive Park in the Deschutes Valley
- Palermo Watershed Trail – 0.7 miles of dirt path near Tumwater Valley Golf Course.
- Pioneer Park Trails – 2.1 miles of looping dirt and paved nature paths
- Tumwater Hill Trail – 0.5 miles of dirt nature path beginning at Ridgeview Court SW adjacent to Tumwater Hill Elementary School.
- Tyee Drive Trail – 0.2 miles of mixed use trail extending from BPA easement northward.

More information about the trail system is found in the Parks, Recreation and Open Space Plan.

c) Subarea Plans

Tumwater has adopted subarea plans that are a part of the Comprehensive Plan and were used as part of the development of the Transportation Plan:

- Black Hills Subarea Transportation Plan (2002)
- Capitol Boulevard Corridor Planning Project (2014)
- Littlerock Road Subarea Plan (2018)
- Old Highway 99 Corridor Study (2024)
- Town Center Street Design Plan (2004 and amended 2019)
- Tumwater Brewery District Plan (2020)

Details of some of the other subarea plans are discussed below.

i. Brewery District Plan

The Brewery District Plan, originally adopted in 2014 and amended in 2020, has four goals:

- Create a stronger sense of place by facilitating pedestrian access, establishing gathering places for residents, and fostering a distinct District identity.
- Improve transportation options, safety, and access within and across the District.
- Expand economic opportunity and activity.
- Improve the function and appearance of the built environment.

The Plan guides development that will improve transportation safety and access in the triangle of roads formed by Custer Way, Cleveland Avenue, and Capitol Boulevard.

ii. Capitol Boulevard Corridor Plan

The Capitol Boulevard Corridor Planning Project was adopted in 2015, and has three main goals:

- Improve the business conditions.
- Improve safety and expand transportation options for all users of the corridor including pedestrians, bicycles, and vehicles.
- Improve the aesthetic appeal of the corridor.

The Plan guides improvements to Tumwater's most traveled street, between the Southgate Shopping Center area and Israel Road.

2) Other Agencies' Plans

Other agency's plans were considered during the development of the Plan. Details of some of the other agency plans are discussed below.

a) Thurston Regional Planning Council Regional Transportation Plan

Tumwater's Transportation Plan must be consistent with the Regional Transportation Plan developed by the Thurston Regional Planning Council. The Regional Transportation Plan is a long-range transportation plan and is adopted every four years.

Tumwater collaborates with the Thurston Regional Planning Council to reach agreement on Level of Service standards, peak periods, and transportation system goals. The Regional Transportation Plan defined the following Tumwater projects that impact the movement of people and vehicles at the regional scale.

Projects pertaining to Tumwater identified in Appendix L of the plan include the following:

- Capacity projects (including multimodal improvements)
    - Capitol Boulevard – M Street to Israel Road
    - Henderson Boulevard corridor
    - Old Highway 99 improvements
    - Tumwater Boulevard – Interstate 5 interchange
- New connections and alignments
    - E Street extension
    - Tyee Drive extension.

b) Thurston Regional Trails Plan

Adopted in 2023, the Thurston Regional Trails Plan establishes a comprehensive, well-connected non-motorized trail network that links all communities in the region.

Trails connect people to the outdoors, destinations such as Brewery Park, and economic opportunity.

The completion of the 0.8-mile segment of the Deschutes Valley Trail between Historical Park and Brewery Park at Tumwater Falls was the most recent milestone in the regional trail network. The following trail corridors, extensions, and system enhancements are included in the Regional Trails Plan:

- Capitol Lake to Belmore Trail Corridor
    - Black Lake Trail - conceptual (20+ years)
- Deschutes Valley Trail Corridor
    - Tumwater Valley Drive extension – planned (2026)
    - Pioneer Park extension – planned (20+ years)
- Tumwater to Downtown Olympia Union Pacific Line Corridor
    - East Olympia Trail – conceptual (20+ years)
    - Bonneville Power Administration Shared Use Path – conceptual (20+ years)
- Karen Fraser Woodland Trail Corridor
    - Olympia Phase 4 extension, Henderson to Tumwater – planned (20+ years)

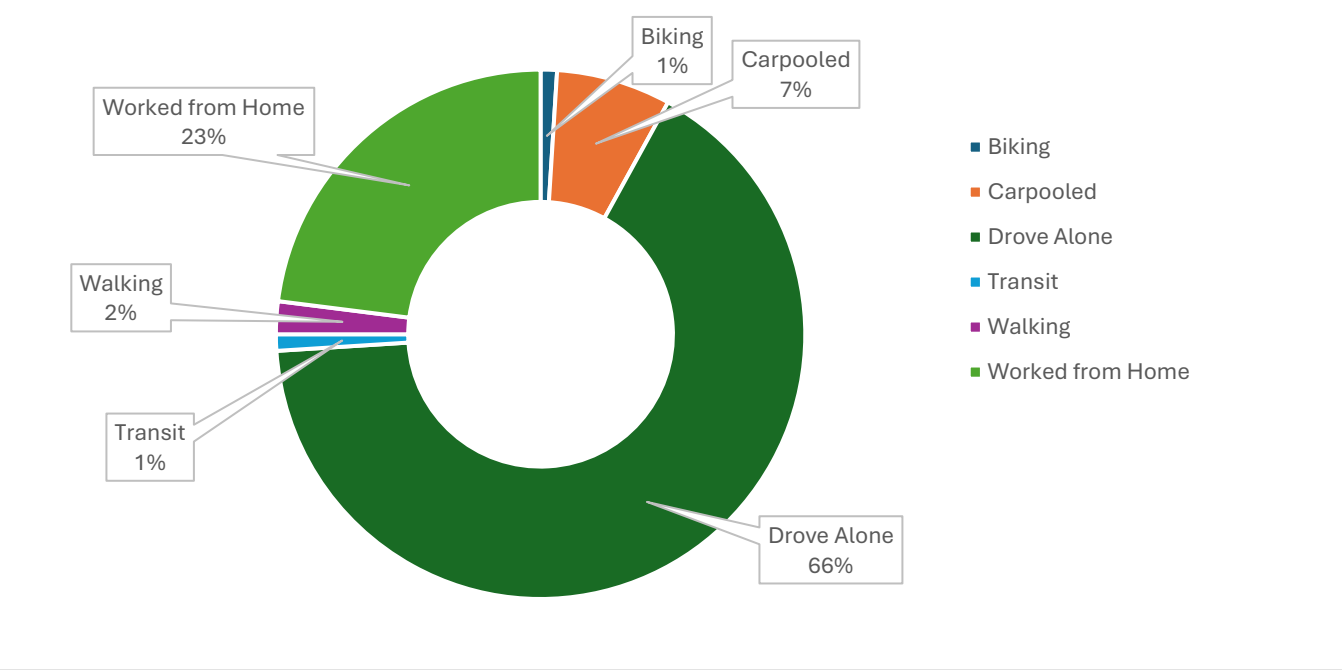
C. Transportation Network Overview

Among the various travel options, vehicular travel is the current primary mode used in and around Tumwater, and the roadways must accommodate both local trips and regional travelers passing through.

The annual American Community Survey records information on trips to and from work. Between 2018 and 2023, the percentage of workers who primarily worked from home instead of commuting increased from 5.4 percent to 23 percent. Compared to non-work travel, work-based trips generally have a higher proportion of people driving alone (66 percent), while only seven percent of commuters choose carpooling. About two percent of commuting trips were on

foot, about one percent were by transit and less than one percent were by bicycle, as shown in Figure T-1.

Figure T-1. Share of Primary Travel Options for Commuting to Work.



Source: American Community Survey, 2023.

Though Tumwater has made significant investments in multimodal transportation, Figure T-1 indicates that additional work is needed to address increasing the multimodal share of the system. These could be gaps in connectivity for active transportation options like walking and bicycling. To learn more about the multimodal share of the system, Tumwater has created the Bicycling, Walking, & Rolling Plan found in Appendix C.

The Bicycling, Walking, & Rolling Plan evaluates the current transportation system, defines priorities, and provides a project list to increase the capacity of the system to allow active transportation that is safe and accessible for all users.

This section documents how Tumwater's roads and streets serve different modes and how residents and visitors experience Tumwater. It includes an inventory of motorized transportation facilities within Tumwater, including local and state roadways, transit facilities, and freight networks.

Inventories of the facilities related to active transportation modes, such as biking and walking can be found in the Bicycling, Walking, & Rolling Plan. This information is separate only to avoid duplication and should be considered integral to the transportation system as a whole.

The Thurston Regional Planning Council Regional Transportation Plan defines strategy corridors as congested roads where road widening is not a preferred option. Some of the reasons roads

cannot be widened include adjacent land uses are fully built out, adjacent lands have environmentally sensitive features, or the road has the maximum number of lanes.

The Regional Transportation Plan includes several policies to designate strategy corridors. These policies support local action to identify and manage transportation in highly urbanized areas without widening roads. Regional Transportation Plan policies include:

> *1.c. Meet mobility, access, and economic goals in designated Strategy Corridors with an appropriate combination of investments, policies, and land use measures.*
>
> *9.h. Incorporate alternative strategies to address congestion where road widening and traffic control devices are not acceptable, particularly along Strategy Corridors.*
>
> *10.d. Support Intercity Transit's long-range plan, which emphasizes trunk and primary routes serving core areas along designated strategy corridors, with supportive land use and appropriate design standards developed by local jurisdictions*

The Regional Transportation Plan policies support a combination of multimodal transportation improvements and land use measures that attract more mixed-use, walkable, high-density development where alternatives to driving are most feasible as preferred solutions for strategy corridors.

Due to the increased density, peak hour vehicular congestion in these corridors is likely to exceed levels of service. Different approaches are required to maintain access and address congestion.

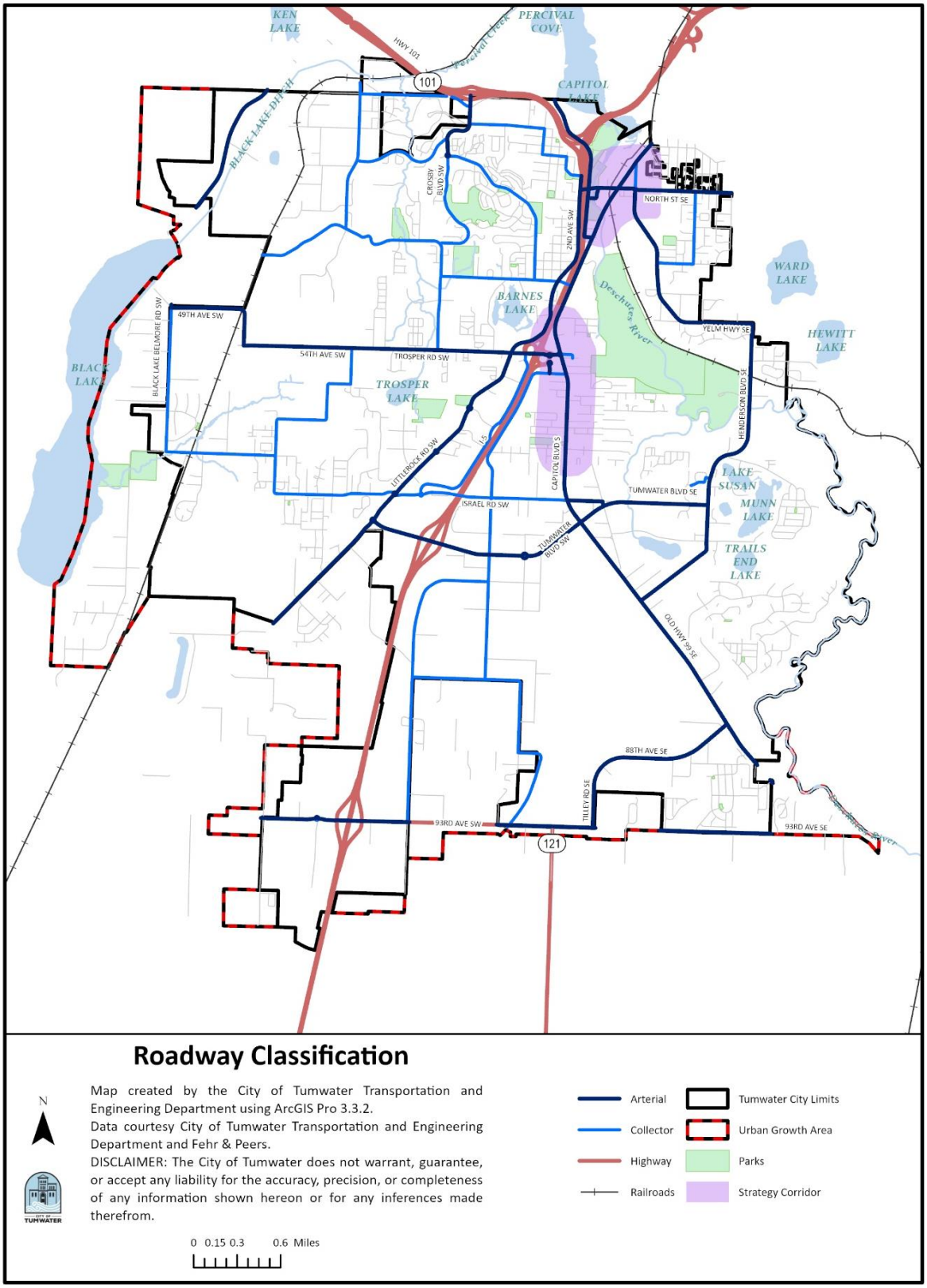
In urban areas, solutions can include:

- Increased transit service
- More sidewalks or bicycle facilities
- A complete and connected street grid
- Transportation technology measures that improve system operating efficiency
- Access management
- Parking management
- Incentives for employees to telework or carpool

Tumwater has identified two designated strategy corridors within the City, Capitol Boulevard SW and Cleveland Avenue SE/Yelm Highway SE. These are both arterials and are shown in Figure T-2 below.

Figure T-2 and Table T-1 show the types of roadways classifications in Tumwater.

Figure T-2. Tumwater Roadway Classification.



Source: Fehr & Peers, 2025.

Table T-1. Functional Classification of Roadways.

Functional Classification	Annual Average Daily Traffic Range	Description	Examples
Major Arterial	> 13,000	The highest functional classification carry the highest volumes, serve regional through trips, and connect Tumwater with the rest of the region.	Capitol Boulevard SE, Tumwater Boulevard
Minor Arterial	5,000 – 13,000	The next highest functional classification are designed for higher volumes provide inter-neighborhood connections.	93rd Avenue SW, Littlerock Road SW
Major Collectors	3,000 – 5,000	Major Collectors carry a higher volume and distribute trips between local roadways and arterials and serve as transition roadways to or from commercial and residential areas.	Barnes Boulevard, 88th Avenue SE
Minor Collectors	1,500 – 3,000	Minor Collectors distribute trips between local streets and arterials and serve as transition roadways to or from commercial and residential areas. They have lower volumes and can include select traffic calming elements to balance experience for all modes with vehicular mobility.	Center Street SW, Mottman Road SW
Local	< 1,500	Local streets are the lowest functional classification, providing circulation and access within residential neighborhoods.	12th Avenue SW, Glenwood Drive SW

Source: Fehr & Peers, 2025.
Note: Annual average daily traffic ranges are only one consideration when classifying roadways, other considerations include surrounding land uses, roadway usage, and access to property provided by each roadway.

D. Pedestrian & Bicycle Network

Every trip taken within the transportation system begins and ends with active transportation in the form of biking, walking, or rolling. The goal of moving people and goods often requires multiple modes for one trip.

Providing more options for active transportation is an important component of transportation planning as more than 25 percent of the travelling public does not have a driver's license and active transportation is a part of every trip.

Active transportation is a primary strategy for greenhouse gas reduction as vehicle exhaust is the second highest source of greenhouse gases in Thurston County according to the Thurston County 2022 Greenhouse Gas Emissions Analysis from Department of Commerce. As more people are accommodated by infrastructure that

supports active transportation, and less greenhouse gas emissions are produced. To that end, Tumwater has prioritized active transportation by creating a detailed Bicycling, Walking, & Rolling Plan for network improvements is included in Appendix C.

The Bicycling, Walking, & Rolling Plan includes baseline data about the existing conditions as to set the priority network for infrastructure improvements. This plan also sets mode shift targets and greenhouse gas emission reduction goals that support the Climate Element of the Comprehensive Plan.

It is important to also include active transportation system information in the Transportation Plan as the transportation system is not complete without these components. Active transportation data is therefore woven throughout the Transportation Plan and included in both the Transportation Plan and the Bicycling, Walking, & Rolling Plan.

E. Transit Network

Intercity Transit provides free transit service through 71 buses with 19 local routes in the Tumwater, Olympia, Lacey, and Yelm areas. Intercity Transit also operates five express routes to Lakewood and Tacoma, offering connections to Pierce Transit and Sound Transit routes. Additionally, it connects to the Amtrak Station on Yelm Highway providing a connection to regional rail transit.

Four local transit routes currently serve the Tumwater area (Routes 12, 13, 42, and 68) as shown in Figure T-3. All Intercity Transit buses are equipped with bicycle racks, and all buses are wheelchair accessible.

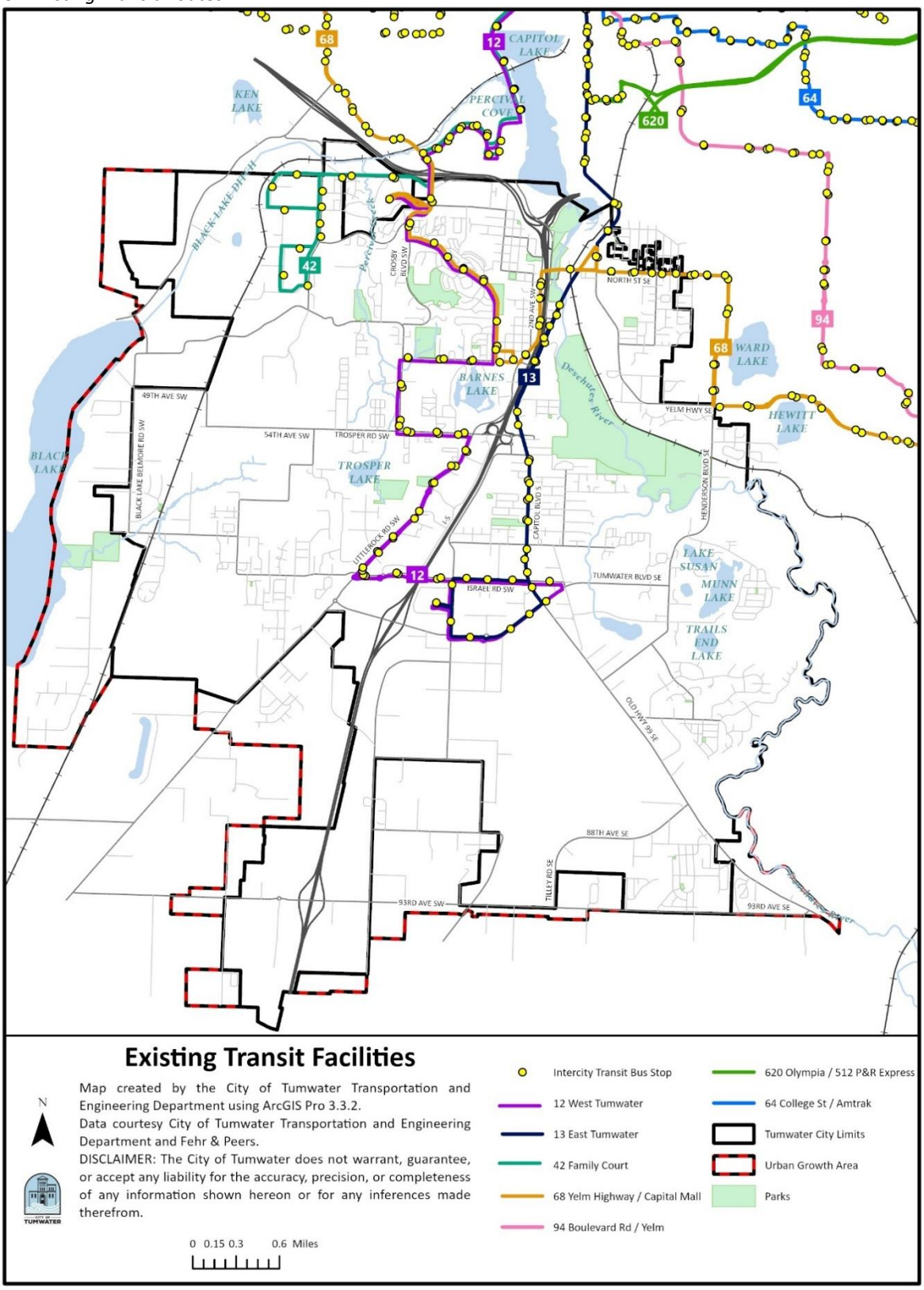
In addition, Intercity Transit operates a paratransit service called “Dial-A-Lift” with 35 vans. Dial-A-Lift is a door-to-door, shared ride public transportation service for people with disabilities that prevent them from using fixed route bus service. Intercity Transit offers Dial-A-Lift service where and when fixed route buses operate, and it does not cover all of Tumwater. Additionally, eligibility constraints exist which include conditional and temporary eligibility.

Intercity Transit also maintains an extensive Village Vans program that helps those with transportation barriers to travel between work and home.

Tumwater’s only park-and-ride lot, co-located with the Department of Health parking lot at the corner of Bonniewood Drive and Israel Road, closed in 2016. While Routes 12 and 13 still service this area, Intercity Transit has not opened an alternate park-and-ride location in Tumwater.

In its 2023-2028 Transit Development Plan forecast, Intercity Transit expects to restore nearly all fixed-route and Dial-A-Lift services as well as expand the “Bus Rapid Transit-light” pilot on Marvin Road, a future segment of which includes connection to Tumwater. This draft plan includes frequency and span improvements along with relaunch of suspended routes.

Figure T-3. Existing Transit Routes.



Source: Fehr & Peers, 2025.

F. Freight Network

Freight plays a critical role for businesses and residents in Tumwater who rely on freight shipped via trucks. Trucks range in size from light-duty commercial vans and single-unit trucks for package delivery and moving, to garbage trucks that navigate through neighborhoods, to large semi-truck trailers that connect local and regional businesses.

The Washington State Department of Transportation designates strategic freight corridors within the state as part of the Freight and Goods Transportation System. The classifications T-1 through T-5 shown in Table T-2 are based on annual freight tonnage moved along a corridor.

Figure T-4 illustrates Freight and Goods Transportation System freight corridors in Tumwater. Example freight corridors in Tumwater are also presented in Table T-2.

Mottman Road and Littlerock Road, for example, provide freight connections to Tumwater's general commercial zones. Trucks delivering wholesale and retail goods, business supplies, and building materials throughout Tumwater contribute to and are impacted by traffic congestion.

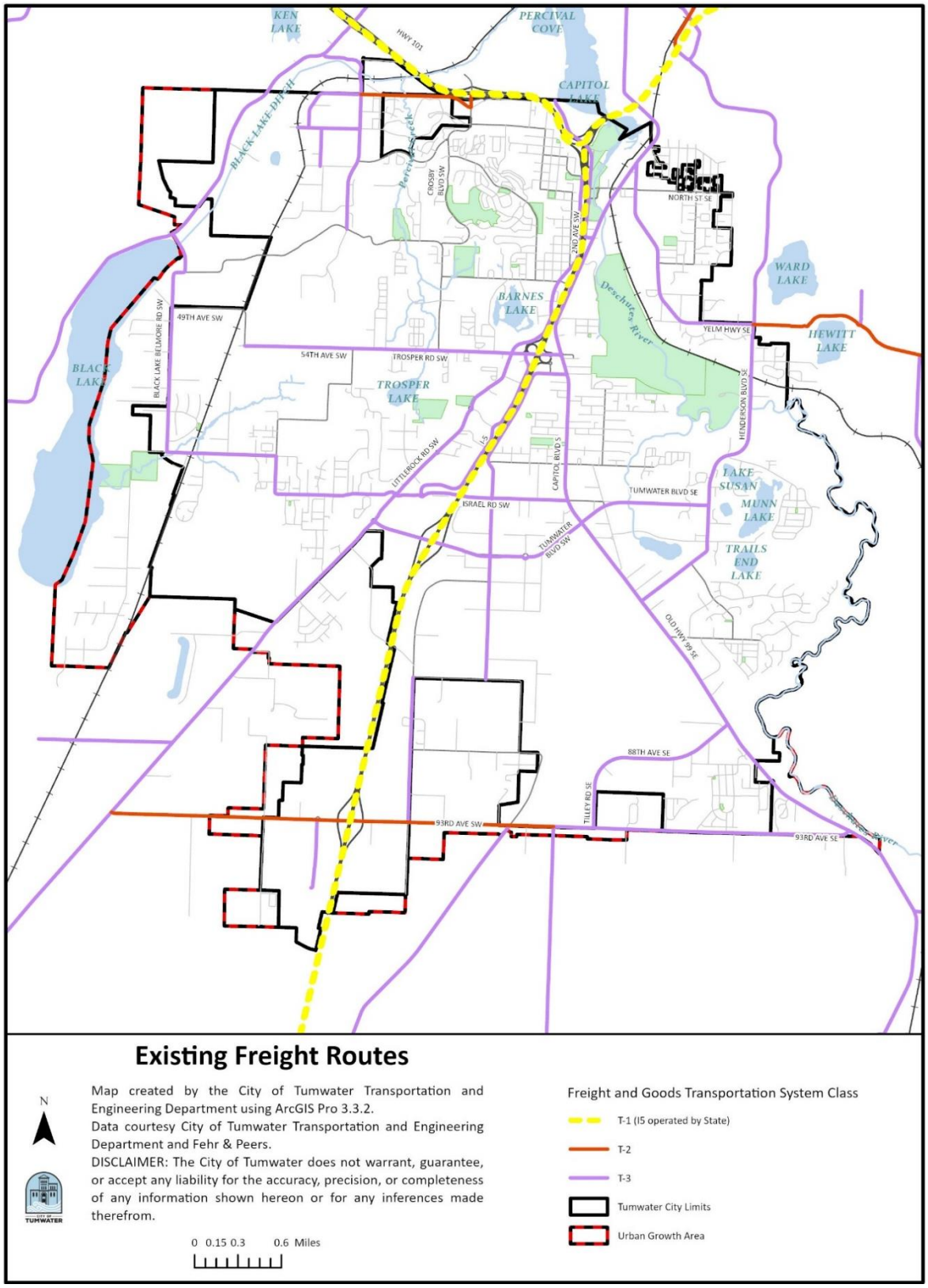
Tumwater partners with the Washington State Department of Transportation and regional agencies to maintain these freight routes and ensure system capacity standards are met. Designated Freight and Goods Transportation System routes aim to prevent heavy truck traffic on lower-volume streets and promote the use of adequately designed roadways.

Table T-2. Washington State Department of Transportation Freight Corridor Classifications.

Freight Corridor	Description	Example in Tumwater
T-1	More than 10 million tons of freight per year	Interstate 5
T-2	4 million to 10 million tons per year	State Route 121, Mottman Road, Crosby Boulevard, Yelm Highway SE
T-3	300,000 to 4 million tons per year	Capitol Boulevard, Tumwater Boulevard
T-4	100,000 to 300,000 tons per year	49th Avenue SW
T-5	At least 20,000 tons in 60 days	No streets classified

Source: Washington State Department of Transportation, Fehr & Peers, 2025

Figure T-4. Existing Freight Routes.



Source: Washington State Department of Transportation, Fehr & Peers, 2025.

G. Airports

Two airports are in the vicinity of Tumwater, the Olympia Regional Airport and Hoskins Field.

The Olympia Regional Airport is located entirely within Tumwater and serves as a hub for aviation services for the southern portion of the Seattle-Tacoma Metropolitan Area. The airport is owned and operated by the Port of Olympia and serves general aviation users. There are two runways and approximately 142 aircraft are based at the airport as of 2020.

Hoskins Field is a small private airstrip located approximately two miles east of Tumwater.

H. Roadway Network

As part of the Transportation Plan update, traffic operations were assessed at 40 intersections, including signalized, roundabout, and stop controlled intersections. These study intersections were selected in consultation with Tumwater staff and were previously evaluated as part of the 2016 Comprehensive Plan.

This section discusses the analysis of existing vehicle operations and evaluates how well the existing system serves both local and regional needs.

1) Delay & Level of Service

Intersection-level delay measured in seconds per vehicle and Level of Service (LOS) are the primary measures of intersection performance for the motorized vehicle traffic operations analysis. Descriptions of levels of services are found in Table T-3.

The Highway Capacity Manual defines delay as

> "*…brought about by the presence of a traffic control device including delay associated with vehicles slowing in advance of an intersection, the time spent stopped on an intersection approach, the time spent as vehicles move up in the queue, and the time needed for vehicles to accelerate to their desired speed.*"

Level of service is a term that qualitatively describes the operating performance of an intersection and is a standard method for characterizing delay. For signalized, roundabout, and all-way stop control intersections, the Level of Service is based on the average delay for all approaches. For two-way stop control intersections, the direction or movement with the highest delay is reported. Level of service is reported on a scale from A to F, with A representing the lowest delays and F the highest.

Beyond travel time there are other impacts to the system which includes impact on air quality and collision rates.

Increased Crash Rates: Higher congestion levels lead to more frequent stop-and-go conditions, increasing the likelihood of some collisions. However, slower speeds experienced during congested times can lead to less severe crash forces, and therefore, fewer serious injury or fatality collisions.

Elevated Emissions: Vehicles experience more idling, acceleration, and deceleration in

congested conditions, resulting in higher emissions of pollutants such as carbon monoxide (CO), nitrogen oxides (NOx), and particulate matter (PM).

Table T-3. Level of Service Descriptions.

Level of Service (LOS)	Description	Signalized Intersections and Roundabouts Avg. Delay (sec/veh)[1]	Unsignalized Intersections Avg. Delay (sec/veh)[2]
A	***Free Flow / Insignificant Delay*** Extremely favorable progression. Individual users are virtually unaffected by others in the traffic stream.	< 10	< 10
B	***Stable Operations / Minimum Delays*** Good progression. The presence of other users in the traffic stream becomes noticeable.	10 to 20	10 to 15
C	***Stable Operations / Acceptable Delays*** Fair progression. The operation of individual users is affected by interactions with others in the traffic stream	20 to 35	15 to 25
D	***Approaching Unstable Flows / Tolerable Delays*** Marginal progression. Operating conditions are noticeably more constrained.	35 to 55	25 to 35
E	***Unstable Operations / Significant Delays Can Occur*** Poor progression. Operating conditions are at or near capacity.	55 to 80	35 to 50
F	***Forced, Unpredictable Flows / Excessive Delays*** Unacceptable progression with forced or breakdown of operating conditions.	> 80	> 50

Notes: 1 – Overall intersection LOS and average delay (seconds/vehicle) for all approaches.
2 – Worst movement LOS and delay (seconds/vehicle) only.

Source: Fehr & Peers, based on Highway Capacity Manual, 6th Edition.

Tumwater's Level of Service policy sets the following standards:

- Level of Service D for all other intersections and segments in Tumwater.

Level of Service standards do not apply to Strategy Corridors designated in the Regional Transportation Plan such as Capitol Boulevard SW and Cleveland Avenue SE/Yelm Highway SE.

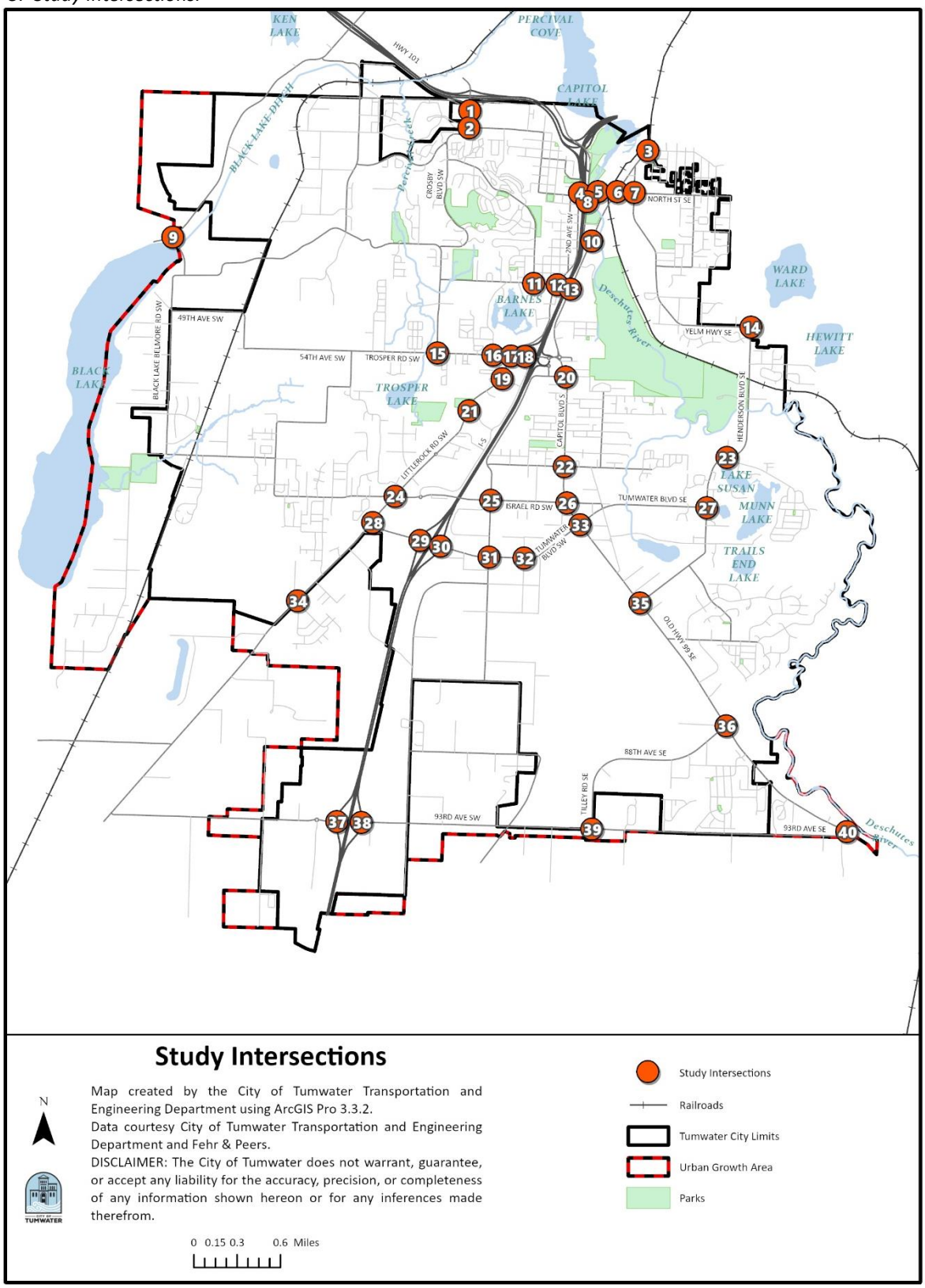
The Washington Department of Transportation sets Level of Service standards for state-owned

highways, including interchanges. They have established a Level of Service D for state highways within urban areas.

Multimodal Level of Service (MMLOS) standards are identified in Chapter 2 Framework and Analysis of the Bicycling, Walking, & Rolling Plan in Appendix C.

The study intersections are shown in Figure T-5, and full details of the traffic operations analysis are included in Appendix B.

Figure T-5. Study Intersections.



Source: Fehr & Peers.

2) Traffic Operations Analysis Results

The results of the existing operations analysis are shown in Table T-4 and Figure T-6. Out of the 40 intersections analyzed, six did not meet Tumwater's Level of Service standard in 2024.

Table T-4. Existing Intersection Delay and Level of Service.

#	Intersection Name	Control	Level of Service (LOS) Standard	Existing LOS/Delay (seconds/vehicle)
1	Crosby Blvd SW / Mottman Rd SW	Signal	D	C/26
2	Crosby Blvd SW / Irving St SW	Signal	D	A/10
3	Capitol Blvd SE/ Carlyon Ave SE / Sunset Way SE	Signal	Strategy Corridor	B/13
4	2nd Ave SW / Custer Way SW	Signal	D	**E/61**
5	Custer Way SW / Boston St SW	TWSC	E	E/42 (WBL)
6	Custer Way / Capitol Blvd SE	Signal	Strategy Corridor	C/23
7	Custer Way / North St SE / Cleveland Ave SE	Signal	Strategy Corridor	C/23
8	Deschutes Way SW / Boston St SW	AWSC	D	**F/86**
9	Black Lake Blvd SW / Black Lake Belmore Rd SW	TWSC	D	D/27 (WBL/WBR)
10	Capitol Blvd SE / E St SE	Signal	Strategy Corridor	B/10
11	7th Ave SW / Linwood Ave SW	TWSC	D	**E/43 (SBL/SBT/SBR)**
12	2nd Ave SW / Linwood Ave SW	AWSC	D	D/32
13	Capitol Blvd SE / Linwood Ave SW	Signal	Strategy Corridor	B/12
14	Henderson Blvd SE / Yelm Hwy SE	Signal	Strategy Corridor	D/46
15	Rural Rd SW / Trosper Rd SW	TWSC	D	B/15 (SBL)
16	Lake Park Dr SW / Trosper Rd SE	Signal	D	A/4
17	Littlerock Rd SW / Trosper Rd SW	Signal	D	D/40

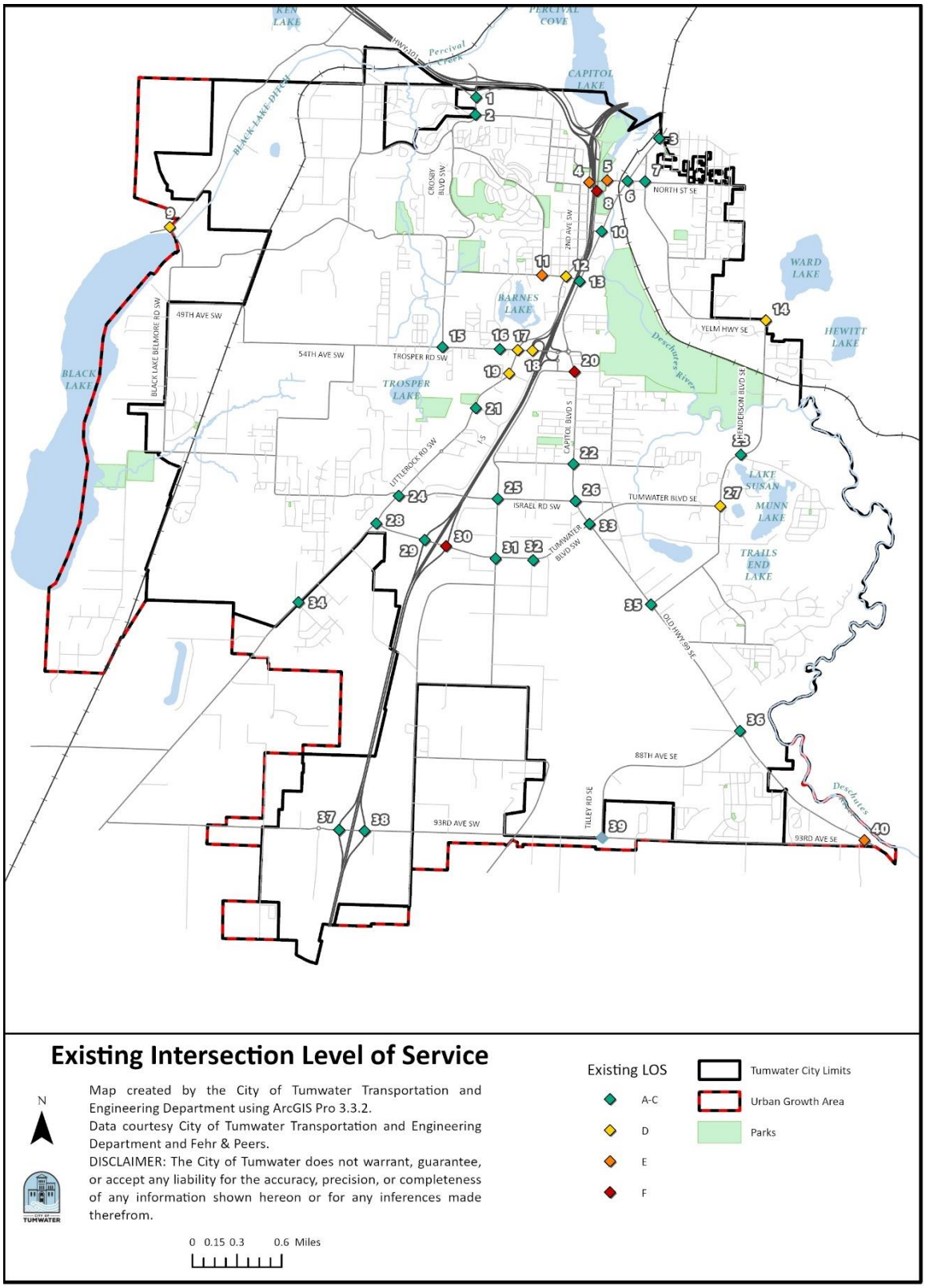
#	Intersection Name	Control	Level of Service (LOS) Standard	Existing LOS/Delay (seconds/vehicle)
18	Interstate 5 SB Ramps / Tyee Dr SW / Trosper Rd SW	Signal	D	D/41
19	Littlerock Rd SW / Costco Driveway	Signal	D	D/37
20	Capitol Blvd SE / Lee St SW	Signal	Strategy Corridor	F/88
21	Littlerock Rd SW / Kingswood Dr SW	RAB	D	A/3
22	Capitol Blvd SE / Dennis St	Signal	Strategy Corridor	B/15
23	65th Ave SE / Henderson Blvd SE	Signal	D	A/7
24	Littlerock Rd SW / Israel Rd SW / 70th Ave SW	RAB	D	A/7
25	Linderson Way SW / Israel Rd SW	Signal	D	C/23
26	Capitol Blvd SE / Israel Rd SE	Signal	Strategy Corridor	C/32
27	Tumwater Blvd SE / Henderson Blvd SE	Signal	D	D/37
28	Littlerock Rd SW / Tumwater Blvd SW	RAB	D	A/5
29	Interstate 5 SB Ramps / Tumwater Blvd SW	Signal	D	C/23
30	Interstate 5 NB Ramp / Tumwater Blvd SW	TWSC	D	**F/163 (NBL/NBT)**
31	Linderson Way SW / Tumwater Blvd SW	Signal	D	C/28
32	New Market St SW / Tumwater Blvd SW	RAB	D	A/3
33	Capitol Blvd SE / Tumwater Blvd SW	Signal	Strategy Corridor	C/25
34	Littlerock Rd SW / Black Hills School Driveway	Signal	D	B/11
35	Old Hwy 99 SE / Henderson Blvd SE	Signal	D	B/11
36	Old Hwy 99 SE / 88th Ave SE	Signal	D	B/12
37	Interstate 5 SB Ramps / 93rd Ave SW	Signal	D	B/14
38	Interstate 5 NB Ramps / 93rd Ave SW	Signal	D	A/5
39	93rd Ave SW / Tilley Rd SW	TWSC	D	**F/66 (NBL/NBR)**
40	Old Hwy 99 SW / 93rd Ave SE	TWSC	D	**E/47 (NBL)**

Notes: Source: Fehr & Peers, 2025.

- Intersections in **bold** do not meet their Level of Service standard.

- Abbreviations: LOS – Level of Service, AWSC – All Way Stop Control, TWSC – Two Way Stop Control, RAB – Roundabout, NBL – Northbound Left, NBT – Northbound Through, NBR – Northbound Right, WBL – Westbound Left, WBR – Westbound Right, SBL – Southbound Left, SBT – Southbound Through, SBR – Southbound Right.
- Two Way Stop Control and roundabout intersections have the worst movement noted in parentheses. The movement shown inside the parentheses indicates the worst-performing movement. For example, if it is NBL, it means the exclusive northbound left-turn lane has the worst movement. NBL/NBR indicates that the lane shared by both northbound left and northbound right turns has the worst movement.

Figure T-6. Existing Intersection Level of Service.



Source: Fehr & Peers, 2025.

3) Segment Analysis

Ten roadway segments shown in Table T-5 were studied for their volume to capacity (V/C) ratio considering a Level of Service standard of D. A value less than one indicates less volume compared to the theoretical capacity of a roadway operating at Level of Service D, while more than one indicates volumes over that theoretical capacity.

All segments except Custer Way between North 2nd Avenue Southwest and Capitol Boulevard Southwest were operating at an acceptable volume to capacity ratio. This is consistent with intersection operations as both Custer Way SW / North 2nd Avenue SW and Custer Way SW / Boston Street SW operate at Level of Service E.

Table T-5. Existing Volume / Capacity Ratios.

Road Segment	From	To	V/C Ratio NB	V/C Ratio SB	V/C Ratio EB	V/C Ratio WB
Deschutes Way	E Street SW	Boston Street SW	0.33	0.15	-	-
Custer Way	Capitol Boulevard SW	Cleveland Avenue SW	-	-	0.64	0.45
Custer Way	North 2nd Ave SW	Capitol Boulevard SW	-	-	**1.35**	**1.02**
Henderson Boulevard	Tumwater Boulevard SW	Yelm Highway SE	-	-	0.30	0.29
Cleveland Avenue SW	Custer Way	Yelm Highway SE	0.38	0.55	-	-
Old Highway 99 SE	Tumwater Boulevard SW	Henderson Boulevard SE	0.65	0.86	-	-
Old Highway 99 SE	Henderson Boulevard SE	88th Ave SE	0.62	0.91	-	-
Capitol Boulevard SW	Tumwater Boulevard SW	Linderson Avenue SW	0.38	0.42	-	-
Capitol Boulevard SW	Linderson Way SW	Linwood Way SW	0.26	0.31	-	-
Littlerock Road SW	Trosper Road SW	Kingswood Drive SW	0.30	0.35	-	-
Tumwater Boulevard	Capitol Boulevard SW	Linderson Way SW	-	-	0.36	0.52

Notes:

- Segments in **bold** do not meet their LOS threshold.
- Abbreviations: V/C – volume to capacity, NB – northbound, SB – southbound, EB – eastbound, WB – westbound.
- V/C Ratios were calculated based on the Florida Department of Transportation's QLOS Handbook using peak hour directional capacities associated with a threshold LOS D for different lane numbers in a suburban context.

Source: Fehr and Peers, 2025.

I. Safety

Collision data for Tumwater roads collated and cleaned by the Washington State Department of Transportation was used to identify safety hotspots and overall collision trends. Collisions on state routes such as US 101 or Interstate 5 are not considered as part of this analysis. The analysis covered a five-year period from January 2019 to December 2023, the most recent available data.

There were 1,447 reported collisions, of which 22 were serious injury collisions and four were fatal collisions. Pedestrians were in 28 collisions and bicyclists were in 24 collisions. Six pedestrians and one bicyclist were seriously injured, while four pedestrians were killed.

Between 2019 and 2023, Tumwater experienced nearly 1,500 collisions, with 26 of these resulting in a fatality or serious injury (Table T-6). Collisions where people are killed or seriously injured make up about two percent of collisions for all modes, while about 20 percent of collisions involving pedestrians and bicyclists resulted in serious injuries or fatalities. Because pedestrians and cyclists are not protected by advanced safety features that protect people inside cars, they are more vulnerable.

Figure T-7 displays a heat map of all collisions across the study area with darker regions indicating higher concentrations of collisions and points for each serious injury or fatal collision. All collisions are shown in Figure T-8.

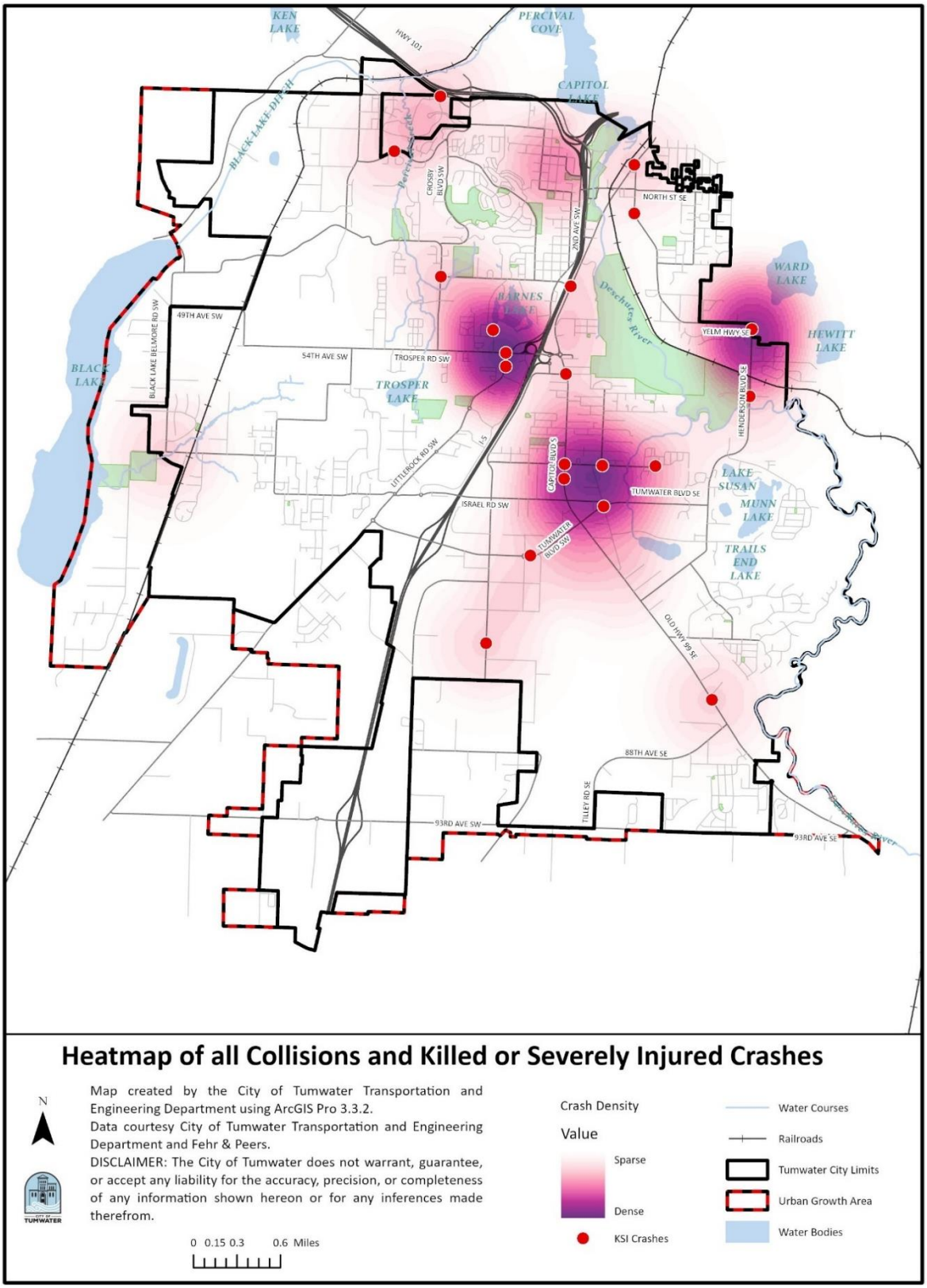
Tumwater does not have a local road safety plan and is therefore not eligible for Highway Safety Improvement Program funding to address critical safety needs. Looking ahead, Tumwater may explore the development of a Comprehensive Safety Action Plan to help prioritize safety improvements through the safe systems approach.

Table T-6. Collisions by Injury Severity from January 2019 – December 2023.

Severity	Number of Collisions	Percentage of Collisions
All Collisions	**1,449**	**100%**
Property Damage Only	1,034	71%
Minor injury (Including Possible and Unknown Injuries)	389	27%
Serious Injury	22	1%
Fatality	4	<1%
Pedestrian Collisions	**24**	**1%**
Serious Injury Pedestrian Collisions	6	<1%
Fatal Pedestrian Collisions	4	<1%
Bicycle Collisions	**28**	**1%**
Serious Injury Bicycle Collisions	1	<1%
Fatal Bicycle Collisions	0	0%

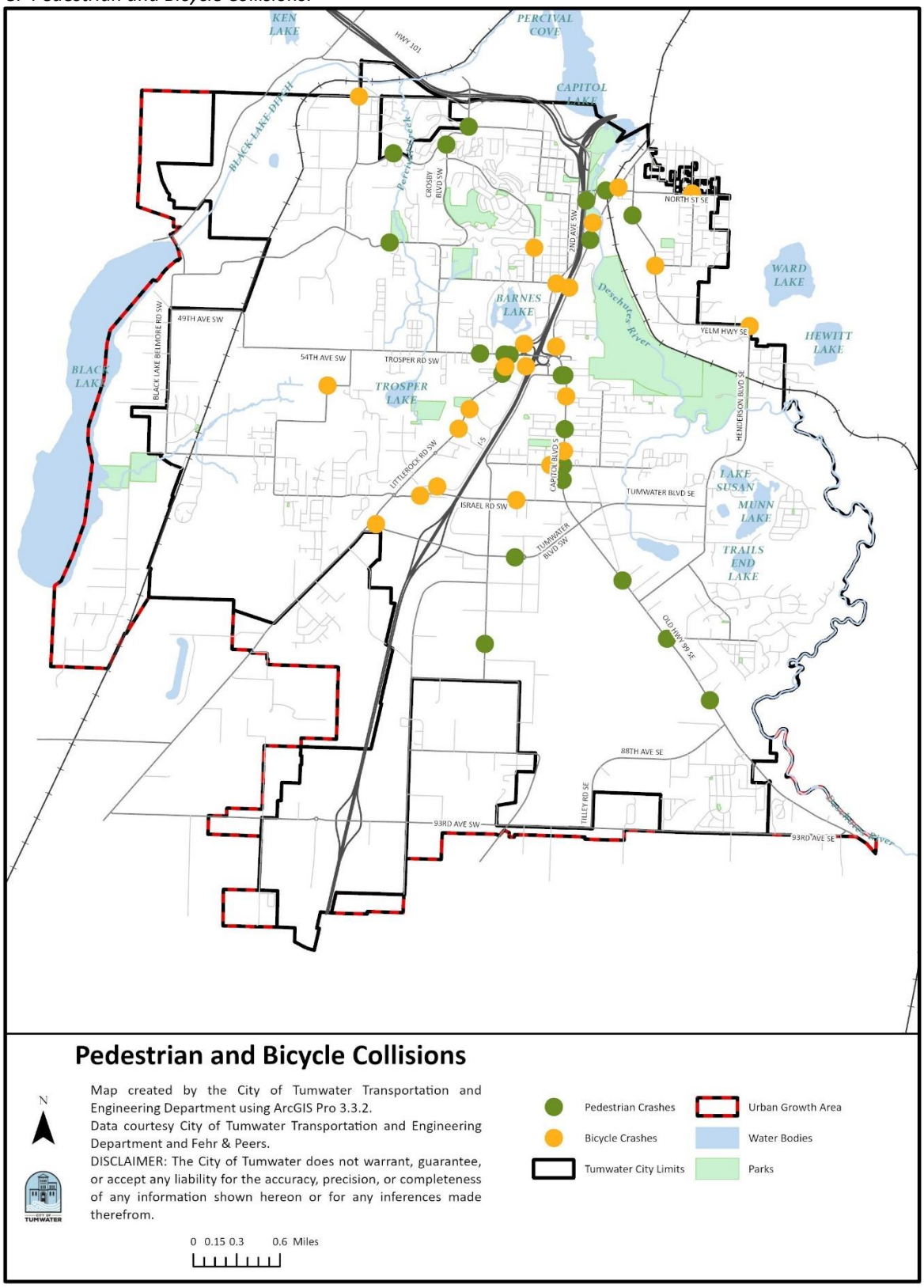
Note: Does not include US 101 & Interstate 5 collisions.
Source: Fehr & Peers, 2025.

Figure T-7. Heatmap of all Collisions and Killed or Severely Injured Crashes.



Source: Fehr & Peers, 2025.

Figure T-8. Pedestrian and Bicycle Collisions.



Source: Fehr & Peers, 2025.

Tumwater has seen a gap in police reported data, which is the basis for the analysis above. Tumwater is developing a framework to collect more collision reports, with a particular focus on active transportation collisions which may not show up in police reports.

J. Current Trends & Opportunities

Tumwater is working to create an improved transportation network for all users. Understanding and addressing transportation trends, as documented in this section, and finding opportunities to realize Tumwater's transportation vision and goals will be key to improving transportation outcomes.

1) Active Transportation

Every trip taken within the transportation system begins and ends with active transportation. The goal of moving people and goods often requires multiple modes for one trip. Over 25 percent of the travelling public does not have a driver's license so providing more options for active transportation is a basic public service. Active transportation modes are connected to the rest of the system because of the impacts they have on the system overall.

Gaps in the current infrastructure make it difficult for people who do not drive to get from place to place. As the system provides more comfortable routes, those who choose to drive will also have the option to choose other modes.

Active transportation is a major strategy for greenhouse gas reduction as motorized vehicle exhaust is the second highest source of greenhouse gases in Thurston County. As more people are accommodated by infrastructure that supports active transportation, less greenhouse gas emissions are produced. To that end, Tumwater has prioritized active transportation by creating a detailed Bicycling, Walking, & Rolling Plan for network improvements is included in Appendix C.

The Bicycling, Walking, & Rolling Plan includes baseline data about the existing conditions as to set the priority network for infrastructure improvements. This plan also sets mode shift targets and greenhouse gas emission reduction goals that support the Climate Element of the Comprehensive Plan.

It is important to also include active transportation system information in the Transportation Plan as the transportation system is not complete without these components. Active transportation data is therefore woven throughout the Transportation Plan and included in both the Transportation Plan and the Bicycling, Walking, & Rolling Plan.

2) Americans with Disabilities Act Transition Plan

Tumwater adopted an Americans with Disabilities Act Transition Plan in 2021 to create a roadmap towards a fully accessible transportation system. The plan does not currently have a schedule for when these investments will be made.

3) Schools

Schools are a significant focus for improved multimodal access and transportation options that meet the needs of young people especially. Bicycling, Walking, & Rolling Plan specifically

names schools as key locations since they serve a large percentage of residents that cannot drive. Prioritizing vulnerable populations by providing safe facilities for active transportation is one way Tumwater can serve families with children.

The transportation networks surrounding schools can become congested before and after the school day, raising safety concerns due to the simultaneous use of various modes of transportation within a compressed timeframe.

Schools that do not have safe or accessible routes for people using active transportation generally experience more intense vehicle traffic in the peak periods. Many public schools in Tumwater do not effectively accommodate the current vehicle queuing demand for parent pick-up and drop-off, leading to congestion on streets. Air quality around schools is a growing concern, particularly due to vehicle idling during drop-off and pick-up times. This issue is closely linked to the prevalence and severity of childhood asthma, affecting students' health and academic performance.

4) Electric Vehicle Infrastructure

With electric vehicles becoming more common, Tumwater needs more vehicle charging infrastructure that can serve the needs of the existing fleet and encourage greater electric vehicle usage. In Tumwater, both battery only and plug-in hybrid registrations of electric vehicles have increased rapidly, from three in 2011 to 739 in 2024.[1] Electric vehicles can help reduce emissions in Tumwater and will help meet its greenhouse gas reduction goals to reduce locally generated emissions 85 percent below 2015 levels by 2050 in the Climate Element.

5) Network Connectivity

Few east-west arterials serve Tumwater because barriers like the Deschutes River, Interstate 5, and the Burlington Northern/Santa Fe Railroad limit connectivity result in an increase congestion. Low density developments and a lack of connectivity between subdivisions around Tumwater further exacerbate congestion. There is a need for greater connectivity for all modes between residences, commercial areas, and employment hubs.

Active transportation could be an alternative to driving on congested roadways, but the existing infrastructure between major areas of interest suffers from a disconnected roadway network and high stress facilities for both pedestrians and bicyclists as shown in Figure BWR-4 and Figure BWR-7 in Appendix C of the Bicycling, Walking, & Rolling Plan. Some high stress facilities suffer from limitations such as age of infrastructure, designations for preservation and environmental concerns. These factors will have to be considered in developing a connected low-stress active network.

6) Local & Regional Growth

Future development activities in Tumwater will include more industrial and commercial development to meet employment forecasts. Currently, the majority of Tumwater residential development consists of low-density single-family housing, but this will be changing over the

[1] https://data.wa.gov/Transportation/Electric-Vehicle-Registration-Activity-by-Year/tak8-xdcp.

course of the Plan as more middle and multifamily family is built to meet housing growth requirements and demand.

Growth outside Tumwater will also play a major role in the growing demands on Tumwater's transportation network. Tumwater is working to accommodate both local and regional growth, investing in improving opportunities to travel by all modes.

Tumwater cannot permit developments that would cause one or more Level of Service standards to fail unless adequate mitigations are funded.

3. Public Outreach

Outreach was completed in coordination with the overall Comprehensive Plan update, and included asking the community about their transportation priorities, locations of concern, and their day-to-day modal choices. A transportation focused outreach event was conducted in March 2025. Feedback was also solicited from the following as part of the adoption process for this plan:

- Area Agency on Aging
- Asian Pacific Islander Coalition
- Capital City Council for the Blind
- City Council
- Family Support Center of South Sound Intercity Transit
- People First of Thurston County
- Planning Commission
- Thurston County Developmental Disability Coalition
- Thurston Regional Planning Council

Map-based activities were undertaken at the March 2025 event, such as:

- Identifying locations where community members drove, walked, rolled, or bicycled.
- Identifying areas of concern and specific issues associated with the location.
- Rating transportation priorities to aid in the development of project prioritization criteria.

Feedback at the March 2025 event included:

1. **Driving:** Attendees identified frequent driving routes, including Tumwater Blvd SW at Interstate 5, Israel Rd SW, Henderson Blvd SE, Capitol Blvd SE, R.W. Johnson Blvd SW, Sapp Rd SW, Trosper Rd SW, Cleveland Ave SE, 66th Ave SW, and Littlerock Rd SW. Residents highlighted concerns such as high collision rates at Tumwater Blvd and Interstate 5, suggesting the need for a traffic signal or roundabout. Other issues include inadequate service at Custer Way, Capitol Blvd SE, and Cleveland Ave SE, and a proposal to convert the abandoned railroad south of Bonneville Power Authority power lines on the west side of Tumwater into a pedestrian and bicycle trail.
2. **Bicycling:** Attendees denoted popular bicycling areas like Custer Way, Capitol Blvd SE, Henderson Blvd SE, Kirsop Rd SW, 66th Ave SW, Black Lake Belmore Rd SW, Sapp Rd SW, and various local streets. Challenges for cyclists include inconsistent bicycle lanes, overgrown vegetation encroaching on bicycle paths, and dangerous intersections such as Henderson Blvd SW at the Deschutes River Bridge, where multiple bicycle collisions have occurred. Residents also expressed the need for wide bicycle lanes and improvements near the library.
3. **Walking:** Attendees marked common walking routes, including Cleveland Ave SE, 66th Ave SW, 70th Ave SW, Littlerock

Rd SW, Israel Rd SW, Linwood Ave SW, Kirsop Rd SW, and numerous former county roads in Tumwater that are now serving urban development. Pedestrian concerns focus on the lack of continuous sidewalks, insufficient crosswalks, and overgrown vegetation obstructing pathways, particularly near the roundabout by the church on Mottman Blvd SW. There was also a call for more neighborhood connections, raised crosswalks, and additional sidewalk amenities.

4. **Public Transit:** Attendees highlighted transit usage areas such as Black Lake Blvd SW, Mottman Blvd SW, Barnes Blvd SW, Capitol Blvd SE, 2nd Ave SW, Custer Way, Israel Rd SW, Rural Rd SW, and Littlerock Rd SW. Residents advocated for expanded bus services to all schools, additional buses for seniors, and new bus stops at locations like 93rd Ave SE and Snowdrop Ave SE and on 88th Ave SE. There was also an interest in improved transit access in underserved areas like Bush Prairie and Cleveland Ave SE.

4. Tumwater's Future Transportation System

A. Future Roadway Operations

Based on growth forecasts within the region and Tumwater over the next two decades, future traffic volumes were forecast for the same study intersections shown in the Transportation Planning Context chapter.

The forecasts were based on the Thurston Regional Planning Council's travel demand model, which accounts for current conditions and future projected growth. The travel demand model incorporates forecasted growth both within Tumwater and throughout the region. The model was used to forecast vehicle volume growth for study intersections. The model does not provide active transportation trip forecasts, nor do any other widely available tools. The result of this analysis is shown in Figure T-9 and Table T-7.

To help the transportation system accommodate forecast growth, Tumwater has identified a set of baseline improvement projects. These projects primarily focus on the installation of roundabouts at several critical study intersections. In Table T-7, these locations are marked with an asterisk (*). These include:

- Custer Way SW / Boston Street SW
- Custer Way / Capitol Blvd SE
- Custer Way / North St SE / Cleveland Avenue SE
- Capitol Blvd SE / E St SE
- 2nd Avenue SW / Linwood Avenue SW
- Capitol Blvd SE / Dennis Street SE
- Linderson Way SW / Israel Rd SW
- Tumwater Blvd SE / Henderson Blvd SE
- Tumwater Boulevard SW / Interstate 5 southbound ramp
- Tumwater Boulevard SW / Interstate 5 northbound ramp
- Old Highway 99 SE / Henderson Boulevard SE

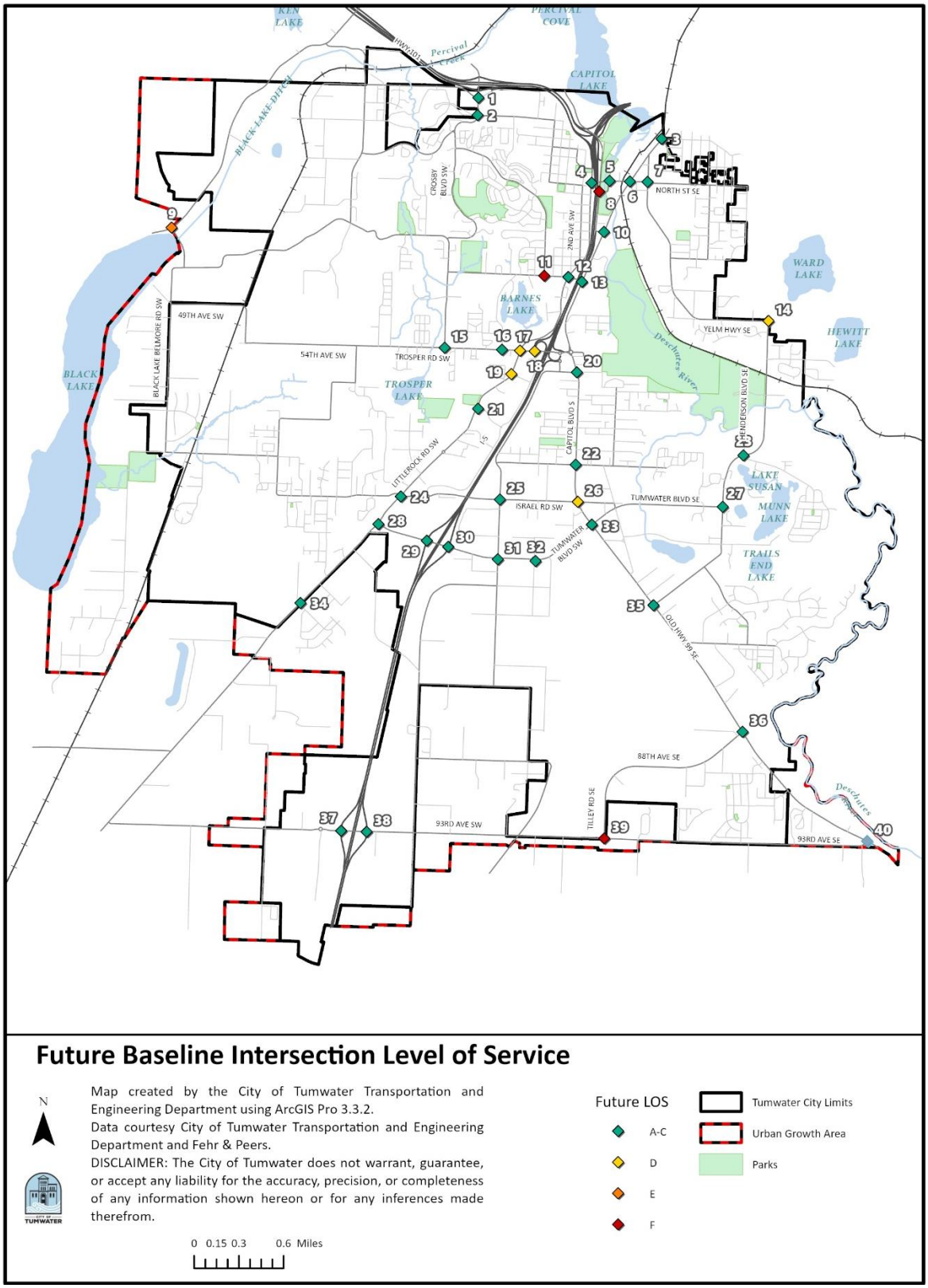
In addition, one location has been identified for signal installation, as listed below.

- Deschutes Way SW / Boston St SW

Under projected 2045 traffic volumes, these roundabout improvements are anticipated to operate at acceptable levels of service and maintain reasonable vehicle delays. However, a proposed signal is still expected to fail.

Despite these planned improvements, the analysis indicates that several other intersections are projected to fall below Tumwater's Level of Service standards by 2045. All of these underperforming intersections are currently stop-controlled, and without intervention, they are unlikely to accommodate future traffic demands effectively.

Figure T-9. Future Baseline Intersection Level of Service.



Source: Fehr and Peers, 2025.

Table T-7. Future Baseline Intersection Delay and Level of Service.

#	Intersection Name	Future Control	Level of Service (LOS) Standard	Existing LOS/Delay (seconds/vehicle)	Future Baseline LOS/Delay (seconds/vehicle)
1	Crosby Blvd SW / Mottman Rd SW	Signal	D	C/26	C/27
2	Crosby Blvd SW / Irving St SW	Signal	D	A/10	B/11
3	Capitol Blvd SE / Carlyon Ave SE / Sunset Way SE	Signal	Strategy Corridor	B/13	B/16
4	2nd Ave SW / Custer Way SW	Signal	D	**E/61**	C/33
5	Custer Way SW / Boston St SW	RAB*	E	E/42 (WBL)	A/6
6	Custer Way / Capitol Blvd SE	RAB*	Strategy Corridor	C/23	A/7
7	Custer Way / North St SE/ Cleveland Ave SE	RAB*	Strategy Corridor	C/23	B/12
8	Deschutes Way SW / Boston St SW	Signal*	D	**F/86**	**F/97**
9	Black Lake Blvd SW / Black Lake Belmore Rd SW	TWSC	D	D/27 (WBL/WBR)	**E/57 (WBL/WBR)**
10	Capitol Blvd SE / E St SE	RAB*	Strategy Corridor	B/10	A/5
11	7th Ave SW / Linwood Ave SW	TWSC	D	**E/43 (SBL/SBT/SBR)**	**F/64 (SBL/SBT/SBR)**
12	2nd Ave SW / Linwood Ave SW	RAB*	D	D/32	A/7
13	Capitol Blvd SE / Linwood Ave SW	Signal	Strategy Corridor	B/12	B/14
14	Henderson Blvd SE / Yelm Hwy SE	Signal	Strategy Corridor	D/46	D/47
15	Rural Rd SW / Trosper Rd SW	TWSC	D	B/15 (SBL)	C/17 (SBL)
16	Lake Park Dr SW / Trosper Rd SW	Signal	D	A/4	A/4
17	Littlerock Rd SW / Trosper Rd SW	Signal	D	D/40	D/40

#	Intersection Name	Future Control	Level of Service (LOS) Standard	Existing LOS/Delay (seconds/vehicle)	Future Baseline LOS/Delay (seconds/vehicle)
18	Interstate 5 SB Ramps / Tyee Dr SW / Trosper Rd SW	Signal	D	D/41	D/42
19	Littlerock Rd SW / Costco Driveway	Signal	D	D/37	D/45
20	Capitol Blvd SE / Lee St SW	Signal	Strategy Corridor	F/88	C/29
21	Littlerock Rd SW / Kingswood Dr SW	RAB	D	A/3	A/3
22	Capitol Blvd SE / Dennis St	RAB*	Strategy Corridor	B/15	A/4
23	65th Ave SE / Henderson Blvd SE	Signal	D	A/7	A/8
24	Littlerock Rd SW / Israel Rd SW / 70th Ave SW	RAB	D	A/7	A/7
25	Linderson Way SW / Israel Rd SW	RAB*	D	C/23	A/8
26	Capitol Blvd SE / Israel Rd	Signal	Strategy Corridor	C/32	D/39
27	Tumwater Blvd SE / Henderson Blvd SE	RAB*	D	D/37	A/7
28	Littlerock Rd SW / Tumwater Blvd SW	RAB	D	A/5	A/5
29	Interstate 5 SB Ramps / Tumwater Blvd SW	RAB*	D	C/23	A/9
30	Interstate 5 NB Ramp / Tumwater Blvd SW	RAB*	D	**F/150+ (NBL/NBT)**	A/5
31	Linderson Way SW / Tumwater Blvd SW	Signal	D	C/28	C/34
32	New Market St SW / Tumwater Blvd SW	RAB	D	A/3	A/3
33	Capitol Blvd SE / Tumwater Blvd SW	Signal	Strategy Corridor	C/25	C/32
34	Littlerock Rd SW / Black Hills School Driveway	Signal	D	B/11	B/15

#	Intersection Name	Future Control	Level of Service (LOS) Standard	Existing LOS/Delay (seconds/vehicle)	Future Baseline LOS/Delay (seconds/vehicle)
35	Old Hwy 99 SE / Henderson Blvd SE	RAB*	D	B/11	A/9
36	Old Hwy 99 SE / 88th Ave SE	Signal	D	B/12	B/16
37	Interstate 5 SB Ramps / 93rd Ave SW	Signal	D	B/14	B/15
38	Interstate 5 NB Ramps / 93rd Ave SW	Signal	D	A/5	A/5
39	93rd Ave SW / Tilley Rd SW	TWSC	D	**F/66 (NBL/NBR)**	**F/150+ (NBL/NBR)**
40	Old Hwy 99 SE / 93rd Ave SE	TWSC	D	**E/47 (NBL)**	**F/72 (NBL)**

Notes:

- *Indicates that a baseline project is in place for the intersection.
- Intersections in **bold** do not meet their Level of Service standard.
- Abbreviations: LOS – Level of Service, AWSC – All Way Stop Control, TWSC – Two Way Stop Control, RAB – Roundabout, NBL – Northbound Left, NBT – Northbound Through, NBR – Northbound Right, WBL – Westbound Left, WBR – Westbound Right, SBL – Southbound Left, SBT – Southbound Through, SBR – Southbound Right.
- Two Way Stop Control and roundabout intersections have the worst movement noted in parentheses. The movement shown inside the parentheses indicates the worst-performing movement. For example, if it is NBL, it means the exclusive northbound left-turn lane has the worst movement. NBL/NBR indicates that the lane shared by both northbound left and northbound right turns has the worst movement.

Source: Fehr & Peers, 2025.

In addition to the intersection-level analysis, a future forecast volume to capacity (V/C) ratio assessment was conducted for the ten roadway segments previously studied. These volume to capacity ratios are presented in Table T-8 and provide a high-level screening of capacity constraints along key corridors within the study area.

Table T-8. Future Volume to Capacity Ratios.

Road Segment	From	To	V/C Ratio NB	V/C Ratio SB	V/C Ratio EB	V/C Ratio WB
Deschutes Way	E Street SW	Boston Street SW	0.33	0.15	-	-
Custer Way	Capitol Boulevard SW	Cleveland Avenue SW	-	-	0.64	0.45
Custer Way	North 2nd Ave SW	Capitol Boulevard SW	-	-	**1.35**	**1.02**

Road Segment	From	To	V/C Ratio NB	V/C Ratio SB	V/C Ratio EB	V/C Ratio WB
Henderson Boulevard	Tumwater Boulevard SW	Yelm Highway SE	-	-	0.30	0.29
Cleveland Avenue SW	Custer Way	Yelm Highway SE	0.38	0.55	-	-
Old Highway 99 SE	Tumwater Boulevard SW	Henderson Boulevard SE	0.65	0.86	-	-
Old Highway 99 SE	Henderson Boulevard SE	88th Ave SE	0.62	0.91	-	-
Capitol Boulevard SW	Tumwater Boulevard SW	Linderson Avenue SW	0.38	0.42	-	-
Capitol Boulevard SW	Linderson Way SW	Linwood Way SW	0.26	0.31	-	-
Littlerock Road SW	Trosper Road SW	Kingswood Drive SW	0.30	0.35	-	-
Tumwater Boulevard	Capitol Boulevard SW	Linderson Way SW	-	-	0.36	0.52

Note:

- Segments in **bold** do not meet their LOS threshold.
- V/C Ratios were calculated based on the Florida Department of Transportation QLOS Handbook using peak hour directional capacities associated with a threshold LOS D for different lane numbers in a suburban residential context.

Source: Thurston Regional Planning Council, 2025.

To better understand the effectiveness of the proposed mitigations, a future-year scenario was developed that reflects anticipated conditions in 2045 with proposed mitigations projects in place. This scenario includes additional projects that go beyond the baseline improvements to address intersections expected to operate below Tumwater's Level of Service standards.

Within this future condition, five intersections were identified as needing further enhancements to meet Tumwater's Level of Service standard. These intersections are:

- Deschutes Way SW / Boston Street SW
- Black Lake Boulevard SW / Black Lake Belmore Road SW
- 7th Avenue SW / Linwood Avenue SW
- 93rd Avenue SW / Tilley Road SW
- Old Highway 99 SE/ 93rd Avenue SE

Currently, all these intersections are stop-controlled. For four of these locations, the proposed mitigation involves constructing roundabouts, which are expected to significantly improve operations and bring each intersection into compliance with Tumwater's established standards for delay and Level of Service.

The intersection of Deschutes Way SW / Boston Street SW requires a different approach due to its unique geometry and lack of space. Interstate 5 is just to the west of the intersection, and a bridge forms the east leg of this intersection. At this location, a baseline project installs a traffic signal.

However, the operational analysis indicates that a signal alone would not be sufficient to bring the intersection to an acceptable Level of Service. To address this, a dedicated westbound right-turn lane could be added in conjunction with the signal. This combined improvement would help resolve capacity issues and ensure that the intersection performs adequately under 2045 traffic conditions.

The results of this mitigation scenario are presented in Table T-9 and illustrated in Figure T-10. The analysis shows that with these additional projects in place, study intersections are expected to operate within Tumwater's adopted Level of Service standards.

Table T-9. Future Mitigated Intersection Delay and Level of Service.

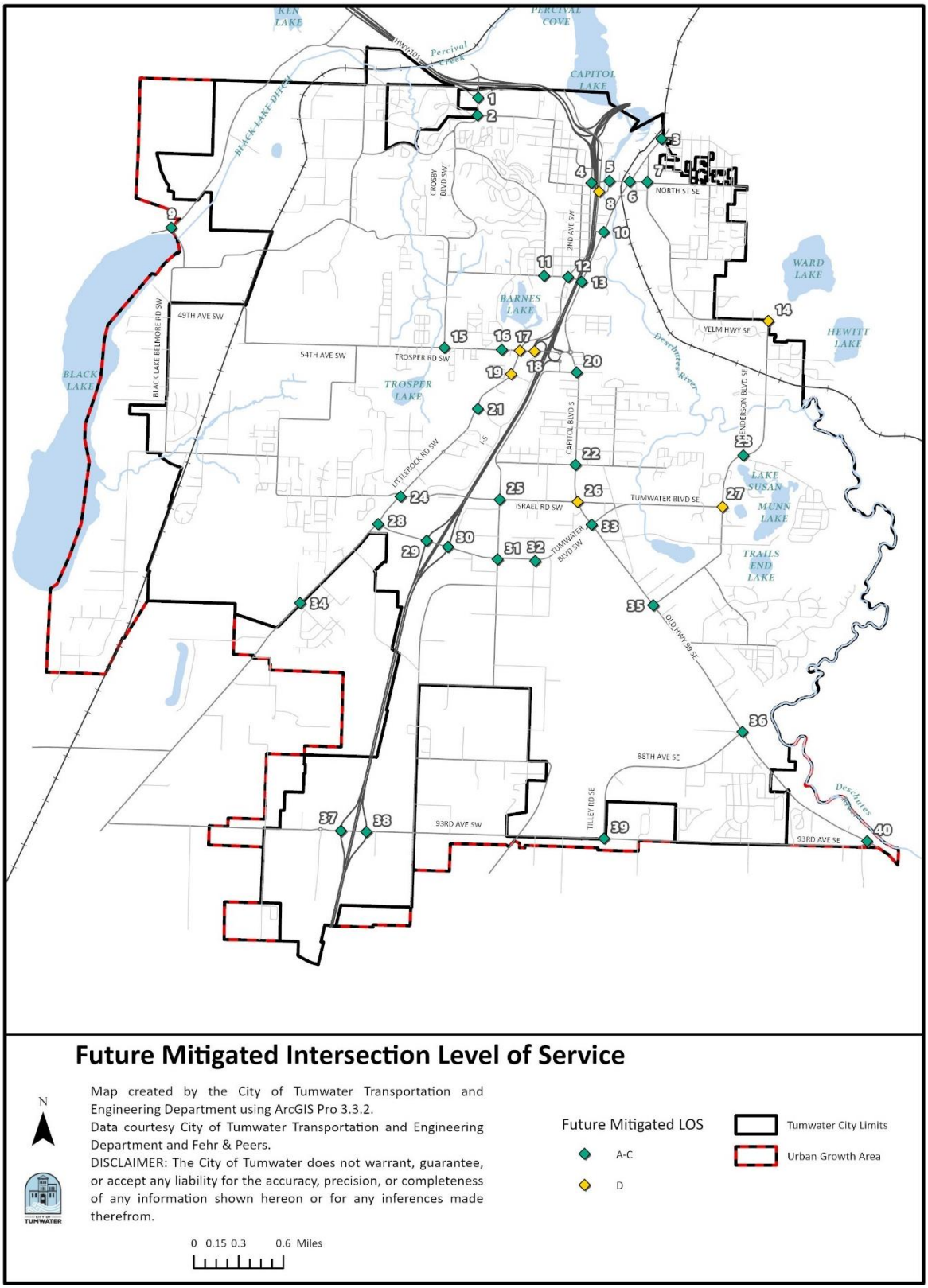
#	Intersection Name	Control	Level of Service Standard	Future Baseline LOS/Delay (seconds/vehicle)	Future Mitigated LOS/Delay (seconds/vehicle)
8	Deschutes Way / Boston St	Signal**	D	**F/97**	D/53
9	Black Lake Blvd / Black Lake Belmore Rd	RAB**	D	**E/57 (WBL/WBR)**	A/6
11	7th Ave / Linwood Ave	RAB**	D	**F/64 (SBL/SBT/SBR)**	A/3
39	93rd Ave / Tilley Rd SW	RAB**	D	**F/150+ (NBL/NBR)**	A/7
40	Old Hwy 99 / 93rd Ave	RAB**	D	**F/72 (NBL)**	A/9

Notes:

- *Indicates that baseline project is planned for the intersection
- **Indicate that non-baseline mitigation project is planned for the intersection.
- Intersections in **bold** do not meet their Level of Service standard.
- Abbreviations: LOS – Level of Service, AWSC – All Way Stop Control, TWSC – Two Way Stop Control, RAB – Roundabout, NBL – Northbound Left, NBR – Northbound Right, WBL – Westbound Left, WBR – Westbound Right, SBL – Southbound Left, SBT – Southbound Through, SBR – Southbound Right.
- Two Way Stop Control and roundabout intersections have the worst movement noted in parentheses. The movement shown inside the parentheses indicates the worst-performing movement. For example, if it is NBL, it means the exclusive northbound left-turn lane has the worst movement. NBL/NBR indicates that the lane shared by both northbound left and northbound right turns has the worst movement.

Source: Fehr & Peers, 2025.

Figure T-10. Future Mitigated Intersection Level of Service.



Source: Fehr & Peers, 2025.

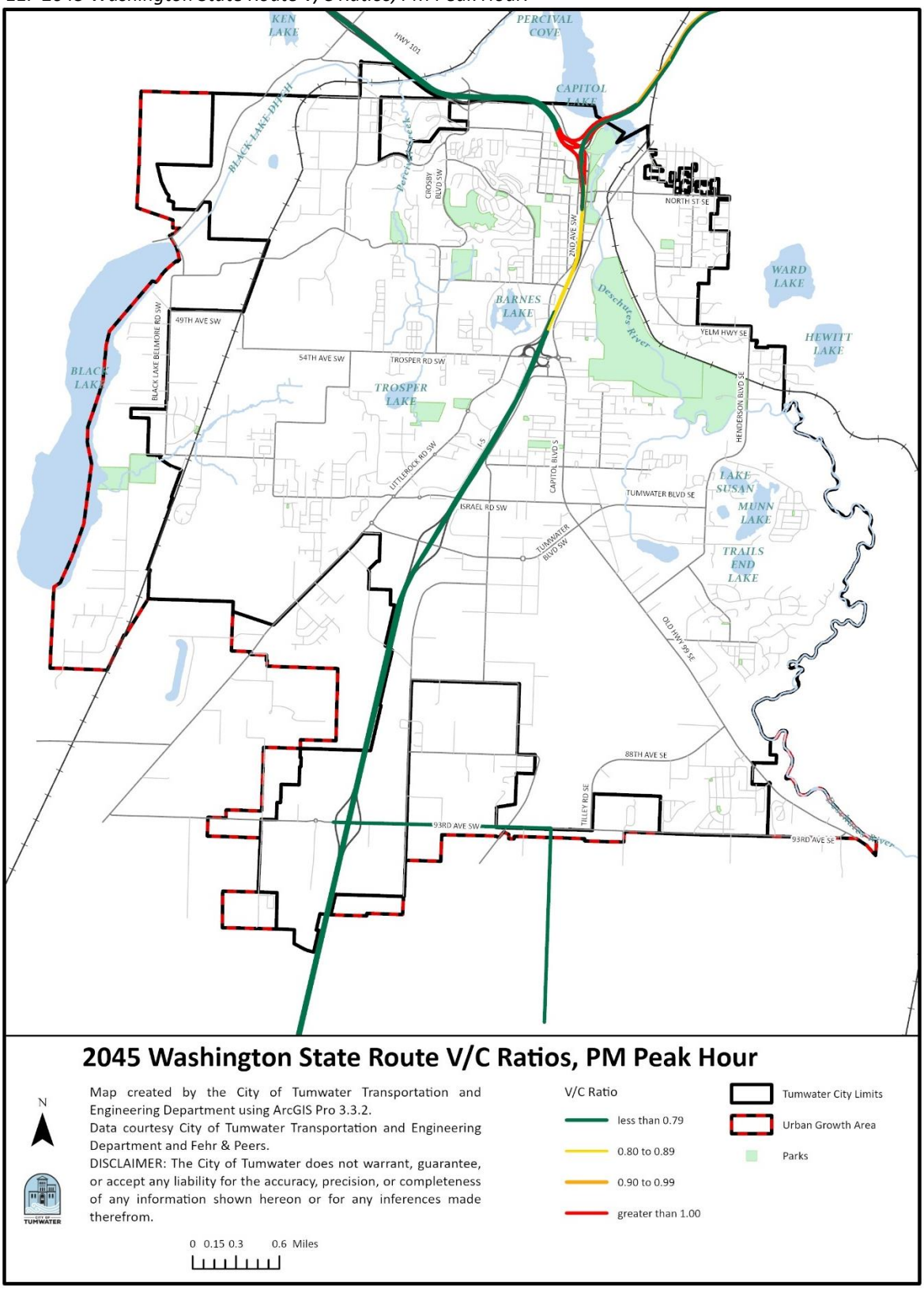
B. State Facilities

1) Segment Capacity Analysis

To evaluate the overall performance of Washington State Department of Transportation operated facilities within the city limits, including Interstate 5, US 101, and SR 121, the volume to capacity ratio was used as a primary metric for analyzing existing and future traffic conditions. Figure T-11 illustrates the projected volume to capacity ratios for state route segments within Tumwater under forecasted 2045 conditions. This analysis was based on forecast volume to capacity ratios from the Thurston Regional Planning Council's 2045 Tumwater Travel Demand Model.

Based on the PM peak hour analysis, the junction where Interstate 5 and US 101 converge is projected to experience significant congestion, with a volume to capacity ratio exceeding 1.0. This indicates that traffic demand will surpass available roadway capacity, primarily due to the complex merging maneuvers required as vehicles transition between the two major highways. These merging conflicts are expected to contribute to slower travel speeds and increased delays at the interchange.

Figure T-11. 2045 Washington State Route V/C Ratios, PM Peak Hour.



Source: Thurston Regional Planning Council and Fehr & Peers, 2025.

2) Intersections

In addition to the volume to capacity ratio analysis conducted at the segment level for all Washington State managed facilities within Tumwater, an intersection-level analysis was performed to evaluate operations at key locations adjacent to these corridors. This analysis focused on intersections that serve as primary access points to and from the freeway system, particularly those that connect directly to Interstate 5 on-ramps and off-ramps.

Given the importance of Interstate 5 as a major north-south transportation corridor through Tumwater, evaluating the operational performance of these access intersections is critical for understanding how efficiently traffic can enter and exit the freeway under future conditions.

The Washington State Department of Transportation has adopted a Level of Service standard of D or better for these intersections. Currently, the southbound Interstate 5 off-ramp at Tumwater Boulevard is signalized, while the northbound ramp is controlled by a two-way stop control.

With continued growth in traffic demand expected over the coming decades and to maintain acceptable operations, roundabouts are planned at both ramp terminals at the Tumwater Boulevard interchange. These improvements are scheduled to be implemented by the year 2045.

As summarized in Table T-10-10, all intersections that provide connections to Interstate 5 within the study area are anticipated to operate at or above the Level of Service D standard under projected 2045 conditions, indicating that the planned improvements will effectively mitigate future delays and maintain acceptable levels of service.

Table T-10. 2045 Interstate 5 Intersection Impacts, PM Peak Hour.

Intersection Name	Control	Level of Service (LOS) Standard	Future Baseline LOS/ Delay (seconds/vehicle)
Interstate 5 SB Ramps / Tyee Dr SW / Trosper Rd SW	Signal	D	D/42
Interstate 5 SB Ramps / Tumwater Blvd SW	Signal*	D	A/9
Interstate 5 NB Ramp / Tumwater Blvd SW	TWSC*	D	A/5
Interstate 5 SB Ramps / 93rd Ave SW	Signal	D	B/15
Interstate 5 NB Ramps / 93rd Ave SW	Signal	D	A/5

Note:

- *Indicates the baseline project for converting the intersection to a roundabout.
- **Bold** indicates that the intersection is failing.

Source: Fehr & Peers, 2025.

3) Multimodal Facilities

There are three state routes that pass through Tumwater. These include the Interstate 5 and US 101, which are both limited access freeway facilities that exclusively serve vehicles and transit. In addition, small segments of SR 121 traverse Tumwater. Portions of SR 121 include sidewalks, but there are no dedicated bicycle facilities.

Planning for active transportation routes across these freeways is a focus of the Brewery District Plan. Custer Way is one of the only crossing points and the facilities have a high level of traffic stress as shown in Figure BWR-4 of the Bicycling, Walking, & Rolling Plan in Appendix C.

A pedestrian and bicycle bridge over Interstate 5 also connects Dennis Street SW and Bishop Rd SW providing access to Tumwater High School commercial and mixed use developments on Tyee Drive SW.

The project team used the TRPC regional travel model to understand how expected growth in Tumwater and the region will add trips to the regional roadway network, including both streets in Tumwater and Washington State facilities.

The modeling did not find that expected development in Tumwater will add significantly to regional walking or transit trips on state facilities, thus Tumwater's planned growth is not expected to have any multimodal impacts on state routes. Washington State and Tumwater should continue to work together to require multimodal frontage improvements along SR 121 as parcels are developed.

C. Priority Networks

Tumwater's transportation priority networks identify the areas where prioritized improvements should be considered to enhance the layered multimodal network. Multimodal priority networks are centered on designing transportation systems that prioritize accessibility for the diverse needs of all users—pedestrians, cyclists, drivers, transit riders, and freight. Improvements for active transportation are prioritized based on the analysis in the Bicycling, Walking, & Rolling Plan. Improvements for vehicle use are prioritized based on Level of Service analysis results as discussed in the previous section.

Using a layered network strategy, modal emphasis is assigned to different streets, ensuring that each mode of transportation is accommodated effectively. This method acknowledges that while all travelers need to be accommodated within a community, no single street can serve all modes equally.

Other considerations like environmental constraints such as wetlands, protected species, cultural resources limit the feasibility of adding new infrastructure. This is the case for Kirsop Road SW, where community members have requested active transportation infrastructure. Unfortunately, sidewalks have been deemed infeasible in this area due to wetlands.

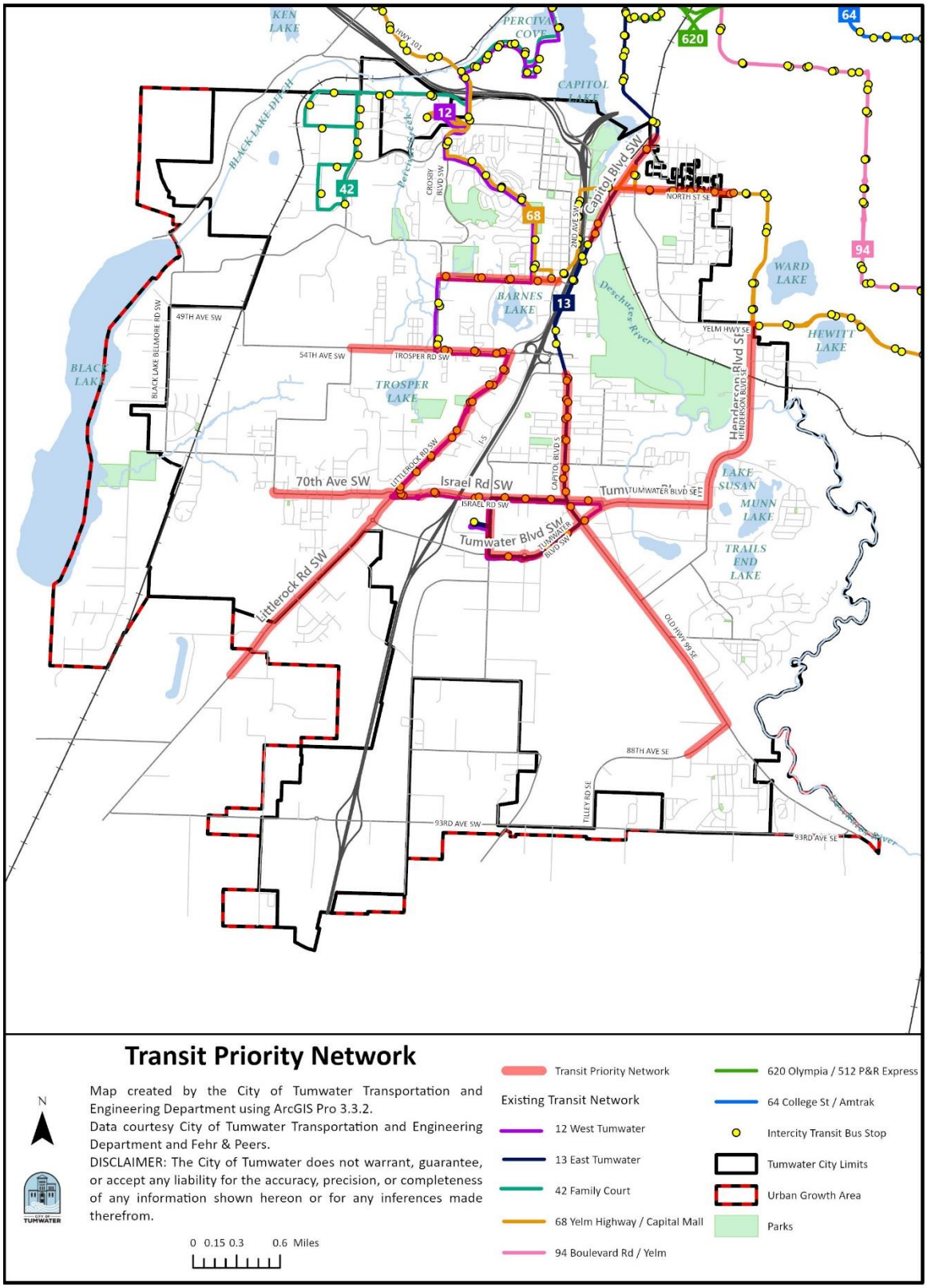
A wholistic approach to priority networks and advocating for more frequent and higher quality transit service as part of the transit priority network will provide Tumwater with more options for more people. The priority networks concentrate investments in the densest areas

and help fill in missing gaps so that more people can travel safely.

Since Tumwater does not directly administer transit services, the transit priority network shown in Figure T-12 reflects areas of future density growth which may benefit from transit service. The priority network does not solely reflect existing transit route locations. Tumwater can advocate for new or improved transit services covering these areas.

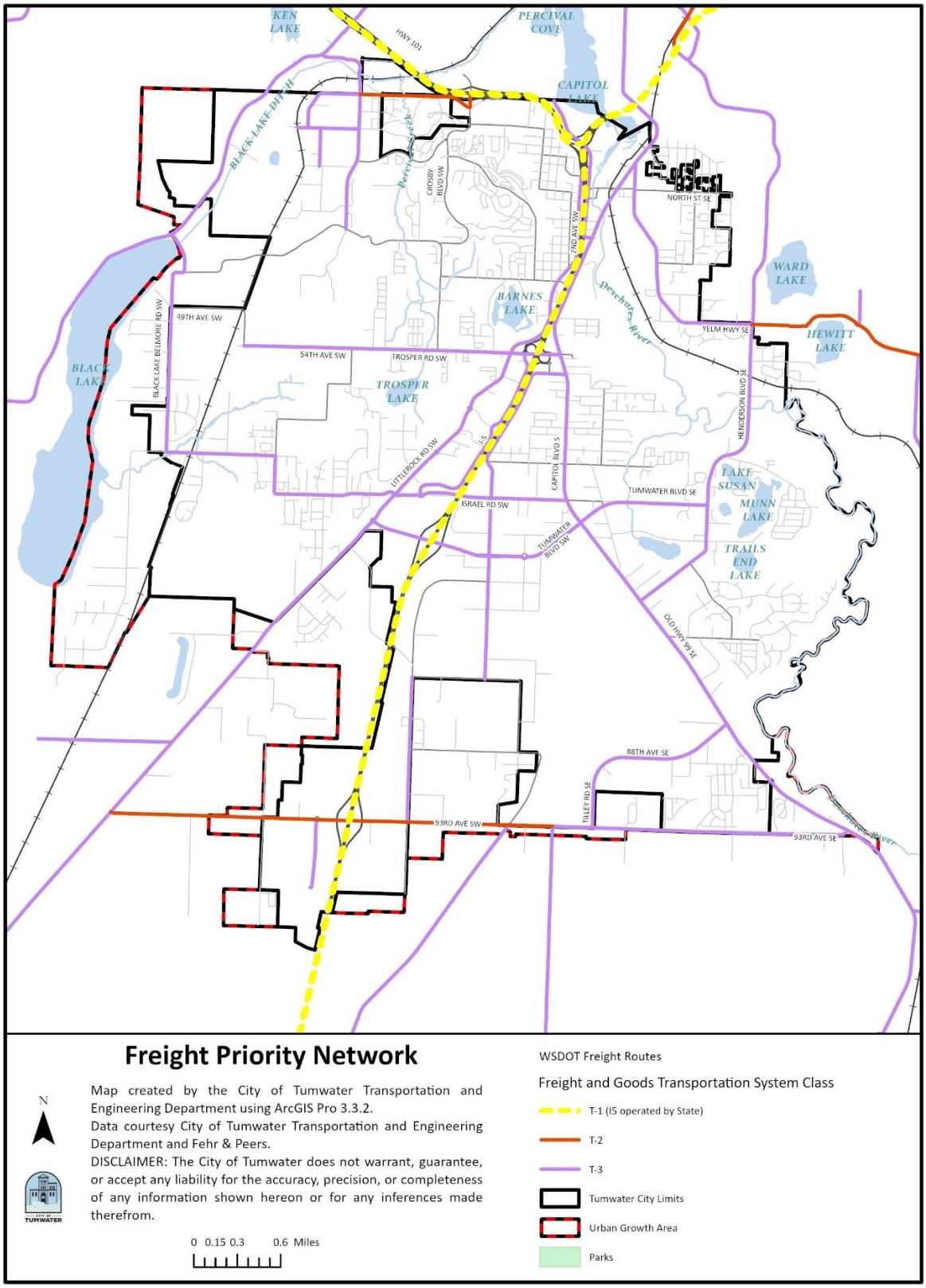
The freight priority network shown in Figure T-13 reflects locations classified according to Washington State Department of Transportation Freight Corridor Classifications in Table T-2 where T-1 is for highest freight volume, only applies to state-controlled facilities such as Interstate 5 and US 101 within Tumwater, T-2 is high volume freight routes on Tumwater streets, and T-3 is medium volume routes on Tumwater streets. Since T-1 facilities are state operated, the links do not fall directly under Tumwater's priority network. Tumwater will prioritize freight operations on routes classified as T-2 as well as select T-3 routes close to identified employment clusters.

Figure T-12. Transit Priority Network.



Source: Fehr & Peers, 2025.

Figure T-13. Freight Priority Network.



Source: Fehr & Peers, 2025.

5. 20-Year Project List

The previous chapter described Tumwater's vision for accommodating travel for everyone in the community, a framework of guidelines for different modes of travel, and Level of Service standards to achieve this vision.

This chapter describes the Transportation Plan's prioritized project list, which if built, would provide a safer and more complete transportation system.

A. Project Development

During the development of this plan, many transportation needs and project ideas to meet those needs were identified across Tumwater. They came from a variety of sources, including projects carried forward from prior plans, ideas suggested during in-person and online engagement, projects that address locations with high collision rates, and technical analysis comparing existing infrastructure to the planning guidelines and Level of Service standards described in the previous chapters (i.e., network gaps).

Given funding challenges, it was critical to prioritize those projects that do the most to advance Tumwater's transportation goals and build a more accessible system. As such, projects were scored based on the criteria identified below in Table T-11-11.

Table T-11: Project Prioritization Criteria.

	Plan Goal	Metrics	Points
1	**Develop and maintain an integrated network (11 points maximum)**	**Improving Comfort** - Project constructs a level of traffic stress 1 or 2 facility for walkers or bicyclers *(Project can improve existing facility or create new facility)*	**+3**
		Improving Connections - Project constructs walk or bicycle improvements that connect or improve access to key destination hotspots which include schools, business clusters, and parks or transit routes	**+3**
		Reduces Congestion - Project addresses a location with an existing or forecast vehicle Level of Service failure	**+3**
		Enhancing the Network- Project creates a new motorized vehicle route, enhances the street grid, or closes a bicycle or walk gap	**+2**
2	**Ensure safer outcomes and quality of life (11 points maximum)**	**Safer Active Transportation Outcomes** - Project location with a reported pedestrian or bicyclist collision in the most recent five years of crash data	**+3**
		Less Severe Collisions- Project location with a reported serious injury or fatality collision in the most recent five years of crash data (any mode)	**+3**

	Plan Goal	Metrics	Points
		Safer Schools - Project includes walk or bicycle improvements within Tumwater School District Walking Zones	**+3**
		Better Streetscapes - Project includes more comfortable active transportation facilities such as landscape buffers, benches, and pedestrian scale lighting	**+2**
3	**Prioritize Strategic Investments (10 points maximum)**	**Interagency Coordination** - Project includes funding from another agency or is highly eligible for grants	**+3**
		System Maintenance - Project replaces infrastructure nearing end of life or lowers life cycle costs compared to existing conditions	**+4**
		Impact Based Funding - Project provides additional capacity (any mode) and could be eligible for transportation impact fees	**+3**
4	**Lessen adverse effects (6 points maximum)**	**Mode Shift** - Project encourages shorter trips or shift to bicycling, walking, rolling, or transit	**+6**
5	**Build public support (12 points maximum)**	**Citywide Concerns** - Project location identified as a specific concern by Tumwater residents	**+4**
		Enhanced Outreach – Project will seek public input early and often during the development and design phases	**+4**
		Underinvested Zones – Project is in an area which has been historically underinvested	**+4**
		Maximum Possible Score	**50**

Source: Fehr & Peers, 2025.

B. Project Lists

Transportation projects have been separated into two lists. Projects listed below in Table T-12 are designed to have the greatest impact on traffic flow and safety. The Bicycling, Walking, & Rolling Plan in Appendix C contains the projects that are designed to have the greatest impact on the active transportation system. Each list includes a description, the primary impact mode, cost, and prioritization scores.

While separated, these projects compete for resources and are prioritized using the same criteria. Multimodal projects identified in the Bicycling, Walking, & Rolling Plan found in Appendix C are numbered separately with the identifier BWR. Project priority maps show both active transportation and motorized vehicle projects and their priority category.

To improve efficiencies in implementation, most projects will correspond to improvements pertaining to multiple modes. These projects are summarized in Table T-12. They are also shown in Figure T-14 (Low priority), Figure T-15 (Medium priority), and Figure T-16 (High priority).

The transportation improvements identified as part of this planning process far exceed forecasted transportation funding over the next

two decades as discussed in the following section.

Table T-12. 20-Year Motorized Vehicle Transportation Project List.

Project ID	Title	Description	Mode	Cost ($)	Priority
V-1	Tyee Dr SW – Israel Rd SW to Tumwater Blvd SW	Construct 5 lanes ext. or 3 lanes if roundabout nodes, including intersection improvements at Tumwater Blvd SW	Motorized Vehicle / Bicycle	4,000,000	Medium
V-2	Tyee Dr SW – Tumwater Blvd SW to Prine Dr SW	Construct 5 lanes ext. or 3 lanes if roundabout nodes, including intersection improvements at Prine Dr SW	Motorized Vehicle / Bicycle	3,000,000	Medium
V-3	Tyee Dr SW – Prine Dr SW to Littlerock Rd SW Brenden St SW	Construct 3 lane extension	Motorized Vehicle / Bicycle	7,400,000	Medium
V-4	Tumwater Blvd SW – Interstate 5 Interchange	Install roundabout and wider bridge	Motorized Vehicle / Bicycle	23,000,000	Low
V-5	Tumwater Blvd SW – Interstate 5 SB ramps to Tyee Dr SW	Widen to 5 lanes	Motorized Vehicle / Bicycle	3,500,000	Medium
V-6	Old Highway 99 – 88th Ave SE to 93rd Ave SE	Widen to 3 lanes	Motorized Vehicle	2,500,000	Low
V-7	Henderson Blvd SE – Tumwater Blvd SE to Old Hwy 99 SE	Widen to 3 lanes	Motorized Vehicle	4,000,000	Medium
V-8	73rd Ave SW – Prine Dr Ext SW to 73rd Ave SW / 66th Ave SW Connector	Construct 2 lane road	Motorized Vehicle / Bicycle	2,000,000	Medium

Project ID	Title	Description	Mode	Cost ($)	Priority
V-9	SR 121 (93rd Ave SW) – Interstate 5 NB Ramps to Kimmie St SW	Widen to 5 lanes, including roundabout at Kimmie St SW	Motorized Vehicle / Bicycle	7,000,000	Medium
V-10	SR 121 (93rd Ave SW) – Interstate 5 Interchange Construction	Widen bridge to 5 lanes and install roundabouts at on and off ramps	Motorized Vehicle / Bicycle	20,000,000	Medium
V-11	6th Ave SE – T St SE to Lee St SE	Construct 2 lane road	Motorized Vehicle / Bicycle	1,500,000	Medium
V-12	Odegard Rd SW – Littlerock Rd SW to Tyee Dr SW	Construct 2 lane road with on-street parking	Motorized Vehicle / Bicycle	200,000	Medium
V-13	Bishop Rd SW – Littlerock Rd SW to Tyee Dr SW	Construct 2 lane road with on-street parking	Motorized Vehicle / Bicycle	500,000	Medium
V-14	New Market St SW -- Tumwater Blvd SW to Israel Rd SW	Construct 2 lane road with on-street parking	Motorized Vehicle / Bicycle	3,000,000	Medium
V-15	Town Center Connector – Tumwater Blvd SW to Israel Rd SW	Construct 2 lane road with on-street parking	Motorized Vehicle / Bicycle	1,000,000	Medium
V-16	Deschutes Way SW at Boston St SW	Install traffic signal	Intersection	500,000	Low
V-17	Brewery District Projects	Included projects listed below – V-19 to V-22	Road	N/A	
V-18	Boston St SW at Custer Way SW	Install roundabout	Intersection	6,500,000	Low
V-19	Cleveland Ave SE at Custer Way / North St SE	Install roundabout	Intersection	7,000,000	Low
V-20	Capitol Boulevard SE/ Carlyon Ave	Install roundabout	Intersection	4,000,000	Low
V-21	Capitol Blvd SE / Cleveland Ave SE	Install roundabout	Intersection	4,500,000	Medium

Project ID	Title	Description	Mode	Cost ($)	Priority
V-22	Capitol Blvd SE / Custer Way	Install roundabout	Intersection	7,000,000	Medium
V-23	E St SE Connection – Capitol Blvd SE to Cleveland Ave	Construct 4 lane road across Tumwater Valley, including E St SE and Cleveland Ave SE intersections	Road	60,000,000	Low
V-24	Linwood Ave SW at 2nd Ave SE	Install roundabout	Intersection	5,000,000	Low
V-25	Trosper Rd SW at 2nd Ave SW / Littlerock Rd SW	Install roundabout	Intersection	6,000,000	Medium
V-26	Trosper Rd SW at Tyee Dr SW / SB Interstate 5 Ramps	Install roundabout	Intersection	6,000,000	Medium
V-27	T St at Capitol Blvd SE	Install roundabout	Intersection	6,000,000	Medium
V-28	X St at Capitol Blvd SE	Install roundabout	Intersection	7,000,000	Low
V-29	Dennis St at Capitol Blvd SE	Install roundabout	Intersection	6,000,000	Medium
V-30	Old Hwy 99 SE at 79th Ave SE	Install roundabout	Intersection	5,000,000	Low
V-31	Trosper Rd SW Capacity Study from Littlerock Rd SW to Interstate 5	Study to determine roadway capacity	Road	400,000	Low
V-32	Tumwater Blvd SE at Henderson Blvd SE Intersection Improvements	Install intersection improvements	Intersection	3,000,000	Low
V-33	Littlerock Rd SW and 77th Way SW Roundabout	Install roundabout	Intersection	5,000,000	Low
V-34	Black Lake Belmore SW at Black Lake Blvd SW	Install roundabout	Intersection	5,000,000	Low

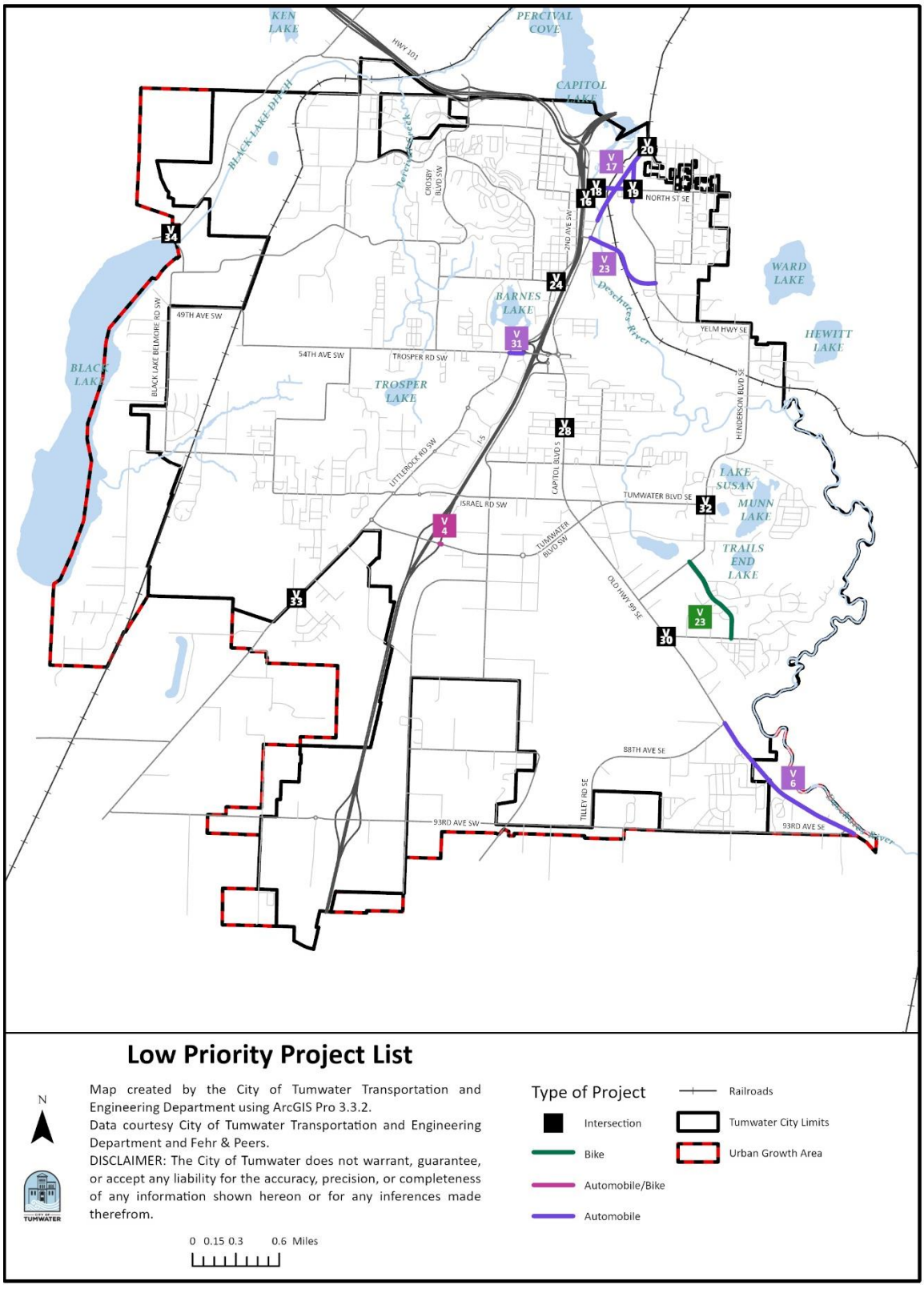
Project ID	Title	Description	Mode	Cost ($)	Priority
V-35	Henderson Blvd SE Corridor SE – Yelm Hwy SE to Tumwater Blvd SE	Widen road to 4/5 lane section, widen bridge over Deschutes River, install intersection improvements and pedestrian facilities	Road	24,000,000	Medium
A	Multimodal Improvements Program	Various locations throughout Tumwater. Intent is to create a safer and more inviting multimodal transportation system. Specific projects developed as a part of the six-year Transportation Improvement Plan process.	Programmatic	16,500,000	High
B	Safe Routes to School Projects	Improve pedestrian and bicyclist safety near schools. Projects include sidewalks, lighting, flashing beacons, signage, markings, and other measures. Project details developed as a part of the six-year Transportation Improvement Plan process.	Programmatic	2,000,000	Medium
C	Pavement Maintenance Program	This program is designed to preserve and enhance the condition of roads, sidewalks, and other paved surfaces	Road	20,000,000	Medium

Notes:

- Abbreviations: LTS: Level of Traffic Stress. Ext.: extension.

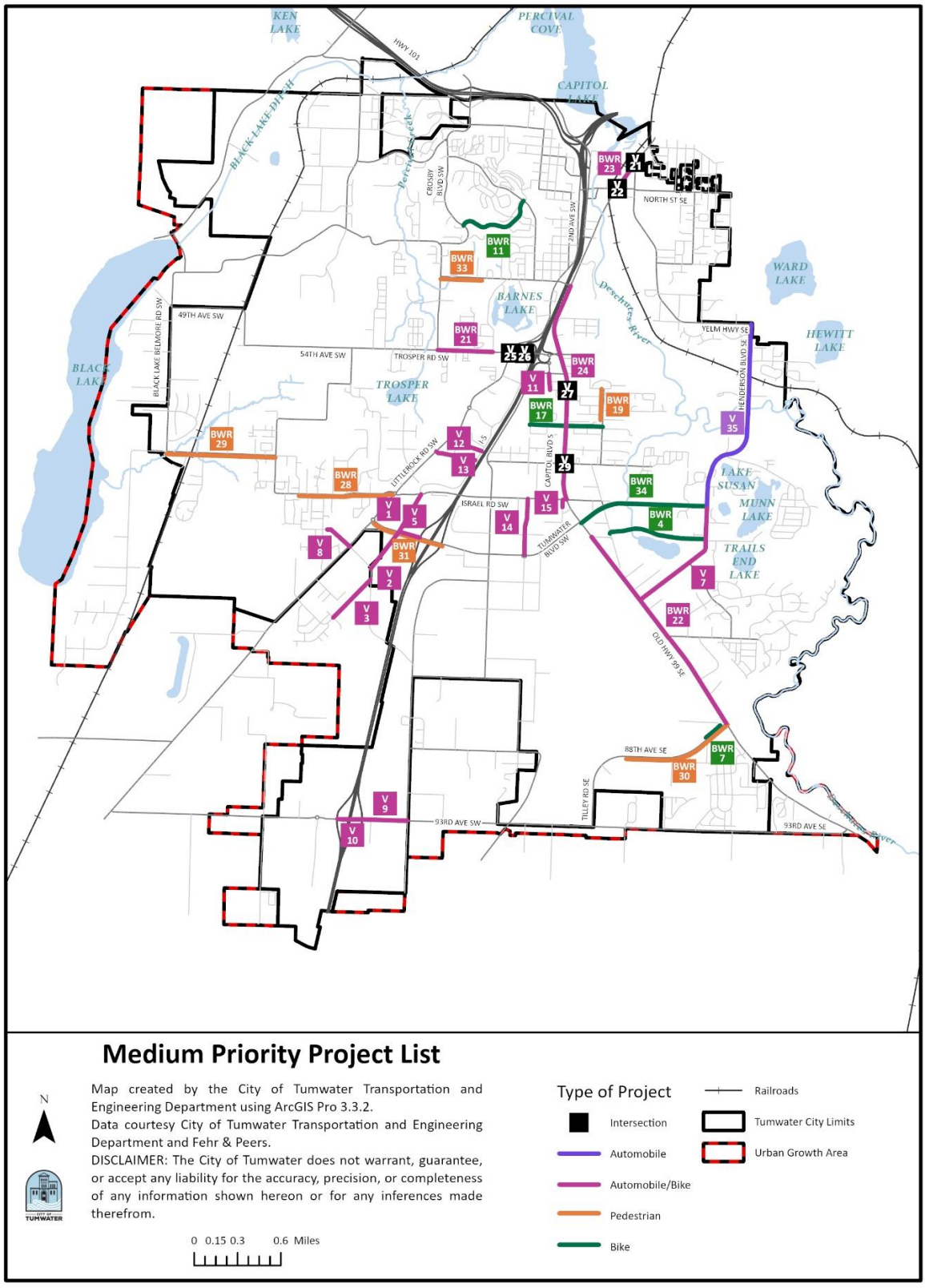
Source: Fehr & Peers, 2025.

Figure T-14. Location of Projects Categorized as Low Priority.



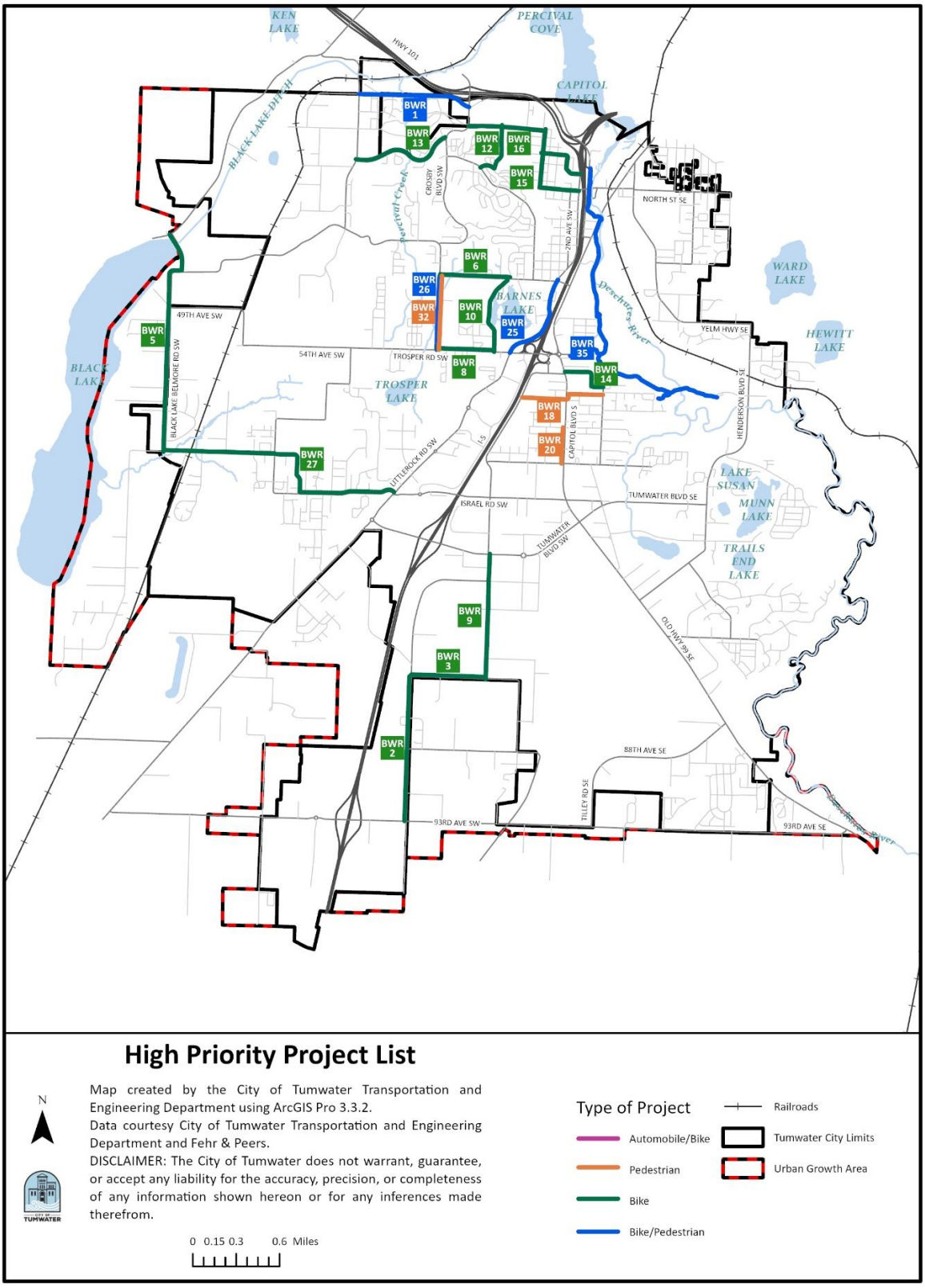
Source: Fehr & Peers, 2025.

Figure T-15. Location of Projects Categorized as Medium Priority.



Source: Fehr & Peers, 2025.

Figure T-16. Location of Projects Categorized as High Priority.



Source: Fehr & Peers, 2025.

6. Implementation

A. Funding Overview

A key part of Washington State's Growth Management Act is making sure transportation planning is financially responsible. To meet this goal, Tumwater's list of transportation projects must fit within its budget. This means focusing on maintaining and operating existing roads and infrastructure as well as newer projects needed to accommodate growth.

To make sure the plan is realistic, Tumwater studied past trends in revenue and spending as shown in Table T-13. This helped estimate how much money will likely be available for both new projects and day-to-day operations over the next 20 years. By using this information, Tumwater can plan projects it can afford, as required by the Growth Management Act. A shortfall is expected since the needs are greater than the resources.

To deal with future funding challenges, Tumwater will also look for ways to close the gap between how much money is needed and how much is expected to be available. This might include:

- **Enhancing Revenue from Existing Sources**: Tumwater is evaluating adjustments to current revenue streams, such as transportation impact fees, to ensure that new developments contribute proportionally to infrastructure needs.
- **Adopting New Revenue Mechanisms**: Exploring innovative funding avenues, such as bonds and sales taxes to generate dedicated funds for transportation projects.
- **Implementing Transportation Demand Management Strategies**: Reducing vehicle trips is crucial. Programs like Washington's Commute Trip Reduction law encourage large employers to develop plans that decrease single-occupancy vehicle commutes, thereby reducing traffic congestion and environmental impact.

By integrating these strategies, Tumwater aims to create a sustainable, efficient, and safe transportation system that meets future demands while addressing current fiscal constraints.

Most projects have active transportation components such as street crossings and sidewalks; however some are specific to support active transportation. Discussion about funding for these projects including separate funding sources have been included in the Bicycling, Walking, & Rolling Plan to support the projects designed to have a greater impact on active transportation.

Table T-13. Current Funding Sources and Revenue Estimates Over the Horizon Year.

Fund Source	20 – Year Estimate
Base Utility Tax (0.8% of the 12%)	$20,715,000
Motor Vehicle Fuel and Multimodal Transportation Tax	$4,095,000
Real Estate Excise Tax (0.05%)	$27,487,000
Retail Sales & Use Tax	$36,943,000
Interest Income	$1,050,000
Grants	$70,902,000
Transportation Benefit District	$,943,000
Transportation Impact Fees	$39,337,000
SEPA Mitigation	$14,026,000
Total Revenue Over 20 Years	**$214,555,000**
Annual Average Revenue	**$10,730,000**
Total Capital Expenditure Over 20 Years	**$212,000,000**
Annual Average Expenditure	**$10,600,000**
Annual Shortfall	**$130,000**

Source: City of Tumwater.

B. Revenue Sources

1) Transportation Benefit District

Transportation infrastructure is one of Tumwater's most valuable investments. The Transportation Benefit District was formed in 2014 to designate a dedicated source for transportation funding, and in 2015, Tumwater voters approved a sales tax increase of 0.2 percent for a period of ten years. The funding is used to preserve, maintain and expand the transportation infrastructure within city limits.

Since 2015, the Transportation Benefit District has funded:

- More than 100 lane miles of road improvements.
- More than 100 new curb ramps
- Almost 50,000 tons of asphalt for Tumwater roads.

The dedicated funding provided by the Transportation Benefit District makes it possible for Tumwater to proactively repair and preserve roads before they deteriorate to a point that would require costly pavement replacement. In this way, Transportation Benefit District funding is an investment in road quality and safety that saves money eventually.

Additionally, the taxes collected through the Transportation Benefit District have so far helped to secure $6 million in grants, often through matches with available funds.

2) Real Estate Excise Tax

A key revenue source that feeds Capital Projects is the Real Estate Excise Tax , which is applied to

all real estate sales based on the full selling price, including liens, mortgages, and debts used in the purchase. This tax is charged on the gross sales price of real property.

The first 0.25 percent of the Real Estate Excise Tax must be used for capital projects listed in Tumwater's Capital Facilities Plan, including infrastructure such as streets, sidewalks, lighting, traffic signals, water and sewer systems, parks, public safety buildings, trails, libraries, and other civic facilities. The second 0.25 percent, available only to cities required to plan under the Growth Management Act, helps cover costs related to the Growth Management Act and can fund similar projects, though it excludes land acquisition.

3) Transportation Impact Fees

Since 1990, Washington State law (RCW 82.02.050) has allowed jurisdictions to establish transportation impact fee programs to fund capacity projects needed to support growth. Tumwater collects transportation impact fees from developers to help finance public infrastructure projects that benefit new developments, such as roads and sidewalks. These fees are used to mitigate the impact of new developments on existing transportation infrastructure.

The primary goal of Transportation Impact Fees is to have new developments "pay their own way," reducing the financial burden on existing taxpayers. By collecting these fees, municipalities can finance capital improvements that add capacity like adding lanes to existing roads, constructing new roadways, or constructing new active transportation facilities. These fees are typically assessed during the development approval process and collected when building permits are issued. The amount charged often depends on factors such as the type and size of the development and its projected impact on the transportation network.

4) Base Utility Tax

Tumwater assesses a six percent utility tax upon every person, firm or corporation engaged in or carrying on a business of land line and cellular telephones, pagers, telegraph, electrical energy, natural gas, brokered natural gas, solid waste, water, sanitary sewer, and storm drainage. The details surrounding the tax are discussed in the Tumwater Municipal Code, Chapter 3.28.

5) Motor Vehicle Fuel & Multimodal Transportation Tax

Funds are provided from Washington State for transportation purposes and are distributed to cities quarterly. Multimodal Transportation Tax is provided by RCW 47.66.070 and is funded by a variety of taxes and grants including but not limited to Motor Vehicle Excise Tax, Mass Transit Distributions and Retail Sales Taxes.

Motor Vehicle Fuel Tax is an excise tax on the sale of fuel and is used for transportation. As of July 1, 2025, the tax rate for gas in Washington State is 55.4 cents per gallon with 8.33 percent distributed to incorporated cities based on a formula considering population and annual road costs.

6) Retail Sales & Use Tax

The Sales Tax in Tumwater is 9.7 percent on most items including fuel. Tumwater receives 0.8415 percent of the sales tax on each dollar. Portions

of this tax are utilized for transportation infrastructure development and funding. An additional 0.2 percent sales tax goes to fund Tumwater street and sidewalk maintenance. Tumwater voters approved this new tax on April 28, 2015, and it went into effect on October 1, 2015.

C. Options to Increase Revenue

1) Commercial Parking Tax

Cities in Washington State can impose taxes on commercial parking operations, either by charging businesses directly or by adding fees for customers at the point of sale. While there is no cap on the tax rate itself, the revenue generated must be allocated exclusively for transportation-related purposes.

For instance, Seattle increased its commercial parking tax rate to 14.5 percent as of July 1, 2022. Other cities, like SeaTac, implement a per-transaction fee, which was $3.99 in 2024 and rose to $4.13 in 2025

2) Local Improvement Districts

Local Improvement Districts are special financing mechanisms that municipalities can establish to fund capital projects benefiting specific areas. Property owners within these districts are assessed fees proportional to the benefits they receive from the improvements.

The formation of a Local Improvement District does not require a public vote but does necessitate a demonstration of financial feasibility. Moreover, if property owners responsible for at least 60 percent of the total assessment costs formally protest, the district's formation can be halted.

3) General Obligation Bonds

Municipalities have the option to issue bonds to finance public projects:

- **Limited Tax General Obligation Bonds**: These do not require voter approval and are repaid from Tumwater's general fund.
- **Unlimited Tax General Obligation Bonds**: These require voter approval and are repaid through additional property taxes.

Washington State law limits the total general obligation debt a city can incur to 2.5 percent of its assessed property value, with limited tax general obligation bonds capped at 1.5 percent. Exceeding these limits can impact a city's credit rating, so it is advisable to utilize less than two-thirds of the available debt capacity to maintain financial stability.

D. Transportation Demand Management

1) Background

This plan has thus far focused on completing Tumwater's multimodal transportation network via the layered network approach. The network proposed for each mode represents the supply side of the transportation network. On the opposite side of the coin is the demand for the multimodal transportation network. The demand side is addressed with transportation demand management.

The concept of transportation demand management has evolved from a focus on commuters and strategies for reducing single occupancy vehicle demand at peak times to a focus on maximizing the modal choices of all travelers and trip types. This new focus includes a broader set of diverse strategies.

The Federal Highway Administration defines transportation demand management as:

> *"Providing travelers, regardless of whether they drive alone, with travel choices, such as work location, route, time of travel and mode. In the broadest sense, demand management is defined as providing travelers with effective choices to improve travel reliability."*

The emphasis for transportation demand management is on personal mobility rather than vehicular mobility. Transportation demand management strives to treat roadway, transit, bicycle facilities, and sidewalk capacity as valuable, limited assets to be carefully managed.

Transportation demand management strategies that strive to manage the demand on the limited multimodal transportation network include encouraging ride sharing such as car- and vanpooling; providing active transportation subsidies (e.g., stipends for bicycles or running shoes); providing telecommuting, flex schedules, and compressed work weeks; and enforcing parking fees or restrictions.

Other transportation demand management strategies can range from simple marketing programs to complex land use decisions. Tumwater land use policies can reduce dependence on private motorized vehicle travel by focusing growth in specific locations and changing land use development patterns. Land use densities, mixed-use activity, urban design, transit station areas, and other concentrated points of activity support frequent transit service and pedestrian facilities.

Tumwater's transportation demand management program is focused on maximizing multimodal options for all trip types and travelers.

2) Transportation Demand Management Strategies

There are various ways that commuters can travel to work, and individuals can travel for other purposes that reduce the number of single occupancy vehicle trips:

- **Rideshare Programs** – Tumwater can partner with Intercity Transit or other private car share providers for rideshare solutions primarily for commute trips, though other trip purposes such as to school are being explored. Typically, vanpool programs require a minimum

number of individuals per vehicle with similar commutes.

- **Walking/Bicycling/Rolling** – Every trip begins and ends with walking or rolling, even if using a vehicle for most of the trip. The existing pedestrian network supports walking for some trip types, particularly in areas with higher density and a mixture of land uses. Bicycling can be a viable mode for commuters who live further than walking distance from transit services and whose schedules are too inflexible to use vanpool programs. Other forms of rolling like wheelchairs, skateboards, and e -scooters can use a mix of pedestrian and bicycle networks.

  As pedestrian and bicycling networks are constructed and development occurs in dense, mixed-use areas, these modal options are anticipated to be increasingly viable and popular. Many of the prioritized projects, policies, and actions in this plan provide guidance and next steps to both construct the pedestrian and bicycling networks and increase the attractiveness and viability of walking and bicycling as travel options.

- **Alternative Work Schedules** – Alternative work schedule options are beneficial to both employees and employers. Businesses can provide coverage for additional hours, and employees are able to work their schedules around transit and vanpool and ridesharing availability. Alternative schedules include flextime, compressed work weeks, and staggered shifts.

- **Telecommuting and Remote Working** – In the Puget Sound region, full-time and part-time telecommuting has increased over the last decade. The COVID pandemic forced many businesses, non-profits, and government agencies to quickly implement telework for employees that can work remotely. To facilitate this shift, unique solutions were implemented to address technology and resource barriers. Many businesses, non-profits, and government agencies are likely to have significantly higher levels of teleworking than before the pandemic due to the widespread development of these programs.

E. Vehicle Miles Traveled Reduction Targets & Mode Shift

1) Vehicle Miles Traveled Reduction Targets

Based on guidance from the Washington State Department of Commerce[2] and the Washington State Department of Transportation[3], vehicle miles traveled targets should focus on per capita reductions. These targets must align with long-term planning horizons.

Progress must be monitored every five years, tracking both per capita vehicle miles traveled and the implementation of reduction strategies

[2] https://www.commerce.wa.gov/growth-management/climate-planning/.

[3] https://wsdot.wa.gov/sites/default/files/2023-06/VMT-Targets-Final-Report-June2023.pdf.

and policies. The targets should also align with regional plans.

The Washington State Department of Commerce's Greenhouse Gas Emissions Forecast and Scenario Planning Tool (Thurston County) includes an analysis of ways to reach the overarching goal of net-zero emissions by 2050. That tool sets the following reduction targets, compared to a 2022 baseline:

- Reduce per capita vehicle miles traveled by 27 percent through 2040.
- Reduce per capita vehicle miles traveled by 41 percent through 2050.

Tumwater is setting the same goals as the Department of Commerce tool.

The Department of Commerce has provided a menu of measures[4] to help reduce per capita vehicle miles traveled, with a selection included below:

- Shift modes from motorized vehicles to transit, walking or bicycling.
- Increase vehicle occupancy to convert single occupancy vehicles to high occupancy vehicles and promote vanpools.
- Travel less through telecommuting, trip chaining and employing tools such as a compressed work week, parking, and more compact land development.
- Adjusting zoning laws to allow for more diverse and higher-density housing options.
- Promoting development patterns that support public transit usage.
- Encouraging higher-density housing near employment centers and transit hubs to reduce travel distances.
- Conducting studies to understand current travel patterns and identify opportunities for reduction.
- Establishing metrics to assess the effectiveness of implemented strategies over time.

2) Mode Shift Targets

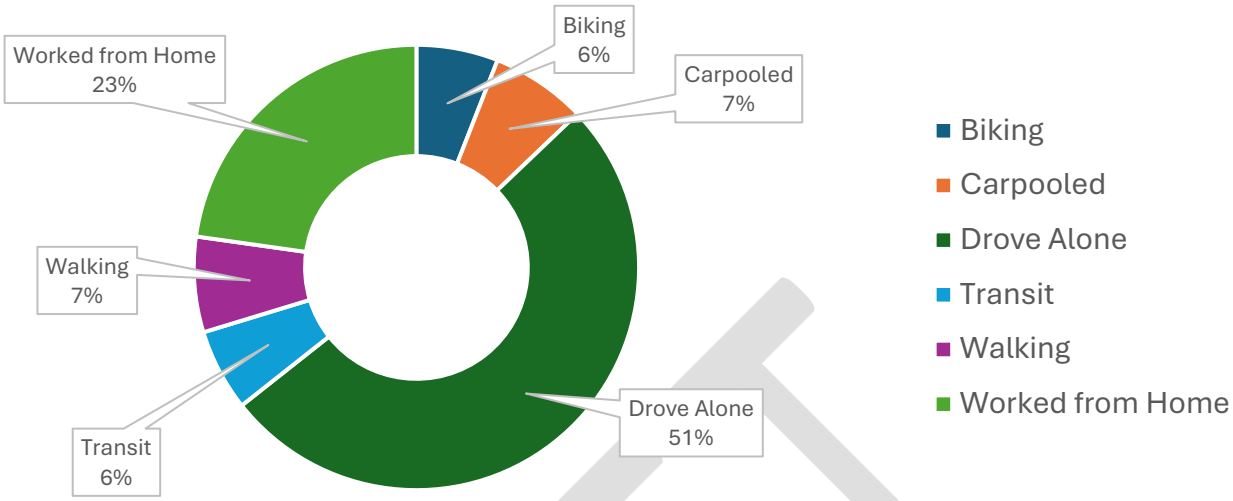
To achieve this plan's greenhouse gas and vehicle miles traveled reduction targets, some trips will need to shift from single occupancy vehicle trips to more efficient modes. These modes include carpooling (high occupancy vehicles), transit, and active transportation modes like walking, bicycling, and rolling.

Current data from the Census Bureau as shown in Figure T-1 illustrates that most work trips in Tumwater are taken by car, with most being single occupancy vehicles.

Tumwater is setting a goal to shift five percent of all single occupancy vehicle trips to walking, five percent to bicycling, and three percent to transit as shown in Figure T-17.

[4]https://experience.arcgis.com/experience/dd012fae9fad4a309b0d89e3c13016e5/page/Basic/

Figure T-17. Tumwater's 2045 Mode Shift Goals.



Encouraging and effectuating mode shift is difficult, but can be done through a combination of strategies:

- Creating more walkable and bikeable communities by building a connected low stress network.
- Reducing or eliminating parking minimums.
- Charging for parking in higher density areas with transit and active mode networks.
- Increasing transit frequency and coverage.
- Increasing job and residential density.
- Integrating affordable and below market rate housing.
- Provide ridesharing program.
- Provide end of trip bicycle facilities.
- Provide employer-sponsored van pool.
- Price workplace parking.
- Implement housing and employment parking cash-out.
- Provide electric vehicle charging infrastructure.
- Implement transit-supportive roadway improvements.
- Supporting bus rapid transit.

Appendix A – Foundational Documents

Table T-14 identifies the foundational planning documents that form the basis for the Transportation Plan within the Comprehensive Plan.

Table T-14. Foundational Documents for the Transportation Plan.

Topic Index	Supporting Plans and Materials
Park and Trail Infrastructure	• Parks, Recreation, and Open Space Plan (2008/2016)
Regional Transportation	• Thurston Regional Trails Plan (2023) • What Moves You, 2050 Regional Transportation Plan, Thurston Regional Planning Council (2025)
Subarea Plans	• Black Hills Subarea Transportation Plan (2002) • Brewery District Plan (2020) • Capitol Boulevard Corridor Plan (2015) • Littlerock Road Subarea Plan (2018) • Old Highway 99 Corridor Study (2024) • Tumwater Town Center Street Design Plan (2019)
Transportation Projects	• Transportation Improvement Plan, 2026-31 (2025)

Appendix B – City of Tumwater Vehicle Operations Analysis Reports

The City of Tumwater Vehicle Operations Analysis Reports are attached as a separate document.

Appendix C – Bicycling, Walking, & Rolling Plan

The Bicycling, Walking, & Rolling Plan is attached as a separate document.