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Auburn Station Parking and Access Improvements Project

Environmental Evaluation

SOUNDTRANSIT
Central Puget Sound
Regional Transit Authority

U.S. Department of Transportation
Federal Transit Administration

Auburn Station Parking and Access Improvements Project

Environmental Evaluation

January 2020

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This environmental evaluation has been prepared in compliance with both the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA). The evaluation is intended to assist Sound Transit as SEPA lead agency in making a threshold determination for the proposal, consistent with WAC 197-11-315. It also provides NEPA compliance for federal grant applications with the Federal Transit Administration. For these reasons, the format follows an FTA Region 10 NEPA worksheet, modified to address additional elements of the environment required under SEPA (e.g., public services and utilities), and supplemented with technical appendices. The combined document facilitates a coordinated and efficient environmental review, consistent with WAC 197-11-640.

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FTA Region 10
CATEGORICAL EXCLUSION and
DOCUMENTED CATEGORICAL EXCLUSION WORKSHEET

Note: The purpose of this worksheet is to assist sponsoring agencies (grantees) in gathering and organizing materials for environmental analysis required under the National Environmental Policy Act (NEPA), particularly for projects that may qualify as a Categorical Exclusion (CE) or Documented Categorical Exclusion (DCE). The use and submission of this worksheet is NOT required. The worksheet is provided merely as a helpful tool for assembling information needed by FTA to determine the likelihood and magnitude of potential project impacts. **NOTE: Fields are expandable, so feel free to use more than a line or two if needed.**

Submission of the worksheet does not satisfy NEPA requirements. FTA must concur in writing in the sponsoring agency's NEPA recommendation. Project activities may not begin until this process is complete. Contact the FTA Region 10 office at (206) 220-7954 if you have any questions or require assistance. If this is the first time you have filled out this form, FTA encourages you to review http://www.fta.dot.gov/documents/FTA_CE_Presentation.pdf. Feel free to contact Region 10 for additional assistance. **Please see the end of this document for submittal procedures.** For links to other agencies or for further topical guidance, please go to Region 10's Environmental Processes and Procedures site.

I. Project Description

Sponsoring Agency	**Date Submitted**	**FTA Grant Number(s) (if known)**
Sound Transit	TBD	WA-2018-080

Project Title

Auburn Station Parking and Access Improvements Project

Project Description

The Auburn Station Parking and Access Improvements Project (Project) consists of a new parking garage and pedestrian, bicycle, and transit amenities serving patrons of the Sounder South Rail system at the Auburn Station in Auburn, Washington (Figure 1). The site of the proposed garage (project site) is owned by the City of Auburn (City) and is in use as a surface parking lot providing 120 spaces for the One East Main Street Building. The project site is bounded by 1st Street NW on the south, an alleyway on the north, BNSF Railway on the west, and A Street NW on the east (Figure 2). The current design includes five levels with a partial half level for a total height of 58 feet. The proposed garage would provide approximately 675 parking spaces; 120 spaces would replace parking for the existing surface lot and the remaining 555 spaces would be available for transit users.

The following pedestrian, bicycle, and transit amenities are proposed adjacent to and near the project site to enhance overall access to the Auburn Station (Figures 2 and 6).

- Adjacent to the project site, amenities include painted crosswalks, signals, lighting, and signage.
- At the intersection of W Main Street and B Street NW, amenities would encourage pedestrian safety and traffic calming (i.e., curb extensions, roadway channelization, installation of rectangular rapid flashing beacons, crosswalks, and ADA curb ramps).
- At the Auburn Station, planned bicycle improvements include modifications to prepare for future increases in bicycle storage options.
- At five existing bus stops along routes that connect with the Auburn Station, new bus shelters would be installed.

Details of the final pedestrian, bicycle, and transit amenities would be completed in collaboration with the City.

Purpose and Need for Project

The purpose of the Project is to expand and improve means of safe and accessible access to Sounder services, including motor vehicle, transit, bicycle, and pedestrian. The need for the Project is to address existing ridership and expected future growth in ridership at the Auburn Station. In 2017, daily weekday ridership (passengers boarding and alighting) at the Auburn Station was approximately 1,600 passengers. This number is expected to grow to about 2,600 passengers in 2037 (a 62.5% increase). Based on the existing Sounder ridership and estimated mode of access data, total Sounder parking demand is approximately 960 parked vehicles (Attachment B, *Transportation Technical Report*). Existing dedicated parking facilities provide 591 spaces available to transit users. These are typically fully occupied by 6:00 a.m. on any given weekday. In addition to motor vehicles using onsite parking, Sounder riders access the Auburn Station by other modes of transportation including public transit, pedestrian, bicycle, and drop-off. Additional vehicle parking, bicycle storage, and transit stops are needed to provide access to Auburn Station via these modes, and pedestrian access from the parking and transit facilities to the Auburn Station needs to meet safety and accessibility requirements.

Project Location

The project site is located within the city of Auburn, Washington, on property that is owned by the City and in use as a surface parking lot, which is bounded by 1st Street NW on the south, an alleyway on the north, BNSF Railway on the west, and A Street NW on the east. For maps of the project location and site layout, refer to Figures 1 and 2. Figure 6 shows the locations of the five bus shelters.

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II. NEPA Class of Action

Answer the following questions to determine the project's potential class of action. If the answer to any of the questions in Section A is "YES", contact the FTA Region 10 office to determine whether the project requires preparation of a NEPA environmental assessment (EA) or environmental impact statement (EIS).

A. Will the project significantly impact the natural, social and/or economic environment?

☐ YES (contact FTA Regional office)

☒ NO (continue)

A.1 Is the significance of the project's social, economic or environmental impacts unknown?

☐ YES (contact FTA Regional office)

☒ NO (continue)

A.2 Is the project likely to require detailed evaluation of more than a few potential impacts?

☐ YES (contact FTA Regional office)

☒ NO (continue)

A.3 Is the project likely to generate intense public discussion, concern or controversy, even though it may be limited to a relatively small subset of the community?

☐ YES (contact FTA Regional office)

☒ NO (continue)

B. Does the project appear on the following list of Categorical Exclusions (CEs)?

The types of activities listed below describe actions which, when the corresponding conditions are met, are under usual circumstances categorically excluded from further NEPA analysis under 23 CFR 771.118(c). Unusual circumstances may include, but are not limited to, the presence of wetlands, historic buildings and structures, parklands, or floodplains in the project area, or the potential for the project to impact other resources. (Descriptions of each type of activity, and corresponding conditions, are available here; this worksheet simply lists the name of each exclusion.)

☐ YES (If checked AND there are no special circumstances, check the applicable box and proceed to Section III.)

☒ NO (continue to Section II. C)

23 CFR 771.118(c)(1-16)

☐ (1) Utility and Similar Appurtenance Action

☐ (2) Pedestrian or Bicycle Action

☐ (3) Environmental Mitigation or Stewardship Activity

☐ (4) Planning and Administrative Activity

☐ (5) Activities Promoting Transportation Safety, Security, Accessibility and Communication

☐ (6) Acquisition, Transfer of Real Property Interest

☐ (7) Acquisition, Rehab, Maintenance of Vehicles or Equipment

☐ (8) Maintenance, Rehab, Reconstruction of Facilities

☐ (9) Assembly or Construction of Facilities

☐ (10) Joint Development of Facilities

☐ (11) Emergency Recovery Actions

(Several conditions attach to this type of CE. We recommend you consult with FTA if you think this CE may apply to your action.)

☐ (12) Projects Entirely within the Existing Operational Right-of-Way.

☐ (13) Federally Funded Projects

(Must be less than $5 million in federal funding or having a total estimated cost of not more than $30,000,000 and Federal funds comprising less than 15 percent of the total estimated project cost.)

☐ (14) Bridge Removal and Related Activities.

☐ (15) Preventative Maintenance to Certain Culverts and Channels

☐ (16) Geotechnical and Similar Investigations

C. Does the project appear on the following list of potential documented Categorical Exclusions?

Projects that are categorical exclusions under 23 CFR 771.118(d) require additional documentation demonstrating that the specific conditions or criteria for the CEs are satisfied and that significant effects will not result.

☒ YES (Check correct box below and continue to Part III)

☐ NO (Contact FTA Regional Office)

23 CFR 771.118(d)(1-8)

☐ (1) Modernization of a highway by resurfacing, restoring, rehabilitating, or reconstructing shoulders or auxiliary lanes.

☐ (2) Bridge replacement or the construction of grade separation to replace existing at-grade railroad crossings.

☐ (3) Acquisition of land for hardship or protective purposes. (NOTE: Hardship and protective buying will be permitted only for one or a limited number of parcels, and only where it will not limit the evaluation of alternatives (including alignments) for planned construction projects.

☐ (4) Acquisition of right-of-way. (NOTE: No project development on the acquired right-of-way may proceed until the NEPA process for such project development, including the consideration of alternatives, where appropriate, has been completed.)

☒ (5) Construction of bicycle facilities within existing transportation right-of-way.

☒ (6) Facility modernization through construction or replacement of existing components.

☐ (7) Minor realignment for rail safety purposes

☐ (8) Facility modernization/expansion outside existing ROW

☒ "Other" actions which meet the criteria for a CE in the CEQ regulations (40 CFR 1508.4) and would not result in significant environmental effects. Actions must not: induce significant impacts to planned growth or land use; require the relocation of significant numbers of people; have a significant impact on any natural, cultural, recreational, historic or other resource; cause significant air, noise, or water quality impacts; have significant impacts on travel patterns; or otherwise have significant environmental impacts (either individually or cumulatively).

III. Information Required for Documented Categorical Exclusions

A. Detailed Project Description

Describe the project and explain how it satisfies the purpose and need identified in Part I.

The Project consists of a new parking garage and pedestrian, bicycle, and transit amenities serving patrons of the Sounder South Rail system at the Auburn Station in Auburn, Washington (Figure 1). The project site is owned by the City and is in use as a surface parking lot for the One East Main Street Building. Sound Transit would purchase the property from the City; the 120 parking spaces would be replaced with spaces at the proposed garage. The project site is bounded by 1st Street NW on the south, an alleyway on the north, BNSF Railway on the west, and A Street NW on the east (Figure 2). The current design includes five levels with a partial half level for a total height of 58 feet. The proposed garage would provide approximately 675 parking spaces for a total revised capacity of 1,146 transit spaces to meet existing and projected demand.

The following pedestrian, bicycle, and transit amenities are proposed adjacent to and near the project site to meet the need for improved access via these modes to the Auburn Station (Figures 2 and 6).

- Adjacent to the project site, amenities include painted crosswalks, signals, lighting, and signage (Civil Roadway Plan and Architectural Garage Site Plan in Attachment A, *Improvement Plans*).
- At the intersection of W Main Street and B Street NW, the following amenities would improve pedestrian safety and traffic calming (Proposed Non-Motorized Improvements—Main Street Pedestrian Crossing in Attachment A, *Improvement Plans*):
    - Rechannelizing the W Main Street approach to B Street NW and installing a curb extension and concrete median curb.
    - Implementing a bicycle left-turn pocket to accommodate bicycle access from westbound W Main Street into the station.
    - Installing a rapid flashing beacon at the W Main Street crossing just east of B Street NW.
- At the Auburn Station, planned bicycle improvements include modifications to prepare for future increases in bicycle storage options (Proposed Non-Motorized Improvements—Bicycle Improvements in Attachment A, *Improvement Plans*).

- At five existing bus stops along routes that connect with the Auburn Station, new bus shelters would be installed (Attachment K, *Proposed Bus Shelters - Information*).

Details of these amenities would be finalized as part of final design and in collaboration with the City.

The Project would acquire the project site property. Temporary construction easements near the project site would be required to facilitate construction of the proposed improvements. These include a staging area for temporary storage of construction materials, areas where utility relocation would occur and where construction equipment and materials would be transported to and from the project site, and areas where overhead airspace would be required for the movement of cranes (Figure 2). All temporary construction easements would be restored to original conditions when construction of the proposed improvements is completed.

In support of sustainability, Sound Transit is committed to environmentally sustainable features in the design and building of its parking garages—such as charging stations for electric vehicles, photovoltaic panels/arrays, and sustainable materials—which may be included in the design or added in the future. Landscaping, including screening of the parking garage, would be incorporated into the site design and would integrate with its surroundings. Sound Transit is committed to the communities within its service area and sets aside construction dollars for public art. The Sound Transit Public Art Program (STart) would manage the integration and maintenance of art into the new facility. The Project would provide stormwater runoff control and treatment per the City's applicable design standards. Low-impact development (LID) facilities (e.g., biofiltration, amended soils, tree planting) would also be implemented where feasible. The final control method would be determined during the final design phase.

The construction of the Project would begin with site preparation, clearing, and soil remediation, if required. This would include removal of pavement and landscaping within and along the edges of the existing parking lot on the project site. Utility relocations would also be required during this phase. The existing underground utilities within the project site would be removed and/or relocated as needed within the existing site and/or City right-of-way, as appropriate. The final stage of site preparation would include excavation to bring the site to an elevation a few feet below the finished grade of the first floor of the garage. This stage of construction would be primarily completed using excavators and dump trucks for removal of materials.

The next phase of construction would be the installation of the pile foundation. There are two types of piles recommended for use in the installation of the foundation: drilled auger cast piles and driven precast piles. The pile type would be determined during final design. The foundation is anticipated to require up to 300 piles.

Next, assuming a cast-in-place concrete construction method, the aboveground structure would be completed with reinforced concrete, starting with the ground floor and working towards the top. Cranes and other types of heavy construction equipment would be used to move materials. Materials would be delivered to the site by trucks. After the concrete is placed, finishes would be installed. This would include interior garage finishes, such as the electrical and mechanical systems, and architectural elements. The exterior facades, which would consist of masonry or other architectural materials, would provide an aesthetic finish. The final site grading, landscaping, and paving would then be completed.

Construction of the parking garage would take approximately 24 to 30 months. Typical construction equipment would include graders, excavators, backhoes, loaders, drill rigs, cranes, dump trucks, concrete trucks, delivery trucks, and compactors. Intermittent detours due to closures of adjacent sidewalks and roads are likely.

Construction activities related to the pedestrian, bicycle, and transit amenities would vary, and would be complete within the 24 to 30-month timeframe. Construction activity related to the Main Street Pedestrian Crossing would include concrete work and installing ADA curb ramps and rectangular rapid flashing beacons. The bicycle improvements consist primarily of modifying bicycle storage. Construction activities at

bus shelter sites would include, as necessary, removal of existing surface (e.g., sod, gravel, landscaping, and asphalt), preparation of the subgrade, and construction of concrete boarding and alighting pads; and installation of shelters. Traffic and transit signage would be relocated as needed.

Summarize the impacts of the project.

Potential project impacts are summarized as follows:

- During project construction, transportation impacts would include increased congestion, traffic diversions caused by temporary road closures and detours, increased truck traffic associated with construction activity, trips and parking generated by construction employees, and temporary changes in roadside characteristics of streets and alleys adjacent to the project site. Impacts during construction could also result from the diversion of non-local traffic into residential areas as a result of temporary street closures and traffic detours, disruptions to vehicular and pedestrian access, and the temporary loss of on-street or off-street parking. A Maintenance of Traffic Plan would be prepared, which would include measures to minimize potential impacts.
- If historical soil contamination were to be encountered during project construction, standard remediation measures would be applied to minimize potential impacts.
- During project construction, nearby residences could be exposed to noise levels exceeding the FTA noise impact guidelines. Best practices and mitigation measures identified in an updated Noise and Vibration Analysis and Control Plan would be implemented to minimize impacts.
- During project construction, groundborne vibration could result in damage to nearby existing structures. An updated Noise and Vibration Analysis and Control Plan would be implemented to minimize these potential impacts.
- During project construction, groundborne vibration could affect the use of vibration-sensitive equipment at the Auburn Regional Medical Plaza (which is part of the broader MultiCare Auburn Medical Center) to the east of the project site. Mitigation measures would be implemented to prevent interference with vibration-sensitive equipment.
- Building damage from groundbourne vibration during construction, described above, could affect one building that FTA has proposed eligible for listing on the National Register of Historic Places (NRHP). An updated Noise and Vibration Analysis and Control Plan would be implemented to mitigate potential impacts.
- During project construction, water service would be temporarily disrupted. Mitigation would be implemented to minimize this impact on affected water users.
- During project operations, traffic impacts would occur (without mitigation) at two local street intersections near the project site: 3rd Street SE and A Street SE; C Street SW and eastbound SR 18 ramps. Mitigation measures would be implemented to minimize these impacts.
- During project operations, several residents of the three-story multi-family residential building located immediately to the north of the project site would experience reduced daylight and solar access. However, the Project would be consistent with local zoning, compliant with City design standards, and visually consistent with the site's downtown urban setting. Therefore, visual quality impacts on the adjacent multi-family residents would be low to moderate.

Detailed descriptions of these potential impacts are provided in the following sections.

B. Location and Zoning

Existing Land Uses and Zoning

Attach a map identifying the project's location and surrounding land uses. Note any critical resource areas (historic, cultural or environmental) or sensitive noise or vibration receptors (schools, hospitals, churches, residences, etc.). Briefly describe the project area's zoning and indicate whether the proposed project is consistent with it. Briefly describe the community (geographic, demographic, economic and population characteristics) in the project vicinity.

The project site is zoned Downtown Urban Center (DUC) and is currently in use as a paved surface parking lot. Parking is an allowed use in this zone (City of Auburn 2018a). The zoning of the bus shelter locations varies with one location in the C1 Light Commercial District, one in I Institutional Use District, and three in R7 Residential. Figure 3 depicts the zoning map in the proposed garage project area.

The project site is adjacent to BNSF Railway train tracks to the west; A Street NW to the east; buildings to the north including a warehouse and two apartment buildings; and a surface parking lot to the south. The existing Sounder Station and associated parking are located one block southwest of the project site. Figure 4 depicts land use in the project area. Land uses intended in the DUC include those that provide a concentration and mixture of commercial, office, medical, retail, residential and civic uses in the downtown area and also provide a development pattern that supports pedestrian movement, bicycles, and use of public transit (City of Auburn 2018a). Due to the concentration of development in this area and the services the Project would provide, the Project would conform with current land uses.

The project site is located in a densely populated urban setting (see Section G for population characteristics). Noise and vibration sensitive land uses near the project site include single-family houses, apartment (multi-family residential) buildings, and medical centers. Specifically, there is a mix of residential apartments and industrial uses on the north and south sides of the site, and to the east there is a regional clinic and a larger regional medical center and hospital. There is also a single-family residential neighborhood approximately 250 feet to the west of the project site beyond the BNSF tracks.

The project site is located in the downtown core of the City of Auburn. This is an urbanized environment with primarily commercial and industrial uses. There is no critical habitat or other ecologically sensitive areas within or near the project site. Buildings in the project vicinity include warehouses, residences, retail shops, grocers, restaurants, banks, government service buildings, a high school, medical facilities, parking structures, a daycare center, and office buildings. Percentages of low-income and minority populations in the project vicinity are higher than those in the Sound Transit District and the City as a whole (Section G).

As detailed in Section M, FTA has proposed one of the surveyed properties (Battlefield Coffee House located at 129 A Street NW) eligible for listing on the NRHP.

C. Transportation

This section summarizes results of analysis in Attachment B, *Transportation Technical Report*.

Traffic. The project area is served by a network of roadways consisting of state highways, principal arterials, minor arterials, collector streets, and local streets. State Route (SR) 18 connects Interstate (I)-5 to I-90 through Auburn. It is a four-lane limited-access highway with a speed limit of 60 miles per hour. Traffic accessing the Auburn Station from outside the City predominantly uses the C Street SW and SR 164/Auburn Way S interchanges.

Principal arterials serving the project area all run north-south and include Auburn Way, A Street SE (south of 3rd Street SE/Cross Street SE), and C Street SW (south of SR 18). These streets typically accommodate four or five lanes of traffic with speed limits varying between 30 and 40 miles per hour. These facilities carry the highest traffic volumes among the local city streets because they provide direct connections with SR 18 and extend beyond the city limits.

Minor arterials complement the arterial system by connecting with principal arterials and state highways. Within the transportation study area, north-south minor arterials include C Street SW/NW (north of SR 18), A Street NW/B Street NW, and Auburn Avenue/A Street SE. East-west minor arterials include Main Street, and 3rd Street SW/3rd Street SE/Cross Street SE/4th Street SE.

See Figure 4-1 in Attachment B, *Transportation Technical Report*, for the streets serving the site.

A level of service (LOS) analysis was conducted at 25 intersections for PM peak conditions and seven intersections for AM peak conditions within the study area. Although an AM peak period analysis was also performed, the PM peak period is considered the controlling factor in identifying project impacts and is the focus of the study. This is due to the short-duration surges in traffic volumes that occur after the arrival of each Sounder train in the evening commute have a greater impact on the surrounding transportation network than comparatively steady traffic volumes accessing the station during the morning commute. Existing conditions were analyzed using recent counts collected in 2018, by the City and Sound Transit. Traffic forecasts were developed for Year 2037 under the No-Build and Project scenarios (see Attachment B, *Transportation Technical Report,* for more details). In addition, a limited analysis was conducted for year of opening at four intersections. The traffic analysis focused on potential worst-case conditions, which are represented by peak 15-minute volumes of both background traffic and parking garage traffic within either of the two peak periods.

The existing park-and-ride garage capacity at the Auburn Station is 520 spaces, with 42 parking spaces reserved for non-transit users inside the garage, resulting in 478 spaces at this garage available for transit users. With the 113 spaces on the existing Auburn Station surface parking lot on the west side of the BNSF track, a total of 591 parking spaces are available to transit users. The parking spaces are typically fully occupied by 6:00 a.m. on any given weekday. In addition to motor vehicles using onsite parking, Sounder riders also access the Auburn Station by several other modes of transportation including public transit, pedestrian, bicycle, drop-off, and parking at on-street and off-street parking locations.

In 2017, approximately 1,600 passengers boarded and alighted at the Auburn Station each weekday. Daily Sounder boardings at the Auburn Station are expected to grow to about 2,600 in 2037 according to the Sound Transit Ridership Model, representing a 62.5% increase. Background traffic (vehicles traveling in the vicinity but not using the Auburn Station) is expected to grow at a rate of 1.2% per year, based on City of Auburn travel demand model estimates.

Projections for future modes of access to the station under the 2037 Project scenario resulted in the following mode split:

- Drive alone: 55%
- Carpool/vanpool: 3%
- Pickup/drop-off: 11%
- Transit: 16%
- Pedestrians: 10%
- Bicycles: 5%

The net increase in vehicular traffic accessing the Auburn Station between existing (2017) and future Project conditions (2037) translates to the following number of vehicles: about 470 drive alone, 50 carpool/vanpool, and 130 pickup/drop-off, for a total of 650 additional daily vehicles. Of the 25 study intersections, 21 are owned and operated by the City. The LOS standard for these intersections varies between LOS D and E. The remaining four intersections related to the SR 18 ramp are under Washington State Department of Transportation control and have a performance threshold of LOS E.

The following criteria were applied to identify traffic impacts from the Project scenario:

- At an intersection projected to operate within its adopted LOS standard under the No-Build scenario,

an impact is identified if increased traffic resulting from the Project scenario would cause it to exceed the LOS standard.

- At an intersection projected to exceed its adopted LOS standard under the No-Build scenario, an impact is identified if increased traffic resulting from the Project scenario would cause more than 10 seconds in additional average vehicle delay. Additional delay times less than 10 seconds are not considered noticeable.

Based on the identified impact criteria, results shown in Table 1 and Table 2 indicate that the Project would result in an impact at two intersections during the 2037 PM peak period:

- The signalized intersection of 3rd Street SE and A Street SE (Intersection No. 20) would operate within its adopted standard of LOS E during the PM peak period in the No-Build scenario and would exceed the LOS standard in the Project scenario (LOS F), without mitigation.
- The signalized intersection of C Street SW and eastbound SR 18 ramps (Intersection No. 23) would exceed the LOS standard in the No-Build and Project scenarios during the PM peak period, and the average delay is expected to increase by about 13 seconds in the Project scenario, without mitigation.

Three other intersections are projected to operate at LOS F during the 2037 PM peak period, but the expected increase in average delay would be less than 4 seconds so they do not meet the impact threshold. These intersections are the side-street stop-controlled intersection of B Street NW at 10th Street NE (Intersection No. 1), the signalized intersection of C Street NW at 3rd Street NW (Intersection No. 4), and the signalized intersection of Auburn Way S at the eastbound SR 18 ramps/6th Street SE (Intersection No. 25). Of these three intersections, increases in delay with the Project range between 0.2 second (Intersection No. 4) and 3.2 seconds (Intersection No. 1).

As shown in Table 2, none of the study area intersections are forecasted to exceed the LOS standard in 2037 for the No-Build and Project scenarios in the AM peak period.

Table 1. Auburn 2037 PM Peak Hour Intersection Delay and Level of Service (LOS)

#	Intersection	Control Type	LOS Standard	Existing			2037 No-Build Scenario			2037 Project Scenario**				2037 Project Scenario Mitigated			
				Delay	LOS	Worst Mvmt.	Delay	LOS	Worst Mvmt.	Delay	LOS	Worst Mvmt.	Delay Change*	Delay	LOS	Worst Mvmt.	Delay Change*
1	B St NW & 10th St NE	Side-street Stop	D	41.9	E	WBL	224.2	F	WBL	227.4	F	WBL	3.2	227.4	F	WBL	3.2
2	Auburn Ave & 4th St NE	Signalized	D	3.5	A		3.9	A		3.9	A		0.0	3.9	A		0.0
3	Auburn Way N & 4th St NE	Signalized	D	20.3	C		24.5	C		25.3	C		0.8	25.3	C		0.8
4	C St NW & 3rd St NW	Signalized	E	82.6	F		159.9	F		160.1	F		0.2	160.1	F		0.2
5	A St NW & 3rd St NW	Signalized	E	29.6	C		44.7	D		46.5	D		1.8	46.5	D		1.8
6	Auburn Ave & 3rd St NE	Signalized	E	12.3	B		12.7	B		12.5	B		-0.2	12.5	B		-0.2
7	C St NW & 2nd St NW	Side-street Stop	D	15.7	C	EB	20.1	C	EB	20.1	C	EB	0.0	20.1	C	EB	0.0
8	A St NW & 2nd St NW	Side-street Stop	D	12.3	B	WB	13.9	B	WB	12.8	B	WB	-1.1	12.8	B	WB	-1.1
9	A St NW & 1st St NW	All-way Stop	D	9.3	A		10.5	B		18.0	C		7.5	18.0	C		7.5
10	Auburn Ave & 1st St NE	Signalized	D	11.8	B		13.9	B		32.5	C		18.6	32.5	C		18.6
11	C St NW & W Main St	Signalized	E	30.7	C		74.0	E		76.8	E		2.8	76.8	E		2.8
12	W Main St & A St NW	Signalized	E	10.7	B		12.3	B		12.3	B		0.0	12.3	B		0.0
13	W Main St & Division St	Signalized	D	6.2	A		7.3	A		7.4	A		0.1	7.4	A		0.1
14	E Main St & Auburn Ave	Signalized	E	15.9	B		20.1	C		23.7	C		3.6	23.7	C		3.6
15	E Main St & Auburn Way S	Signalized	E	28.6	C		39.4	D		42.6	D		3.2	42.6	D		3.2
16	C St SW & 1st St SW	Side-street Stop	D	13.1	B	EB	15.3	C	EB	16.8	C	EB	1.5	16.8	C	EB	1.5
17	A St SE & 2nd St SE	Signalized	D	15.8	B		18.2	B		19.0	B		0.8	19.0	B		0.8
18	C St SW & WB SR-18 Ramps (WSDOT)	Signalized	E	21.0	C		36.9	D		45.1	D		8.2	45.1	D		8.2
19	3rd St SW & Division St	Signalized	D	14.6	B		15.5	B		15.6	B		0.1	15.7	B		0.2
20	3rd St SE & A St SE	Signalized	E	37.0	D		76.1	E		88.1	F		12.0	79.5	E		3.4
21	4th St SE & Auburn Way S	Signalized	E	20.0	C		23.1	C		23.2	C		0.1	23.2	C		0.1
22	Auburn Way S & Westbound SR-18 Ramps (WSDOT)	Signalized	E	37.8	D		48.7	D		49.4	D		0.7	49.4	D		0.7
23	C St SW & Eastbound SR-18 Ramps (WSDOT)	Signalized	E	29.3	C		83.0	F		96.0	F		13.0	81.3	F		-1.7
24	A St SE & 6th St SE	Signalized	E	21.8	C		33.8	C		46.3	D		12.5	46.3	D		12.5
25	Auburn Way S & EB SR-18 Ramps/6th St SE (WSDOT)	Signalized	E	48.1	D		81.7	F		84.8	F		3.1	84.8	F		3.1

* Delay change compared to No-Build scenario

** The Project scenario is based on +555 parking spaces

LOS Standard exceeded in both No-Build and Project scenarios, no noticeable delay increase, no mitigation required

LOS Standard exceeded in Project scenario only, thus mitigation is required

LOS Standard exceeded in both No-Build and Project scenarios, plus noticeable delay, thus mitigation is required

For intersection No. 20, the recommended mitigation is to shorten the eastbound left (EBL) and the westbound left (WBL) splits from 12 to 10 seconds, and give two extra seconds to the northbound left and northbound through phases

For intersection No. 23, the recommended mitigation is to shift two seconds from the eastbound phase to the southbound through phase

Table 2. Auburn 2037 AM Peak Hour Intersection Delay and Level of Service (LOS)

#	Intersection	Control Type	LOS Standard	Existing			2037 No-Build Scenario			2037 Project Scenario**			
				Delay	LOS	Worst Mvmt.	Delay	LOS	Worst Mvmt.	Delay	LOS	Worst Mvmt.	Delay Change*
8	A St NW & 2nd St NW	Side-street Stop	D	10.4	B	WB	11.2	B	WB	11.2	B	WB	0.0
9	A St NW & 1st St NW	All-way Stop	D	8.5	A		9.2	A		9.7	A		0.5
11	C St NW & W Main St	Signalized	E	23.7	C		47.9	D		51.5	D		3.6
14	E Main St & Auburn Ave	Signalized	E	11.7	B		12.9	B		13.0	B		0.1
17	A St SE & 2nd St SE	Signalized	D	7.3	A		7.4	A		7.3	A		-0.1
18	C St SW & WB SR-18 Ramps (WSDOT)	Signalized	E	11.6	B		49.0	D		49.0	D		0.0
20	3rd St SE & A St SE	Signalized	E	26.2	C		34.5	C		34.5	C		0.0

* Delay change compared to No-Build scenario
** The Project scenario is based on +555 parking spaces

The effect of the Project on regional vehicle miles travelled (VMT) was also evaluated. Two types of changes are anticipated with the Project compared to No-Build Scenario: a decrease in VMT due to people taking the train instead of driving; and an increase in VMT due to additional trips between people's homes and the project site. Overall the net change is a projected reduction in regional VMT, estimated to be about 3,600 vehicle miles per average weekday.

Based on the identified traffic impact criteria, the Project would result in an impact at Intersections No. 20 and No. 23. The recommended mitigation at these two intersections is to reoptimize signal timings. More details on the traffic mitigation measures are provided in Section Z. Sound Transit would provide these improvements or contribute funding to other improvements agreed to with the City that mitigate project impacts.

The creation of new driveways at the garage access points would introduce new potential conflict points in the study area. Also, there may be a potential conflict for vehicles entering and exiting the garage on A Street NW because this access is located next to an alley to the north. During final design, Sound Transit would work with the City to identify appropriate design and location of entrance and safety treatments, discussed further in Section Z. Traffic and parking construction impacts are described in Section S and mitigation is described in Section Z. With these transportation mitigation measures in place, the Project would have no adverse impacts on transportation facilities.

In addition, a PM peak traffic analysis for year of opening (2024) was performed to check if any mitigation might be needed due to immediate project impact at the four intersections labeled as No. 1, No. 4, No. 20, and No. 25 in Table 1. No project impact on LOS or queuing was identified, which indicates that no mitigation is needed by year of opening. See Attachment B, *Transportation Technical Report,* for more details on the year-of-opening analysis including the LOS summary tables.

Parking. Parking occupancy data were collected between 11:40 a.m. and 1:55 p.m. to capture peak downtown parking occupancy as reported in the *Comprehensive Downtown Parking Management Plan* (City of Auburn 2014). Table 3 summarizes the on-street parking characteristics within the study area, including the total number of spaces, parking occupancy, available parking spaces, and the distance from the station platform entrance on B Street SW.

Table 3. Existing On-Street Parking near Auburn Station

Block Face Group	Restriction	Number Spaces	Spaces Available	% Occupied	Distance to Station (miles)
Block faces closer to the station entrance than to the new garage	Unrestricted	73	48	34%	0.49 to 0.58
	3-hour	16	7	56%	0.42 to 0.47
	Subtotal	**89**	**55**	**38%**	
Block faces less than one-half mile from new parking garage, and closer to the new garage than to the station entrance	Unrestricted	295	122	59%	0.27 to 0.62
	3-hour, 2-hour	109	71	35%	0.27 to 0.62
	Subtotal	**404**	**193**	**52%**	
Block faces more than one-half mile from new parking garage, and closer to the new garage than to the station entrance	Unrestricted	69	35	49%	0.59 to 0.68
	Subtotal	**69**	**35**	**49%**	

Note: Parking inventory and occupancy collected September 27, 2018, on block faces selected by the City.
Source: Transportation Consulting Services 2018.

Based on the existing Sounder ridership and estimated mode of access data, total Sounder parking demand is approximately 960 parked vehicles. Existing dedicated parking facilities provide 591 spaces, including 478 spaces in the garage and 113 spaces in the surface parking lot. This suggests that roughly 370 vehicles, whose passengers park and then ride Sounder, use nearby streets or parking lots.

The project site is owned by the City and is in use as a surface parking lot with 120 spaces. Sound Transit would purchase the property from the City; replacement would be provided at the proposed garage. The Project would result in an increase of 550 parking spaces available for transit users for a total revised capacity of 1,146 spaces available for transit users.

See Attachment B, *Transportation Technical Report*, for additional details.

D. Aesthetics

Will the project have an adverse effect on a scenic vista?

☒ **No**

☐ **Yes, describe**

The project site is north of the existing Sound Transit station complex and not within or near any protected or designated scenic vistas. The potential scenic views from the project site to the southeast include distant views of Mount Rainier; however, the existing built environment obstructs any potential scenic views. Visibility toward the project site is limited from many public viewing vantage points due to topography and intervening development.

The Project would not obstruct scenic views or substantially alter scenic vistas.

Will the project substantially degrade the existing visual character or quality of the site and its surroundings?

☒ **No**

☐ **Yes, describe**

A visual impact assessment was prepared for the Project, which identified key views, potential alterations to those views, and the degree to which the Project would be compatible with its surroundings (Attachment C, *Visual Impact Assessment*). Foreground views from nearby residential areas (single-family units to the west and primarily multi-family units to the north and south) and commercial areas, as well as views available to travelers, would be altered by the parking garage. The Project's visual character,

however, would be compatible with the visual character of the existing cultural environment of the rail corridor and the downtown commercial core.

Further, the parking garage would add to the existing visual character and unity of the surrounding downtown area. For visitors and workers in the DUC, the parking garage would be visually consistent with the wide variety of building types and scales that are seen regularly in this location, which include commercial, multi-family residential, and industrial buildings. In this context, the additional variety in bulk, height, and character provided by the parking garage would likely be perceived as features that are expected and in visual character with the surroundings. Screening, including landscaping, and architectural features would be incorporated into the site design and add visual interest. The City's Municipal Code Supplemental Development Standards (Section 18.31 through 18.31.200), include architectural and site design regulations that provide an administrative review process for evaluating the design and arrangement of development (i.e., site design and interrelationship with surroundings).

In addition, the Project is located in the City's DUC District, which strongly encourages parking structures, and must adhere to the DUC Design Standards that include requirements for parking structures to provide screening or architectural treatment of the upper levels, screening of light fixtures, and incorporation of pedestrian-oriented features, such as canopies at the ground-level. The Project would be consistent and compliant with the City's design standards and integrate well within the context of the community's built environmental character and scale. With the proposed landscaping and contextual facade design, the Project would have a visual character that is compatible with the surrounding area and would have an overall neutral visual quality impact on this area.

For residents of the single-family residential unit and other viewers located west of the BNSF Railway tracks are expected to have a low sensitivity to the neutral visual quality impact and the parking garage is likely to be seen as part of the expected visual environment of the view of the downtown urban core to the east. Key view location 1 shows the view from C Street NW looking east with and without the Project.

Key View Location 1 from C Street NW Looking East

For residents in the primarily multi-family residential units located in the downtown area east of the BNSF Railway tracks, including those in the three-story apartment building immediately to the north of the project site, the Project would represent a change in the immediate visual character and be larger in scale than several of the adjacent buildings. Implementation of architectural features and landscaping would provide screening and visual interest. In addition, the proposed parking garage would reduce daylight and solar access to the adjacent multi-family residential units that face the alley north of the project site. The parking garage design would generally reflect the overall character of the Auburn downtown and be visually compatible with the surrounding mixed uses. The Project is located in the City's DUC District, which strongly encourages parking structures. The Project would be compliant with the City's DUC Design

Standards, which govern development of the site. Therefore, the visual quality impacts on the viewers of the three-story multi-family residential building immediately north of the site would be low to moderate. Key view location 2 shows the view from the intersection of A Street NW and 2nd Street NW looking southwest with and without the proposed parking garage.

Key View Location 2 Rendering from the Intersection of A Street NW and 2nd Street NW looking Southwest

There are two multi-family residential buildings located approximately 165 feet south of the project site, separated by 1st Street NW and a parking lot. Given the distance from the parking garage, intervening mature landscaping, and the downtown urban setting, as well as proposed screening of the parking garage, the change in visual quality would be neutral. Visual changes resulting from installing bus shelters would be minor and would be compatible with the immediate transportation-related uses.

For details and additional information, see Attachment C, *Visual Impact Assessment*.

Will the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

☒ **No**

☐ **Yes, describe**

The project site currently has onsite lighting fixtures throughout the existing parking lot that operate during nighttime hours. The project site also has security lighting as well as general lighting on the property and along the roadway. The project site is located in an urban area with lighting characteristic of such an area. The new light source associated with the Project would be similar in output to existing light sources in the vicinity; therefore, the Project would not noticeably change ambient light levels. The exterior and interior light fixtures of the parking garage would be shielded from producing offsite light consistent with the City's DUC Design Standards.

With respect to mobile light sources at the project site, intermittent light is generated by vehicles entering and exiting the existing parking lot during nighttime use. This condition would continue with the Project. While there would be increased illumination at higher elevations in the proposed garage, barriers along the perimeter of each level of the garage and screening at the exterior of the parking garage would minimize lighting associated with vehicles entering and exiting the upper levels of the parking garage from shining on the apartment buildings. At the street level, vehicle-based light is consistent with and typical of the general commercial area surrounding the project site.

The parking garage exterior would not include reflective glazing, metal, or other surfaces and there would be no glare impacts. For the reasons stated previously, the Project would not create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

E. Air Quality

Does the project have the potential to impact air quality?

☒ **No**

☐ **Yes, describe**

Potential air quality impacts from project construction activities are described in Section S. During operations, emissions of criteria pollutants, greenhouse gases (GHGs), and mobile source air toxics are expected to decrease as a result of decreased VMT.

The project site is in a designated attainment area for all criteria pollutants (U.S. Environmental Protection Agency 2018c). Table 3 summarizes criteria pollutant monitoring data (and corresponding National Ambient Air Quality Standards [NAAQS]) obtained from U.S. Environmental Protection Agency (EPA) monitoring stations closest to the project site for the last 3 calendar years. Note that the State of Washington and the Puget Sound region have adopted the NAAQS. The design value in the table represents the 3-year average of the air quality monitoring results for a given location for the 1-hour NO_2, 8-hour O_3, 24-hour and annual $PM_{2.5}$, 24-hour PM_{10}, and 1-hour SO_2 NAAQS; the design values for the CO and annual NO_2 NAAQS is the maximum value over the past 3 years. As shown in the table, concentrations of fine particulate matter ($PM_{2.5}$) exceeded the NAAQS in 2017, but the design value remains below the NAAQS. Concentrations of all other pollutants remain below the NAAQS. The Project is not predicted to cause any new air quality impacts or worsen the severity of any existing air impact.

A simplified GHG emissions inventory was prepared to compare the No-Build Scenario and Project to evaluate potential GHG impacts. The FTA Transit GHG Emissions Estimator (Federal Transit Administration 2018) was used to estimate emissions from construction activities and from displaced automobile emissions that would occur from increased ridership on Sounder trains. Annual GHG emissions from the Project (from construction and operations combined) would be less than the No-Build Scenario emissions (from operations) by 470 metric tons of carbon dioxide equivalent. Therefore, the Project would have a beneficial effect on GHG emissions. See Attachment D, *Air Quality Detailed Calculations*, for detailed calculations.

Table 3. Air Quality Monitoring Data

Pollutant	Averaging Period	Air Quality Monitoring Results			Design Value	NAAQS Primary	Violation Criteria
		2015	2016	2017			
CO (ppm) [a]	1-hr	1.0	1.1	1.3	1.3	35	Not to be exceeded more than once per year
	8-hr	0.8	0.9	0.9	0.9	9	
NO_2 (ppb) [a]	1-hr	44	49	42	45	100	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Annual	10.65 [b]	11.87	11.7 [b]	11.87	53	Annual mean
O_3 (ppm) [a]	8-hr	0.048	0.046	0.047	0.047	0.07	Annual fourth-highest daily maximum 8-hour concentration averaged over 3 years
$PM_{2.5}$ (µg/m^3) [c]	24-hr	26	18	36	26.7	35	98th percentile, averaged over 3 years
	Annual	6.7	5.5	7.7	6.6	12	Annual mean averaged over 3 years
PM_{10} (µg/m^3) [a]	24-hr	28	NA	NA	28.3	150	Not to be exceeded more than once per year on average over 3 years
SO_2 (ppb) [a]	1-hr	8	5	6	6.3	75	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years

Source: U.S. Environmental Protection Agency 2018a; U.S. Environmental Protection Agency 2018b

Key:

µg/m^3 = micrograms per cubic meter; CO = carbon monoxide; NA = not available; NAAQS = National Ambient Air Quality Standards; NO_2 = nitrogen dioxide; NS = no standard; O_3 = ozone; PM_{10} = inhalable particulate matter; $PM_{2.5}$ = fine particulate matter; ppb = parts per billion; ppm = parts per million; SO_2 = sulfur dioxide

Notes:

[a] Data from 4103 Beacon South (Seattle) monitoring station.

[b] Mean does not satisfy minimum data completeness criteria.

[c] Data from 614 Railroad Avenue North (Seattle) monitoring station.

Is the project located in an EPA-designated non-attainment or maintenance area?

☒ **No**

☐ **Yes, indicate the criteria pollutant and contact FTA to determine if a hot spot analysis is necessary.**

- ☐ **Carbon Monoxide (CO)**
- ☐ **Ozone (O_3)**
- ☐ **Particulate Matter (PM_{10} or $PM_{2.5}$)**

If the non-attainment area is also in a metropolitan area, was the project included in the MPO's Transportation Improvement Program (TIP) air quality conformity analysis?

☐ **No**

☐ **Yes Date of USDOT conformity finding:**

N/A

F. Coastal Zone

Is the proposed project located in a designated coastal zone management area?

☒ **No**

☐ **Yes, describe coordination with the State regarding consistency with the coastal zone management plan and attach the State finding, if available.**

The project site is located in King County (County), one of Washington State's coastal zone counties; however, it is not within an area designated as a coastal shoreline and therefore is not within a designated coastal zone management area.

G. Environmental Justice

Determine the presence of minority and low-income populations (business owners, land owners, and residents) within about a quarter-mile of the project area. Indicate whether the project will have disproportionately high and adverse impacts on minority or low-income populations. Describe any potential adverse effects. Describe outreach efforts targeted specifically at minority or low-income populations.

Based on the study area demographics, impacts and benefits of the Project could be experienced by environmental justice populations (i.e., low-income and minority populations). The census block groups within the 0.5-mile study area contain 40.9% minority and 50.1% low-income populations. Both the minority and low-income populations in the study area are higher than the reference area (Sound Transit District), which comprises 31.6% minority and 15.8% low-income populations. The two schools in the study area, West Auburn High School and Washington Elementary School, have a higher percentage of minority students compared to the City as a whole. The proportion of those students eligible for free or reduced-price meals is approximately 52% at West Auburn High School and 69% at Washington Elementary School. Notable entities within 0.25 miles of the project site that may work with or assist low-income or minority populations include West Auburn High School, Auburn City Hall, the U.S. Post Office, MultiCare Auburn Medical Center, Valley Medical Center - Valley Women's Healthcare Clinic, Christ Community Free Clinic, Recovery Garage, and Safeway. Two low-income apartment buildings—Buena Vista Apartments and Gustaves Manor (Figure 4)—were also identified within 0.25 mile of the project site.

Construction and operation impacts of the Project (see Section S) were evaluated to determine the potential for disproportionately high and adverse effects on environmental justice populations. The impacts that would require mitigation so as to not be adverse are described below. All other impacts would not be adverse and would not require mitigation.

- Temporary and intermittent increases in noise and vibration levels would be experienced by nearby populations during construction (approximately 24 to 30 months). The nearest residences are the Buena Vista Apartment Building (a low-income apartment building) and the Sierra Vista Building located approximately 30 feet from the northern boundary of the project site. The next closest residential receivers are approximately 180 feet from the project site, including a single-family residence on 2nd Avenue N north of the project site and Gustaves Manor (a low-income apartment building) south of the project site. Noise levels during construction are anticipated to exceed the FTA daytime construction noise impact guidelines at noise-sensitive receivers within 180 feet of the project site during impact pile driving and within 60 feet during use of non-impact equipment. Pile driving would occur for up to approximately 2 months. If nighttime construction occurs, use of non-impact equipment could exceed the FTA nighttime construction noise impact guidelines within 200 feet of the project site; pile driving would not occur during nighttime hours. Vibration from construction activities could exceed applicable FTA criterion for potential building damage at a distance of between approximately 55 feet (for typical conditions) and 100 feet (worst-case conditions), potentially causing building damage and adverse community reaction. Best practices and mitigation measures identified in an updated Noise and Vibration Analysis and Control Plan (described in Section Z) would be

implemented to reduce construction noise and vibration impacts for all populations. With implementation of the updated Noise and Vibration Analysis and Control Plan, construction noise and vibration impacts would not be adverse.

- Transportation impacts during construction, including increased traffic, congestion, detours and closures and decreased parking, would be minimized for all populations by implementing an approved Maintenance of Traffic Plan and temporarily relocating parking that would be displaced during construction. Transportation impacts during construction would not be adverse. Transportation impacts during project operations would largely consist of delays at nearby intersections. Impacts were identified based on changes in LOS at two intersections: 3rd Street SE/A Street SE and C Street SW/eastbound SR 18 ramps. With implementation of mitigation, transportation impacts during operation of the Project would not be adverse.
- Exhaust emissions and fugitive dust during construction would temporarily affect air quality near the project site. Best available control measures and best management practices to limit emissions for all populations would be implemented.
- Soils in portions of the project site were identified as containing contaminants in excess of regulated levels. During excavation of potentially contaminated soils and loading of soils for off-site transport, measures would be implemented to minimize exposure to people and the environment, including environmental justice populations adjacent to and north of the project site. By handling all potentially hazardous materials in accordance with all state and federal requirements, impacts related to hazardous materials would not be adverse for all populations.
- The proposed parking garage would represent a change in views to the southward facing apartments in the adjacent three-story Buena Vista Apartments, as well as the Gustaves Manor apartments located approximately 165 feet south of the Project, separated by 1st Street NW and a parking lot. The Project would be implemented in compliance with the City's Municipal Code and the DUC Design Standards, which govern development at the site. Implementation of architectural features and screening in accordance with the City's codes and design standards would add visual interest and screening of the proposed parking garage interior from the adjacent and nearby buildings. The visual quality impacts on the viewing population would be neutral to moderate and would not result in a substantive change in the visual character or quality at the project site. During construction, Sound Transit would shield light sources used in nighttime construction to reduce the lighting impacts.

The Project would provide increased access to public transportation and would thereby improve mobility to Sound Transit patrons, including environmental justice populations in the study area.

Based on the above assessment of impacts and benefits of the Project, and considering the mitigation measures identified and their efficacy in reducing impacts for both environmental justice and non-environmental justice populations, project impacts would not be disproportionately high and adverse on minority and low-income populations.

Sound Transit planned and conducted specific outreach activities to promote inclusion of low-income and minority populations in the project area. Public outreach activities targeted to reach the broader public including environmental justice populations during the conceptual engineering and environmental review phase included a project website, project email listserv, project folio, tabling at community fairs and festivals, property owner outreach and briefings, project briefings and updates to community organizations and affected parties, and in-person open houses with online participation components.

Outreach activities specific to environmental justice communities included a briefing to social service providers at the Auburn Area Roundtable on September 7, 2018, and tabling/direct engagement at community locations, including the Auburn Farmers Market and Auburn Library. Flyers and postcards distributed about the fall outreach events included translated information in Spanish and Russian. Sound Transit would plan for and conduct additional specific outreach activities to promote inclusion of minority and low-income populations throughout the Project's planning and construction process.

Notification methods for the above activities included postcard invitations, electronic invitations (emailed to project listserv), display ads in local media, and posters around the community.

Key project information was translated into Spanish and Russian. Demographic data indicates Spanish as the main language other than English used within a half-mile of Auburn Station (spoken by over 17% of the population). Russian is reported as a highly requested language by librarians at the Auburn Library and social service providers in the area.

See Attachment E, *Environmental Justice Evaluation Memorandum,* for more detail on this analysis.

H. Floodplains

Is the proposed project located within the Federal Emergency Management Agency (FEMA) 100-year floodplain?

☒ **No**

☐ **Yes, describe potential impacts, indicate if the project will impact the base flood elevation, and include or link to the FEMA Flood Insurance Rate Map (FIRM) with the project location identified.**

The project site is not located within the Federal Emergency Management Agency 100-year floodplain (King County 2018a).

I. Hazardous Materials

Is there any known or potential contamination at the project site? This may include, but is not limited to, lead/asbestos in existing facilities or building materials; above or below ground storage tanks; or a history of industrial uses of the site.

☐ **No, describe steps taken to determine whether hazardous materials are present on the site.**

☒ **Yes, note mitigation and clean-up measures that will be taken to remove hazardous materials from the project site. If the project includes property acquisition, identify if a Phase I Environmental Site Assessment for the land to be acquired has been completed and the results.**

Phase 1 and 2 Environmental Site Assessments (ESA) were completed for the Project[1]. The Phase 1 ESA was completed for the properties on the project site on August 31, 2018. The results of the Phase 1 ESA identified the potential for contamination from the following sources: 1) historical use and storage of heating oil in underground storage tanks on site; 2) long-term historical operations of a lumber yard (and associated use of hydrocarbon fuels and oils and possible use of solvents and wood treating chemicals, though it is unknown if the latter occurred on site); 3) storage and use of coal on adjoining properties; 4) historical use and storage of heating oil in an underground storage tank on an adjoining property; and 5) long-term industrial activities on nearby properties. The Phase 2 ESA was completed to further investigate the potential impact of suspect contamination sources. The results of the Phase 2 ESA identified a 2- to 5-foot-thick surficial fill layer across the site that contains carcinogenic polycyclic aromatic hydrocarbon (cPAH) concentrations that exceed the Model Toxics Control Act (MTCA) Method A Cleanup Level throughout approximately the western third to half of the property. The cPAH appears to be related to the presence of coal cinder fragments observed in the fill. Fill soils also tend to contain low concentrations of heavy end petroleum hydrocarbons and volatile organic compounds, but at concentrations that do not exceed MTCA cleanup levels. Soils excavated for off-site transport that are potentially affected by contaminants would be characterized for waste profiling and disposed of at a Subtitle D landfill. Arsenic concentrations were found to be elevated in groundwater, which appears to be naturally occurring, rather than from a contaminant source. If dewatering occurs, the groundwater would be tested and pretreated, if necessary, prior to disposal at a treatment facility.

Remedial actions, if necessary, would be undertaken as appropriate in conjunction with redevelopment

[1] The Phase 1 and 2 Environmental Site Assessments are available at the Sound Transit Office of Environmental Affairs and Sustainability.

activities. A formal plan would be developed consistent with state and federal regulations for the removal, disposal, and/or treatment of contaminated materials identified during the Phase 2 ESA and/or previously unidentified contaminated materials discovered during construction activities. Measures would be implemented to minimize exposure to people and the environment during construction of the Project and remediation activities in accordance with applicable regulations. By handling all potentially hazardous materials in accordance with all state and federal requirements, there would be no adverse impacts related to hazardous materials on the local population, including environmental justice populations, adjacent to the project site.

J. Navigable Waterways

Does the proposed project cross or have the potential to impact a navigable waterway?

☒ **No**

☐ **Yes, describe potential impacts and any coordination with the US Coast Guard.**

The project site does not cross or have the potential to impact a navigable waterway (King County 2018b).

K. Noise and Vibration

Does the project have the potential to increase noise or vibration?

☐ **NO**

☒ **YES, describe impact and provide map identifying sensitive receptors such as schools, hospitals, parks and residences. If the project will result in a change in noise and vibration sources, you must use FTA's "Transit Noise and Vibration Impact Assessment" methodology to determine impact.**

The highest predicted noise level at a noise sensitive receiver due to operation of the proposed garage—assuming an average peak hour volume of 564 vehicles during the PM peak hour under worst-case future project conditions—would be approximately 56 A-weighted decibels (dBA) day-night average (Ldn). This level of noise would be overshadowed by the existing ambient level of 75 dBA Ldn. Overall noise levels with the Project would increase by less than 1 decibel (dB) and would not exceed the FTA impact guidelines for moderate impact or city noise limits. Therefore, operations of the parking garage would not result in adverse noise impacts.

Operation of proposed pedestrian, bicycle, and transit amenities would have a minimal effect on traffic noise and would not be perceptible compared to existing ambient levels. Therefore, there would be no adverse noise impact related to operation of these improvements.

Operation of the Project is not anticipated to generate perceptible levels of vibration at surrounding land uses. As such, no adverse vibration impacts are anticipated during operations of the Project.

Potential noise and vibration impacts from project construction are addressed in Section S.

See Attachment F, *Noise Technical Analysis Memorandum*, for more detail on the noise analysis.

L. Prime and Unique Farmlands

Does the proposal involve the use of any prime or unique farmlands?

☒ **No**

☐ **Yes, describe potential impacts and any coordination with the Soil Conservation Service of the U.S. Department of Agriculture.**

The project site is not located on and does not involve the use of any prime or unique farmlands. Based on the Natural Resources Conservation Service Web Soil Survey, the project site is composed entirely of Urban land (United States Department of Agriculture 2018).

M. Historic and Cultural Resources

Impacts to cultural, historic, or recreational properties may trigger Section 106 or tribal consultations or a Section 4(f) evaluation, requiring consideration of avoidance alternatives. Does the project involve any ground disturbing activities?

☐ **No**

☒ **Yes, provide the approximate maximum ground disturbance depth. Also provide information on previous disturbances or where ground disturbance will occur.**

The *Cultural Resources Technical Report* is presented as Attachment G.

The Project has been reviewed under Section 106 of the National Historic Preservation Act, and FTA-led consultation with Native American tribes and the Washington State Department of Archaeological Preservation (DAHP), which serves as Washington's State Historic Preservation Office is expected to continue.

Review of previous archaeological and ethnographic research indicates that precontact Native Americans inhabited and used the Area of Potential Effects (APE) vicinity as indicated by the presence of several prehistoric archaeological sites and ethnographically named places on the floor of the Duwamish Valley. Therefore, archaeological deposits associated with precontact land-use activities are possible.

Review of the local historic context reveals that the APE was subject to widespread development. Agricultural land use, starting in the mid-19th century, transitioned to agricultural production with the accessibility afforded by the Northern Pacific Railroad. Residential areas grew as people moved to Auburn for work at packaging and processing factories and in the shipbuilding, automotive, and aviation industries in the region. The landscape history suggests that historical archaeological deposits could be present, but due to the extent of development that has occurred in the vicinity, there is also increased likelihood that any deposits have been disturbed and would therefore no longer be intact.

For the project site, as well as locations of the pedestrian safety and traffic calming measures at the intersection of W Main Street and B Street NW and bicycle improvements at Auburn Station, the Washington Statewide Archaeology Predictive Model indicates the APE is an area with high archaeological sensitivity. For locations of the bus shelters (southbound D Street NW, near 12th Street NE; westbound E Main Street at the corner of D Street NE; westbound 17th Street SE, at J Street SE; northbound 112th Avenue SE, and SE 312 Street; and northbound 112th Avenue SE, at SE 320 Street), the predictive model indicates an archaeological sensitivity that ranges from low to high. However, based on archaeological inspection of the five geotechnical borings within the area of direct ground disturbance for the Project, no buried archaeological deposits or terrestrial surfaces warranting additional inspection were identified. Therefore, project-related ground disturbing activities for installation of piles and piers for the garage foundation (at an as-yet-undetermined depth) appear to have low probability for encountering as-yet undocumented archaeological sites within the project site. Thus, while the landscape is sufficiently young to have the potential to contain buried prehistoric sites, the nature of the development is such that any near-surface deposits (prehistoric or historical) have limited potential to be in primary depositional context and the absence of buried surfaces or archaeological deposits based on the available subsurface data indicates that the potential for encountering deeply buried archaeological resources in the APE is minimal.

In the event of the discovery of archaeological deposits or human remains during project-related ground disturbance, the Project's Inadvertent Discovery Plan (IDP), which would be prepared during final design, would be followed. This process would include outreach to DAHP and consulting tribes. If the discovery is determined to be an archeological resource eligible for listing in the NRHP and the discovery is determined to adversely affect the archeological resource, then under Section 106, consultation with DAHP and the tribes would be undertaken to determine appropriate mitigation to compensate for the loss or diminishment of the resource. Standard mitigation would be recommended and would include excavation for archeological data recovery and documentation of the site.

Are there any historic resources in the vicinity of the project?

☐ **No**

☒ **Yes, Attach photos of structures more than 45 years old that are within or adjacent to the project site and describe any direct or indirect impacts the project may cause.**

A historic resources survey was performed within the APE. The survey involved examining and evaluating all buildings and structures in the APE determined to be 40 years of age or older. The 40-year age-threshold was used to comply with the County's landmark eligibility criteria, to which the City is subject. Buildings and structures less than 40 years old were not evaluated to determine NRHP and Washington Heritage Resister (WHR) eligibility, or for eligibility for designation as a County landmark.

A parcel-by-parcel field survey of properties in the APE was conducted by an architectural historian. The survey resulted in the identification of seven properties within the APE older than 40 years. These seven properties were evaluated for NRHP and WHR eligibility. Based on the architectural resource evaluation, FTA proposed that the following four properties are not eligible for listing in the NRHP and received concurrence from DAHP: 22 2nd Street NW, Auburn, WA (Parcel 0492000285, HPI Property ID 709554); 25 A Street NW, Auburn, WA (Parcel 0492000236, HPI Property ID 709555); 33 W Main Street, Auburn, WA (Parcel 0501000035, HPI Property ID 51219); and 23 W Main Street, Auburn, WA (Parcel 7816200115, HPI Property ID 51220). FTA also proposed that the BNSF Railway Segment (Parcel 1321049022, HPI Property ID 717084) is not eligible for listing in the NRHP, but did not receive concurrence from DAHP. FTA proposed that the building located at 129 A Street NW (Parcel 0492000235, HPI Property ID 709556), which houses Battlefield Coffee House, is eligible for listing in the NRHP and DAHP.

Although the Battlefield Coffee House (129 A Street NW) is within the APE, it is not immediately adjacent to the proposed garage or proposed amenities. A three-story multi-family residence at 125 A Street NW, which is adjacent to the northern boundary of the project site and adjacent to the southern boundary of 129 A Street NW, is oriented such that it functions as a physical and visual barrier between the Battlefield Coffee House and the project site. The Project does not propose demolition or modification of the Battlefield Coffee House building at 129 A Street NW or the adjacent building at 125 A Street NW. As such, completion of the Project would not directly impact the historic resource, nor would it indirectly impact the historic resource by substantially altering the setting or access to the property. Based on the historic and cultural resources evaluation, FTA proposed and DAHP concurred that the Project would have no adverse effect on historic properties.

Potential impacts from project construction (vibration) are addressed in Section S. These impacts are expected to be avoided through implementation of the Noise and Vibration Analysis and Control Plan.

For more information, see Attachment G, *Cultural Resources Technical Report*, and Attachment H, *Cultural Resources Photo – Property at 129 A Street.*

N. Biological

Are there any species located within the project vicinity that are listed as threatened or endangered under the Endangered Species Act? Determine this by obtaining lists of threatened and endangered species and critical habitat from the US Fish and Wildlife Service and the National Marine Fisheries Service.

Based on information provided by the U.S. Fish and Wildlife Service, there are no species listed as endangered under the Endangered Species Act within the project vicinity (U.S. Fish and Wildlife Service 2018). Threatened species present in the project vicinity include the marbled murrelet (*Brachyramphus marmoratus*), streaked horned lark (*Eremophila alpestris strigata*), yellow-billed cuckoo (*Coccyzus americanus*), and bull trout (*Salvelinus confluentus*). A species proposed for listing, the North American Wolverine (*Gulo luscus*) was also found to be present in the project vicinity; however, suitable habitats for these species do not exist in the project vicinity as the project site is located in a dense built-up urban

environment (Washington Department of Fish and Wildlife 2018).

Based on information provided by the National Oceanic and Atmospheric Administration National Marine Fisheries Service, there are no listed endangered species under the Endangered Species Act present in the project vicinity (National Marine Fisheries Service 2018). The threatened species present in the project vicinity include Hood Canal summer-run chum salmon (*Oncorhynchus keta*); Ozette Lake sockeye salmon (*Oncorhynchus nerka*); Puget Sound Chinook salmon (*Oncorhynchus tshawytscha*); and Puget Sound steelhead (*Oncorhynchus mykiss*); however, suitable habitats for these species do not exist in the project vicinity as the project site is located in a dense built-up urban environment (Washington Department of Fish and Wildlife 2018).

Describe any critical habitat, essential fish habitat or other ecologically sensitive areas within or near the project area.

The project site is located in an urban area and is not adjacent to or within 200 feet of any streams or waterbodies. The project area is located within a Pacific salmon (Chinook, coho, Puget Sound pink) freshwater essential fish habitat area. There is no critical habitat or other ecologically sensitive areas within or near the project site. FTA's Endangered Species Act Screening Checklist is provided as Attachment I, *Endangered Species Act Screening Checklist*; based on the information in the checklist and this document, the Project would have no effect on threatened or endangered species.

O. Recreational

Is the project located in or adjacent to a park or recreation area?

☒ **No**

☐ **Yes, provide information on potential impacts to the park or recreation area. Please also indicate if the park involved Land and Water Conservation Act funds (Section 6(f))**

The project site is not located in or adjacent to a park or recreation area.

P. Seismic and Soils

Are there any unusual seismic or soil conditions in the project vicinity? If so, indicate on project map and describe the seismic standards to which the project will be designed.

☐ **No**

☒ **Yes, describe**

The seismic setting of the project site is characterized primarily by the Tacoma Fault Zone, whose northern branch extends through the project area, and by the Seattle Fault Zone, which is approximately 20 miles to the north of the project site. The project site is located in the Duwamish Valley, which has a flat topography and a filling of alluvial soils. The alluvium, consisting of interbeds of granular and fine-grained soil, has a high potential for liquefaction in a seismic event. Construction of a pile foundation system to support the parking structure would satisfactorily mitigate potential soil liquefaction effects. Figure 5 depicts liquefaction susceptibility at the project site.

The Project would be designed to meet the most current requirements and standards in place at the time the permit applications are submitted. The current requirements include the City's Municipal Code (City Code) (City of Auburn 2018b). Per the City Code, Chapter 15.08A, the 2015 International Building Code, as adopted and amended by the State Building Code Council and included in Chapter 51-50 Washington Administrative Code, has been adopted as the City's building code. The requirements for analysis, design, and construction set forth in the 2015 International Building Code include currently prescribed seismic criteria, loads, design approach, and detailing requirements appropriate for the applicable seismic design category.

Q. Water Quality

Does the project have the potential to impact water quality, including during construction?

☐ **No**

☒ **Yes, describe potential impacts and best management practices which will be in place**.

Sediment-laden runoff from the construction site could enter local drainage systems, which ultimately empty into the Green River. The potential for such impacts to occur is extremely low because the Green River is more than 6,000 feet from the project site and because Sound Transit would implement appropriate BMPs during construction (described in Section S) to collect and treat stormwater runoff prior to discharge to the storm drain system.

The Project would be served by the existing Municipal Separate Storm Drain System owned and operated by the City. This would require collecting the roof-level drainage, directing the flow through water quality treatment and detention facilities located below the slab, and discharging to the public storm drain system. A new connection to the storm drain system would be established for the parking garage. Separate water quality and detention facilities would also be provided for runoff generated within City right-of-way. Operations of the Project would be conducted in an area with increased impervious surfaces, which could affect water quality in receiving waters. Permanent water quality BMPs would be incorporated into the Project to reduce/eliminate the discharge of pollutants from the project site after construction is complete. These BMPs would be in accordance with the City's Supplemental Manual to the Ecology Stormwater Management Manual for Western Washington or other current requirements in place during project implementation and may include bioretention swales, media/membrane filters, sand filters, and oil/water separators (City of Auburn 2017). BMPs would be implemented to collect and manage stormwater runoff prior to discharge to the storm drain system. All BMPs would be designed and implemented per requirements specified by the City. Proposed LID features, water quality facilities and treatments, and flow control facilities are described below:

- LID: For runoff generated in City right-of-way, bioretention swales/planters in planter strips and permeable pavement would be implemented where feasible on the exterior of the garage and in the public right-of-way fronting the property to reduce impervious surfaces and volumes of runoff generated. Permeable pavement in the alley is also proposed. Available space for LID is limited onsite but may include small bioretention planters on Sound Transit property and permeable pavement in the maintenance access road. Commingling of onsite and offsite runoff would not be allowed.
- Flow control facility: A detention vault under garage slab is proposed for garage runoff. For runoff generated within City right-of-way, flow control facilities may consist of vaults and/or tanks installed within City right-of-way. The exact locations and types of flow control devices to be used would be determined during a later phase of design.
- Water quality facility: A sand filter vault or proprietary media/membrane filters under the garage slab is proposed for garage runoff. For runoff generated within City right-of-way, the bioretention facilities used to meet the LID requirements can also be used to meet water quality requirements. Other options may consist of proprietary media or membrane filters connected to LID features and/or new catch basins. The exact locations and types of treatment devices to be used would be determined during a later phase of design.

Should construction encounter groundwater or perched water, dewatering would be required. Water collected in the dewatering process would be treated prior to discharging to sewers per County requirements to minimize excess sediments or contaminants from entering fish-bearing waters.

Will there be an increase in new impervious surface or restored pervious surface?

☐ **No**

☒ **Yes, describe potential impacts and proposed treatment for stormwater runoff.**

The project site is 1.3 acres, 1.19 of which is impervious surface. The Project would increase impervious surface by approximately 0.04 acre, resulting in 1.23 acres of total impervious surface. The existing surface lot has interspersed small planter strips and landscaping on the perimeter of the site that would be replaced with impervious surface from the parking structure. LID features, water quality treatment, and detention facilities would be provided to receive stormwater runoff from improved and exposed impervious surfaces and the entire garage top deck. These facilities would be designed in accordance with requirements specified in the City's Supplemental Manual to the Ecology Stormwater Management Manual for Western Washington (City of Auburn 2017). Implementation of these facilities would likely decrease water quality impacts from this site relative to current conditions.

Runoff from new and replaced impervious surfaces would enter local drainage systems that could ultimately empty into the Green River. Runoff could deliver pollutants to and/or modify flow regimes in the Green River. The potential for any such impacts to occur is extremely low because the Green River is more than 6,000 feet from the project site and the project design would include facilities for stormwater flow control and treatment. LID options would be evaluated and implemented as applicable per City requirements. Stormwater runoff from the parking garage would be managed onsite. Commingling with runoff from City right-of-way would not be allowed; City runoff would be managed in separate facilities to be located in the right-of-way. Permeable pavement would not be allowed for sidewalk replacement but is an acceptable approach for the adjacent alley/maintenance access road.

Stormwater discharges from LID facilities would match developed discharge durations to pre-developed durations for the range of pre-developed discharges rates from 8% of the 2-year peak flow to 50% of the 2-year peak flow. Of the flow discharged from LID facilities, 91% of the total runoff volume of the pollution generating hard surface would be treated. The treated flow discharged to the public storm drain system would also be flow controlled. The stormwater discharges would match developed discharge durations to predeveloped durations for the range of pre-developed discharge rates from 50% of the 2-year peak flow up to the full 50-year peak flow.

As required by the City's Supplemental Manual to the Ecology Stormwater Management Manual for Western Washington, the Sound Transit facility would be designed and constructed to provide water quality treatment for runoff from new or replaced pollution-generating impervious and pervious surfaces. The final control method would be determined during final design of the Project. Sound Transit would also provide construction BMPs to prevent transport of pollutants during construction activities (described in Section S).

Is the project located in the vicinity of an EPA-designated sole source aquifer (SSA)?

☒ **No**

☐ **Yes, provide the name of the aquifer which the project is located in and describe any potential impacts to the aquifer. Also include the approximate amount of new impervious surface created by the project. (May require completion of SSA worksheet.)**

The project site is not located in the vicinity of an EPA-designated sole source aquifer per County requirements (King County 2018b). **Error! Hyperlink reference not valid.**

R. Wetlands

Does the proposal temporarily or permanently impact wetlands or require alterations to streams or waterways?

☒ **No**

☐ **Yes, describe potential impacts**

The project site is located within an urban environment. The project site is located within fully developed parcels that are adjacent to the BNSF Railway and consist of an existing train station and parking structure. Therefore, the Project would have no effect on wetlands and would not require alterations to streams or waterways.

S. Construction Impacts

Describe the construction plan and identify impacts due to construction noise, utility disruption, debris and spoil disposal, and staging areas. Address air and water quality impacts, safety and security issues, and disruptions to traffic and access to property.

Staging Areas

As described under *Transportation* (below), the Maintenance of Traffic Plan would establish physical and operating characteristics for staging, as well as access, lane, or shoulder closures and transitions; haul routes; traffic management; detours; lane modifications; and other construction zones or activities. The plan would incorporate established guidance for best practices to be applied during construction periods, many of which would be focused on reducing congestion impacts and minimizing safety hazards. Haul routes and working hours would require approval from the City. As it relates to water quality and debris and spoil handling and disposal, compliance with existing regulations, which includes implementation of BMPs, would reduce impacts (refer to *Water Quality* and *Air Quality*, below, for additional details).

Transportation

Construction of the Project would result in temporary impacts on local vehicle access, transit service, non-motorized travel, and parking within the transportation study area.

Construction impacts would include increased congestion, traffic diversions caused by temporary road closures and detours, increased truck traffic associated with construction activity, trips and parking generated by construction employees, and temporary changes in roadside characteristics of streets and alleys adjacent to the new garage. Impacts could also result from the diversion of non-local traffic into residential areas as a result of temporary street closures and traffic detours, disruptions to vehicular and pedestrian access, and the temporary loss of on-street or off-street parking.

As part of normal construction planning and permitting, Sound Transit and the City would work to minimize the duration and impact of lane closures and reductions by:

- Maintaining through traffic, where practical, except for short-duration closures.
- Establishing detour routes for short-duration closures.

A Maintenance of Traffic Plan that addresses all travel modes would be prepared at final design for approval and implementation during construction. This plan would establish physical and operating characteristics for staging, access, lane, or shoulder closures and transitions, haul routes, traffic management, detours, lane modifications, and other construction zones or activities. The plan would incorporate established guidance for best practices to be applied during construction periods, many of which would be focused on reducing congestion impacts and minimizing safety hazards. For example, typical measures could include providing signage, communicating traveler advisories, installing special lighting for work zones and travel lanes, scheduling work during reduced travel times, and establishing contractor requirements.

During construction, 46 parking spaces on the surface lot immediately south of the project site (construction staging area) and the 120 parking spaces on the project site would be displaced. Parking for construction workers would be provided by the contractor or could occur on City streets where parking is unrestricted. Impacts on parking during construction would be minimized through construction phasing and temporary parking, as described in Section Z.

Aesthetics

During construction, the presence of construction equipment, materials, and activities would temporarily disrupt the typical visual environment. Sound Transit would place construction screens or barriers to limit the visibility of work areas where practical. Project construction would not substantially degrade the existing visual character or quality of the site and its surroundings. With screening and design measures in place, project construction would have no adverse impacts on visual and aesthetics resources.

There may be nighttime construction activities, and should this occur, construction lighting would be required. Although the City's Municipal Code (Section 18.55.050) exempts temporary lighting during active construction, lighting during nighttime construction would be directional lighting that would be directed at the construction work area and away from adjacent residences. The project site is an urbanized area and construction lighting would be temporary and would not create a new substantial light source or adversely affect nighttime views in the area.

Air Quality

During construction, an Environmental Compliance Strategy Plan that addresses air quality, in addition to stormwater, erosion/sediment. Exhaust emissions from haul and vendor trucks, construction worker commuting, and non-road construction equipment would be released into the atmosphere and would temporarily affect air quality. Also, temporary air emissions during construction would come from vehicular tire and brake wear, re-entrained paved road dust, and general construction activities as fugitive dust.

Puget Sound Clean Air Agency (PSCAA) is responsible for enforcing air quality regulations in the Puget Sound region, and they have developed fugitive dust regulations contained in Section 9.15 of Regulation (Puget Sound Clean Air Agency 2018). In accordance with applicable regulations, the Project would use best available control measures/BMPs to minimize air quality-related impacts during construction, such as:

- Suppress dust on the construction site with water sprays.
- Prevent dust emissions during transport of fill material or topsoil by covering and securing all loads of materials, debris, and soil transported to and from construction site
- Load all trucks, coming to the jobsite or leaving the jobsite, in a manner that prevents dropping of materials or debris on streets.
- Promptly clean up spills from transported material on public roads by frequent use of a street sweeper machine.
- Schedule work tasks to minimize disruption of the existing vehicle traffic on streets in the vicinity of the project site.
- Maintain all construction machinery engines in good mechanical condition to minimize exhaust emissions.
- Minimize idling of diesel engines and keep heavy equipment and trucks in good repair.

The air quality impacts of the construction phase are not expected to be adverse.

Debris and Spoil Disposal

The results of a Phase 2 ESA identified the potential for contaminants in site soil, as a result of historical onsite and offsite activities. As necessary, remedial actions would be undertaken as appropriate in conjunction with redevelopment activities. A formal plan would be developed consistent with state and federal regulations for the onsite materials handling, removal, disposal, and/or treatment of contaminated

materials identified during the Phase 2 ESA and/or previously unidentified contaminated materials discovered during construction activities. Soil potentially affected by contaminants would be characterized for waste profiling and disposed of accordingly. Measures would be implemented to minimize exposure to people and the environment during construction of the Project and remediation activities in accordance with applicable regulations. By handling (including on site and transport off site) all potentially hazardous materials in accordance with all state and federal requirements, there would be no adverse impacts related to hazardous materials debris and disposal. Soils that contain levels contaminant concentrations such that they cannot be considered as clean, would be disposed of at a facility that is licensed to accept such waste soils.

Noise and Vibration

Project construction would result in increased noise and vibration levels that would be temporary and intermittent and would cease once construction is complete. Potential worst-case noise levels during project construction were evaluated by combining the noise levels of the two loudest pieces of equipment that would likely operate at the same time. Construction of the garage would involve a pile foundation that would be installed using pile driving methods. Up to 300 piles are expected to be required, with pile driving anticipated to occur over 40 work days. If used, impact-hammer pile driving would produce the loudest noise levels among all construction equipment types that could be used. Simultaneous operation of an impact-hammer pile driver and a truck would represent the combined worst-case noise level.

The assessment of potential construction noise levels was based on the FTA Noise and Vibration Impact Assessment Manual. While the manual does not specify standardized criteria for construction noise impacts, it provides guidelines that can be considered reasonable criteria for assessing adverse community reaction. Noise-sensitive receivers located within 180 feet of the project site during periods of impact-hammer pile driving and within 60 feet during use of non-impact equipment could be exposed to construction noise levels in exceedance of the FTA daytime construction noise impact guidelines of 90 dBA Leq (1h). At the nearest noise-sensitive receivers—the Buena Vista and Sierra Vista apartment buildings located approximately 30 feet from the northern boundary of the project site—noise levels could be up to 105 dBA Leq (1h) during pile-driving and up to 96 dBA Leq (1h) during use of non-impact equipment.

Pursuant to City codes, construction noise is exempt from noise limits between the hours of 7:00 a.m. and 7:00 p.m., Monday to Friday, and 9:00 a.m. and 6:00 p.m., Saturday and Sunday. However, depending on site conditions, construction outside of these hours (nighttime construction) may be necessary. Nighttime construction would require an approval from the City in accordance with its administrative approval process. Pile driving would not occur during nighttime hours. However, residences located within about 200 feet of the project site during use of non-impact equipment could be exposed to worst-case noise levels exceeding the FTA nighttime noise impact guidelines of 80 dBA Leq (1h).

Vibration levels could exceed the applicable FTA criterion for potential building damage at a distance of between approximately 55 feet (typical conditions) and 100 feet (worst-case conditions). The Buena Vista and Sierra Vista apartment buildings on 2nd Street NW are located closest to the project site, approximately 30 feet from the northern boundary, and therefore have a high potential for building damage as well as negative community reaction from groundborne vibration during construction. Other buildings within 100 feet of the project site include the Battlefield Coffee House, Auburn Regional Medical Plaza, and City Hall. Vibration during construction could affect use of vibration-sensitive equipment at the Auburn Regional Medical Plaza, which is across the street to the east of the project site. Vibration-sensitive equipment includes a linear accelerator for radiation oncology and a CT scanner. While vibration limits for the equipment at the plaza are not known, similar equipment of this type has a vibration tolerance of approximately 0.001 inch per second (25 micrometers per second) peak particle velocity (PPV), which corresponds to a level of 60 vibration decibels (VdB), assuming no vibration isolation is attached to the equipment. Vibration from pile driving would exceed this level at a distance of over 500 feet; therefore, measures to avoid this level of vibration would be required during operation of the equipment.

Best practices and mitigation measures identified in an updated Noise and Vibration Analysis and Control Plan (described in Section Z) would be implemented to reduce construction noise and vibration impacts. With implementation of the updated Noise and Vibration Analysis and Control Plan, construction noise and vibration impacts would not be adverse.

Historic and Cultural Resources

The historic property at 129 A Street NW (Battlefield Coffee House) is located approximately 80 feet away from the northern boundary of the project site. Under worst-case vibration conditions, during pile driving, there is potential for building damage from groundborne vibration during construction. Implementation of measures identified in an updated Noise and Vibration Analysis and Control Plan (described in Section Z) would reduce the potential for building damage to occur and mitigate for damages if they were to occur. With implementation of these measures, impacts on historic resources would have no adverse effect under Section 106.

Water Quality

Trench dewatering may be needed for construction of underground drainage structures. Water would be collected in the dewatering process and treated prior to discharging to sewers in accordance with City and County requirements (as applicable) to prevent excess sediments or contaminants from entering fish-bearing waters.

Project construction activities are subject to local (City and County) construction-related stormwater permit requirements, as well as the requirements associated with the Federal Clean Water Act's National Pollutant Discharge Elimination System (NPDES) program. An NPDES permit is required if the project discharges pollutants through a point source into a water of the United States. Such permit contains limits on what can be discharged, monitored, and reported and other provisions to ensure that the discharge does not hurt water quality or people's health.

Specific regulatory requirements for this Project are provided in the Western Washington Phase II Municipal Stormwater Permit, the Construction Stormwater General Permit, and the City's Supplemental Manual to the Ecology Stormwater Management Manual for Western Washington. A Stormwater Pollution Prevention Plan (SWPPP) would be prepared that identifies BMPs to prevent or minimize the introduction of contaminants into surface waters during construction activities. BMPs for the Project could include, but would not be limited to, silt fencing, straw bale barriers, fiber rolls, storm drain inlet protection, hydraulic mulch, street sweeping, and a stabilized construction entrance. The SWPPP would include development of site-specific structural and operational BMPs to prevent and control impacts on runoff quality, measures to be implemented before each storm event, inspection and maintenance of BMPs, and monitoring of runoff quality by visual and/or analytical means.

Construction would involve ground disturbance, which can expose soils susceptible to erosion. Increased erosion could increase turbidity and sedimentation in receiving waters (Green River). Erosion and sediment control measures described in a site-specific SWPPP would be implemented to comply with regulatory requirements. The SWPPP would include development of site-specific structural and operational BMPs to prevent and control impacts on runoff quality, measures to be implemented before each storm event, inspection and maintenance of BMPs, and monitoring of runoff quality by visual and/or analytical means.

Use and storage of hazardous materials (e.g., diesel fuel and lubricants) could impair water quality in receiving waters (Green River) if they are spilled and not adequately contained. Spill control BMPs and proper storage and containment facilities, as outlined in the Spill Prevention, Control, and Countermeasure Plan, would be used during construction to minimize the potential for impacts from a spill.

Permanent water quality BMPs would be incorporated into the Project to reduce/eliminate the discharge of pollutants from the project site after construction is complete. These BMPs would be in accordance with the City's Supplemental Manual to the Ecology Stormwater Management Manual for Western Washington

and may include bioretention swales, media/membrane filters, sand filters, and oil/water separators.

Safety and Security

The project site would be secured with fencing during construction. There are safety and security requirements in the contract documents that require the contractor to secure the site and provide measures to reduce, minimize, or eliminate potential unsafe conditions for the public. No safety and security issues are anticipated during construction.

Public Service

During construction, coordination with first responders would be conducted to identify alternate access routes, if necessary, to maintain satisfactory emergency response times.

Utility Disruptions

There would be some disruption to water use from installation of new hydrants (Section X) that would require isolation and shutdown of a short section of water main. The Contractor would coordinate with the City and handle the notifications to affected water users, as well as any other utility providers affected by construction.

T. Cumulative and Indirect Impacts

Are cumulative and indirect impacts likely?

☐ **No**

☒ **Yes, describe the reasonably foreseeable:**

CUMULATIVE IMPACTS

Cumulative impacts result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes them. Cumulative impacts can result from individually minor but collectively substantial actions taking place over time.

Based on the analysis of environmental considerations described in the sections above, the potential for cumulative impacts include noise, traffic, and air quality during construction and traffic during operations. The evaluation of these resources is described below.

The construction period for the parking garage is anticipated to require approximately 24 to 30 months, starting spring 2022 and ending summer 2024. The analysis of potential cumulative impacts during construction considered the following planned transportation and development projects that could be under construction simultaneously with the Project:

- A Street NW Phase 2 (West Main Street to 3rd Street NW): Construct multi-lane arterial. Construction anticipated to be completed by 2024 (City of Auburn 2019a).
- A Street Loop (A Street SW to A Street SE): Add one-way (eastbound) road with unsignalized free right turn at A Street SE. Include sidewalks on both sides of new road. Construction anticipated to be completed by 2022 (City of Auburn 2019a).

Transportation

The traffic analysis of operations impacts is by its nature a cumulative analysis, as forecasted future traffic volumes include a growth rate of 1.2% annually for background traffic due to regional development growth unrelated to the Project. This is based on the long-term traffic growth contained in the City's model, using the most recent land use assumptions. This also accounts for relevant transportation improvements in the adopted City of Auburn and Puget Sound Regional Council transportation plans.

Station-related growth is accounted for through Sound Transit's ridership forecasts and used in the direct

impact analysis. The Project would result in improved parking at and near the Auburn Station. The increase in parking spaces would make using the Auburn Station more accessible and, thus, could result in an increase in Sounder Rail ridership. More people riding the train could result in less growth of commuter-related congestion on state highways and local roadways that serve employment centers.

With more parking spaces at the station, additional Sounder commuters would be able to park at the station versus parking at offsite facilities or on the street, as many do today.

Constructing the Project along with other planned projects in the Auburn area could result in cumulative but temporary impacts on traffic. The only other planned transportation project in the project area that could be under construction at the same time as the Project is the A Street NW Phase 2 project. Constructing the Project along with the A Street NW Phase 2 project could result in cumulative impacts if the timing of construction of these two projects overlap.

Air Quality

Project operations would result in a reduction in GHG and other emissions and therefore would not contribute to cumulative effects on air quality.

Construction of the Project along with construction of other planned projects in the Auburn area near the project site could result in cumulative impacts on air quality but would only occur for the limited time during which construction is taking place. With the exception of A Street NW Phase 2 project, which is located adjacent to the project site, all of the other projects listed above that could be constructed simultaneously with the Project are located beyond 0.25 mile from the project site and, therefore, are sufficiently distant to not contribute to cumulative impacts with the Project on air quality. Construction of the Project along with the A Street NW Phase 2 project would have the potential to temporarily increase air pollutants and GHGs; however, BMPs (described in Section Z) would be implemented to minimize any air quality-related impacts during construction.

Noise and Vibration

Vibration impacts are only expected during construction. Due to the highly localized characteristic of vibration, cumulative vibration impacts are not expected, since such impacts would require another contributing project to be immediately adjacent.

The increase in average ambient noise levels from operation of the Project is not expected to be perceptible and would not contribute to a cumulative increase that would be perceptible. Therefore, no cumulative impacts are expected from operation of the Project.

Construction of the Project along with construction of other projects near the project site could result in cumulative but temporary noise impacts. The A Street NW Phase 2 project, which is located adjacent to the project site, is the only planned project within 0.25 mile of the project site that could be under construction simultaneous with the Project. (Projects beyond 0.25 mile would be sufficiently distant to not contribute to a cumulative construction noise impact.) Constructing the Project along with the A Street NW Phase 2 project could result in cumulative noise impacts if the timing of construction of these two projects were to overlap. Noise from construction is not regulated during daytime hours under the City Code. While noise from both projects could be audible, they are unlikely to combine such that FTA impact guidance for noise levels would be exceeded for a greater period of time than for each individual project. As described in Section S, under Noise and Vibration, mitigation and best practices identified in an updated Noise and Vibration Analysis and Plan would be implemented to reduce noise and vibration during construction. Therefore, the Project is not expected to contribute to cumulative construction-related impacts on noise and vibration.

INDIRECT IMPACTS

Indirect impacts are "caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable." Indirect impacts may include effects related to changes in the pattern of land use, population density or growth rate, and related effects on air, water, and other natural systems, including ecosystems.

The Project would not change the pattern of land use or provide a stimulus for a subsequent change that would result in indirect impacts on air quality, water, or biological resources (or other natural systems, including ecosystems). In addition, the Project would not cause changes in population density or growth rate because it would serve existing developed areas.

U. Property Acquisition

If property is to be acquired for the project, indicate whether acquisition will result in relocation of businesses or individuals.

Note: For acquisitions over $500,000, FTA concurrence in the property's valuation is also required.

The project site comprises three parcels[2] that are owned by the City and in use as a surface parking lot for One East Main Street. These parcels would be fully and permanently acquired for the Project and be wholly occupied by the parking garage and landscaping (Figure 2). The 120 existing parking spaces would be replaced with spaces at the proposed garage.

An existing surface parking lot on one City-owned parcel would be temporarily acquired for the Project as a construction staging area (Figure 2). The City currently leases the parking lot's 46 spaces to the public. These spaces would be temporarily displaced. No changes to the features contained in this parcel are anticipated. The parcel would be leased by the contractor and returned to the City upon completion.

In addition, project construction would require temporary construction easements near the project site and the use of public rights-of-way owned by the City to facilitate construction of the proposed improvements (Figure 2). No changes to the features contained within the temporary construction easements are anticipated. No structures would need to be removed or replaced. Potential impacts of these temporary construction easements are minor and temporary.

These acquisitions would not result in the relocation of any businesses or residences.

V. Energy

If the project includes the construction or reconstruction of a building, identify potential opportunities to conserve energy which could be employed. This includes building materials and techniques used for construction; special innovative conservation features; fuel use for heating, cooling and operations; and alternative renewable energy sources.

In support of sustainability goals, the Project would conserve natural resources where possible and consider long-term operations costs in design and material choices. During final design, Sound Transit would identify opportunities to incorporate energy conservation measures for constructing and operating the parking garage, incorporating both required and preferred design measures for recycling, salvaging, and reducing GHGs. Other energy conservation measures would include provisions for accessible bicycle parking near the parking structure, electric vehicle charging stations and/or photovoltaic panels, trash bins for recyclables, LID rainwater/stormwater management, balanced earthwork, weather protection design, and water efficient landscaping and water metering as applicable.

[2] These parcels have been recently combined by an approved and recorded boundary line adjustment.

W. Public Service

[Note: This discussion is added to comply with Washington State Environmental Policy Act requirements.]

Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

The Project would not result in the increased need for public services because the Project would not result in increases in population. The Project would facilitate increased transit mobility, including trips to health care facilities in the vicinity of the station. The Project is not expected to have an adverse impact on the travel and response times of public service vehicles. In addition, Sound Transit has examined the potential for crime to increase at transit facilities similar to the Project, such as park-and-rides and parking garages and found that crime at these facilities generally reflects the conditions in the surrounding neighborhoods. Most of these crimes (90%) are quality-of-life crimes (e.g., vandalism, drunkenness, panhandling) and property crimes with a small percentage comprising violent crimes. Crime statistics provided by the City of Auburn show a similar trend where the most common types of crimes near the site are quality-of-life crimes and theft (City of Auburn 2019b).

Sound Transit contracts with the County's Sheriff and Securitas to provide a security force within its facilities. The Project's final design would incorporate crime prevention through environmental design principles (which may include security cameras, door access controls, an emergency blue light system, and radio). Sound Transit and the design team would conduct both a Threat and Vulnerability Assessment and a Preliminary Hazard Analysis to identify hazards and/or vulnerabilities and determine security and safety requirements to mitigate them to the lowest practical level. Both of these documents would be reviewed and revised as necessary as the design progresses and conformance with requirements verified. The completed documents would be included as part of the Safety and Security Certification Verification Report before the facility is open for revenue service. Several Sound Transit committees including the Safety and Security Certification Review Subcommittee, Safety and Security Oversight Committee, and Joint Rail Safety Committee provide oversight of security concerns for Sound Transit facilities, including the Project. These measures, in association with other security features of the transit system and the presence of Sound Transit's security personnel, would deter criminal activity and generally make the parking garage safer and more secure.

X. Public Utilities

[Note: This discussion is added to comply with Washington State Environmental Policy Act requirements.]

Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Existing utilities (storm drain, electrical, power poles, and street lighting) located within the project site would be demolished and relocated. An adjacent property's electrical service requires relocation out of the project site, which would be performed by the utility company. Three new City-owned hydrants would be added in the City right-of-way and two streetlights would be relocated. The parking garage would need new utility services as follows.

- Electricity: Electrical service for the Project would be provided by Puget Sound Energy. A new service would be established for the parking garage.
- Water: The Project would be served by water from the City via the existing water main located along the east side of A Street NW. The existing water main may need to be upsized pending future analysis of water demand performed in coordination with the City. Two new services would be established for the parking garage for potable water, irrigation, and fire suppression. Per City Code, a separate meter for onsite irrigation would be provided.

- Sanitary Sewer: The Project would be served by sanitary sewer from the City via existing gravity mains located in A Street NW. No new or relocated sanitary sewer mains are anticipated. A new service would be established for the parking garage.
- Storm Drain: The Project would be served by the existing Municipal Separate Storm Drain System owned and operated by the City. This would require collecting the roof level drainage, directing the flow through onsite LID, water quality treatment and detention facilities located below the slab, and discharging to the public storm drain system. A new connection to the storm drain system would be established for the parking garage. LID facilities for runoff generated offsite within City right-of-way (e.g., bioretention and permeable pavements) would be implemented where feasible on the exterior of the garage and in the public right-of-way fronting the property, where appropriate. No commingling of onsite and offsite runoff would be allowed. Separate water quality and detention facilities would also be provided for runoff generated within City right-of-way.
- Fiber Optics: The Project would need fiber optics service from Sound Transit's fiber backbone transmission that runs parallel to the railroad tracks within the railroad property; therefore, a new connection to the existing transmission line would be established.
- Once the utilities have been installed and tested, damaged rights-of-way, such as sidewalks, roadways, and alleys, would be restored by Sound Transit or its contractor to City standards.

During construction, the contractor would coordinate with the City and handle the notifications to affected utility providers.

Y. Public Involvement

Describe public outreach efforts undertaken on behalf of the project. Indicate opportunities for public meetings (e.g., board meetings, open houses, special hearings). Indicate any significant concerns expressed by agencies or the public regarding the project.

Public outreach activities during the conceptual engineering and environmental review phase included a project website, project email listserv, project fact sheet, tabling at community fairs and festivals, project briefings and updates to community organizations and affected parties, and an in-person open house with an online participation component in the fall of 2018. Notification methods of the above activities included postcard invitations, electronic invitations (emailed to the Project's listserv), display ads in local media, and posters around the community.

The in-person open house was held on October 30, 2018, and the online open house was open October 15 through November 2, 2018. Over 175 people participated either online or in-person, resulting in over 80 written comments. This outreach shared early concepts for the new garage as well as potential bicycle, bus, and pedestrian improvements and gathered feedback from the community. Attachment J, *Fall 2018 Open House Outreach Summary*, provides a summary of the fall open house.

Outreach activities specific to environmental justice communities included a briefing to social service providers at the Auburn Area Roundtable on September 7, 2018, and tabling/direct engagement at community locations, including the Auburn Farmers Market and Auburn Library. Flyers and postcards distributed about the fall outreach events included translated information in Spanish and Russian. Sound Transit would plan for and conduct additional specific outreach activities to promote inclusion of minority and low-income populations throughout the Project's planning and construction process.

As part of early coordination with City staff, concerns about the proposed traffic mitigation measures, which resulted from the traffic analysis, were expressed. Sound Transit would provide the described improvements or contribute funding to other improvements agreed to with the City that mitigate project impacts.

Z. Mitigation Measures

Describe all measures to be taken to mitigate project impacts.

The mitigation measures in this section address potential impacts identified in the resource sections above. Appropriate BMPs are also identified in this section.

Transportation

As described in Section C, the Project is projected to result in long-term operational impacts during the 2037 PM peak period at the signalized intersection of A Street SE and 3rd Street SE (Intersection No. 20) and at the signalized intersection of C Street SW and the eastbound SR 18 ramps (Intersection No. 23) if no mitigation is implemented. Mitigation would include re-optimizing signal timings at both intersections as follows to decrease delay.

- Intersection of A Street SE and 3rd Street SE: By shortening the eastbound left-turn and westbound left-turn splits from 12 to 10 seconds, and adding 2 extra seconds to the northbound-left and northbound-through phases, the intersection is projected to operate within its adopted standard of LOS E during the PM peak period, with an average delay of 79.5 seconds.
- Intersection of C Street SW and the eastbound SR 18 ramps: By shifting 2 seconds from the eastbound phase to the southbound through phase, the intersection is projected to operate at LOS F with an average delay of 81 seconds during the PM peak period, which is lower than the average delay of 83 seconds projected under No-Build conditions.

Sound Transit would provide these improvements or contribute funding to other improvements agreed to with the City that mitigate project impacts.

To address a potential safety conflict during project operation associated with the proximity of the parking garage access on A Street NW to the adjacent alley, described in Section C, Sound Transit would coordinate with the City during final design to develop and implement appropriate design and location of the access and, if necessary, safety treatments such as curb treatments, bollards, mirrors, and/or audible warning devices.

To address temporary construction impacts on the 46 spaces in the city-owned parking lot and the 120 spaces in the project site surface lot, mitigation measures would include the following, as appropriate, or other measures developed in coordination with the City:

- Compensate the City for the use of the property, or
- Lease parking lots and/or new parking areas near Auburn Station, or
- Redirect drivers who use the surface lot immediately to the south of the project site (46 spaces) and the project site (120 spaces) to nearby parking lots that may have availability.

To minimize cut-through traffic in residential neighborhoods during construction, construction vehicles would travel on city-classified principal arterials (e.g., Auburn Way S) and minor arterials (C Street SW, A Street SE, and Main Street). As part of the permitting process, Sound Transit would finalize haul routes in the Maintenance of Traffic Plan.

The Maintenance of Traffic Plan would address different travel modes at final design. The plan would establish physical and operating characteristics for staging, access, lane or shoulder closures and transitions, haul routes, traffic management, detours, lane modifications, and other construction zones or activities. The plan would incorporate established guidance for best practices to be applied during construction periods, many of which would be focused on reducing congestion impacts and minimizing safety hazards. Typical measures include providing signage, communicating traveler advisories, installing special lighting for work zones and travel lanes, scheduling work during reduced travel times, and establishing contractor requirements.

Noise and Vibration

The following mitigation measures would reduce noise and vibration impacts:

Prior to construction as part of final design, Sound Transit would revise the noise and vibration analysis with updated design and construction information. The revised analysis would be presented as part of an updated Noise and Vibration Analysis and Control Plan, which would specify methods that the contractor would implement to minimize construction equipment noise and vibration levels at sensitive receivers.

If the updated analysis indicates a potential exceedance of FTA noise impact guidelines, measures and best practices would be identified in the updated Noise and Vibration Analysis and Control Plan and implemented to minimize noise levels. These measures could include but would not be limited to the following:

- Constructing barriers between noise sources and noise-sensitive land uses. Barriers would be designed to obstruct line of sight between the noise-sensitive land use and construction equipment on site.
- Using noise-reducing shrouds on pile drivers.
- Using alternative pile driving methods such as vibratory hammers, hydraulic press-in driving, auger, or pre-drilled pile holes.
- Using noise-reducing enclosures around noise-generating equipment.
- Locating stationary equipment (e.g., generators, cement mixers, idling trucks) as far as possible from noise-sensitive land uses.
- Prohibiting gasoline or diesel engines from having unmuffled exhaust.
- Requiring that all construction equipment powered by gasoline or diesel engines have sound-control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.
- Using smart backup alarms on heavy equipment that automatically adjust the alarm sound level to be audible above background levels, or use spotters instead of backup alarms.
- Preventing excessive noise by shutting down idle vehicles or equipment.

The updated Noise and Vibration Analysis and Control Plan would include best practices to reduce construction ground-borne vibration at adjacent sensitive buildings so that vibration would not exceed FTA's vibration criterion. In addition, given the close proximity of sensitive uses and the length of pile driving, Sound Transit's Design Criteria Manual provides that a reasonable threshold for annoyance from ground-borne vibration should be developed on a project-specific basis. This threshold shall take into account the type of land use, the nature of the construction activities, and the time of day.

Mitigation measures to address ground-borne vibration from pile driving could include:

- Locating vibration-generating equipment as far as practical from vibration-sensitive (and noise-sensitive) buildings.
- Using smaller, lower vibration generating equipment within 100 feet of potentially impacted buildings.
- Using alternative pile driving methods such as vibratory hammers, hydraulic press-in driving, or use of pre-drilled pile holes.
- Conduct vibration monitoring at potentially affected buildings to measure levels from vibration producing activities such as pile driving.
- Prepare a building conditions report prior to and after construction for potentially affected buildings. If new cracks or damages are found, Sound Transit would remediate building damages found to occur during construction.
- Sound Transit would coordinate with the MultiCare Auburn Medical Center to determine hours/days that vibration producing activities can be conducted to prevent interference with vibration-sensitive equipment.

The applicability of measures would vary based on the location, timing, nature, and feasibility of each activity.

Sound Transit would prepare a community outreach plan that would include, and not be limited to, the following:

- Provide advance notice of construction activities to occupants of potentially impacted buildings.
- Identify a point of contact responsible for responding to complaints regarding construction noise. A contact telephone number for the noise disturbance coordinator would be conspicuously posted on construction site fences and would be included in the notification of the construction schedule.

Historic and Cultural Resources

Under worst-case vibration conditions during construction, there is potential for the Battlefield Coffee House to sustain building damage from groundborne vibration. Implementation of measures identified in an updated Noise and Vibration Analysis and Control Plan (described above under Noise and Vibration) would reduce the potential for building damage to occur and mitigate for damages if they were to occur. In the event damage were to occur, Sound Transit would fix the damage in accordance with the Secretary of Interior's Standards for Treatment of Historic Places. With implementation of these measures, project construction would have no adverse effect on historic resources under Section 106.

For archaeological resources, an Inadvertent Discovery Plan would be in place prior to any project excavation, including geotechnical borings or potholing during final design.

AA. Other Federal Actions

Provide a list of other federal NEPA actions related to the proposed project or in the vicinity.

In August 2018, FTA approved a Categorical Exclusion for acquiring the three affected parcels for the Project.

AB. State and Local Policies and Ordinances

Is the project in compliance with all applicable state and local policies and ordinances?

☐ No, describe noncompliance:
☒ Yes

AC. Related Federal and State/Local Actions

☐ Corps of Engineers Permit (Section 10, Section 404)
☐ Coast Guard Permit
☐ Coastal Zone Management Certification
☐ Critical Area Ordinance Permit
☐ ESA and EFH Consultation
☐ Floodplain Development Permit
☐ Forest Practice Act Permit
☐ Hydraulic Project Approval
☒ Local Building or Site Development Permits
☒ Local Clearing and Grubbing Permit
☒ National Historic Preservation Act-Section 106 consultation
☒ National Pollutant Discharge Elimination System General Construction Permit
☐ Shoreline Permit
☐ Solid Waste Discharge Permit
☐ Sole Source Aquifer Consultation

☐ Section 4(f) (Historic or Recreational Properties; Wildlife Refuges)
☐ Section 6(f) (Recreational Properties)
☒ Section 106 (Historic Properties)
☒ Stormwater Site Plan (SSP)
☒ Temporary Erosion and Sediment Control Plan (TESC)
☐ Water Rights Permit
☐ Water Quality Certification—Section 401
☐ Tribal Consultation or Permits (if any, describe below)
☒ Other

Others (describe as applicable):

- Building Permit
- Facility Extension Agreement
- ROW Use Permit
- Mechanical Permit
- Plumbing Permit
- Grade & Fill Permit
- Construction Permit
- Fire Code Permit
- Sign Permit
- Approval for nighttime construction in accordance with the City's administrative approval process provided in ACC 8.28.010(B)(8)(c)
- Temporary Use Permit
- Downtown Urban Center Design Guidelines

Submitted By (name, title):	**Date:**
Deb Bartley, Environmental Lead, ICF	January 21, 2020

REFERENCES

City of Auburn. 2014. Comprehensive Downtown Parking Management Plan (CDPMP). January. Available: https://www.auburnwa.gov/UserFiles/Servers/Server_11470554/File/City%20Hall/Community%20Development/Zoning%20and%20Land%20Use/Urban%20Center/CDPMP.pdf. Accessed: May 10, 2019.

City of Auburn. 2015. Comprehensive Transportation Plan. December. Available: https://www.auburnwa.gov/UserFiles/Servers/Server_11470554/File/City%20Hall/Community%20Development/Zoning%20and%20Land%20Use/Comprehensive%20Plan/06-Vol%205_Transportation_Full.pdf. Accessed: October 3, 2018.

City of Auburn. 2017. City of Auburn Supplemental Manual to the Ecology Stormwater Management Manual for Western Washington, Volume II Construction Stormwater Pollution Prevention. January 1, 2017. Accessed April 26, 2019.

City of Auburn. 2018a. City of Auburn Municipal Code, Chapter 18.29. December 17.

City of Auburn. 2018b. City of Auburn Municipal Code, Chapter 15.08A. March 19.

City of Auburn. 2019a. City of Auburn 2020-2025 Transportation Improvement Program. Available: https://www.auburnwa.gov/UserFiles/Servers/Server_11470554/File/City%20Hall/Public%20Works/Transportation/Adopted%20TIP%202020-2025.pdf. Accessed: November 21, 2019.

City of Auburn. 2019b. City of Auburn Crime Map. February. Available: https://maps.auburnwa.gov/Html5viewer/Index.html?viewer=crimes. Accessed: February 21, 2019.

Federal Transit Administration. 2018. FTA's Transit Greenhouse Gas Emissions Estimator. October. Available: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/ftas-transit-greenhouse-gas-emissions-estimator. Accessed: October 3, 2018.

Fehr & Peers Associates. 2018. Auburn Station Access Improvements VMT Evaluation. Excel Spreadsheet by Fehr & Peers Associates. September.

King County. 2018a. King County iMap, Flood Insurance Rate Map 53033C1261K. Available: https://your.kingcounty.gov/dnrp/library/water-and-land/flooding/mapping/flood-insurance-rate-maps/53033C1261K.pdf. Accessed: October 11, 2018.

King County. 2018b. King County iMap. Available: https://www.kingcounty.gov/services/gis/Maps/imap.aspx. Accessed: October 1, 2018.

National Marine Fisheries Service. 2018. Status of ESA Listings & Critical Habitat Designations for West Coast Salmon & Steelhead. Available: https://www.westcoast.fisheries.noaa.gov/publications/gis_maps/maps/salmon_steelhead/critical_habitat/wcr_salmonid_ch_esa_july2016.pdf. Accessed: October 1, 2018.

Puget Sound Clean Air Agency. 2018. Regulation I, Article 9: Emission Standards. https://www.pscleanair.org/DocumentCenter/View/354/Regulation-I?bidId=. Last revised September 27, 2018. Accessed June 19, 2019.

Transportation Consulting Services. 2018. Auburn Sounder Station On-street Parking Analysis. Draft Technical Memorandum. October 24.

U.S. Environmental Protection Agency. 2018a. AirData. Available: https://www.epa.gov/air-data. Accessed: September 19, 2018.

U.S. Environmental Protection Agency. 2018b. National Ambient Air Quality Standards. Available: https://www.epa.gov/criteria-air-pollutants/naaqs-table. Accessed: September 19, 2018.

U.S. Environmental Protection Agency. 2018c. The Green Book Nonattainment Areas for Criteria Pollutants. Available: https://www.epa.gov/green-book. Accessed: September 19, 2018.

U.S. Fish and Wildlife Service. 2018. Information, Planning, and Consultation System. Available: https://ecos.fws.gov/ipac/. Accessed: October 1, 2018.

United States Department of Agriculture. 2018. Web Soil Survey. Available: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed: October 1, 2018.

Washington Department of Fish and Wildlife. 2018. Priority Habitats and Species on the Web. Available: http://apps.wdfw.wa.gov/phsontheweb/. Accessed: October 1, 2018.

Figures

Figure 1
Vicinity Map
Auburn Station Parking and Access Improvements Project

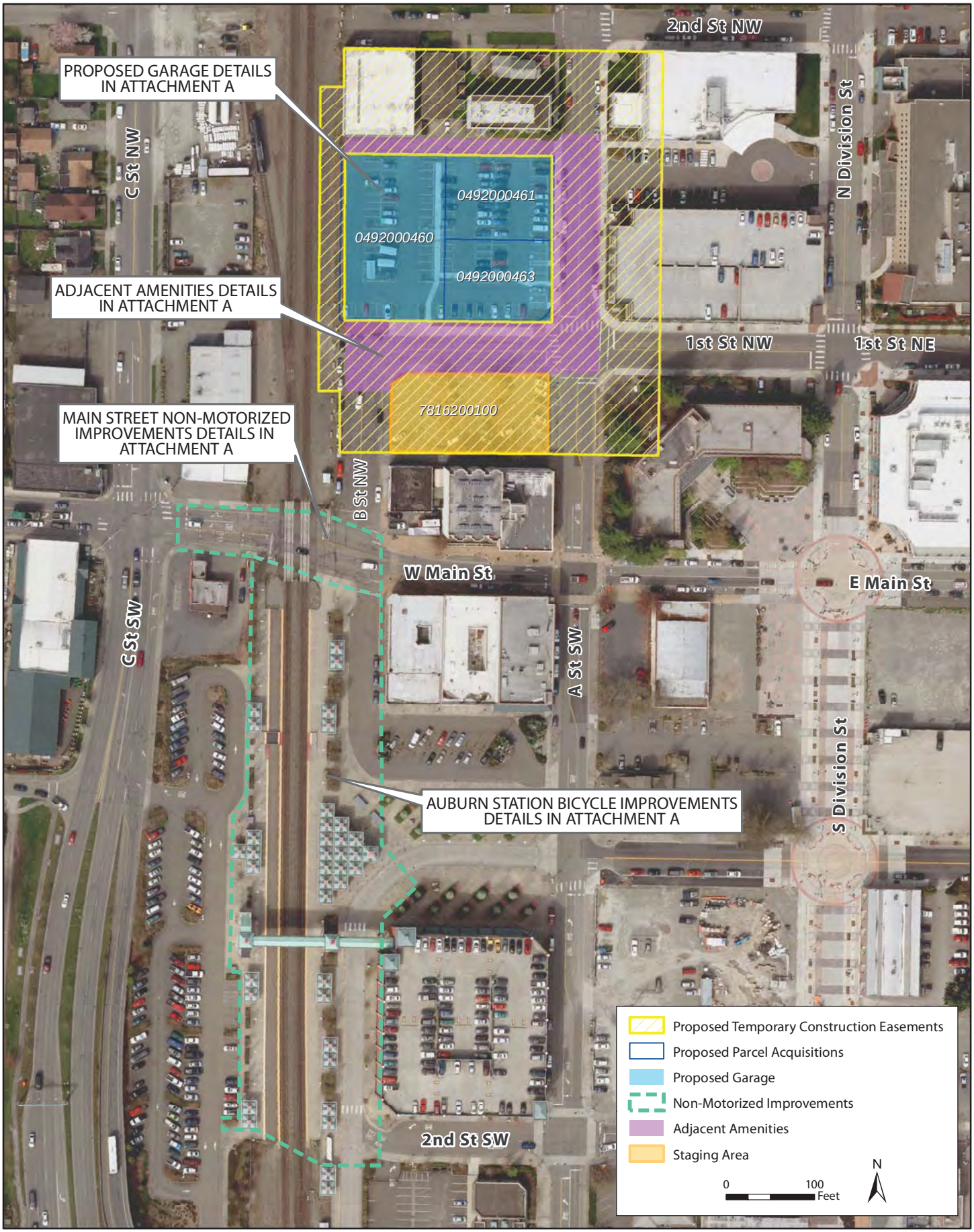


Figure 2
Site Plan
Auburn Station Parking and Access Improvements Project

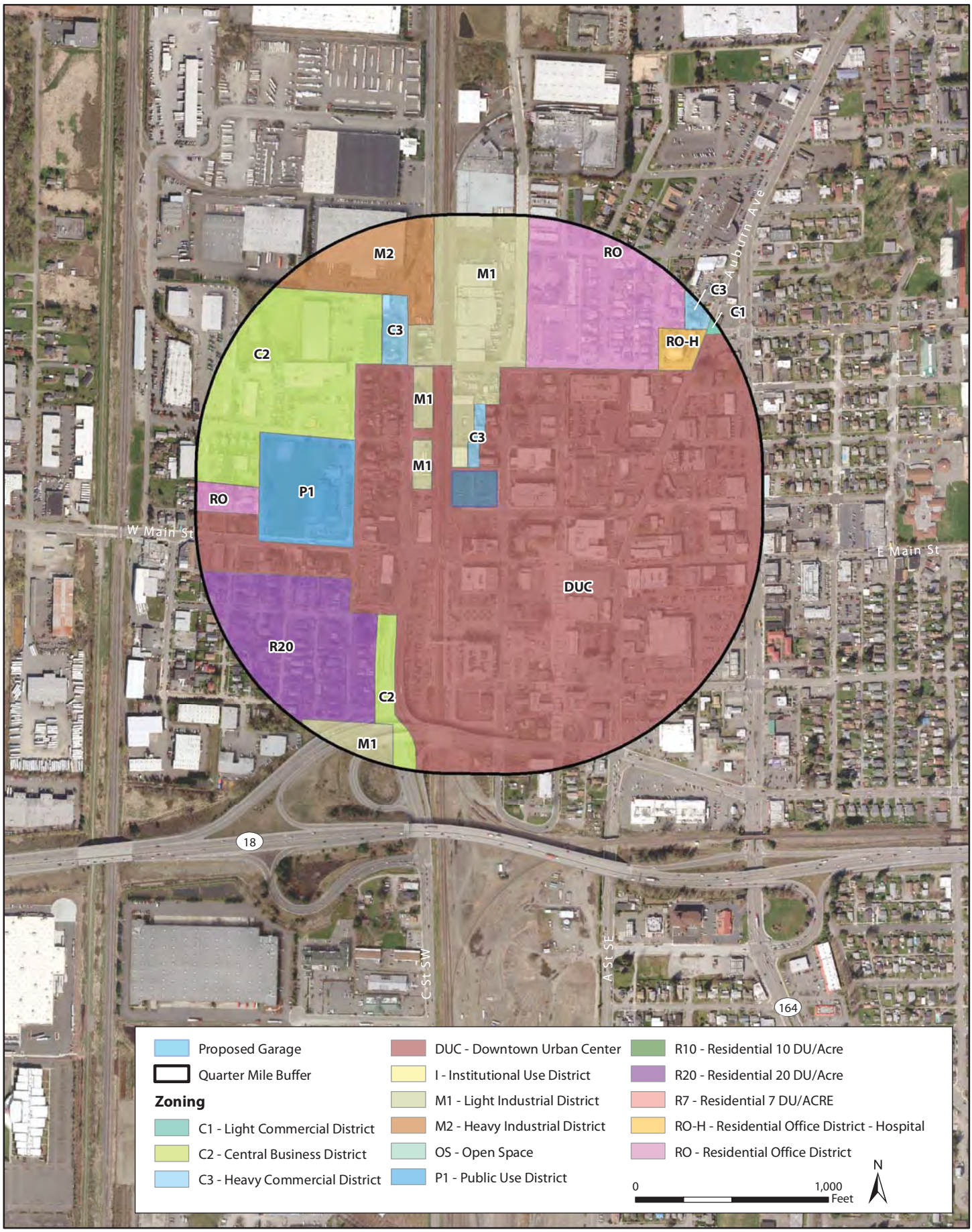


Figure 3
Zoning Map
Auburn Station Parking and Access Improvements Project

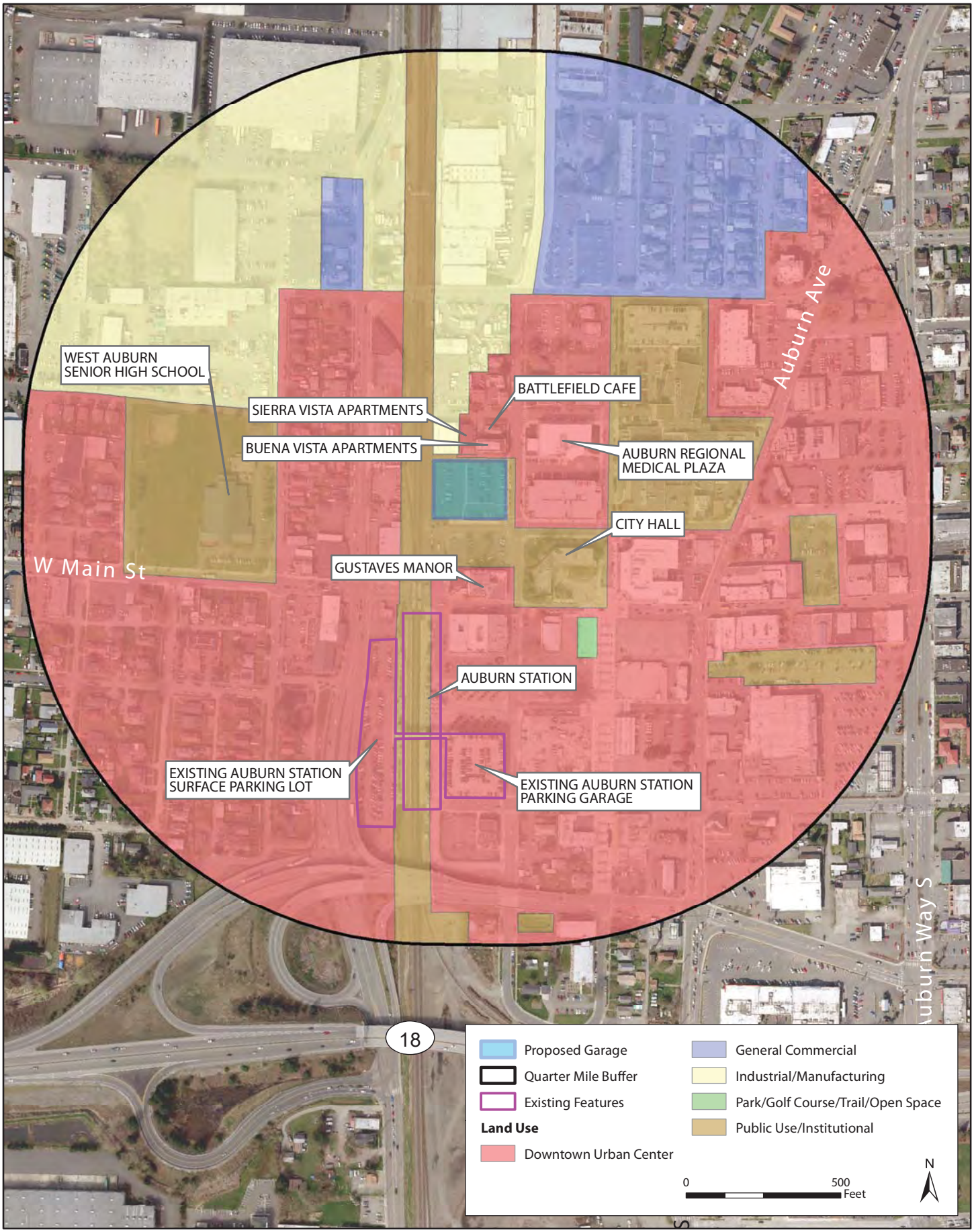


Figure 4
Land Use
Auburn Station Parking and Access Improvements Project

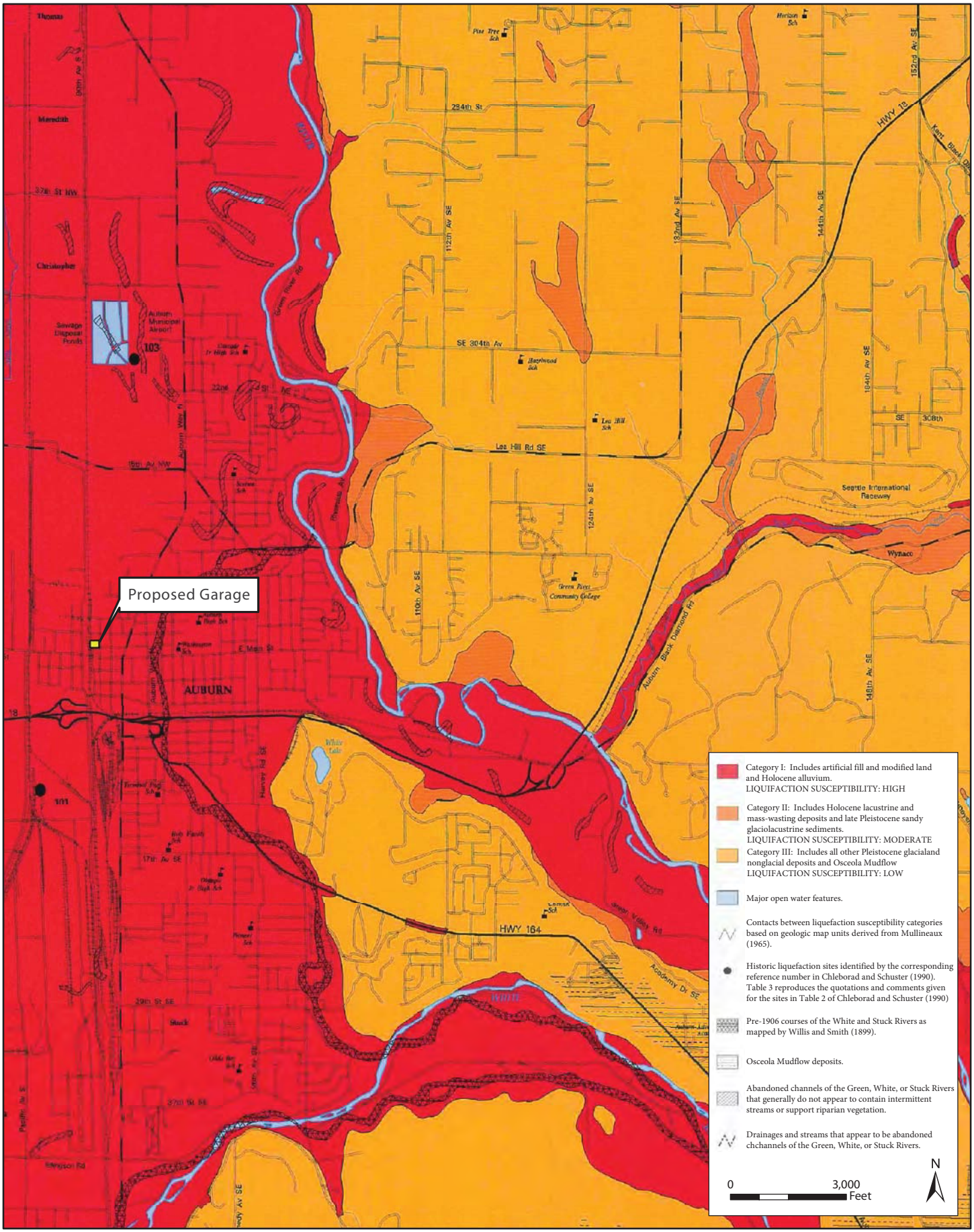
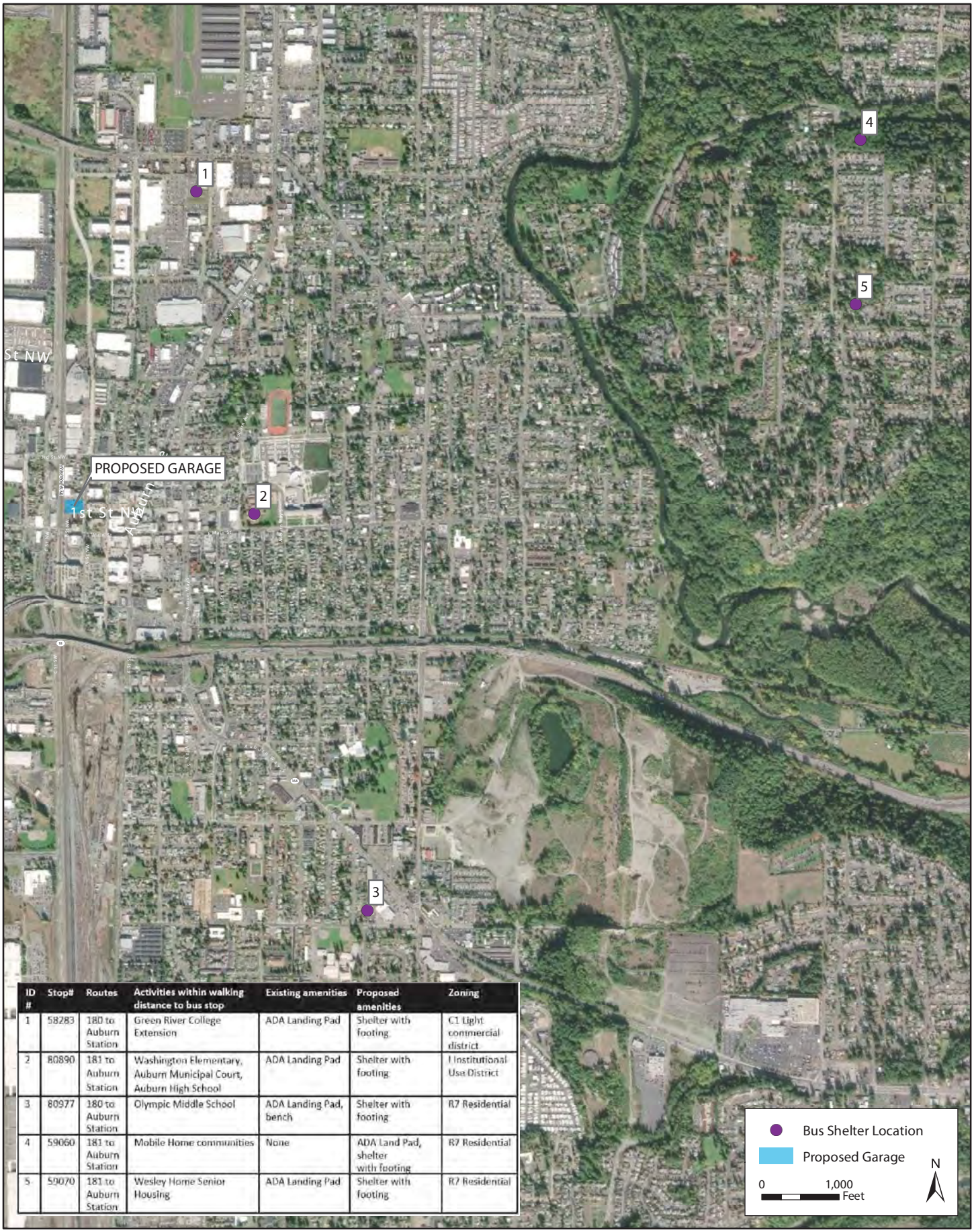


Figure 5
Map of Liquefaction Susceptibility
Auburn Station Parking and Access Improvements Project

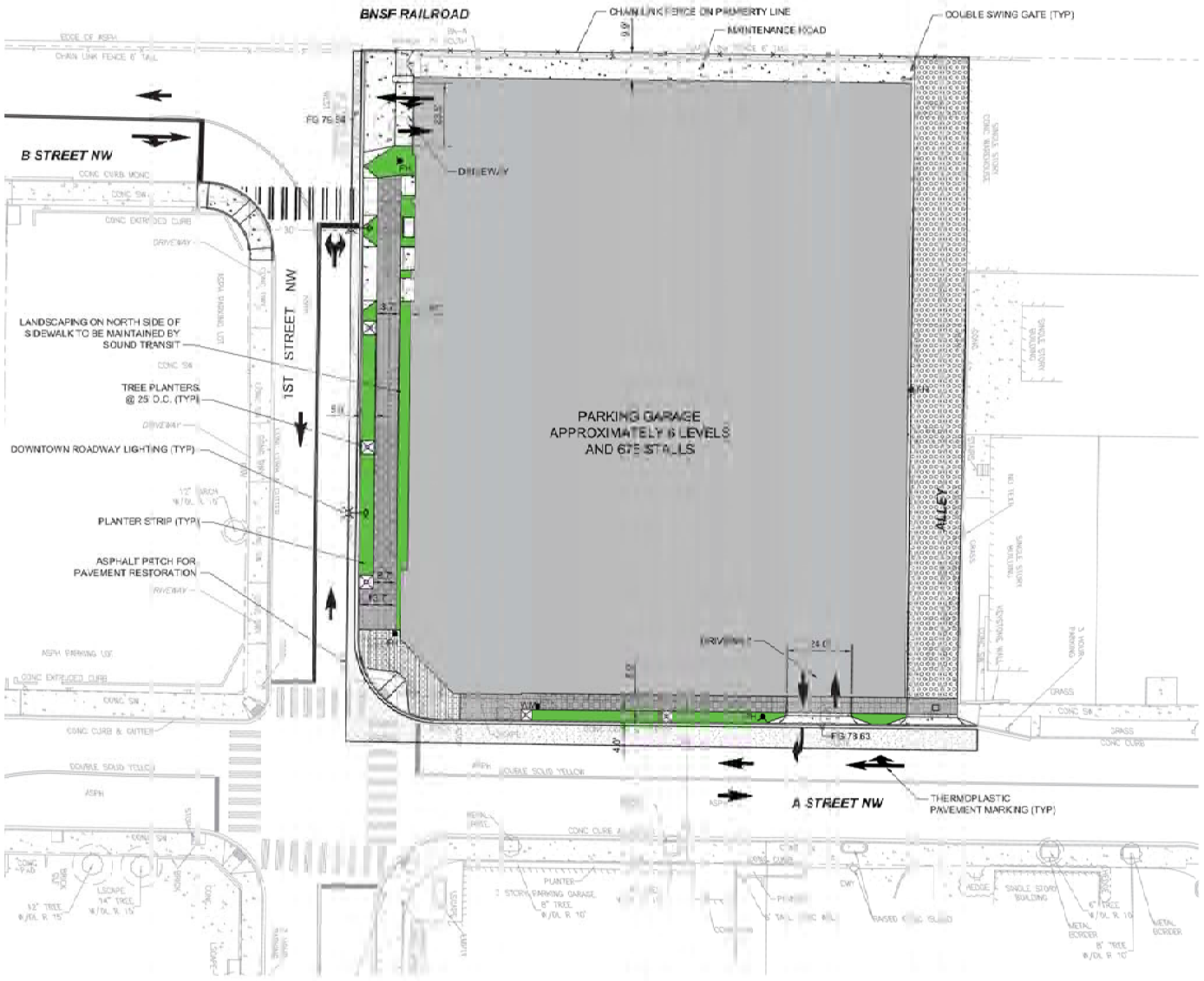


ID #	Stop#	Routes	Activities within walking distance to bus stop	Existing amenities	Proposed amenities	Zoning
1	58283	180 to Auburn Station	Green River College Extension	ADA Landing Pad	Shelter with footing	C1 Light commercial district
2	80890	181 to Auburn Station	Washington Elementary, Auburn Municipal Court, Auburn High School	ADA Landing Pad	Shelter with footing	I Institutional Use District
3	80977	180 to Auburn Station	Olympic Middle School	ADA Landing Pad, bench	Shelter with footing	R7 Residential
4	59060	181 to Auburn Station	Mobile Home communities	None	ADA Land Pad, shelter with footing	R7 Residential
5	59070	181 to Auburn Station	Wesley Home Senior Housing	ADA Landing Pad	Shelter with footing	R7 Residential

Figure 6
Proposed Bus Shelter Locations
Auburn Station Parking and Access Improvements Project

Attachment A

Improvement Plans



LEGEND

- BUILDING FOOTPRINT
- CONCRETE PAVEMENT
- ASPHALT PAVEMENT
- SIDEWALK
- BRICK SIDEWALK
- PERMEABLE PAVEMENT
- LANDSCAPING
- TREE PLANTER
- DOWNTOWN ROADWAY LIGHTING
- FG XXX.XX FINISHED GRADE ELEVATION

N

20 10 0 20 40

SCALE IN FEET

FINAL CE SUBMITTAL

No.	DATE	CSN	CHK	APP	REVISION

DESIGNED BY: R. VACENAIS
DRAWN BY: M. WAINWRIGHT
CHECKED BY: R. VACENAIS
APPROVED BY: J. NISHIMOTO

CDM Smith

SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1"=20'
FILENAME: KASI-P585-CRP101
CONTRACT No.: RTA / AE 0036-16
DATE: 04/05/19

AUBURN STATION
PARKING AND ACCESS IMPROVEMENTS
RTA/AE 0036-16

CIVIL
ROADWAY PLAN

DRAWING No.: P585-CRP101
FACILITY ID: P585
SHEET No.: 5
REV:

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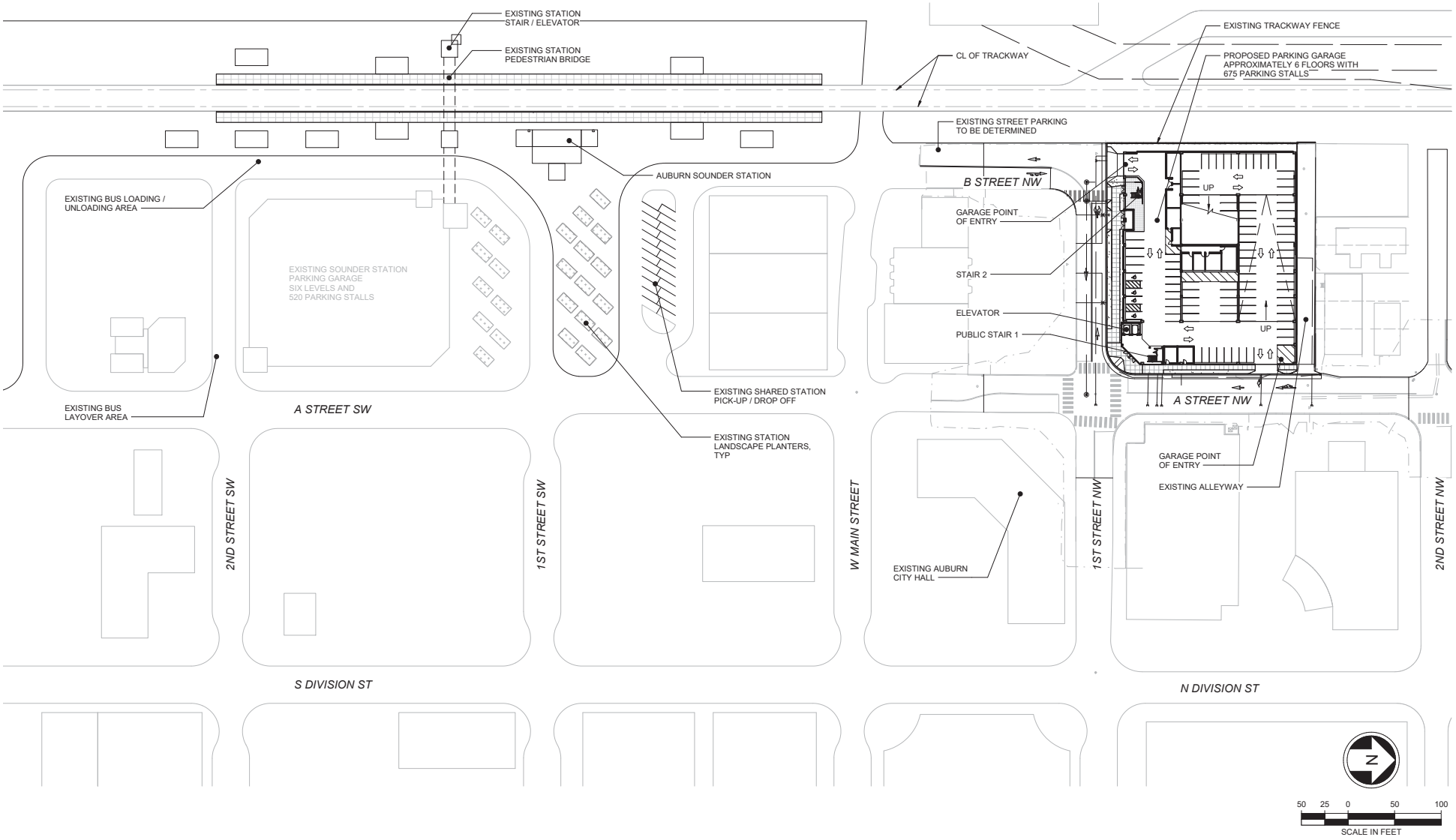

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C:\Temp\KASI_E585_Auburn_R18_chaoc.rvt

FINAL CE SUBMITTAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WIND
DRAWN BY: S. KEAR
CHECKED BY: M. WYLLIE
APPROVED BY: L. EPHREM

SUBMITTED BY:
DATE:
REVIEWED BY:
DATE:

HEWITT

LINE IS 1" AT FULL SCALE

SCALE: 1" = 50'-0"
FILENAME: KASI-P585-ASP101
CONTRACT No.: RTA / AE0036-16
SUBMITTAL DATE: 04/05/19

AUBURN STATION
PARKING AND ACCESS IMPROVEMENTS
CONTRACT RTA/AE 0036-16

ARCHITECTURAL
GARAGE SITE PLAN - OVERALL

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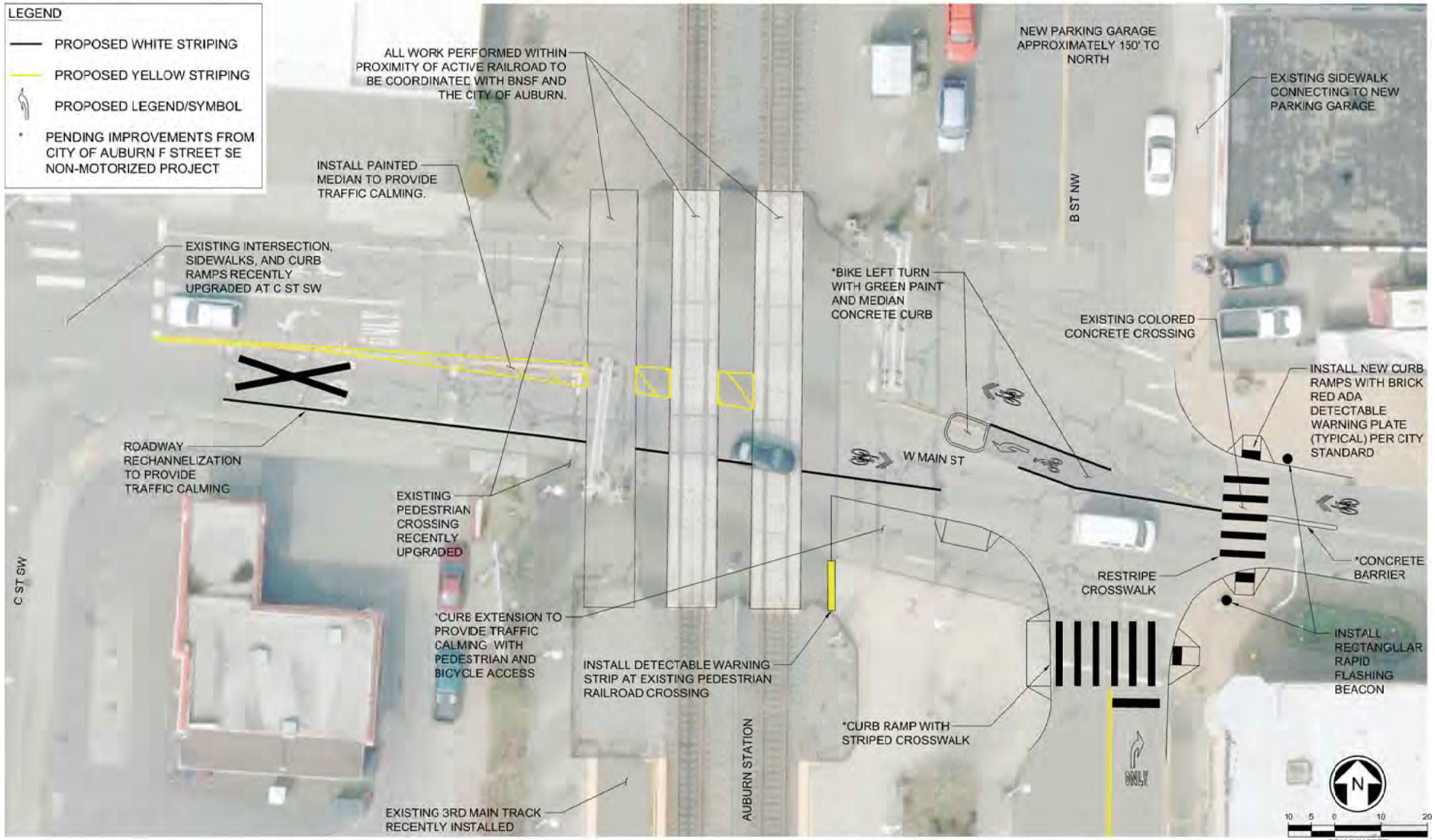
FACILITY ID: P585
SHEET No: 7
REV:



FINAL CE SUBMITTAL

No.	DATE	DSN.	CHK.	APP.	REVISION

DESIGNED BY: M. BJORK
DRAWN BY: L. BUSER
CHECKED BY: T. WOZNIAK
APPROVED BY: J. NISHIMOTO

CDM Smith
500 Union Street, Suite 505
Seattle WA, 98101
Tel: (425) 519-8360

LINE IS 1" AT FULL SCALE

SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

SOUNDTRANSIT

SCALE: 1"=10'
FILENAME: KASI-P585-CMP101
CONTRACT No.: RTA / AE 0036-16
DATE: 10/02/19

AUBURN STATION
PARKING AND ACCESS IMPROVEMENTS
RTA/AE 0036-16

PROPOSED NON-MOTORIZED IMPROVEMENTS
MAIN STREET PEDESTRIAN CROSSING

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FACILITY ID: P585
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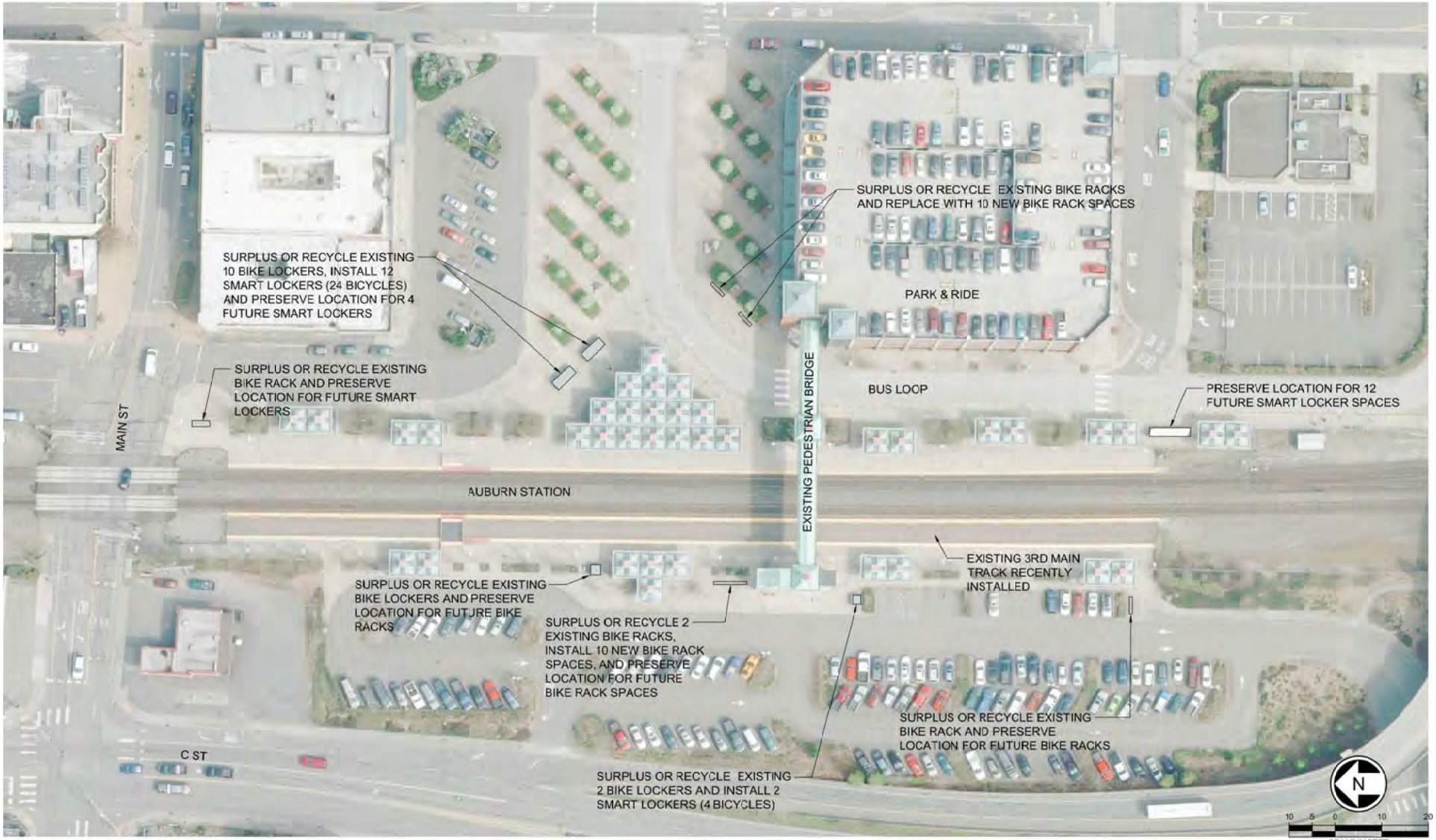

FINAL CE SUBMITTAL

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1"=10'
FILENAME: KASI-P585-CMP102
CONTRACT No.: RTA / AE 0036-16
DATE: 02/04/19

AUBURN STATION
PARKING AND ACCESS IMPROVEMENTS
RTA/AE 0036-16

PROPOSED NON-MOTORIZED IMPROVEMENTS
BICYCLE IMPROVEMENTS

DRAWING No.: P585-CMP102
FACILITY ID: P585
SHEET No.: 2
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Attachment B

Transportation Technical Report

Auburn Station Parking and Access Improvements

Transportation Technical Report

SOUNDTRANSIT
401 South Jackson Street
Seattle, WA 98104-2826

January 2020

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Section 1
Introduction

1.1 Project Description

The Auburn Station Parking and Access Improvements Project (Project) consists of a new parking garage and pedestrian, bicycle, and transit amenities serving patrons of the Sounder South Rail system at the Auburn Station in Auburn, Washington. The site of the proposed garage (project site) is owned by the City of Auburn (City) and is in use as a surface parking lot for the One East Main Street Building. Sound Transit would purchase the property from the City; the 120 parking spaces would be replaced with spaces at the proposed garage. The project site is bounded by 1st St NW on the south, an alleyway on the north, BNSF Railway on the west, and A St NW on the east. The current design includes five levels with a partial half level for a total height of 58 feet. The proposed garage would provide approximately 675 parking stalls for a total revised capacity of 1,266 spaces with 120 reserved for the One East Main Street Building and the remaining for transit patrons.

The following pedestrian, bicycle, and transit amenities are proposed adjacent to and near the project site to meet the need for improved access to the Auburn Station.

- Adjacent to the project site, amenities include painted crosswalks, signals, lighting, and signage.
- At the intersection of W Main St and B St NW, the following amenities would improve pedestrian safety and traffic calming:
    - Rechannelizing the W Main St approach to B St NW and installing a curb extension and concrete median curb.
    - Implementing a bicycle left-turn pocket to accommodate bicycle access from westbound W Main St into the station.
    - Installing a rapid-flashing beacon at the W Main St crossing just east of B St NW.
- At the Auburn Station, planned bicycle improvements include modifications to prepare for future increases in bicycle storage options.
- At five existing stops along routes that connect with the Auburn Station, new bus shelters would be installed.

Details of these amenities would be finalized as part of final design and in collaboration with the City.

Temporary construction easements near the project site would be required prior to constructing the proposed improvements. The easements include a staging area for temporary storage of construction materials, areas where utility relocation would occur and where construction

equipment and materials would be transported to and from the project site, and areas where overhead airspace would be required for the movement of cranes.

In support of sustainability, Sound Transit is committed to environmentally sustainable features in the design and building of its parking garages—such as charging stations for electric vehicles, photo-voltaic panels/arrays, and sustainable materials—which may be included in the design or added in the future. Landscaping, including screening of the parking garage, would be incorporated into the site design and would integrate with its surroundings. Sound Transit is committed to the communities within its service area and sets aside construction dollars for public art. The Sound Transit Public Art Program (STart) would manage the integration and maintenance of art into the new facility.

1.2 Purpose of Technical Report

This technical report presents findings from the technical transportation analysis conducted as part of the environmental review for the Project. The transportation analysis identifies potential transportation and parking impacts associated with the new parking garage, along with mitigation measures, as needed. In addition to vehicular modes, impacts to other modes are analyzed including pedestrians, bicyclists, freight, rail, and transit.

1.3 Organization of Technical Report

In addition to this Section 1, Introduction, the technical report comprises the following sections:

- Section 2, Methodology and Assumptions – summarizes the analysis methods used to assess the No-Build and Project scenarios.
- Section 3, Relevant Plans, Policies, and Coordination – provides information regarding guiding regulations, plans, and policies and agency participation in the planning and analysis processes.
- Section 4, Affected Environment – discusses current transportation conditions.
- Section 5, Long-Term Impacts – describes anticipated operational (long-term) impacts on all modes of travel with and without the Project.
- Section 6, Construction Sequencing and Impacts – discusses the sequence of construction activities and expected short-term impacts due to Project construction activities.
- Section 7, Indirect and Secondary Impacts – describes the potential effects that may occur later in time or removed in distance from the Project.
- Section 8, Potential Mitigation Measures – describes the potential measures that could be implemented to mitigate the transportation effects of the Project.
- Section 9, Reference List.

Section 2
Methodology and Assumptions

The methodology and assumptions used to analyze the transportation impacts of the Project are described in two documents: *Transportation Methodology Technical Memorandum*, and *Ridership and Trip Generation Technical Memorandum*. These documents are available upon request and provide details regarding the methodology and assumptions used to analyze the scenarios, including:

- Study Area – intersections selected for operations analysis.
- Data Collection – existing characteristics of transportation network and service for all modes; intersection turning movement volumes including vehicles, heavy vehicles, pedestrians, and bicycles; parking data collection; and collision data.
- Analysis Techniques and Models – analysis years; study time periods; modes studied; traffic operations software, inputs, and outputs; and vehicle miles traveled (VMT) evaluation approach.
- Measures of Effectiveness – agency thresholds for traffic operations.
- Future Ridership Projections, Distribution and Mode of Access – existing ridership and mode of access; Sound Transit's *Incremental Ridership Model* forecasted ridership; forecasted mode of access for each scenario; and projected trips generated by mode.

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Section 3

Relevant Plans, Policies and Coordination

Transportation facilities and functions are governed by national, state, regional, and local laws, plans, and policies. These regulations identify goals, infrastructure needs, and performance standards for various transportation modes and systems. This transportation analysis is guided by the following laws, regulations, and plans:

- National Environmental Policy Act (NEPA) (U.S. Department of Energy, 2019);
- Washington State Environmental Policy Act (SEPA) (Washington State Legislature, 2019a);
- Moving Ahead for Progress in the 21st Century Act (MAP-21), Public Law 112-141 (FHWA, 2012a);
- Washington State Growth Management Act (Revised Code of Washington [RCW] 36.70A.070) (Washington State Legislature, 2019b);
- Sound Transit 3 (ST3) Plan, approved November 8, 2016 (Sound Transit, 2016);
- Washington State Transportation Plan 2007-2026 (Washington State Department of Transportation [WSDOT], 2006);
- WSDOT Development Services Manual (M 3007) (WSDOT, 2016b);
- King County Metro Long-Range Plan (King County Metro, 2017);
- Pierce Transit Destination 2040 Long Range Plan (Pierce Transit, 2016);
- Auburn Comprehensive Transportation Plan, adopted December 14, 2015 (City of Auburn, 2015); and
- Auburn 2019-2024 Transportation Improvement Program (City of Auburn, 2018).

The Auburn Station improvements, as well as other transportation improvements within the study area, are identified in and are consistent with the local plans listed above.

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Section 4
Affected Environment

This section documents the affected environment for this transportation analysis which includes the study area definition and description of existing (2018) transportation conditions within the study area.

4.1 Study Area

The Project would build a new parking garage and provide pedestrian and bicycle improvements near the Auburn Station. The Auburn Sounder Station is located in downtown Auburn along B St SW between 3rd St SW and W Main St, as shown in **Figure 4-1**. The station currently has 633 parking spaces, including a parking garage with 520 spaces and 113 surface stalls on the west side of the station. The City currently leases 42 stalls from Sound Transit through an existing agreement for the existing garage.

The proposed project would build a new parking garage north of the station. The new garage would be located along A St NW between 1st St NW and 2nd St NW.

The study intersections for traffic operational analysis are shown in Figure 4-1. The 25 study intersections were selected in consultation with City staff based on the garage's anticipated trip distribution pattern. In addition to intersections located in the vicinity of Auburn Station's existing and proposed parking garages, key intersections along roadways connecting to nearby highways (State Route [SR] 18 and SR 167) were selected for analysis. In addition, driveways connecting the proposed garage to city streets are included in the study area.

Pedestrian and bicycle facilities are evaluated respectively within a 0.25- and 0.50-mile radius of the station platform.

4.2 Existing Transportation Conditions

The existing (2018) transportation facilities, service types, and conditions within the study area are listed below and discussed in subsequent sections.

- Roadway network: Roadway type and facilities
- Traffic volumes: Peak-hour intersection volumes at all study intersections and daily volumes at several locations throughout the study area
- Traffic operations: Intersection level of service and average vehicle delay
- Public transportation: Summary of transit routes
- Freight: Summary of freight routes and freight volumes at study area intersections
- Rail transportation: Summary of rail facilities and users

Figure 4-1 Auburn Study Area

- Non-motorized transportation: Bicycle and pedestrian facilities
- Parking: Summary of parking facilities supply and utilization
- Safety: Summary of safety issues at intersections

4.2.1 Roadway Network

The project area is served by a network of roadways consisting of state highways, principal arterials, minor arterials, collector streets, and local streets.

SR 18 connects I-5 to I-90 through Auburn. It is a four-lane limited access highway with a speed limit of 60 miles per hour. Traffic accessing the Auburn Station from outside the City predominantly uses the C St SW and SR 164/Auburn Way S interchanges.

Principal arterials serving the study area all run north-south and include Auburn Way, A St SE (south of 3rd St SE/Cross St SE), and C St SW (south of SR 18). These streets typically accommodate four or five lanes of traffic with speed limits varying between 30 and 40 mph. These facilities carry the highest traffic volumes among the local city streets because they provide direct connections with SR 18 and extend beyond the city limits.

Minor arterials complement the arterial system by connecting with principal arterials and state highways. Within the transportation study area, north-south minor arterials include C St SW/NW(north of SR 18), A St NW/B St NW, and Auburn Ave/A St SE. East-west minor arterials include Main St, and 3rd St SW/3rd St SE/Cross St SE/4th St SE.

Collectors connect principal/minor arterials with local/residential streets. Within the study area, the following sections are classified as collectors: 2nd St SE east of A St SE; 4th St NE east of Auburn Ave; B St NW/1st St NW/1st St NE; A St NW/SW south of Main St; S Division St south of 3rd St; 2nd St SW and 1st St SW west of A St SE.

Study area streets that do not have principal arterial, minor arterial, or collector designations are designated as local streets.

4.2.2 Traffic Volumes

Existing weekday turning movement counts were collected between February and June 2018 at the study area intersections and driveways identified in Figure 4-1.

Counts were provided by the City in 15-minute intervals from 7:00 to 9:00 am and from 4:00 to 6:00 pm. At the locations where City counts were not available, the consultant team collected additional counts from 6:00 to 9:00 am and from 4:00 to 7:00 pm. The counts include total number of vehicles, heavy vehicles, pedestrian crossing volumes, and bicycles by approach at each intersection.

The PM peak period is the controlling analysis factor to identify project impacts. This is because the short duration surges in traffic volumes that occur after the arrival of each Sounder train in the evening commute have a greater impact on the surrounding transportation network than comparatively steady traffic volumes accessing the station during the morning commute. During

the PM peak period, peak station-related and higher background traffic volumes occur around the same time, resulting in the highest cumulative traffic condition.

A limited AM peak period analysis was also conducted. A subset of seven intersections was identified for the AM peak analysis in consultation with the City based on critical turning movements associated with the project and primary station ingress routes. In the morning, station-related traffic tends to peak around 6:00 am or even earlier. However, the morning peak for background traffic occurs later, typically around 7:00 am. Periods of peak background traffic were found to result in higher overall volumes even though station-related traffic was lower.

At the SR 18 interchange with C St SW, daily ramp volumes range between 3,000 and 16,000 vehicles per day depending on the ramps. At the SR 18 interchange with Auburn Way, ramp volumes range between 6,000 and 16,000 vehicles per day depending on the ramps. Along C St within the study area, volumes range between 10,000 and 13,000 vehicles per day. On A St NW between 3rd St NW and West Main St, average daily traffic is about 3,000 vehicles. On A St NW/B St NW between 3rd St NW and 5th St NW, average daily traffic is about 8,000 vehicles

Peak period traffic count information is included in **Appendix A**, *Turning Movement Counts*.

4.2.3 Traffic Operations

Level of service (LOS) is the qualitative description of traffic operations from the driver's perspective and is defined by intersection delay, applying methods established in the 6th edition of the *Highway Capacity Manual* (Transportation Research Board, 2016). LOS applies a scale ranging from A to F, based on the delay conditions at the intersection. LOS A represents the best conditions with minimal delay and LOS F represents the worst conditions with severe delay.

Table 4-1 lists the intersection LOS delay thresholds for signalized and stop-controlled intersections.

Table 4-1 Level of Service Delay Thresholds for Intersections

LOS	Average Control Delay per Vehicle (sec/veh)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10	≤ 10
B	>10 - 20	>10 - 15
C	>20 – 35	>15 – 25
D	>35 – 55	>25 – 35
E	>55 - 80	>35 - 50
F	≥ 80.1	≥ 50.1

Source: Transportation Research Board 2016

For signalized and all-way stop intersections, LOS is calculated based on the average delay for all vehicles entering the intersection. For side-street stop intersections, the LOS is calculated based on the worst movement delay.

The *Synchro* (Version 10) traffic analysis tool was used to evaluate traffic impacts associated with the proposed project. Traffic signal timing plans were obtained from the City and coded into the existing year AM and PM traffic analysis models. Synchro provides intersection delay and LOS

values consistent with methodologies established in the 6th edition of the *Highway Capacity Manual* (HCM) (Transportation Research Board, 2016). For most of the intersections, the reported average delay is based on the HCM 6th Edition methodology. However, this methodology is not always applicable due to non-typical configuration or signal phasing, in which case the average delay was calculated using the HCM 2000 (4th edition) method. More specifically, the following intersections were analyzed using the HCM 2000 methodology: intersections No.'s 2, 6 and 25 (turning movements with shared and exclusive lanes); intersections No.'s 3, 15 and 23 (non-NEMA[1] phasing); intersection No. 5 (exclusive pedestrian or hold phases).

Vehicle trips generated by Sounder Station service occur in short-duration surges, with high vehicle flows for short periods after the arrival of a train, and low vehicle flows between train arrivals. In order to capture the worst conditions, the analysis was done by using the peak 15-minute traffic volumes and quadrupling the values to obtain hourly traffic volumes. Pedestrians and bicycles are also modeled in Synchro, thereby capturing the impacts of these modes and maneuvers on the transportation system.

The City's adopted intersection LOS standards are established in its *Comprehensive Transportation Plan* (City of Auburn, 2015). The intersection LOS standard within the study area varies between D and E. The four SR 18 ramp intersections (No.'s 18, 22, 23 and 25 in Figure 4-1) are under WSDOT jurisdiction and have an intersection LOS standard of LOS E (WSDOT, 2005).

The existing peak hour LOS and delay for the study area intersections evaluated are shown in **Table 4-2** (PM Peak) and **Table 4-3** (AM Peak). The average delay for all vehicles is reported for signalized intersections and all-way stop intersections; at side-street stop intersections, delay is reported for the worst-operating stopped movement. Cells highlighted in grey/bold currently exceed the established LOS standard. Under existing conditions (2018), only one study area intersection—the signalized intersection of C St NW and 3rd St NW (Intersection No. 4)—exceeds the LOS standard during the PM peak hour.

[1] National Electrical Manufacturers Association

Table 4-2 Existing PM Peak Hour Intersection Level of Service

No.	Name	Control Type	LOS Standard	LOS	Delay[1,2,3] (sec)	Worst Mvt[3]
1	B St NW & 10th St NE	Side-street Stop	D	E	41.9	WBL
2	Auburn Ave & 4th St NE	Signalized	D	A	3.5	--
3	Auburn Way N & 4th St NE	Signalized	D	C	20.3	--
4	**C St NW & 3rd St NW**	**Signalized**	**E**	**F**	**82.6**	--
5	A St NW & 3rd St NW	Signalized	E	C	29.6	--
6	Auburn Ave & 3rd St NE	Signalized	E	B	12.3	
7	C St NW & 2nd St NW	Side-street Stop	D	C	15.7	EB
8	A St NW & 2nd St NW	Side-street Stop	D	B	12.3	WB
9	A St NW & 1st St NW	All-way Stop	D	A	9.3	--
10	Auburn Ave & 1st St NE	Signalized	D	B	11.8	--
11	C St NW & W Main St	Signalized	E	C	30.7	--
12	W Main St & A St NW	Signalized	E	B	10.7	--
13	W Main St & Division St	Signalized	D	A	6.2	--
14	E Main St & Auburn Ave	Signalized	E	B	15.9	--
15	E Main St & Auburn Way S	Signalized	E	C	28.6	--
16	C St SW & 1st St SW	Side-street Stop	D	B	13.1	EB
17	A St SE & 2nd St SE	Signalized	D	B	15.8	--
18	C St SW & WB SR 18 Ramps (WSDOT)	Signalized	E	C	21.0	--
19	3rd St SW & Division St	Signalized	D	B	14.6	--
20	3rd St SE & A St SE	Signalized	E	D	37.0	--
21	4th St SE & Auburn Way S	Signalized	E	C	20.0	--
22	Auburn Way S & WB SR 18 Ramps (WSDOT)	Signalized	E	D	37.8	--
23	C St SW & EB SR 18 Ramps (WSDOT)	Signalized	E	C	29.3	--
24	A St SE & 6th St SE	Signalized	E	C	21.8	--
25	Auburn Way S & EB SR 18 Ramps/6th St SE (WSDOT)	Signalized	E	D	48.1	--

1. Delay reported from Synchro based on the HCM 6th Edition methodology, reflecting average delay of all vehicles traveling through the approach or intersection. The 6th Edition method does not calculate average delay for some intersections with non-typical configuration or signal phasing, in which case the average delay was calculated using the HCM 2000 method.
2. For signalized and all-way stop-controlled intersections, LOS is based upon the average delay for all vehicles traveling through the intersection.
3. For side-street stop-controlled intersections, LOS is based upon the movement with the highest average delay (referred to as the "worst" movement). Therefore, the direction of the worst movement is identified only for side-street stop-controlled intersections. If there is only one lane utilized by multiple movements on the side-street approach, the delay for the approach is reported.

Table 4-3 Existing AM Peak Hour Intersection Level of Service

No.	Name	Control Type	LOS Standard	LOS	Delay[1,2,3] (sec)	Worst Mvt[3]
8	A St NW & 2nd St NW	Side-street Stop	D	B	10.4	WB
9	A St NW & 1st St NW	All-way Stop	D	A	8.5	--
11	C St NW & W Main St	Signalized	E	C	23.7	--
14	E Main St & Auburn Ave	Signalized	E	B	11.7	--
17	A St SE & 2nd St SE	Signalized	D	A	7.3	--
18	C St SW & WB SR 18 Ramps (WSDOT	Signalized	E	B	11.6	--
20	3rd St SE & A St SE	Signalized	E	C	26.2	--

1. Delay reported from Synchro based on the HCM 6th Edition methodology, reflecting average delay of all vehicles traveling through the approach or intersection. The 6th Edition method does not calculate average delay for some intersections with non-typical configuration or signal phasing, in which case the average delay was calculated using the HCM 2000 method.
2. For signalized and all-way stop-controlled intersections, LOS is based upon the average delay for all vehicles traveling through the intersection.
3. For side-street stop-controlled intersections, LOS is based upon the movement with the highest average delay (referred to as the "worst" movement). Therefore, the direction of the worst movement is identified only for side-street stop-controlled intersections. If there is only one lane utilized by multiple movements on the side-street approach, the delay for the approach is reported.

4.2.4 Public Bus Transportation

Several public transportation options are available within the study area. **Table 4-4** summarizes Sound Transit, King County Metro and Pierce Transit bus routes that provide access to the Auburn Station during the morning and evening peak periods. This summary is based upon service as of December 2018. Transit agencies regularly adjust routes and service to reflect changes in operating conditions and rider demand.

4.2.5 Freight

The City has designated truck routes for through freight movement in an effort to maximize the efficiency of and protect the roadway infrastructure (City of Auburn, 2015). Truck routes, established by City ordinance, are designated for roadways that incorporate special design considerations such as street grades, continuity, turning radii, street and lane widths, pavement strength, and overhead obstruction heights. Within the study area, city truck routes include: C St, Auburn Way, B St NW/A St NW, 3rd St/Cross St SE.

Table 4-4 Existing Bus Routes Serving the Auburn Station

Service Provider and Route		Frequency[1]	Service Hours[1]
Sound Transit			
Sounder	Lakewood to Seattle	20 to 30 min	4:30 AM – 7:45 PM
566	Auburn Transit Center to Bellevue to Overlake	30 to 45 min (peak periods) 30 to 60 min (off-peak)	5:00 AM – 9:15 PM
578	Federal Way / Puyallup to Seattle	20 to 30 min	8:30 AM – 12:15 AM
King County Metro			
180[2]	Southeast Auburn to Kent Station to SeaTac Airport to Burien Transit Center	15 to 60 min	4:30 AM – 1:30 AM
181[2]	Twin Lake Park & Ride to Auburn Station to Green River College	15 to 60 min	5:15 AM – 11:30 PM
186	Enumclaw to Auburn Station	20 to 35 min	5:45 AM – 7:45 PM
910	The Outlet Collection Seattle to North Auburn	60 min	8:00 AM – 4:45 PM
915	Enumclaw to Auburn Station (DART[3])	60 min	9:30 AM – 4:00 PM
917	White River Junction to Auburn Station (DART[3])	60 min	5:00 AM – 7:00 PM
Pierce Transit			
497	Sunset Park to Auburn Transit Center	20 to 35 min	5:00 AM – 7:00 PM

Source: Sound Transit, King County Metro Transit, Pierce Transit.
Notes:
1. Schedule information as of December 2018.
2. In September 2018, King County Metro increased bus service on routes 180 and 181 with more frequent peak service. Several weekday trips were adjusted on Route 180 between 4:45 and 8:15 am to provide 15-minute service on northbound AM trips, and between 3:30 and 7:40 pm on southbound PM trips between Auburn Station and the Burien Transit Center. Weekday AM trips were added on Route 181 to provide 15-minute service.
3. DART=Dial-a-ride transit.

Truck freight within the Puget Sound region is transported along a system of designated freight routes that consist of freeways and arterial streets connecting major freight destinations. The Washington State Freight and Goods Transportation System (FGTS) is used to classify roadways according to the average annual gross truck tonnage they carry. Truck tonnage values are derived from actual or estimated truck traffic count data that are converted into average weights by truck type. Classifications range from T-1, which includes roadways that carry over 10 million tons per year, to T-5, which includes roadways that carry over 20,000 tons in 60 days (**Table 4-5**).

Jurisdictions determine their designated truck route system according to the FGTS classifications.

Table 4-5 Freight and Goods Transportation System Classifications

FGTS Classification	Annual Gross Tonnage
T-1	More than 10 million tons
T-2	4 to 10 million tons
T-3	300,000 to 4 million tons
T-4	100,000 to 300,000 tons
T-5	At least 20,000 tons in 60 days and less than 100,000 tons per year

Source: Washington State Freight and Goods Transportation System 2017-Seattle, Tacoma, and Everett Urbanized Area.

SR 18 is the only roadway classified as T-1 within the study area. Truck traffic represents about 9 percent of overall volumes on SR 18 (WSDOT, 2017). FGTS-classified T-2 roadways in the study area include A St SE between Auburn Ave and 6th St SE, Auburn Way S between 2nd St SE and 6th St SE, and C St NW/SW between 6th St NW and 15th St SW. FGTS-classified T-3 roadways in the study area include portions of 3rd St SE/SW, A St NW/B St NW, Auburn Ave, Auburn Way N/S, and Cross St SE.

Other facilities in the study area carry truck traffic; however, they are not designated as freight routes. Most truck traffic provides local deliveries to nearby businesses and residential areas.

During the PM peak hour, traffic counts conducted for the project indicate that trucks account for 1 to 9 percent of vehicle traffic at study area intersections, with the highest truck percentages observed at the 2nd St SE and 3rd St SE intersections nearest SR 18 ramps (No.'s 17 through 20 on Figure 4-1).

Rail freight corridors are also included in the FGTS (WSDOT, 2016a), and the BNSF tracks that serve the Auburn Station are classified as R-1 (greater than 5 million tons per year).

4.2.6 Rail Transportation

The main BNSF railroad line through the region travels north-south through the study area, paralleling C St. The two at-grade crossings within the study area are located at W Main St and 3rd St NW. The rail line is used by freight train, passenger rail, and commuter rail services.

4.2.6.1 Freight Trains

During the 3-hour PM peak period, freight trains arrive at a rate of approximately one per hour, and range in length from 45 cars to 130 cars (average train includes 100 cars). The gates are typically closed between 1 minute 45 seconds and 3 minutes with the average gate closure of 2 minutes 30 seconds. The main BNSF rail line through the corridor is a major freight route for freight trains; however, BNSF has an agreement with Amtrak and Sound Transit to minimize freight traffic during commute hours to give passenger service priority.

4.2.6.2 Passenger Trains

Passenger rail service in the study area includes two passenger rail routes along the BNSF tracks: the Amtrak Cascades route from Vancouver, British Columbia, to Eugene, Oregon and the Coast Starlight route from Seattle to Los Angeles. These two routes result in five passenger trains operating along the BNSF tracks daily in each direction. During the 3-hour PM peak period, one

northbound and one southbound passenger train would travel through the study area resulting in gate closures of less than 60 seconds.

4.2.6.3 Sounder Commuter Trains

Sounder commuter rail service, operated by Sound Transit, also uses the BNSF tracks in the study area. The Seattle to Lakewood route operates 13 trains per day. Sounder trains regularly run weekday mornings and afternoons only. Two roundtrips were added to the Sounder south line in 2017. The first weekday morning train leaves Auburn for Seattle at 5:18 AM. The last train arrives in Auburn from Seattle at 6:57 PM. Sounder also serves select major weekend events such as Mariners and Seahawks games. Sounder trains travel from Auburn to Seattle in approximately 35 minutes and to Tacoma in 28 minutes (Sound Transit schedule information as of December 2018).

4.2.7 Non-motorized Transportation

Pedestrian and bicycle facilities were analyzed within a 0.25- and 0.5-mile radius from the Auburn station, referred to as the "walk travel shed" and "bike travel shed", respectively.

4.2.7.1 Pedestrian Facilities

Generally, within the study area, there is a well-connected network of sidewalks with only minor gaps in the network. The orientation of the station and the surrounding buildings is generally consistent with the downtown character of the area. There is a pedestrian bridge across the railroad tracks connecting the parking lot on the east side of the tracks to the Auburn Station.

Some of the identified issues within the station walk travel shed include:

- Minor gaps in the pedestrian network around the station, many of which are being filled in as frontage improvements by new development. For more information, refer to Exhibit E3 of the Baseline Conditions Summary (CDM Smith, 2017).
- Sidewalk gaps northwest of the station that limit the convenience and comfort of reaching Auburn Station on foot from this area.
- No delineation between pedestrian and vehicle space at the railroad crossing on W Main St.
- SR 18 acts as a barrier for walking to/from the south.
- Heavy volumes of vehicular traffic and wide arterial streets such as Auburn Way making it difficult for pedestrians to cross.

Sounder riders walking to and from home currently comprise about 9 percent of all riders who board at the Auburn Station.

4.2.7.2 Bicycle Facilities

The bike travel shed is generally oriented in a north-south direction as SR 167 limits access from the west, and the Green River limits access from the east.

The Interurban Trail is located about 0.3 mile west of the Auburn Station. The Interurban Trail connects Green River Trail and Tukwila International Boulevard in the north with Auburn in the

south. A bike lane in each direction along W Main St connects the Interurban Trail to the station area. Facilities for crossing the BNSF/ Sounder tracks at the station and the UP tracks near the Interurban Trail do not distinguish between pedestrian, bicycle, and vehicular traffic.

Other dedicated bicycle facilities within the bike travel shed are sparse and do not connect directly to the Auburn station. Main St, east of the station, is considered a shared roadway and offers the primary east-west connection to the east part of the city as well as Green River Road. There is a planned future bicycle facility on Main St east of R St SE according to Map 3-2 of the Auburn Transportation Plan (City of Auburn, 2015). There are few other east-west bicycle facilities across town. In general, there are few bicycle lanes on city arterials and collectors. It is the preference of the City to locate bicycle facilities away from arterials streets.

The City of Auburn F St Non-motorized project is included in the TIP (City of Auburn, 2018). This project involves pavement rehabilitation, installation of curbs, gutters, bike lanes, sidewalks, ADA improvements, utility undergrounding, LED street lighting, new two way center left turn-lane, crash attenuation at the supports for the BNSF railroad bridge, wayfinding signage and a "Bicycle Boulevard" designation of roadway connections between Auburn City Hall and the Les Gove Park Campus. This project improves mobility and safety along the corridor and will complete a gap in the non-motorized network between Auburn's Regional Growth Center and the Les Gove Community Campus. The major infrastructure improvements are approximately 0.3 miles long and the "Bicycle Boulevard" improvements are just over a mile long. The project includes improvements along Main St between the Auburn Station and F St, and then along F St to Auburn Way South.

Sounder riders biking to and from home currently comprise about 6 percent of all riders who board at the Auburn Station. The station currently has 32 bicycle rack spaces and 26 bicycle lockers with a 40-bicycle capacity.

4.2.8 Parking

In 2017, about 1,600 passengers boarded the Sounder commuter train at Auburn Station each weekday. The existing park-and-ride garage capacity is 520 spaces and the surface lot capacity is 113 spaces. The parking spaces are typically full by 6:00 am.

In order to document on-street parking occupancy in areas that are commonly used by Sounder train passengers, the City recommended that the parking study area include block faces roughly within one-half mile of the station for collection of existing parking occupancy data where legal unrestricted parking is provided. Block faces were selected to address the concern of future “hide-and-ride” activity (by which commuters drive and park on city streets in order to access the train for the remainder of their commute) with increasing ridership. One-half mile distance equates to 10 minutes of walk time at 3 miles per hour. A map of the parking survey area is provided in **Figure 4-2**.

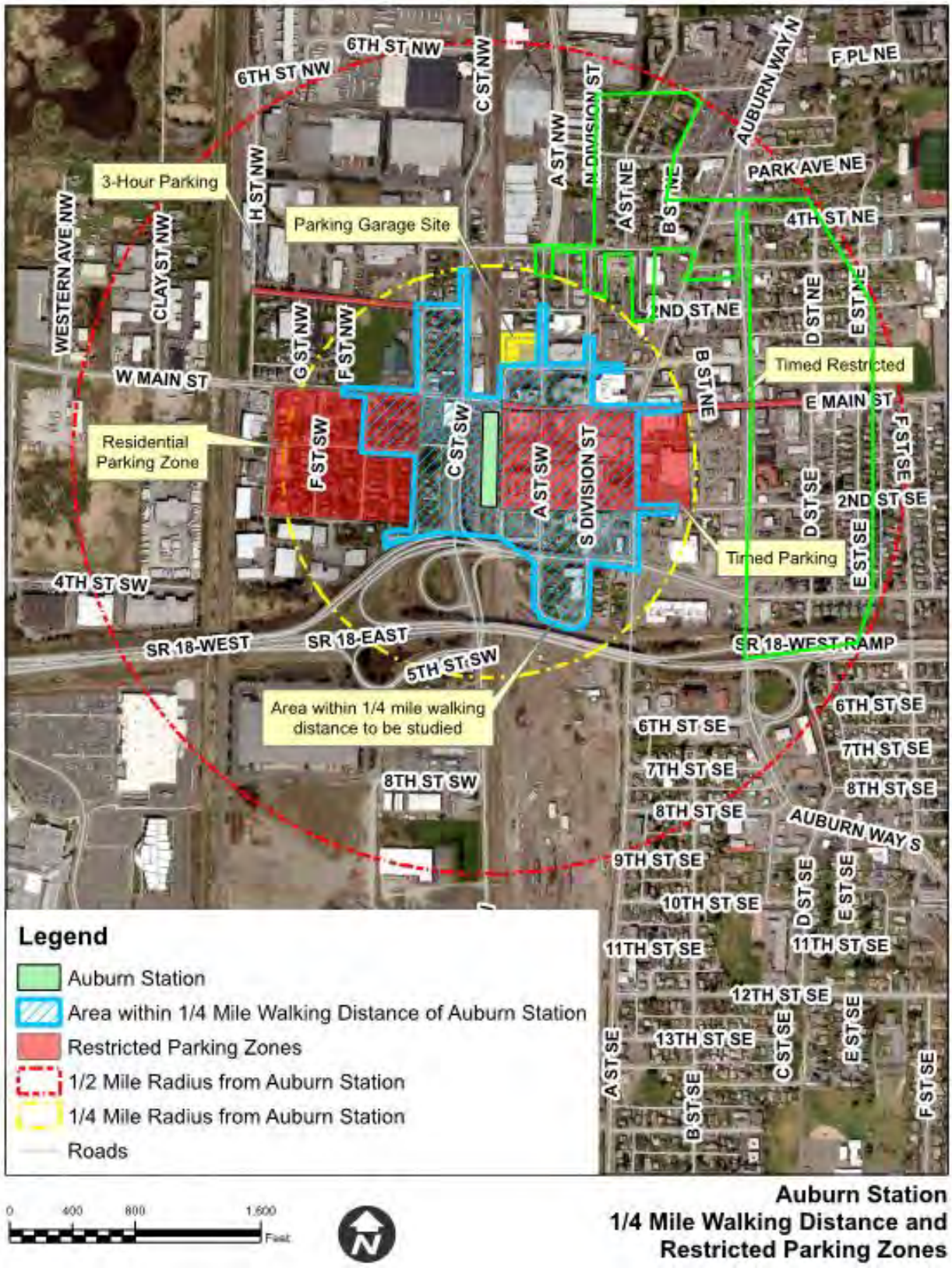

Figure 4-2 Parking Survey Area

Parking occupancy data were collected between 11:40 am and 1:55 pm to capture peak downtown parking occupancy as reported in the *Comprehensive Downtown Parking Management Plan* (City of Auburn, 2014). **Table 4-6** summarizes the on-street parking characteristics within the study area, including the total number of spaces, parking occupancy, available parking spaces, and the distance from the station platform entrance on B St SW.

The information is sorted into three groups:

- Block faces that are closer to the station entrance than to the new (proposed) garage;
- Block faces that are closer to the new garage than to the station entrance, and within one-half mile of the new garage; and
- Block faces that are closer to the new garage than to the station entrance, and more than one-half mile from the new garage.

Table 4-6 Existing On-Street Parking near Auburn Station

Block Face Group	Restriction	Number Spaces	Spaces Available	% Occupied	Distance to Station (miles)
Block faces closer to the station entrance than to the new garage	Unrestricted	73	48	34%	0.49 to 0.58
	3-Hour	16	7	56%	0.42 to 0.47
	Subtotal	**89**	**55**	**38%**	
Block faces less than one-half mile from new parking garage, and closer to the new garage than to the station entrance	Unrestricted	295	122	59%	0.27 to 0.62
	3-Hour, 2-Hour	109	71	35%	0.27 to 0.62
	Subtotal	**404**	**193**	**52%**	
Block faces more than one-half mile from new parking garage, and closer to the new garage than to the station entrance	Unrestricted	69	35	49%	0.59 to 0.68
	Subtotal	**69**	**35**	**49%**	

Note: Parking inventory and occupancy collected September 27, 2018 on block faces selected by City of Auburn.
Source: Transportation Consulting Services, 2018.

Block faces that are closer to the station entrance than to the new garage entrance were analyzed as a group because those are the block faces that could experience "hide-and-ride" parking as those spaces are available sooner to drivers. These block faces are within approximately one-half mile or a 10-minute walk from the station. On these block faces there were an estimated 73 unrestricted spaces with 25 occupied and 48 available.

Block faces that are closer to the new garage than to the station entrance were analyzed as a group because those are block faces that could experience increased pressure for on-street parking by drivers that perceive on-street spaces to be more convenient than entering the new garage and that may also assume existing parking near the Sounder station is full. There were an estimated 295 unrestricted spaces on these blocks with 173 occupied and 122 available. These block faces are within one-half mile, or about a 10-minute walk, from the station. The parking data also show the restricted 3-hour/2-hour parking spaces within this group to be 35 percent occupied. The block faces closer to the new garage location currently accommodate parking demand generated by downtown Auburn businesses, the Auburn Regional Medical Plaza (which

is part of the broader MultiCare Auburn Medical Center), and the U.S. Post Office (both are located northeast of Auburn Station).

Block faces that are closer to the new garage, but more than one-half mile from the new garage entrance, are all unrestricted spaces. On these block faces there were an estimated 69 spaces with 34 occupied and 35 available.

A more detailed parking inventory at the block face level is presented in **Appendix B**, *Existing Parking Conditions*.

Based on the existing Sounder ridership and estimated mode of access data, the total Sounder parking demand is approximately 960 parked vehicles.

The existing park-and-ride garage capacity at Auburn Station is 520 spaces, with 42 parking spaces reserved for non-transit users inside the garage, resulting in 478 spaces inside the existing garage for transit users. With the 113 spaces on the existing surface lot on the west side of the BNSF track, a total of 591 parking spaces are available to transit users. The parking spaces are typically fully occupied by 6:00 am on any given weekday. The site of the proposed garage is currently used as a surface parking lot for the One East Main Street Building and is not available to Sound Transit riders.

This suggests that roughly 370 vehicles whose passengers park and then ride Sounder utilize nearby streets or parking lots (370 is the difference between the parking demand of 960 and the dedicated parking supply of 591 spaces).

4.2.9 Safety

Crash data within the study area were obtained from WSDOT for three years from January 2015 through December 2017. Crash rates were calculated for the study area intersections as number of crashes per million entering vehicles (MEV). Crash data were reviewed to identify which, if any of the study area intersections, had high crash rates and/or safety concerns. **Table 4-7** summarizes the intersection locations, intersection volumes, crash severity, and crash rate.

Four intersections were found to have a crash rate exceeding 1.0 MEV:

- C St NW & W Main St
- Auburn Way S & WB SR 18 Ramps
- 3rd St SE & A St SE
- Auburn Way S & EB SR 18 Ramps/6th St SE

Those four intersections experienced between 31 and 40 crashes over the three-year study period.

Table 4-7 Severity and Rate of Existing Intersection Crashes (January 2015 to December 2017)

No.	Name	ADT[1]	Crash Severity				Crash Rate[4]
			Fatality	Injuries	PDO[2]	Total[3]	
1	B St NW & 10th St NE	13,680	0	0	3	4	0.27
2	Auburn Ave & 4th St NE	9,960	0	1	5	6	0.55
3	Auburn Way N & 4th St NE	21,040	0	0	12	12	0.52
4	C St NW & 3rd St NW	13,260	0	3	6	9	0.62
5	A St NW & 3rd St NW	14,920	0	0	2	2	0.12
6	Auburn Ave & 3rd St NE	11,360	0	0	6	6	0.48
7	C St NW & 2nd St NW	11,200	0	0	0	0	0.00
8	A St NW & 2nd St NW	4,560	0	0	1	1	0.20
9	A St NW & 1st St NW	5,160	0	0	1	1	0.18
10	Auburn Ave & 1st St NE	13,000	0	1	3	4	0.28
11	C St NW & W Main St	20,700	0	12	18	31	1.37
12	W Main St & A St NW	9,320	0	0	3	3	0.29
13	W Main St & Division St	7,240	0	1	2	3	0.38
14	E Main St & Auburn Ave	15,000	0	0	2	2	0.12
15	E Main St & Auburn Way S	21,080	0	4	15	19	0.82
16	C St SW & 1st St SW	16,500	0	0	0	0	0.00
17	A St SE & 2nd St SE	18,400	0	6	7	13	0.65
18	C St SW & WB SR 18 Ramps	20,360	0	0	4	4	0.18
19	3rd St SW & Division St	20,560	0	3	10	13	0.58
20	3rd St SE & A St SE	33,520	0	12	28	40	1.09
21	4th St SE & Auburn Way S	26,520	0	11	10	21	0.72
22	Auburn Way S & WB SR 18 Ramps	29,440	0	13	23	37	1.15
23	C St SW & EB SR 18 Ramps	28,000	0	4	10	14	0.46
24	A St SE & 6th St SE	33,580	0	5	18	23	0.63
25	Auburn Way S & EB SR 18 Ramps	35,880	0	14	26	40	1.02

Sources: WSDOT, CDM Smith analysis.

1. Average Daily Traffic, estimated based on peak hour counts
2. Property Damage Only
3. Total includes crashes with unknown severity
4. Number of annual crashes per million entering vehicles

No fatalities occurred at study area intersections between 2015 and 2017. The majority of the crashes at the 25 study area intersections resulted in property damage only (215 of the 308 total reported crashes).

Study area crashes are summarized by segment in **Table 4-8**. Segment crash rates were calculated as number of crashes per 100 million vehicle miles traveled (MVMT) on the segment. The segment with the highest number of crashes is Auburn Way S between 4th St NE and E Main St (20 crashes over the three-year study period). Average Daily Traffic (ADT) comes from city daily counts when available. In absence of daily counts, the ADT was estimated based on peak hour counts at nearby intersections. A few locations were then adjusted for consistency with the city ADTs on nearby segments. The segments with the highest crash rates are as follows:

- A St NW & Auburn Ave
- W Main St & A St NW
- SR-18 WB & 6th St SE/SR-18 EB
- SR-18 EB & 8th St SW

A complementary crash dataset was provided by the City of Auburn for the period 2015-2017. It provides a Safety Priority Index System (SPIS) for intersections based on the number of collisions and entering volumes. **Table 4-9** shows the SPIS data for the study area intersections. Note that when no information is provided, it is because the intersection does not have a high enough SPIS ranking to be included in the SPIS report. The locations with the highest index values are as follows:

- 3rd St SE & A St SE
- Auburn Way S & EB SR 18 Ramps/6th St SE
- Auburn Way S & 4th St SE

Table 4-8 Severity and Rate of Existing Roadway Segment Crashes (January 2015 to December 2017)

Roadway Segment	From	To	ADT[1]	Crash Severity				Crash Rate[4]
				Fatality	Injuries	PDO[2]	Total[3]	
C St NW	6th St NW	3rd St NW	4,610	0	1	3	4	330
C St NW	3rd St NW	2nd St NW	8,719	0	0	0	0	0
C St NW	2nd St NW	W Main St	9,437	0	2	2	4	352
C St NW	W Main St	1st St SW	12,746	0	0	0	0	0
C St NW	1st St SW	SR 18 WB	12,813	0	0	0	0	0
C St NW	SR 18 WB	SR 18 EB	14,492	0	0	0	0	0
C St SW	SR 18 EB	8th St SW	19,468	0	4	9	13	1,016
B St NW	14th St NW	10th St NE	9,520	0	0	0	0	0
A St NW	10th St NE	3rd St NW	7,283	0	0	2	2	57
A St NW	3rd St NW	2nd St NW	2,929	0	0	0	0	0
A St NW	2nd St NW	1st St NW	2,725	0	0	0	0	0
A St NW	1st St NW	W Main St	2,759	0	0	0	0	0
S Division St	E Main St	3rd St SE	2,940	0	1	0	1	173
Auburn Ave	5th St NE	4th St NE	4,607	0	2	1	3	708
Auburn Ave	4th St NE	3rd St NE	7,445	0	1	0	1	315
Auburn Ave	3rd St NE	1st St NE	6,791	0	2	8	11	973
Auburn Ave	1st St NE	E Main St	8,218	0	0	2	2	404
A St SE	E Main St	2st St SE	13,140	0	1	4	5	285
A St SE	2st St SE	3rd St SE	16,624	0	0	3	3	262
A St SE	3rd St SE	6th St SE	25,924	0	5	10	15	513
A St SE	6th St SE	7th St SE	31,653	0	0	1	1	52
Auburn Way S	5th St NE	4th ST NE	18,520	0	2	1	3	192
Auburn Way S	4th ST NE	E Main St	16,120	0	9	11	20	510
Auburn Way S	E Main St	4th St SE	20,496	0	3	10	13	536
Auburn Way S	4th St SE	SR 18 WB	21,957	0	0	3	3	215
Auburn Way S	SR 18 WB	6th St SE/SR 18 EB	25,945	0	2	7	9	2,263
Auburn Way S	6th St SE/SR 18 EB	7th St SE	29,075	0	0	5	5	383

Table 4-8 Severity and Rate of Existing Roadway Segment Crashes (January 2015 to December 2017)

Roadway Segment	From	To	ADT[1]	Crash Severity				Crash Rate[4]
				Fatality	Injuries	PDO[2]	Total[3]	
4th St NE	Auburn Ave	Auburn Way S	10,020	0	0	0	0	0
4th St NE	Auburn Way S	D St NE	3,320	0	0	1	1	299
3rd St NW	C St NW	A St NW	8,340	0	0	3	3	342
3rd St NW	A St NW	Auburn Ave	4,724	0	1	2	3	4,143
B St NW/1st St NW	W Main St	A St NW	800	0	0	1	1	3,085
1st St NE	A St NW	Auburn Ave	1,800	0	1	0	1	668
1st St NE	Auburn Ave	Auburn Way N	2,320	0	0	1	1	428
W Main St	D St SW	C St SW	7,220	0	0	0	0	0
W Main St	C St SW	A St NW	5,510	0	0	0	0	0
W Main St	A St NW	S Division St	4,640	0	0	0	0	0
W Main St	S Division St	Auburn Ave/A St SE	4,409	0	0	0	0	0
W Main St	Auburn Ave/A St SE	Auburn Way S	3,570	0	0	3	3	577
3rd St SE	S Division St	A St SE	16,360	0	1	2	4	406
Cross St SE	A St SE	Auburn Way S	7,835	0	1	4	5	405
6th St SE	A St SE	Auburn Way S	8,737	0	3	10	13	912

Sources: WSDOT, CDM Smith analysis.

Notes:

1. ADT from city daily counts when available. In absence of daily counts, ADT was estimated based on peak hour counts at nearby intersections. A few locations were then adjusted for consistency with the city ADTs on nearby segments.
2. Property Damage Only.
3. Total includes crashes with unknown severity.
4. Number of annual crashes per 100 million vehicle miles traveled.

Table 4-9 Safety Priority Index System (SPIS) 2015-2017

No.	Name	Crash Severity				SPIS
		Fatality	Injuries	PDO	Total	
1	B St NW & 10th St NE	(1)				
2	Auburn Ave & 4th St NE	0	6	7	13	48.55
3	Auburn Way N & 4th St NE	0	1	14	15	40.83
4	C St NW & 3rd St NW	0	3	7	10	41.83
5	A St NW & 3rd St NW	(1)				
6	Auburn Ave & 3rd St NE	0	0	7	7	32.56
7	C St NW & 2nd St NW	(1)				
8	A St NW & 2nd St NW	(1)				
9	A St NW & 1st St NW	(1)				
10	Auburn Ave & 1st St NE	(1)				
11	C St NW & W Main St	0	9	18	27	59.60
12	W Main St & A St NW	(1)				
13	W Main St & Division St	(1)				
14	E Main St & Auburn Ave	(1)				
15	E Main St & Auburn Way S	0	6	16	22	52.84
16	C St SW & 1st St SW	(1)				
17	A St SE & 2nd St SE	0	5	9	14	47.57
18	C St SW & WB SR 18 Ramps	(1)				
19	3rd St SW & Division St	0	3	11	14	42.33
20	3rd St SE & A St SE	0	16	36	52	77.06
21	4th St SE & Auburn Way S	0	12	20	32	65.44
22	Auburn Way S & WB SR 18 Ramps	0	8	18	26	56.95
23	C St SW & EB SR 18 Ramps	0	5	5	10	28.84
24	A St SE & 6th St SE	0	6	21	27	54.14
25	Auburn Way S & EB SR 18 Ramps	0	15	30	45	73.50

Source: City of Auburn.
Note:
1. When no information is provided, it is because the intersection does not have a high enough SPIS ranking to be included in the SPIS report.

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Section 5
Long-Term Impacts

This section describes the transportation facilities, service types, and conditions that are expected to exist in the study area in 2037 for the No-Build and Project scenarios. The Project scenario transportation conditions are compared with those of the No-Build scenario to identify project-related impacts on transportation.

Modifications to the transportation system assumed to be in place under the No-Build and Project scenarios are described in the following subsection. The effects of the Project scenario were analyzed assuming the proposed Auburn Station Access Improvements to be in place. Potential mitigation measures to address identified impacts for the Project scenario are described in Section 8.

5.1 Roadway Network

There are no long-term projects currently identified by the City or WSDOT that would affect the configuration or traffic control type of the 25 study area intersections. Therefore, they were assumed to be the same as existing for the 2037 No-Build scenario.

The Project scenario would include two new driveways to provide access to the new parking garage: one on A St NW south of 2nd St NW, and one on 1st St NW east of B St NW. The A St NW driveway would be restricted to right-turn-in/right-turn-out movements. The 1st St NW driveway would allow all movements with the creation of an all-way stop-controlled intersection at the garage driveway/1st St NW/B St NW intersection.

5.2 Traffic Volumes

Traffic volume forecasts were developed for year 2037 without (No-Build scenario) and with (Project scenario) the Project. The methodology used to forecast Sounder ridership, mode of access, and trip generation for the 2037 No-Build and Project scenarios have been documented in the *Auburn Station Parking and Access Improvements Ridership and Trip Generation Technical Memorandum* available upon request.

5.2.1 No-Build Scenario

Station-related traffic in 2037 was forecasted based on Sound Transit ridership projections and mode split estimates. Daily Sounder boardings in Auburn are expected to grow to about 2,300 in the 2037 No-Build scenario. Since existing dedicated parking facilities already operate at capacity during peak periods under existing conditions, no growth was applied to the traffic volumes in and out of these facilities.

Projections for future mode of access to the station in the 2037 No-Build scenario resulted in the following mode split:

- Drive alone – 39%
- Carpool/vanpool – 4%
- Pickup/drop-off – 17%
- Transit – 20%
- Pedestrians – 14%
- Bicycles – 6%

The 2037 No-Build traffic volumes were forecasted using a growth rate of 1.2 percent annually for background traffic (due to regional development growth unrelated to the Auburn Station project). This growth rate was derived from the City travel demand model by comparing the PM peak hour volumes along C St, Auburn Ave/A St, 3rd St N, and 3rd St S in the 2035 and 2012 models. The 1.2 percent annual growth rate was applied to 2018 traffic volumes to forecast 2037 background traffic volumes. Sounder-train related traffic growth was added to the background traffic, based on existing dedicated parking capacity and the 2037 No-Build mode of access projections.

5.2.2 Proposed Project Scenario

The Project would construct a 675-space parking garage, replacing the existing 120 surface parking spaces located north of 1st St NW and west of A St NW.

The 2037 Project traffic volumes were forecasted using the growth rate of 1.2 percent annually for background traffic plus the Sounder train-related traffic volumes. The Sounder train-related traffic volumes are different between the No-Build and Project scenarios because the Auburn Station improvements would increase parking capacity and traffic activity near the station.

The Project scenario projections assume that the new garage would fill immediately after opening and the use of on-street parking would remain about the same as under existing conditions. The Project is expected to result in an increase of Sounder ridership (compared to No-Build) of about 300 daily riders.

The future ridership assumptions by mode for the Project Scenario in 2037 are summarized as follows:

- Drive alone – 55%
- Carpool/vanpool – 3%
- Pickup/drop-off – 11%
- Transit – 16%
- Pedestrians – 10%
- Bicycles – 5%

5.3 Traffic Operations

The traffic operations analysis compares the 2037 No-Build and Project scenarios at the same study area intersections. In the 2037 No-Build scenario, signal timings (splits) were assumed to be optimized for 2037 traffic volumes using Synchro optimization method; the same signal timings (cycle lengths and splits) were then used in the 2037 Project scenario.

The traffic operations analysis included an intersection level of service (LOS) analysis, a queuing analysis, and a year-of-opening analysis.

5.3.1 Intersection LOS Analysis

No-Build and Project peak hour LOS and delay for the study area intersections evaluated are shown in **Table 5-1** and **Table 5-2**, respectively for PM and AM peak periods. The reported delay from Synchro is based on the HCM 6th Edition methodology, reflecting average delay of all vehicles traveling through the movement or intersection. The 6th Edition method does not calculate average delay for some intersections with non-typical configuration or signal phasing, in which case the average delay was calculated using the HCM 2000 method. For signalized and all-way stop-controlled intersections, LOS is based upon the average delay for all vehicles traveling through the intersection. For side-street stop-controlled intersections, LOS is based upon the movement with the highest average delay (referred to as the "worst" movement). Therefore, the direction of the worst movement is identified only for side-street stop-controlled intersections. If there is only one lane utilized by multiple movements on the side-street approach, the delay for the approach is reported. The last column in both tables shows the delay change in 2037 Project vs. 2037 No-Build conditions.

Traffic operational impacts were determined by comparing the study intersection LOS and average delay for the 2037 No-Build and Project scenarios during the AM and PM peak periods. The following criteria were applied to identify traffic impacts from the Project scenario:

- At an intersection projected to operate within its adopted LOS standard under the No-Build scenario, an impact is identified if increased traffic resulting from the Project would cause it to exceed the LOS standard.
- At an intersection projected to exceed its adopted LOS standard under the No-Build scenario, an impact is identified if increased traffic resulting from the Project would cause more than 10 seconds in average vehicle delay increase. Additional delay times less than 10 seconds are not considered noticeable.

Based on the identified impact criteria, results shown in Table 5-1 and Table 5-2 indicate that the proposed project would result in an adverse impact at two intersections during the 2037 PM peak period: the signalized intersection of 3rd St SE at A St SE (Intersection No. 20) and the signalized intersection of C St SW at the eastbound SR 18 ramps (Intersection No. 23). Rows highlighted in grey/bold in Table 5-1 denote an impact.

Table 5-1 2037 No-Build and Project Scenarios PM Peak Hour Intersection Level of Service

#	Name	Control Type	LOS St.	Existing			2037 No-Build			2037 Project			Change (sec)
				LOS	Delay (sec)	Worst Mvt	LOS	Delay (sec)	Worst Mvt	LOS	Delay (sec)	Worst Mvt	
1	B St NW & 10th St NE	Side-St Stop	D	E	41.9	WBL	F	224.2	WBL	F	227.4	WBL	3.2
2	Auburn Ave & 4th St NE	Signalized	D	A	3.5	--	A	3.9	--	A	3.9	--	0.0
3	Auburn Way N & 4th St NE	Signalized	D	C	20.3	--	C	24.5	--	C	25.3	--	0.8
4	C St NW & 3rd St NW	Signalized	E	F	82.6	--	F	159.9	--	F	160.1	--	0.2
5	A St NW & 3rd St NW	Signalized	E	C	29.6	--	D	44.7	--	D	46.5	--	1.8
6	Auburn Ave & 3rd St NE	Signalized	E	B	12.3	--	B	12.7	--	B	12.5	--	-0.2
7	C St NW & 2nd St NW	Side-St Stop	D	C	15.7	EB	C	20.1	EB	C	20.1	EB	0.0
8	A St NW & 2nd St NW	Side-St Stop	D	B	12.3	WB	B	13.9	WB	B	12.8	WB	-1.1
9	A St NW & 1st St NW	All-way Stop	D	A	9.3	--	B	10.5	--	C	18.0	--	7.5
10	Auburn Ave & 1st St NE	Signalized	D	B	11.8	--	B	13.9	--	C	32.5	--	18.6
11	C St NW & W Main St	Signalized	E	C	30.7	--	E	74.0	--	E	76.8	--	2.8
12	W Main St & A St NW	Signalized	E	B	10.7	--	B	12.3	--	B	12.3	--	0.0
13	W Main St & Division St	Signalized	D	A	6.2	--	A	7.3	--	A	7.4	--	0.1
14	E Main St & Auburn Ave	Signalized	E	B	15.9	--	C	20.1	--	C	23.7	--	3.6
15	E Main St & Auburn Way S	Signalized	E	C	28.6	--	D	39.4	--	D	42.6	--	3.2
16	C St SW & 1st St SW	Side-St Stop	D	B	13.1	EB	C	15.3	EB	C	16.8	EB	1.5
17	A St SE & 2nd St SE	Signalized	D	B	15.8	--	B	18.2	--	B	19.0	--	0.8
18	C St SW/WB SR18 Ramps (WSDOT)	Signalized	E	C	21.0	--	D	36.9	--	D	45.1	--	8.2
19	3rd St SW & Division St	Signalized	D	B	14.6	--	B	15.5	--	B	15.6	--	0.1
20	**3rd St SE & A St SE**	**Signalized**	**E**	**D**	**37.0**	--	**E**	**76.1**		**F**	**88.1**	--	**12.0**
21	4th St SE & Auburn Way S	Signalized	E	C	20.0	--	C	23.1	--	C	23.2	--	0.1
22	AWS/WB SR18 Ramps (WSDOT)	Signalized	E	D	37.8	--	D	48.7	--	D	49.4	--	0.7
23	**C St SW/EB SR18 Ramps (WSDOT)**	**Signalized**	**E**	**C**	**29.3**	--	**F**	**83.0**		**F**	**96.0**	--	**13.0**
24	A St SE & 6th St SE	Signalized	E	C	21.8	--	C	33.8	--	D	46.3	--	12.5
25	AWS/EB SR18 Ramps (WSDOT)	Signalized	E	D	48.1	--	F	81.7	--	F	84.8	--	3.1

1. Delay reported from Synchro based on the HCM 6th Edition methodology. If 6th Edition delay is not applicable, HCM 2000 delay is reported.
2. For signalized and all-way stop intersections, the average delay is reported. For side-street stop intersections, the worst movement (Mvt) delay is reported.

Table 5-2 2037 No-Build and Project Scenarios AM Peak Hour Intersection Level of Service

#	Name	Control Type	LOS St.	Existing			2037 No-Build			2037 Project			Change (sec)
				LOS	Delay (sec)	Worst Mvt	LOS	Delay (sec)	Worst Mvt	LOS	Delay (sec)	Worst Mvt	
8	A St NW & 2nd St NW	Side-St Stop	D	B	10.4	WB	B	11.2	WB	B	11.2	WB	0.0
9	A St NW & 1st St NW	All-way Stop	D	A	8.5	--	A	9.2	--	A	9.7	--	0.5
11	C St NW & W Main St	Signalized	E	C	23.7	--	D	47.9	--	D	51.5	--	3.6
14	E Main St & Auburn Ave	Signalized	E	B	11.7	--	B	12.9	--	B	13.0	--	0.1
17	A St SE & 2nd St SE	Signalized	D	A	7.3	--	A	7.4	--	A	7.3	--	-0.1
18	C St SW/WB SR18 Ramps (WSDOT)	Signalized	E	B	11.6	--	D	49.0	--	D	49.0	--	0.0
20	3rd St SE & A St SE	Signalized	E	C	26.2	--	C	34.5	--	C	34.5	--	0.0

1. Delay reported from Synchro based on the HCM 6th Edition methodology. If 6th Edition delay is not applicable, HCM 2000 delay is reported.
2. For signalized and all-way stop intersections, the average delay is reported. For side-street stop intersections, the worst movement delay is reported.

The intersection of 3rd St SE and A St SE would operate within its adopted standard of LOS E during the PM peak period in the No-Build scenario and would exceed the LOS standard in the Project scenario (LOS F).

The intersection of C St SW and eastbound SR 18 ramps would exceed the LOS standard in the No-Build and Project scenarios during the PM peak period, and the average delay is expected to increase by approximately 13 seconds in the Project scenario.

Three other intersections are projected to operate at LOS F in the No-Build scenario and the 2037 Project scenario in the PM peak period with a projected increase in average delay less than 4 seconds so they do not meet the impact threshold. These intersections are the side-street stop-controlled intersection of B St NW at 10th St NE (Intersection No. 1), the signalized intersection of C St NW at 3rd St NW (Intersection No. 4), and the signalized intersection of Auburn Way S at the eastbound SR 18 ramps/6th St SE (Intersection No. 25). Of these three intersections, increases in delay with the Project scenario range between 0.2 seconds (Intersection No. 4) and 3.2 seconds (Intersection No. 1).

As shown in Table 5-2, none of the study area intersections are forecasted to exceed the LOS standard in 2037 for the No-Build and Project scenarios in the AM peak period.

5.3.2 Queuing Analysis

According to the City's policy on Level of Service Threshold (City of Auburn, 2015) a project impact would be identified if the Project creates "an increase in queuing that causes blocking of adjacent land uses or intersections."

The queuing analysis relies on the same Synchro models that were applied to conduct the intersection LOS analysis for 2037 No-Build and Project conditions. The intent is to identify any intersection or driveways not blocked in the No-Build scenario that would become blocked under the Project scenario as a result of increased traffic generated by the new parking garage.

All queue lengths used in this analysis are extracted from the Synchro reports, using the 95th percentile queue length reported for each movement at each study intersection. Details on queuing analysis are provided in **Appendix C**, *Queuing Analysis*.

The queuing analysis for upstream intersections identifies cases where a queue spills back into adjacent intersections but it happens at the same locations in both the No-Build and Project scenarios. Similarly, the driveway queuing analysis shows the same queue spillbacks into nearby driveways as is shown in the No-Build scenario. Based on these findings, the queuing analysis concluded with no project impact.

5.3.3 Year-of-Opening Analysis

In addition, a PM peak traffic analysis for year-of-opening (2024) was performed to check if mitigation might be needed due to immediate project impact at the four intersections labeled as No.'s 1, 4, 20 and 25 in Table 5-1. For intersection No. 20, a year-of-opening analysis was also conducted for AM peak conditions. No project impact on LOS or queuing was identified, so no mitigation is needed by year-of-opening at the studied intersections. See **Appendix D**, *Year-of-*

Opening Analysis for more details on the year-of-opening analysis including the LOS summary tables.

5.4 Vehicle Miles Traveled

The proposed project's effect on regional vehicle miles travelled (VMT) was evaluated based on the vehicle trip generation forecasts and the average distance of each type of trip. Details of this evaluation are included in **Appendix E**, *Regional VMT Evaluation*. Two types of changes are anticipated:

- Increase in vehicle trips accessing the Auburn Station – the Project scenario is expected to result in a net increase of vehicle trips to the Auburn Station from the surrounding area due to the increased parking supply. Using the 2014 Sound Transit license plate survey data, the average distance for these types of trips was estimated to be 6.4 miles. Due to the increase in vehicle trips accessing Auburn Station (approximately 875 trips per day), the Project is estimated to result in an increase of approximately 5,600 VMT.
- Shift from vehicle to Sounder trips – due to the increased parking supply, the Project would result in a net increase in riders using the Sounder from Auburn Station rather than traveling to and from their destinations in another way, such as driving. Using the most recent Sound Transit rider survey data, the average distance for these types of trips was estimated to be 26.6 miles. Due to the projected shift in trips from vehicles to Sounder trains (a net increase of approximately 350 trips per day), the Project is estimated to result in a decrease of 9,200 VMT.

Combining the opposing effects described above, the Project is expected to result in a net decrease of 3,600 VMT. Therefore, the Project is not expected to result in adverse impacts to regional VMT.

5.5 Public Bus Transportation

King County Metro plans to introduce a new RapidRide frequent bus service route connecting Renton, Auburn and Kent by 2023[2]. The Sound Transit Incremental Ridership Model used to develop ridership forecasts anticipates an increase in bus service and substantial growth in bus ridership at Auburn Station. No substantial changes to bus service, mobility and access at Auburn Station are anticipated in the future as a result of the Project, beyond the increases in intersection delay described in Section 5.3. Mitigation described in Section 8 for the identified intersection impacts would also improve operation for buses traveling through the intersection. It is expected that Sound Transit, King County Metro and Pierce Transit will coordinate bus service to match future changes in Sounder service. In collaboration with King County Metro, bus shelters would be installed in certain locations where there are high ridership boardings and where the route connects with the Auburn Station.

[2] https://kingcounty.gov/depts/transportation/metro/programs-projects/routes-and-service/rapidride-expansion/i-line.aspx.

5.6 Freight

No changes to truck freight mobility and access are expected to result from the Project beyond the increases in intersection delay described in Section 5.3. Mitigation described in Section 8 for the identified intersection impacts would also improve operation for trucks traveling through the intersections.

5.7 Rail Transportation

The Project is expected to result in increased Sounder ridership at the Auburn Station with about 2,600 daily boardings in the Project scenario compared to about 2,300 daily boardings in the No-Build scenario.

The potential for extending station platforms to accommodate longer Sounder trains (up to 10 cars in length) is included in ST3, a program for expanding the regional transit system approved in November 2016. This would be a separate project and subsequent/separate environmental review would be conducted to analyze the potential impacts and mitigation. Even though longer trains are not explicitly modeled in the Sound Transit model, the ridership forecast is not being capped by current train capacity constraints (current train lengths).

No changes to freight rail transportation are expected as a result of implementing the proposed Project. It is anticipated that train freight traffic would continue to be minimal during the 3-hour evening commute period when Sounder trains are running.

5.8 Non-Motorized Transportation

5.8.1 Pedestrians

Pedestrian improvements provided with the Project would be focused on facilitating travel between the new garage and the station.

The garage elevators and main public stairway would be located at the southeast corner of the garage, next to the intersection of 1st St NW and A St NW. This would be the primary garage ingress and egress location for pedestrians. The main pedestrian route between the garage and the station would follow an existing sidewalk along the west side of A St NW with marked crossings at 1st St NW and the existing signalized intersection at W Main St.

The emergency egress stair would be located near the southwest corner of the garage. This has the potential to make pedestrian travel along B St NW a desirable alternative, offering a more direct path between the garage and the station. To improve pedestrian safety along this route, the following elements are included with the Project:

- An all-way stop-controlled intersection at the garage driveway/1st St NW/B St NW intersection
- A marked pedestrian crosswalk across 1st St NW connecting the garage egress stair and the existing sidewalk on the east side of B St NW
- Pedestrian improvements at the intersection of W Main St and B St NW including:
  - installing a curb extension, concrete barrier and painted median to provide traffic calming,
  - restriping the crosswalks on the south and east sides of the intersection,
  - curb ramps that are ADA compliant, and
  - a rapid flashing beacon for crossing on the east side of the intersection.

Proposed pedestrian improvements at the intersection of W Main St and B St NW are shown on **Figure 5-1.**

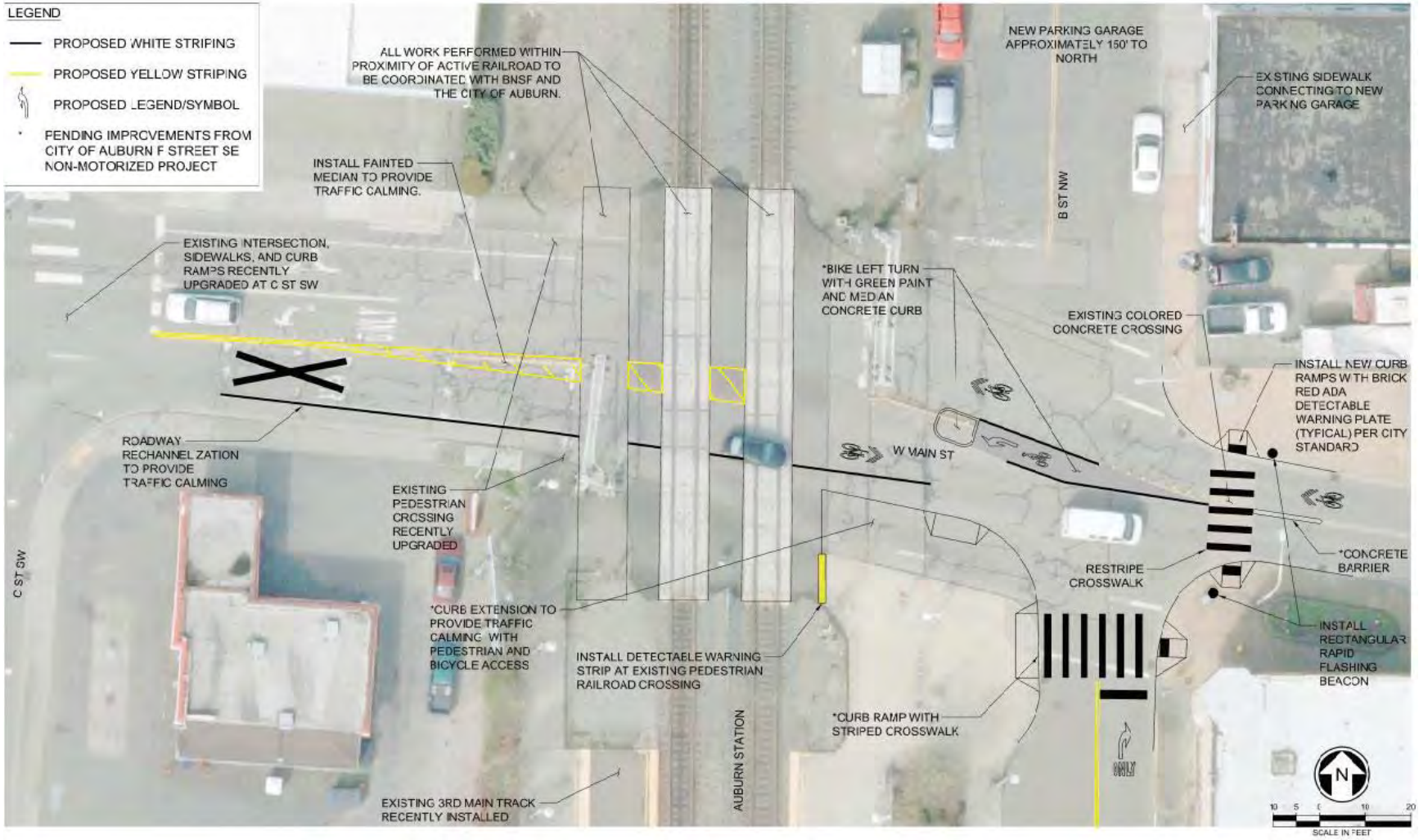


Figure 5-1 W Main Street Pedestrian Improvements

5.8.2 Bicyclists

The Project scenario assumes that about 5 percent of the Sounder riders will access the station by bicycle in 2037 (132 daily riders), compared to about 6 percent in the No-Build scenario (139 riders). To provide safety, comfort, and convenience for these users, the City has already added several new bicycle facilities recently:

- Bicycle lanes on the A St NW/B St NW corridor from 3rd St NW to 30th St NW.
- Bicycle lanes added as part of the M St SE BNSF underpass project.
- Sharrows (share the road with bike symbols) added to East Main St.
- Bike lanes on W Main St extending to W Valley Highway to the west of the Interurban Trail.

The City plans to continue building out the bicycle network and provide better east-west connections, as stated in the *Comprehensive Transportation Plan* (City of Auburn, 2015). Upgrading bicycle facilities on city streets is a component of this plan.

As described under section 4.2.7.2 Bicycle Facilities, the City of Auburn F St Non-motorized project includes improvements along Main St between the Auburn Station and F St, and then along F St to Auburn Way South.

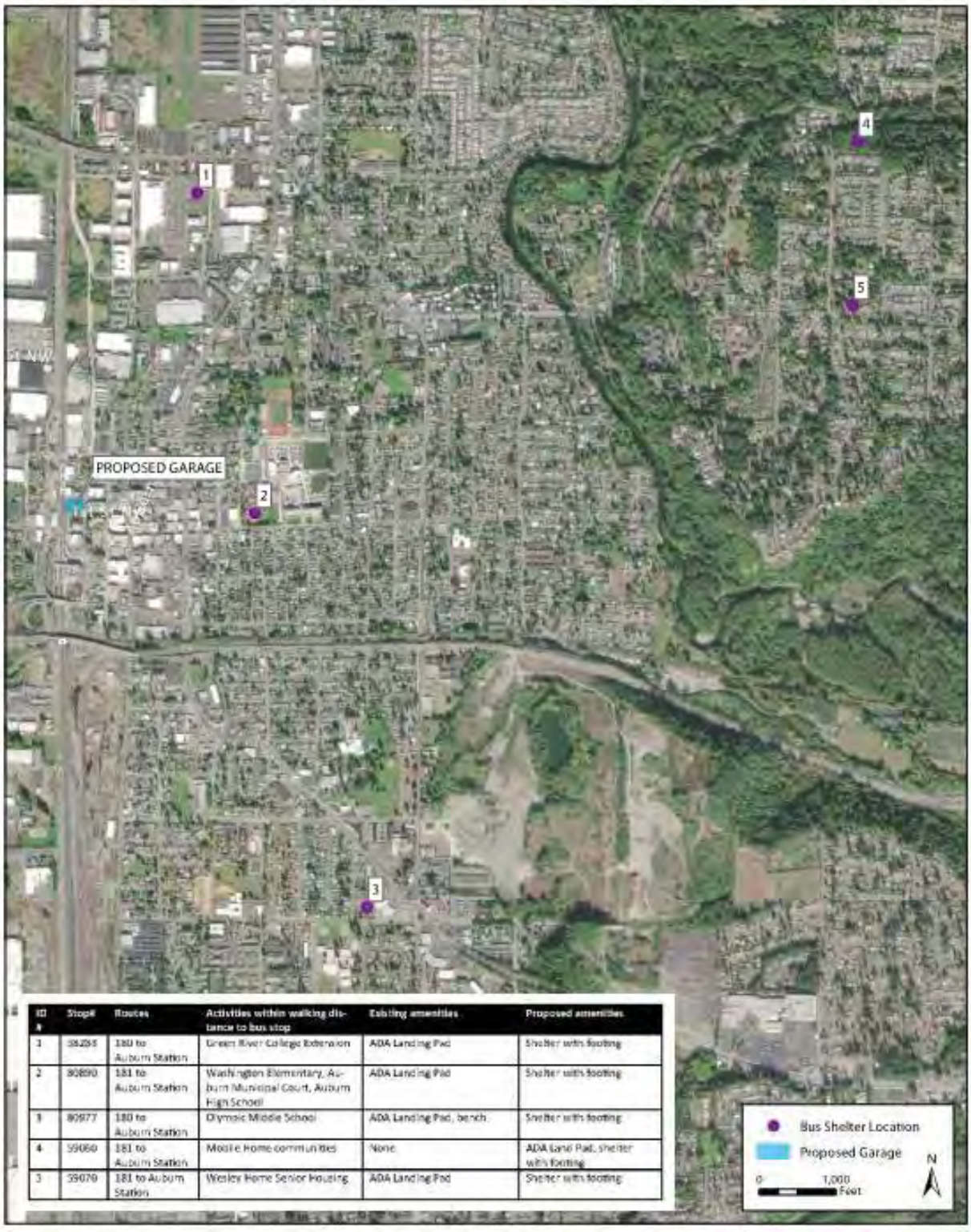
Planned bicycle improvements include adding smart lockers and bike racks at the Auburn Station, as shown on **Figure 5-2.** Smart lockers provide opportunities for commuters to pay and reserve lockers.

5.8.3 Transit Bus Shelters

Proposed transit improvements contained in the Project also include installing five new bus shelters at existing bus stops that connect bus riders to the Auburn Station. These locations have been selected based on high ridership boardings on routes connecting to the Auburn Station.

Figure 5-3 shows the location of the five proposed bus shelters and provides additional information related to the bus routes served at these locations, nearby activities, existing and future amenities. Final design treatments will be completed in collaboration with King County Metro and the City.

Figure 5-2 Bicycle Improvements at Auburn Station



ID #	Stop#	Routes	Activities within walking distance to bus stop	Existing amenities	Proposed amenities
1	38284	180 to Auburn Station	Green River College Extension	ADA Landing Pad	Shelter with footing
2	90890	181 to Auburn Station	Washington Elementary, Auburn Municipal Court, Auburn High School	ADA Landing Pad	Shelter with footing
3	90877	180 to Auburn Station	Olympic Middle School	ADA Landing Pad, bench	Shelter with footing
4	59060	181 to Auburn Station	Mobile Home communities	None	ADA Land Pad, shelter with footing
5	59070	181 to Auburn Station	Wesley Home Senior Housing	ADA Landing Pad	Shelter with footing

Figure 5-3 Proposed Bus Shelters Locations

5.9 Parking

Parking demand was estimated based on forecasted ridership and projected mode of access. A comparison of existing and forecasted parking demand with supply at Auburn Station is presented in **Table 5-3**. The on-street parking demand is based on the vehicle trip generation estimates relative to ridership, mode split, and survey information about how transit riders shift their travel modes if they are unable to find parking at their preferred location.

Table 5-3 Parking Demand near Auburn Station

	2018	2037	
		No-Build Scenario	Project Scenario
Sounder Parking Demand	960	960	1,480
Sound Transit Parking Facility Supply	591	591	1,126
Excess Parking Demand	369	369	354

Source: Transportation Consulting Services, 2018.

The existing parking conditions reflect an excess parking demand of about 370 vehicles from Sounder riders. The excess demand is currently met with City of Auburn public parking facilities, private facilities, and the unrestricted on-street parking as shown by the existing parking data in Table 4-6.

Under the No-Build scenario, excess parking demand generated by Sounder riders is expected to remain unchanged at about 370 vehicles. Under the Project scenario, excess parking demand is expected to be about 350 vehicles. Although the new garage would provide capacity that exceeds the No-Build on-street parking demand, it is assumed that there would still be Sounder riders that use nearby on-street parking because it may be more convenient than other access options.

Excess parking demand is expected to be slightly lower in the Project scenario compared to the No-Build scenario (354 vs. 369). This level of excess parking demand could be absorbed by unrestricted parking spaces available in the vicinity of the station, as it is today. However, future changes in city land use could potentially reduce supply and increase demand on unrestricted parking spaces, leading to more competition for those spaces.

Because the demand for on-street parking is expected to be slightly lower under the Project scenario than under the No-Build scenario, the proposed project is not expected to result in an adverse long term impact on parking.

The project site is owned by the City and used for One East Main Street Building parking; this parking would be relocated into the propose garage.

5.10 Safety

The increase in overall vehicular traffic in the Project scenario is expected to be around 160 vehicles in the AM peak and PM peak periods. This relatively limited amount of additional traffic within the study area is not expected to increase vehicle crash rates.

Statistically, increases in traffic volumes also increase the number of potential vehicle conflicts, which in turn may increase the potential for crashes, but all project elements would be designed to meet safety standards and the collision rates themselves are not expected to increase as a result of the new garage.

The creation of new driveways at the garage access points would introduce new potential conflict points in the study area. Also, there may be a potential conflict for vehicles entering and exiting the garage on A St NW because this access is located next to an alley to the north. This alley is also a source of vehicles entering and exiting A St NW. Deviations from City design standards might be required. During final design, Sound Transit will work with the City to identify appropriate safety treatments.

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Section 6

Construction Sequencing and Impacts

This section discusses and compares potential transportation mobility impacts resulting from construction of project improvements. The construction approach would be refined during the final design effort to establish the limits and parameters for various construction phases, contracts, and active work zones. Construction impacts identified in this section are estimated based on the level of design completed to date.

6.1 Construction Activities and Duration

Construction of the Auburn Parking and Station Access improvements would result in temporary impacts on local vehicle access, transit service, non-motorized travel, and parking within the study area. The overall garage construction is expected to take approximately 24 to 30 months. Typical construction equipment would include: graders, excavators, backhoes, loaders, drill rigs, cranes, dump trucks, concrete trucks, delivery trucks, and compactors. Intermittent detours due to closures of adjacent sidewalks and roads are likely.

Construction activities related to the pedestrian, bicycle, and transit amenities would vary, and would be complete within the 24 to 30 month timeframe. Construction activity related to the Main Street Pedestrian Crossing would include painting and the installation of detectable warning plates with minor concrete work needed for the installation of two rectangular rapid flashing beacons. The bicycle improvements consist primarily of upgrading (replacing) bike racks and installing bike lockers. Construction activities at bus shelter sites would include, as necessary, removal of existing surface (e.g., sod, gravel, landscaping, and asphalt), preparation of the subgrade, and construction of concrete boarding and alighting pads; and installation of shelters. Traffic and transit signage would be relocated as needed.

6.2 Construction Impacts

Construction impacts would include increased congestion, traffic diversions caused by temporary road closures and detours, increased truck traffic associated with construction activity, trips and parking generated by construction employees and temporary changes in roadside characteristics of streets and alleys adjacent to the new garage. Impacts during construction could also result from the diversion of non-local traffic into residential areas as a result of temporary street closures and traffic detours, disruptions to vehicular and pedestrian access, and the temporary loss of on-street or off-street parking.

As part of normal construction planning and permitting, Sound Transit and the City would work to minimize the duration and impact of lane closures and reductions by (a) maintaining through-traffic, where practical, except for short-duration closures; and (b) establishing detour routes for short-duration closures.

Construction activity for the new parking garage would displace the existing 120 parking spaces on the City-owned surface parking lot (project site) as well as the 46 parking spaces on the

surface lot immediately to the south that is proposed to be used as construction staging area. Parking for construction workers would be provided by the contractor or could occur on city streets where parking is unrestricted. Impacts on parking during construction would be minimized through construction phasing and temporary parking. Refer to Section 8.8 Construction Mitigation.

Most construction related truck trips are expected to use SR 18 to access the site. Once off the freeway, construction-related trips would likely predominantly use C St SW to access the construction site. Specific haul routes would be identified as part of the Maintenance of Traffic Plan, minimizing cut-through traffic in residential neighborhoods. Haul routes and working hours would require approval from the City. Refer to Section 8.8 Construction Mitigation.

Section 7
Indirect and Secondary Impacts

This section discusses indirect and secondary transportation impacts from the Project. As defined in 40 Code of Federal Regulations (CFR) § 1508.8, indirect impacts are "caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems."

The completion of the improvements would provide more parking near the Auburn Station and improve non-motorized access and operations near the station. The increase in parking spaces would make using the Auburn Station more convenient and, thus, could result in an increase in ridership on the Sounder commuter train. More people riding the train could result in less growth of commuter-related congestion on roads that serve employment centers.

With more parking spaces at the station, additional Sounder commuters would be able to park at the station versus parking at off-site facilities or on the street, as many do today, which could free up parking around the station for uses other than transit. Therefore, no adverse indirect impacts are expected from the Project.

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Section 8
Potential Mitigation Measures

This section describes the proposed mitigation measures to address long-term operational and short-term construction transportation impacts expected to result from the project improvements.

8.1 Potential Traffic Mitigation Measures

As described in Section 5.3, the Project without mitigation is projected to result in long-term operational impacts during the PM peak period at the signalized intersection of A St SE and 3rd St SE
(Intersection No. 20) and at the signalized intersection of C St SW and the eastbound SR 18 ramps (Intersection No. 23).

The intersection of 3rd St SE and A St SE would operate within its adopted level of service (LOS) standard of LOS E during the 2037 PM peak period in the No-Build scenario and would exceed the LOS standard in the Project scenario (LOS F). The proposed mitigation at this intersection is to re-optimize the signal timings by shortening the eastbound left-turn and westbound left-turn splits from 12 to 10 seconds, and by giving 2 extra seconds to the northbound-left and northbound-through phases. With this signal timing re-optimization, the intersection is projected to operate within its adopted standard of LOS E during the PM peak period, with an average delay of 79.5 seconds.

The intersection of C St SW and eastbound SR 18 ramps would exceed the LOS standard in the No-Build and Project scenarios during the PM peak period, and the average delay is expected to increase by approximately 13 seconds in the Project scenario. The proposed mitigation at this intersection is to readjust the signal timings by shifting two seconds from the eastbound phase to the southbound through phase. With this mitigation in place, the intersection is projected to operate at LOS F during the PM peak period, with an average delay of 81.3 seconds, which is lower than the average delay of 83 seconds anticipated under No-Build conditions.

Sound Transit would provide these improvements or contribute funding to other improvements agreed to with the City that mitigate project impacts.

8.2 Public Transportation Mitigation

As described in Section 5.5, public transportation is not expected to experience adverse changes as a result of the Project. Therefore, public transportation mitigation would not be required.

8.3 Freight Mitigation

As described in Section 5.6, the proposed project would not require freight mitigation because truck routes and freight mobility would be maintained throughout the study area.

8.4 Rail Transportation Mitigation

As described in Section 5.7, rail transportation mitigation would not be required because rail transportation service is not expected to experience adverse changes in operations with the completion of the Project.

8.5 Non-Motorized Transportation Mitigation

As described in Section 5.8, existing non-motorized transportation is not expected to be adversely impacted by the Project. Therefore, no mitigation is required. The Project's scope of work includes non-motorized improvements that are intended to encourage pedestrian safety and traffic calming, along with improvements to bicycle improvements at the Auburn Station.

8.6 Parking Mitigation

As described in Section 5.9, the demand for on-street parking is expected to be slightly lower under the Project scenario than under the No-Build scenario, therefore the Project is not expected to result in an adverse impact on parking and no parking mitigation is required.

8.7 Safety Mitigation

As described in section 5.10, the Project would result in a potential safety conflict due to the proximity between the parking garage access on A St NW and the adjacent alley.

During final design, Sound Transit would coordinate with the City to develop and implement appropriate design and location of the access and, if necessary, safety treatments such as curb treatments, bollards, mirrors, and/or audible warning devices.

8.8 Construction Mitigation

Sound Transit would finalize construction plans in coordination with the City and BNSF during the final design and permitting phases of the Project. All construction mitigation measures would comply with local regulations governing construction traffic control and construction truck routing.

8.8.1 Traffic Operations

Potential traffic mitigation measures during construction for the Project, including the non-motorized improvements, could include:

- Develop a Maintenance of Traffic Plan that conforms with Manual on Uniform Traffic Control Devices (FHWA, 2012b) guidelines and jurisdictional agency requirements for traffic control. The Maintenance of Traffic Plan would address all travel modes at final design for approval and implementation during construction. This plan would include construction drawings establishing physical and operating characteristics for staging, access, lane or shoulder closures and transitions, haul routes, traffic management, detours, lane modifications, and other construction zones or activities. The plan would incorporate established guidance for best practices to be applied during construction periods, many of which would be focused on reducing congestion impacts and minimizing safety hazards. For example, typical measures would include providing signage, communicating traveler

advisories, installing special lighting for work zones and travel lanes, scheduling work during reduced travel times, and establishing contractor requirements.

- Use lighted or reflective signage to direct drivers to truck haul routes to ensure visibility during nighttime work hours.
- Communicate public information about construction activities via print, radio, posted signs, websites, email, and direct communication with other agencies and affected parties to provide information regarding any required street closures, hours of construction, business access, and parking impacts.
- Coordinate access closures with affected businesses and residents. The contractor would be required to perform this task in coordination with Sound Transit. If access closures are required, then access to residences and businesses would be maintained to the extent possible. If access to the property could not be maintained, the specific construction activity would be reviewed to determine if it could occur during non-business hours, or if the parking spaces and users of the affected access (for example, deliveries) could be provided at an alternative location.
- Provide detour, open for business, and other signage as appropriate.
- Post advance notice signs prior to construction in areas where surface construction activities would affect access to surrounding businesses.
- Provide regular updates to schools, emergency service providers, local agencies, solid waste utilities, and postal services, and assist public school officials in providing advance and ongoing notice to students and parents concerning construction activity near schools.
- Schedule traffic lane closures and high volumes of construction truck traffic during off-peak (including school peak) hours to minimize delays during periods of higher traffic volumes as much as possible.
- Cover potholes and open trenches, where possible, and use protective barriers to protect drivers from open trenches.
- Upon completion of work, adjacent streets and alleys affected by construction activities will be restored to pre-construction conditions.

8.8.2 Parking

Construction activity for the new parking garage would displace the existing 120 parking spaces on the City-owned surface parking lot (project site) as well as the 46 parking spaces on the surface lot immediately to the south that is proposed to be used as construction staging area. To mitigate the temporary loss of parking spaces during construction, Sound Transit would coordinate with the City to develop and implement plans for replacement parking and alternative access measures.

Mitigation measures would include the following, as appropriate or other measures developed in coordination with the City:

- Compensate the City for the use of the property, or
- Lease parking lots and/or new parking areas near Auburn Station, or
- Redirect drivers who use the City-owned surface parking lot at 1st St NW and B St NW (120 spaces) and the surface lot immediately to the south (46 spaces) to nearby parking lots that may have availability.

Section 9
Reference List

CDM Smith. 2017. *Kent Auburn Station Access Improvements, Baseline Conditions Summary.* Prepared for Sound Transit. January 9, 2017.

City of Auburn. 2014. *Comprehensive Downtown Parking Management Plan (CDPMP)*. Available at: https://www.auburnwa.gov/UserFiles/Servers/Server_11470554/File/City%20Hall/Community%20Development/Zoning%20and%20Land%20Use/Urban%20Center/CDPMP.pdf.

City of Auburn. 2015. *Comprehensive Transportation Plan*. Adopted December 14, 2015. Available at: https://www.auburnwa.gov/UserFiles/Servers/Server_11470554/File/City%20Hall/Community%20Development/Zoning%20and%20Land%20Use/Comprehensive%20Plan/06-Vol%205_Transportation_Full.pdf.

City of Auburn. 2018. *2019-2024 Transportation Improvement Program*. Adopted June 18, 2018. Available at: https://www.auburnwa.gov/UserFiles/Servers/Server_11470554/File/City%20Hall/Public%20Works/Transportation/Transportation%20Improvement%20Program%20(TIP).pdf.

Federal Highway Administration. 2012a. *MAP-21, the Moving Ahead for Progress in the 21st Century Act.* Available at: https://www.fhwa.dot.gov/map21/.

Federal Highway Administration. 2012b. *Manual on Uniform Traffic Control Devices.* Available at: https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/mutcd2009r1r2edition.pdf.

King County Metro. 2017. *Metro Connects Long-Range Plan.* Accessed: March 12, 2019. Available at: http://www.kcmetrovision.org/view-plan/.

King County Metro. 2018. Schedules & Maps webpage. Accessed: December 5, 2018. Available at: https://kingcounty.gov/depts/transportation/metro/schedules-maps.aspx.

Pierce Transit, 2016. *Destination 2040 Long Range Plan*. Accessed: March 13, 2019. Available at: https://www.piercetransit.org/news/?id=223&p=2.

Pierce Transit, 2018. *Routes & Schedules webpage*. Accessed: December 5, 2018. Available at: https://www.piercetransit.org/pierce-transit-routes.

Sound Transit. 2016. *Sound Transit 3, The Regional Transit System Plan for Central Puget Sound*. Accessed: March 12, 2019. Available at: https://www.soundtransit.org/sites/default/files/project-documents/st3-system-plan-2016.pdf.

Sound Transit. 2018. *Routes & Schedules webpage*. Accessed: December 5, 2018. Available at: https://www.soundtransit.org/schedules.

Transportation Consulting Services. 2018. *Auburn Sounder Station On-street Parking Analysis. Draft Technical Memorandum*. October 24, 2018.

Transportation Research Board. 2016. *Highway Capacity Manual (HCM) 6th Edition.*

U.S. Department of Energy. 2019. *National Environmental Policy Act*. Accessed: March 12, 2019. Available at: https://ceq.doe.gov/index.html.

Washington State Department of Transportation. 2005. *Development Services Manual, Appendix 29, LOS Standards Set By MPOs/RTPOs for Regionally Significant (non-HSS) State Highways.* Accessed: August 31, 2018. Available at: https://www.wsdot.wa.gov/publications/manuals/fulltext/M3007/Appendix29.pdf.

Washington State Department of Transportation. 2006. *Washington State Transportation Plan 2007-2026.* Accessed: March 12, 2019. Available at: http://www.wsdot.wa.gov/NR/rdonlyres/B1E8FB10-D415-4228-817D-9C4BE4569128/0/WTPLinks2.pdf.

Washington State Department of Transportation. 2016a. *Rail Freight Corridors in Washington State map.* Accessed: January 16, 2019. Available at: http://www.wsdot.wa.gov/NR/rdonlyres/29A80533-2502-4FEA-B4B8-C66A4B87181B/0/FGTSCorridorsRailFreightCorridorsWashingtonState.pdf.

Washington State Department of Transportation. 2017. *Truck Freight Corridors 2017 Puget Sound Area map.* Accessed: October 15, 2018. Available at: http://www.wsdot.wa.gov/NR/rdonlyres/80F3A548-DB02-4B27-AF01-46E656C5DCC9/0/FGTSCorridorsTruckFreightCorridorsPugetSound.pdf.

Washington State Legislature. 2019a. *State Environmental Policy Act.* Accessed: March 12, 2019. Available at: https://app.leg.wa.gov/rcw/default.aspx?cite=43.21C.

Washington State Legislature. 2019b. *Washington State Growth Management Act (Revised Code of Washington [RCW] 36.70A.070)*. Accessed: March 12, 2019. Available at: https://apps.leg.wa.gov/RCW/default.aspx?cite=36.70.

Appendix A
Turning Movement Counts

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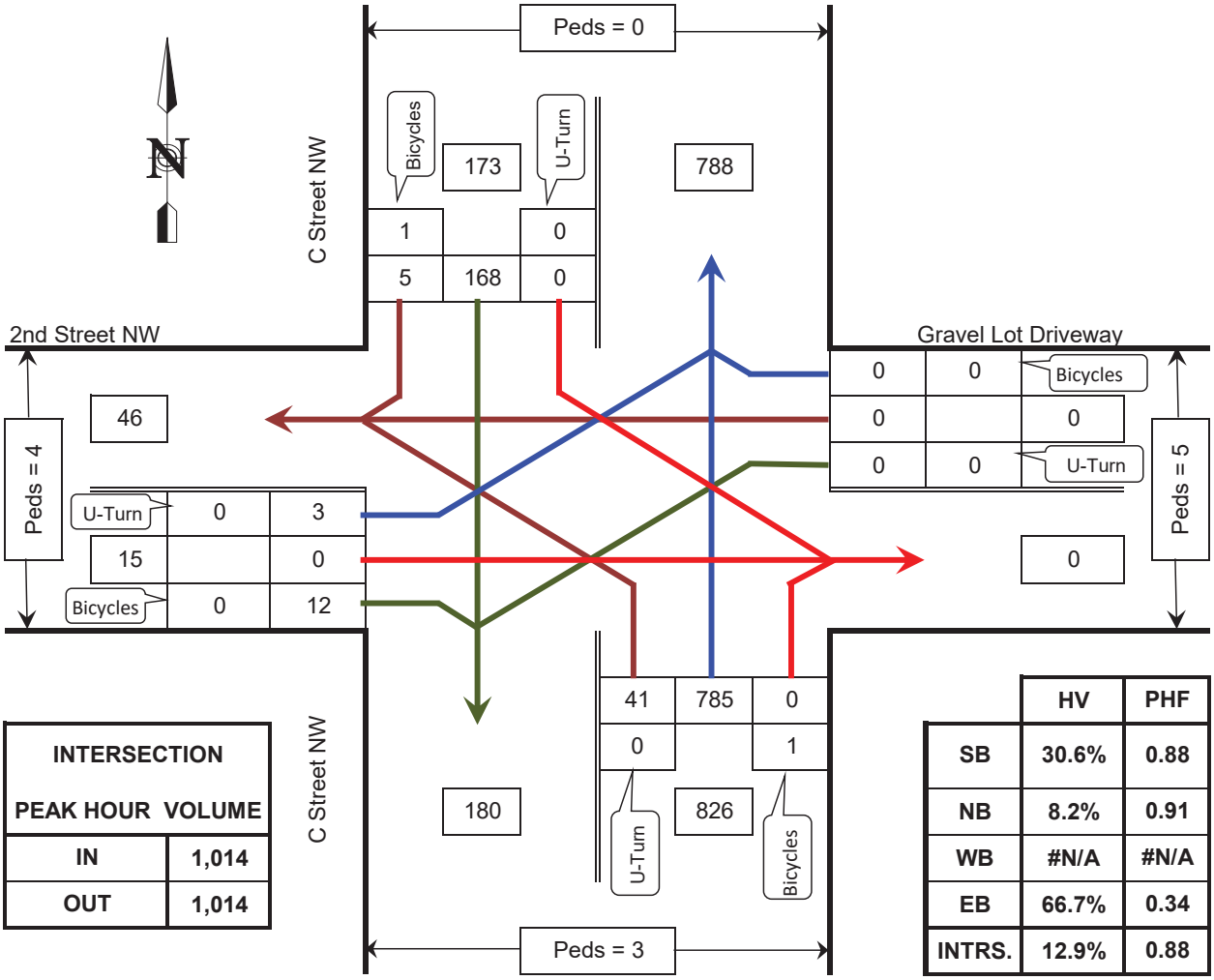
TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

6:00 AM - 9:00 AM PEAK HOUR: 6:30 AM TO 7:30 AM



INTERSECTION PEAK HOUR	VOLUME
IN	1,014
OUT	1,014

	HV	PHF
SB	30.6%	0.88
NB	8.2%	0.91
WB	#N/A	#N/A
EB	66.7%	0.34
INTRS.	12.9%	0.88

PHF = Peak Hour Factor
HV = Heavy Vehicle

2nd Street NW @ C Street NW

Auburn, WA

COUNTED BY: TDG

DATE OF COUNT: Tue. 6/12/18

REDUCTION DATE: Thu. 6/14/18

TIME OF COUNT: 6:00 AM - 9:00 AM

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: 2nd Street NW @ C Street NW
Auburn, WA

DATE OF COUNT: Tue. 6/12/18
TIME OF COUNT: 6:00 AM - 9:00 AM

COUNTED BY: TDG
DATE OF REDUCTION: 6/14/2018

TIME INTERVAL ENDING AT	FROM NORTH ON C Street NW							FROM SOUTH ON C Street NW							FROM EAST ON Gravel Lot Driveway							FROM WEST ON 2nd Street NW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
06:15 AM	0	0	12	0	0	35	1	0	0	12	1	14	173	0	0	0	0	0	0	0	0	0	0	5	0	1	0	8	**233**
06:30 AM	0	0	6	0	0	24	1	0	0	17	1	12	173	1	2	0	0	0	0	0	0	0	0	1	0	1	0	2	**215**
06:45 AM	0	1	11	0	0	35	1	1	1	10	0	9	204	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	**249**
07:00 AM	0	0	18	0	0	48	1	2	0	15	0	11	217	0	4	0	0	0	0	0	0	1	0	10	0	0	0	11	**288**
07:15 AM	0	0	12	0	0	45	2	0	0	30	0	9	195	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	**252**
07:30 AM	0	0	12	0	0	40	1	0	0	13	0	12	169	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	**225**
07:45 AM	0	0	17	0	0	54	1	0	0	10	1	5	174	0	1	0	0	0	0	0	0	0	0	1	0	0	0	4	**239**
08:00 AM	0	0	9	0	0	42	1	0	0	13	0	12	166	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	**226**
08:15 AM	0	0	8	0	0	47	3	1	1	27	0	9	142	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2	**204**
08:30 AM	0	0	16	0	0	53	0	0	0	12	0	3	113	0	0	0	0	0	0	0	0	0	0	2	0	5	0	2	**176**
08:45 AM	0	0	15	0	0	47	0	0	0	11	0	5	96	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	**151**
09:00 AM	0	0	13	0	0	60	0	0	0	19	0	6	123	0	0	0	0	0	0	0	0	2	0	2	0	2	1	3	**195**
PEAK HOUR TOTALS	**0**	**1**	**53**	**0**	**0**	**168**	**5**	**3**	**1**	**68**	**0**	**41**	**785**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**10**	**0**	**3**	**0**	**12**	**INTERSECTION**
ALL MOVEMENTS				**173**							**826**							**0**							**15**			**1014**
% HV			**30.6%**							**8.2%**							**#N/A**							**66.7%**				**12.9%**
PEAK HOUR FACTOR				**0.88**							**0.91**							**#N/A**							**0.34**			**0.88**

HV = Heavy Vehicle
PHF = Peak Hour Factor

6:00 AM - 9:00 AM PEAK HOUR: 6:30 AM TO 7:30 AM

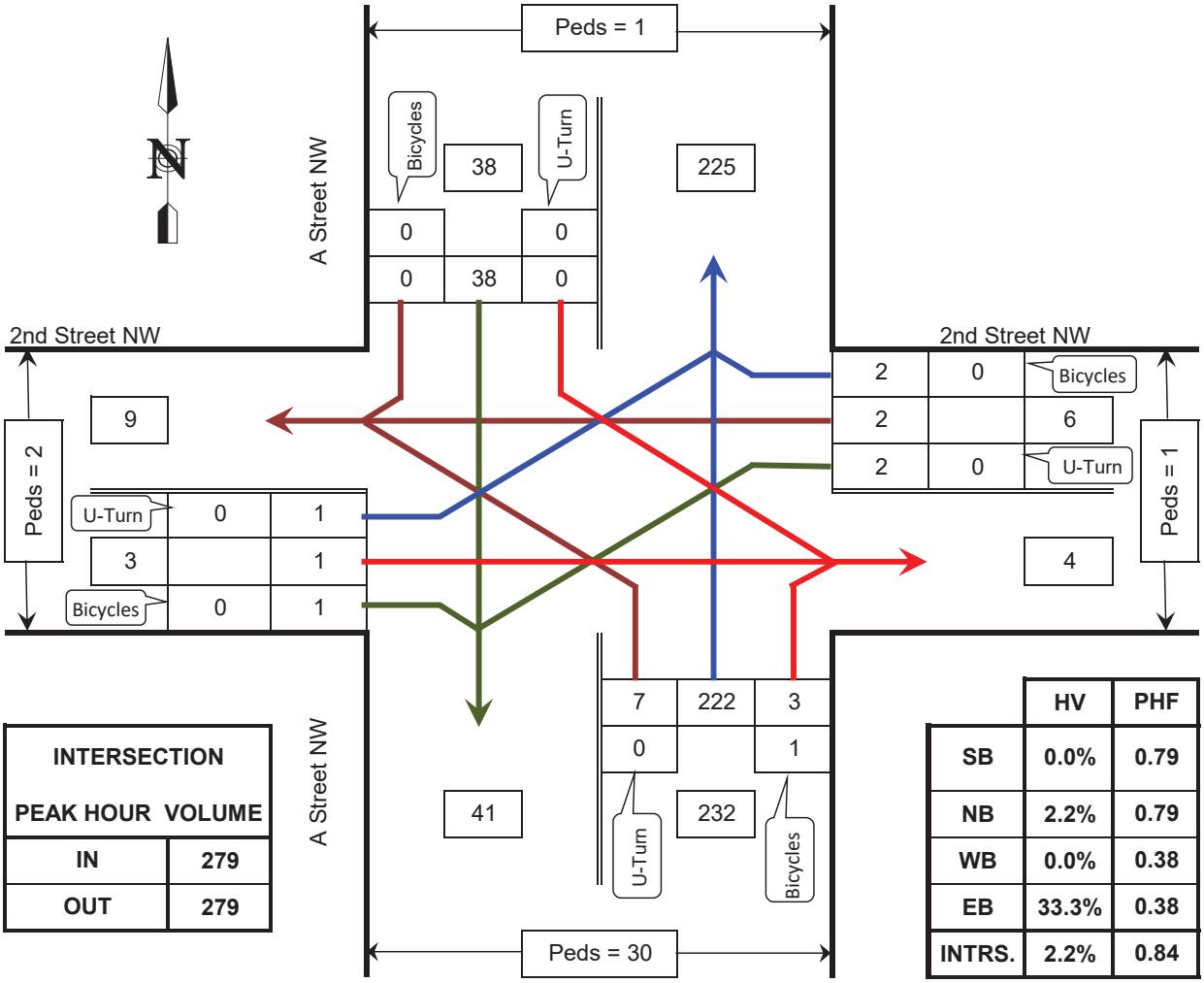
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON C Street NW							FROM SOUTH ON C Street NW							FROM EAST ON Gravel Lot Driveway							FROM WEST ON 2nd Street NW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
5:00 AM - 6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 7:00 AM	0	1	47	0	0	142	4	3	1	54	2	46	767	1	7	0	0	0	0	0	0	3	0	16	0	2	0	21	985
6:15 AM - 7:15 AM	0	1	47	0	0	152	5	3	1	72	1	41	789	1	7	0	0	0	0	0	0	4	0	11	0	2	0	13	1004
6:30 AM - 7:30 AM	0	1	53	0	0	168	5	3	1	68	0	41	785	0	5	0	0	0	0	0	0	4	0	10	0	3	0	12	1014
6:45 AM - 7:45 AM	0	0	59	0	0	187	5	2	0	68	1	37	755	0	5	0	0	0	0	0	0	2	0	11	0	3	0	16	1004
7:00 AM - 8:00 AM	0	0	50	0	0	181	5	0	0	66	1	38	704	0	1	0	0	0	0	0	0	1	0	4	0	3	0	10	942
7:15 AM - 8:15 AM	0	0	46	0	0	183	6	1	1	63	1	38	651	1	1	0	0	0	0	0	0	0	0	5	0	2	0	12	894
7:30 AM - 8:30 AM	0	0	50	0	0	196	5	1	1	62	1	29	595	1	1	0	0	0	0	0	0	0	0	7	0	5	0	13	845
7:45 AM - 8:45 AM	0	0	48	0	0	189	4	1	1	63	0	29	517	1	0	0	0	0	0	0	0	0	0	6	0	7	0	10	757
8:00 AM - 9:00 AM	0	0	52	0	0	207	3	1	1	69	0	23	474	1	0	0	0	0	0	0	0	2	0	5	0	9	1	8	726
6:00 AM - 9:00 AM Total:	0	1	149	0	0	530	12	4	2	189	3	107	1945	2	8	0	0	0	0	0	0	6	0	25	0	14	1	39	2653

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

6:00 AM - 9:00 AM PEAK HOUR: 6:15 AM TO 7:15 AM



INTERSECTION PEAK HOUR VOLUME	
IN	279
OUT	279

	HV	PHF
SB	0.0%	0.79
NB	2.2%	0.79
WB	0.0%	0.38
EB	33.3%	0.38
INTRS.	2.2%	0.84

PHF = Peak Hour Factor
HV = Heavy Vehicle

2nd Street NW @ A Street NW

Auburn, WA

COUNTED BY: TDG

DATE OF COUNT: Tue. 6/12/18

REDUCTION DATE: Sat. 6/16/18

TIME OF COUNT: 6:00 AM - 9:00 AM

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: 2nd Street NW @ A Street NW
Auburn, WA

DATE OF COUNT: Tue. 6/12/18
TIME OF COUNT: 6:00 AM - 9:00 AM

COUNTED BY: TDG
DATE OF REDUCTION: 6/16/2018

TIME INTERVAL ENDING AT	FROM NORTH ON A Street NW							FROM SOUTH ON A Street NW							FROM EAST ON 2nd Street NW							FROM WEST ON 2nd Street NW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
06:15 AM	2	0	0	0	0	3	1	3	0	1	0	1	42	0	2	0	0	0	6	1	0	0	0	0	0	0	1	0	**55**
06:30 AM	0	0	0	0	0	8	0	6	1	3	0	2	49	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**60**
06:45 AM	1	0	0	0	0	12	0	4	0	0	0	0	55	0	0	0	0	0	0	1	0	1	0	0	0	1	1	0	**70**
07:00 AM	0	0	0	0	0	9	0	14	0	0	0	1	71	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	**83**
07:15 AM	0	0	0	0	0	9	0	6	0	2	0	4	47	1	0	0	0	0	2	1	1	0	0	1	0	0	0	1	**66**
07:30 AM	1	0	0	0	0	11	0	6	0	0	0	0	44	0	1	0	0	0	3	0	0	1	0	0	0	0	0	0	**58**
07:45 AM	1	0	3	0	0	20	0	3	2	0	0	2	47	1	1	0	0	0	0	0	1	2	0	0	0	0	0	0	**71**
08:00 AM	0	0	0	0	0	15	0	6	1	4	0	0	39	8	1	0	1	0	1	0	5	0	0	0	0	0	0	0	**68**
08:15 AM	0	0	1	0	0	21	2	1	0	1	0	2	27	2	0	0	0	1	1	0	0	0	0	0	0	1	0	0	**57**
08:30 AM	0	0	0	0	1	9	0	3	3	1	0	0	18	0	2	0	0	0	1	0	1	3	0	0	0	0	0	0	**30**
08:45 AM	0	0	1	0	0	14	0	6	0	0	1	3	19	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	**40**
09:00 AM	0	0	0	0	0	5	0	4	0	0	0	1	37	3	0	0	0	0	2	0	0	2	0	0	0	0	0	1	**49**
PEAK HOUR TOTALS	**1**	**0**	**0**	**0**	**0**	**38**	**0**	**30**	**1**	**5**	**0**	**7**	**222**	**3**	**1**	**0**	**0**	**0**	**2**	**2**	**2**	**2**	**0**	**1**	**0**	**1**	**1**	**1**	**INTERSECTION**
ALL MOVEMENTS				**38**							**232**							**6**							**3**			**279**
% HV			**0.0%**							**2.2%**							**0.0%**							**33.3%**				**2.2%**
PEAK HOUR FACTOR				**0.79**							**0.79**							**0.38**							**0.38**			**0.84**

HV = Heavy Vehicle
PHF = Peak Hour Factor

6:00 AM - 9:00 AM PEAK HOUR: 6:15 AM TO 7:15 AM

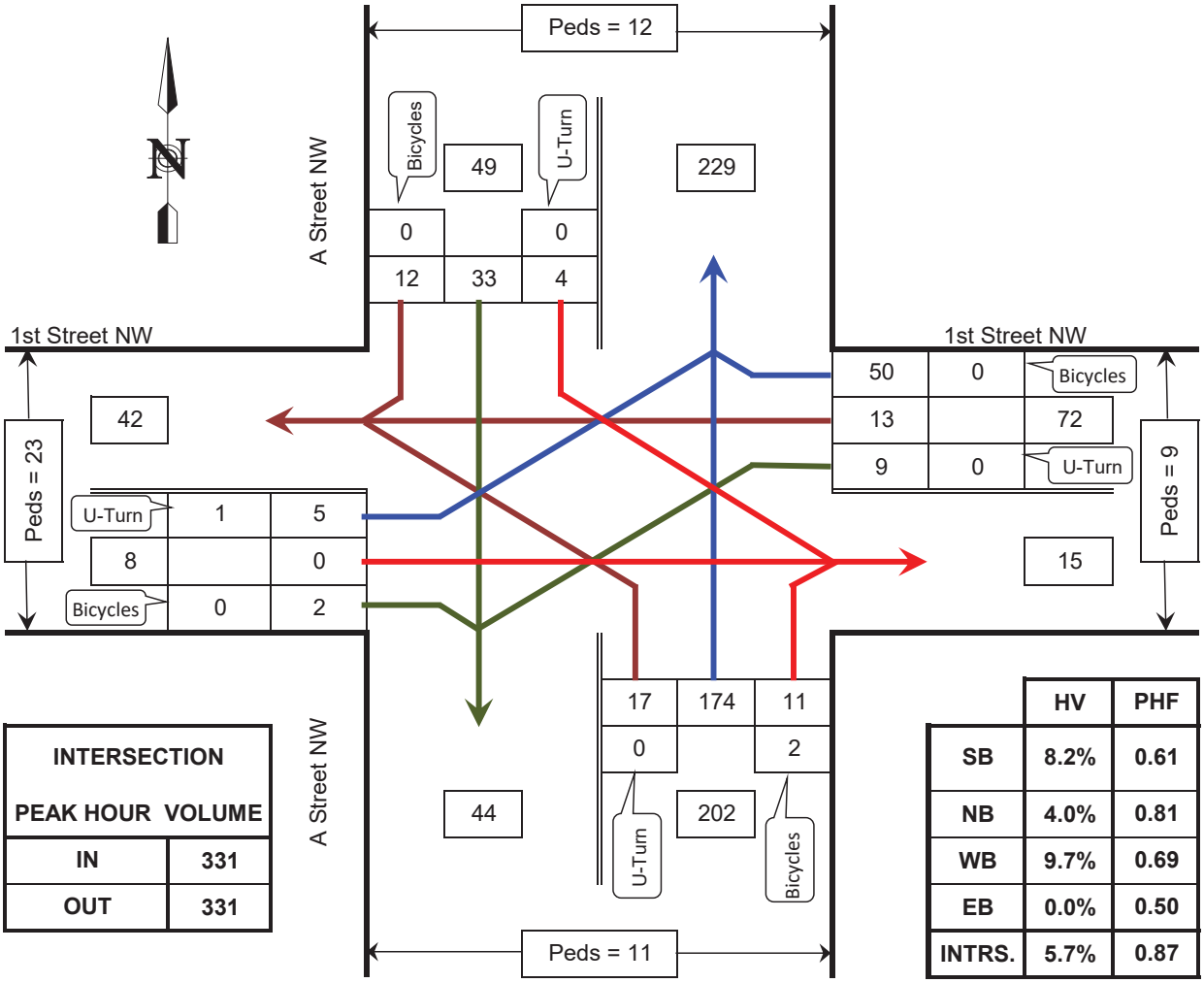
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON A Street NW							FROM SOUTH ON A Street NW							FROM EAST ON 2nd Street NW							FROM WEST ON 2nd Street NW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
5:00 AM - 6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 7:00 AM	3	0	0	0	0	32	1	27	1	4	0	4	217	2	3	0	0	0	6	2	1	2	0	0	0	1	2	0	268
6:15 AM - 7:15 AM	1	0	0	0	0	38	0	30	1	5	0	7	222	3	1	0	0	0	2	2	2	2	0	1	0	1	1	1	279
6:30 AM - 7:30 AM	2	0	0	0	0	41	0	30	0	2	0	5	217	2	2	0	0	0	5	2	2	2	0	1	0	1	1	1	277
6:45 AM - 7:45 AM	2	0	3	0	0	49	0	29	2	2	0	7	209	3	3	0	0	0	5	1	3	3	0	1	0	0	0	1	278
7:00 AM - 8:00 AM	2	0	3	0	0	55	0	21	3	6	0	6	177	10	3	0	1	0	6	1	7	3	0	1	0	0	0	1	263
7:15 AM - 8:15 AM	2	0	4	0	0	67	2	16	3	5	0	4	157	11	3	0	1	1	5	0	6	3	0	0	0	1	0	0	254
7:30 AM - 8:30 AM	1	0	4	0	1	65	2	13	6	6	0	4	131	11	4	0	1	1	3	0	7	5	0	0	0	1	0	0	226
7:45 AM - 8:45 AM	0	0	2	0	1	59	2	16	4	6	1	5	103	11	3	0	1	1	3	0	7	3	0	0	0	2	0	0	195
8:00 AM - 9:00 AM	0	0	2	0	1	49	2	14	3	2	1	6	101	6	2	0	0	1	4	0	2	5	0	0	0	2	0	1	176
6:00 AM - 9:00 AM Total:	5	0	5	0	1	136	3	62	7	12	1	16	495	18	8	0	1	1	16	3	10	10	0	1	0	3	2	2	707

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

6:00 AM - 9:00 AM PEAK HOUR: 6:45 AM TO 7:45 AM



INTERSECTION PEAK HOUR VOLUME	
IN	331
OUT	331

	HV	PHF
SB	8.2%	0.61
NB	4.0%	0.81
WB	9.7%	0.69
EB	0.0%	0.50
INTRS.	5.7%	0.87

PHF = Peak Hour Factor
HV = Heavy Vehicle

1st Street NW @ A Street NW

Auburn, WA

COUNTED BY: TDG

DATE OF COUNT: Tue. 6/12/18

REDUCTION DATE: Sat. 6/16/18

TIME OF COUNT: 6:00 AM - 9:00 AM

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: 1st Street NW @ A Street NW
Auburn, WA

DATE OF COUNT: Tue. 6/12/18
TIME OF COUNT: 6:00 AM - 9:00 AM

COUNTED BY: TDG
DATE OF REDUCTION: 6/16/2018

TIME INTERVAL ENDING AT	FROM NORTH ON A Street NW							FROM SOUTH ON A Street NW							FROM EAST ON 1st Street NW							FROM WEST ON 1st Street NW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	2	0	0	0	1	6	2	0	0	1	0	0	32	1	2	0	3	0	2	1	14	0	0	0	0	0	0	0	59
06:30 AM	0	0	0	0	0	6	0	0	0	2	0	2	38	2	0	0	1	0	2	2	15	1	1	0	0	1	1	0	69
06:45 AM	2	0	0	0	1	7	1	1	0	1	0	3	32	1	0	0	1	0	1	2	16	2	0	0	0	0	0	0	64
07:00 AM	2	0	0	0	2	3	1	2	0	2	0	4	55	3	1	0	2	0	1	4	21	3	0	0	0	0	0	1	95
07:15 AM	2	0	1	0	1	7	4	4	0	2	0	3	41	1	2	0	2	0	1	2	10	6	0	0	0	3	0	0	73
07:30 AM	4	0	0	0	1	8	2	3	0	2	0	8	35	2	2	0	1	0	3	4	10	8	0	0	1	2	0	1	77
07:45 AM	4	0	3	0	0	15	5	2	2	2	0	2	43	5	4	0	2	0	4	3	9	6	0	0	0	0	0	0	86
08:00 AM	2	0	0	0	2	8	2	3	1	4	0	0	32	5	4	0	1	0	3	5	14	5	1	0	0	0	0	0	71
08:15 AM	3	0	1	0	3	10	1	5	0	2	0	7	21	4	1	0	2	0	4	1	10	6	0	0	0	0	0	0	61
08:30 AM	3	0	0	0	2	3	3	0	3	1	0	0	21	1	3	0	2	0	5	3	3	4	0	0	0	0	0	0	41
08:45 AM	1	0	1	0	3	13	0	3	0	2	0	1	22	6	4	0	1	0	2	3	4	3	0	0	0	0	1	0	55
09:00 AM	1	0	0	0	0	7	0	2	0	0	0	1	27	1	0	0	0	0	1	2	13	3	0	0	0	0	0	0	52
PEAK HOUR TOTALS	12	0	4	0	4	33	12	11	2	8	0	17	174	11	9	0	7	0	9	13	50	23	0	0	1	5	0	2	INTERSECTION
ALL MOVEMENTS				49							202							72							8			331
% HV			8.2%							4.0%							9.7%							0.0%				5.7%
PEAK HOUR FACTOR				0.61							0.81							0.69							0.50			0.87

HV = Heavy Vehicle
PHF = Peak Hour Factor

6:00 AM - 9:00 AM PEAK HOUR: 6:45 AM TO 7:45 AM

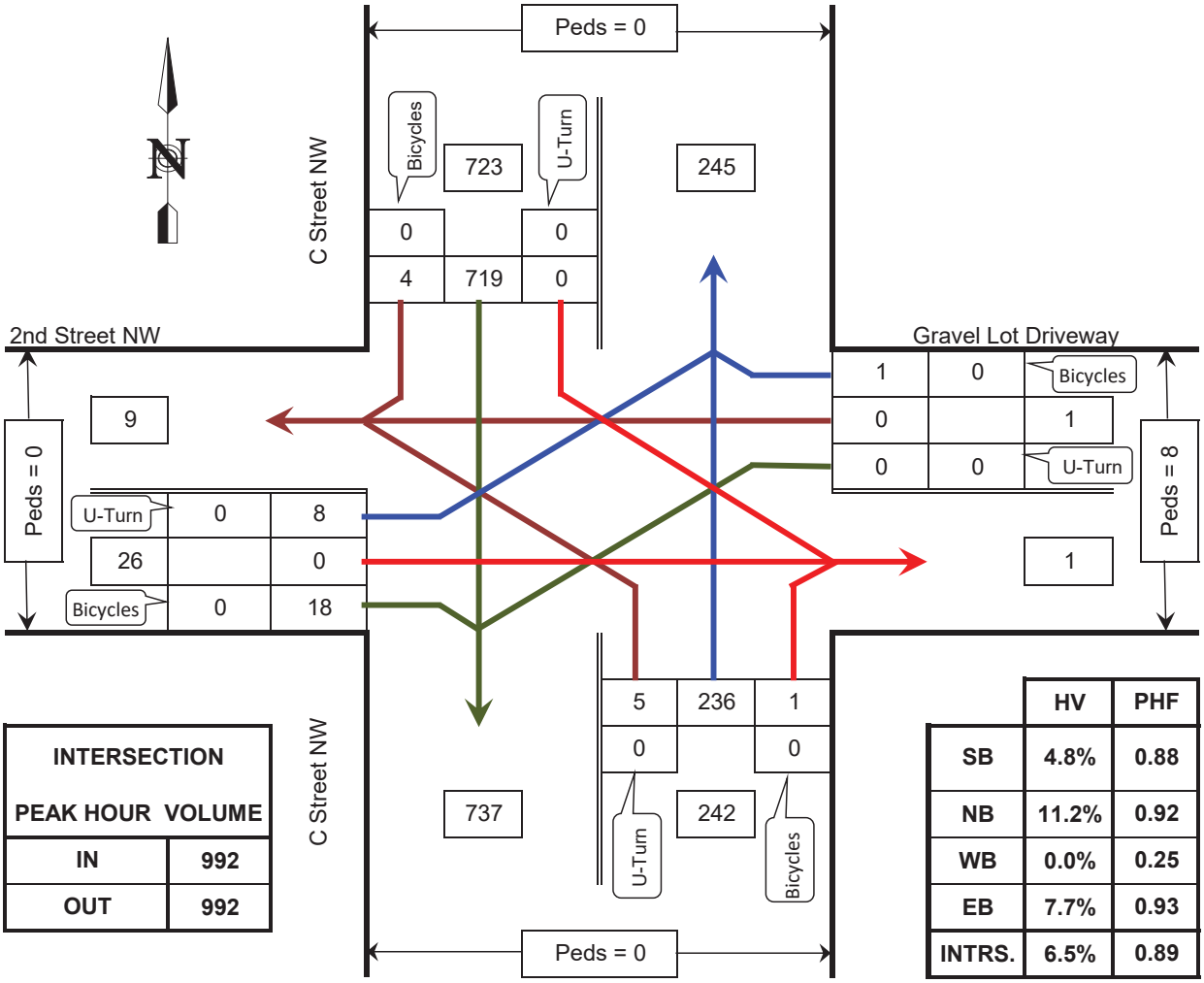
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON A Street NW							FROM SOUTH ON A Street NW							FROM EAST ON 1st Street NW							FROM WEST ON 1st Street NW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
5:00 AM - 6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 7:00 AM	6	0	0	0	4	22	4	3	0	6	0	9	157	7	3	0	7	0	6	9	66	6	1	0	0	1	1	1	287
6:15 AM - 7:15 AM	6	0	1	0	4	23	6	7	0	7	0	12	166	7	3	0	6	0	5	10	62	12	1	0	0	4	1	1	301
6:30 AM - 7:30 AM	10	0	1	0	5	25	8	10	0	7	0	18	163	7	5	0	6	0	6	12	57	19	0	0	1	5	0	2	309
6:45 AM - 7:45 AM	12	0	4	0	4	33	12	11	2	8	0	17	174	11	9	0	7	0	9	13	50	23	0	0	1	5	0	2	331
7:00 AM - 8:00 AM	12	0	4	0	4	38	13	12	3	10	0	13	151	13	12	0	6	0	11	14	43	25	1	0	1	5	0	1	307
7:15 AM - 8:15 AM	13	0	4	0	6	41	10	13	3	10	0	17	131	16	11	0	6	0	14	13	43	25	1	0	1	2	0	1	295
7:30 AM - 8:30 AM	12	0	4	0	7	36	11	10	6	9	0	9	117	15	12	0	7	0	16	12	36	21	1	0	0	0	0	0	259
7:45 AM - 8:45 AM	9	0	2	0	10	34	6	11	4	9	0	8	96	16	12	0	6	0	14	12	31	18	1	0	0	0	1	0	228
8:00 AM - 9:00 AM	8	0	2	0	8	33	4	10	3	5	0	9	91	12	8	0	5	0	12	9	30	16	0	0	0	0	1	0	209
6:00 AM - 9:00 AM Total:	26	0	6	0	16	93	21	25	6	21	0	31	399	32	23	0	18	0	29	32	139	47	2	0	1	6	2	2	803

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

4:00 PM - 7:00 PM PEAK HOUR: 4:15 PM TO 5:15 PM



INTERSECTION PEAK HOUR VOLUME	
IN	992
OUT	992

	HV	PHF
SB	4.8%	0.88
NB	11.2%	0.92
WB	0.0%	0.25
EB	7.7%	0.93
INTRS.	6.5%	0.89

PHF = Peak Hour Factor
HV = Heavy Vehicle

2nd Street NW @ C Street NW

Auburn, WA

COUNTED BY: TDG

DATE OF COUNT: Tue. 6/12/18

REDUCTION DATE: Sat. 6/16/18

TIME OF COUNT: 4:00 PM - 7:00 PM

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: 2nd Street NW @ C Street NW
Auburn, WA

DATE OF COUNT: Tue. 6/12/18
TIME OF COUNT: 4:00 PM - 7:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 6/16/2018

TIME INTERVAL ENDING AT	FROM NORTH ON C Street NW							FROM SOUTH ON C Street NW							FROM EAST ON Gravel Lot Driveway							FROM WEST ON 2nd Street NW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
04:15 PM	0	1	11	0	0	171	1	0	0	5	0	1	72	1	1	0	0	0	0	0	1	0	0	1	0	1	0	9	**257**
04:30 PM	0	0	14	0	0	205	1	0	0	7	0	0	65	1	1	0	0	0	0	0	1	0	0	0	0	0	0	7	**280**
04:45 PM	0	0	4	0	0	166	0	0	0	6	0	1	63	0	4	0	0	0	0	0	0	0	0	0	0	2	0	5	**237**
05:00 PM	0	0	8	0	0	156	1	0	0	8	0	1	51	0	2	0	0	0	0	0	0	0	0	0	0	6	0	1	**216**
05:15 PM	0	0	9	0	0	192	2	0	0	6	0	3	57	0	1	0	0	0	0	0	0	0	0	2	0	0	0	5	**259**
05:30 PM	0	0	3	0	1	153	1	0	0	8	0	1	54	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	**213**
05:45 PM	0	0	7	0	0	149	1	0	0	5	0	0	62	0	1	0	0	0	1	0	1	2	0	2	0	1	0	3	**218**
06:00 PM	0	0	6	0	0	124	0	1	0	8	0	1	49	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	**179**
06:15 PM	0	0	9	0	0	131	0	0	0	5	0	0	54	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	**189**
06:30 PM	0	0	5	0	0	102	0	0	1	3	0	3	37	0	0	0	1	0	1	0	0	0	0	1	0	0	0	1	**144**
06:45 PM	0	0	4	0	0	96	0	0	0	1	0	0	45	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	**142**
07:00 PM	0	0	5	0	0	72	1	0	0	2	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	**124**
PEAK HOUR TOTALS	**0**	**0**	**35**	**0**	**0**	**719**	**4**	**0**	**0**	**27**	**0**	**5**	**236**	**1**	**8**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**	**8**	**0**	**18**	**INTERSECTION**
ALL MOVEMENTS				**723**							**242**							**1**							**26**			**992**
% HV			**4.8%**							**11.2%**							**0.0%**							**7.7%**				**6.5%**
PEAK HOUR FACTOR				**0.88**							**0.92**							**0.25**							**0.93**			**0.89**

HV = Heavy Vehicle
PHF = Peak Hour Factor

4:00 PM - 7:00 PM PEAK HOUR: 4:15 PM TO 5:15 PM

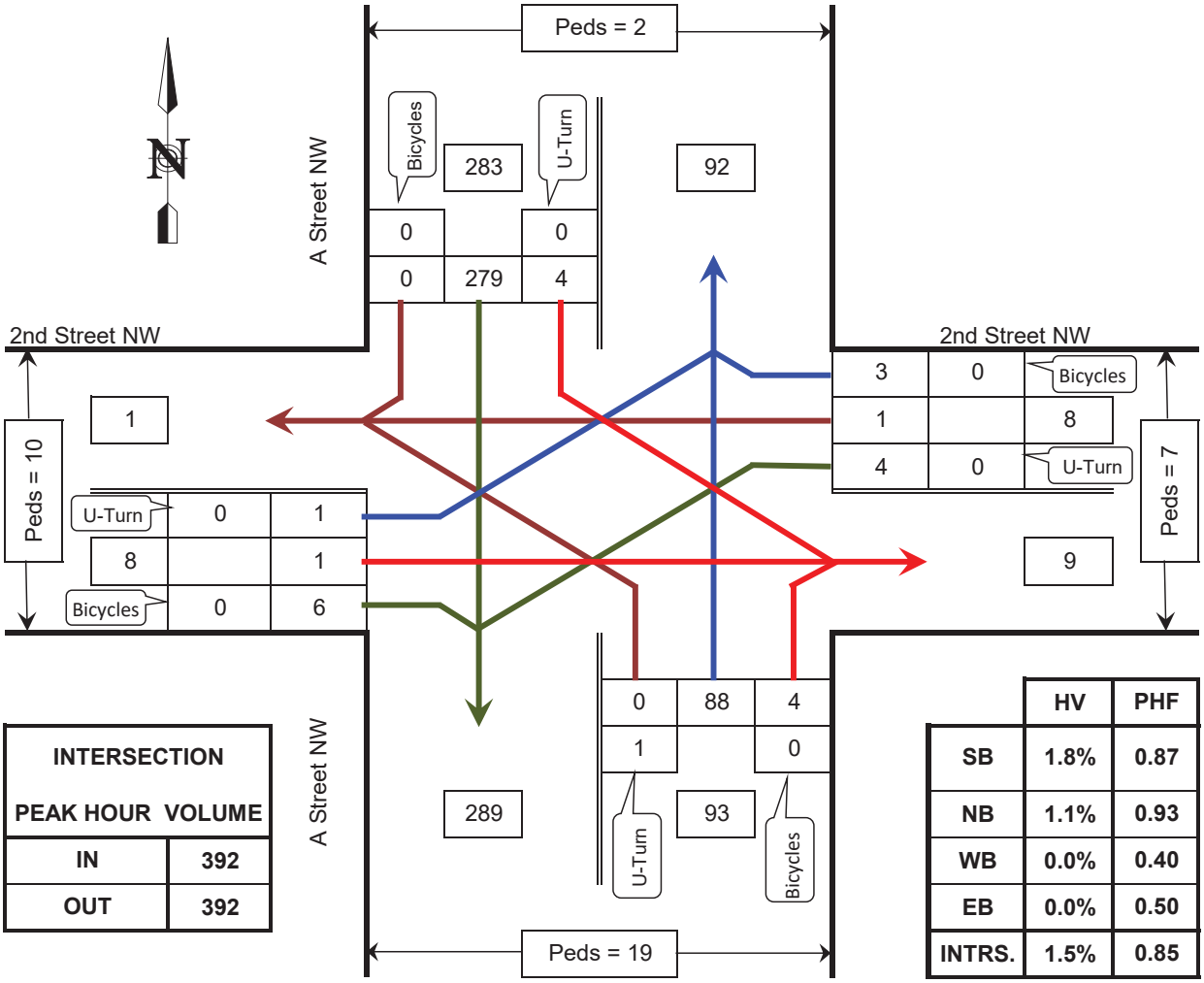
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON C Street NW							FROM SOUTH ON C Street NW							FROM EAST ON Gravel Lot Driveway							FROM WEST ON 2nd Street NW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
3:00 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	1	37	0	0	698	3	0	0	26	0	3	251	2	8	0	0	0	0	0	2	0	0	1	0	9	0	22	990
4:15 PM - 5:15 PM	0	0	35	0	0	719	4	0	0	27	0	5	236	1	8	0	0	0	0	0	1	0	0	2	0	8	0	18	992
4:30 PM - 5:30 PM	0	0	24	0	1	667	4	0	0	28	0	6	225	0	7	0	0	0	1	0	0	0	0	2	0	8	0	13	925
4:45 PM - 5:45 PM	0	0	27	0	1	650	5	0	0	27	0	5	224	0	4	0	0	0	2	0	1	2	0	4	0	7	0	11	906
5:00 PM - 6:00 PM	0	0	25	0	1	618	4	1	0	27	0	5	222	0	2	0	0	0	2	0	1	2	0	4	0	2	0	14	869
5:15 PM - 6:15 PM	0	0	25	0	1	557	2	1	0	26	0	2	219	0	1	0	0	0	2	0	1	2	0	2	0	3	0	12	799
5:30 PM - 6:30 PM	0	0	27	0	0	506	1	1	1	21	0	4	202	0	1	0	1	0	2	0	1	2	0	3	0	3	0	11	730
5:45 PM - 6:45 PM	0	0	24	0	0	453	0	1	1	17	0	4	185	0	1	0	1	0	1	0	0	0	0	1	0	2	0	9	654
6:00 PM - 7:00 PM	0	0	23	0	0	401	1	0	1	11	0	3	186	0	1	0	1	0	1	0	0	0	0	1	0	2	0	5	599
4:00 PM - 7:00 PM Total:	0	1	85	0	1	1717	8	1	1	64	0	11	659	2	11	0	1	0	3	0	3	2	0	6	0	13	0	41	2458

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

4:00 PM - 7:00 PM PEAK HOUR: 4:30 PM TO 5:30 PM



INTERSECTION PEAK HOUR VOLUME	
IN	392
OUT	392

	HV	PHF
SB	1.8%	0.87
NB	1.1%	0.93
WB	0.0%	0.40
EB	0.0%	0.50
INTRS.	1.5%	0.85

PHF = Peak Hour Factor
HV = Heavy Vehicle

2nd Street NW @ A Street NW

Auburn, WA

COUNTED BY: TDG

DATE OF COUNT: Tue. 6/12/18

REDUCTION DATE: Sat. 6/16/18

TIME OF COUNT: 4:00 PM - 7:00 PM

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: 2nd Street NW @ A Street NW
Auburn, WA

DATE OF COUNT: Tue. 6/12/18
TIME OF COUNT: 4:00 PM - 7:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 6/16/2018

TIME INTERVAL ENDING AT	FROM NORTH ON A Street NW							FROM SOUTH ON A Street NW							FROM EAST ON 2nd Street NW							FROM WEST ON 2nd Street NW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	2	0	2	76	0	5	0	0	0	0	25	2	3	1	0	0	2	0	0	1	0	0	0	1	0	0	108
04:30 PM	0	0	1	0	1	69	0	4	0	0	0	0	12	3	1	0	0	0	1	1	0	0	1	0	0	0	1	4	92
04:45 PM	1	0	1	0	0	70	0	2	0	0	0	0	24	1	3	0	0	0	1	0	0	4	0	0	0	0	0	0	96
05:00 PM	0	0	2	0	1	54	0	7	0	0	0	0	21	2	0	0	0	0	0	0	0	2	0	0	0	0	0	1	79
05:15 PM	0	0	1	0	2	79	0	9	0	0	1	0	23	1	3	0	0	0	3	1	1	4	0	0	0	0	1	3	115
05:30 PM	1	0	1	0	1	76	0	1	0	1	0	0	20	0	1	0	0	0	0	0	2	0	0	0	0	1	0	2	102
05:45 PM	0	0	1	0	0	59	0	6	0	1	0	0	23	1	0	2	0	0	1	0	3	0	0	0	0	1	0	0	88
06:00 PM	0	0	0	0	1	42	0	2	0	1	0	1	25	0	1	0	0	0	0	0	1	1	0	0	0	0	0	1	71
06:15 PM	0	0	1	0	0	34	0	2	0	0	0	0	6	2	1	0	0	0	0	1	0	0	0	0	0	1	0	2	46
06:30 PM	0	0	1	0	0	32	1	3	0	1	0	0	20	1	3	0	0	0	0	0	0	2	0	0	0	1	0	1	56
06:45 PM	0	0	0	0	0	30	0	1	0	0	0	1	6	0	0	1	0	0	0	0	2	1	0	0	0	1	0	1	41
07:00 PM	0	0	0	0	1	17	0	0	0	0	0	0	7	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	28
PEAK HOUR TOTALS	2	0	5	0	4	279	0	19	0	1	1	0	88	4	7	0	0	0	4	1	3	10	0	0	0	1	1	6	INTERSECTION
ALL MOVEMENTS				283							93							8							8			392
% HV			1.8%							1.1%							0.0%							0.0%				1.5%
PEAK HOUR FACTOR				0.87							0.93							0.40							0.50			0.85

HV = Heavy Vehicle
PHF = Peak Hour Factor

4:00 PM - 7:00 PM PEAK HOUR: 4:30 PM TO 5:30 PM

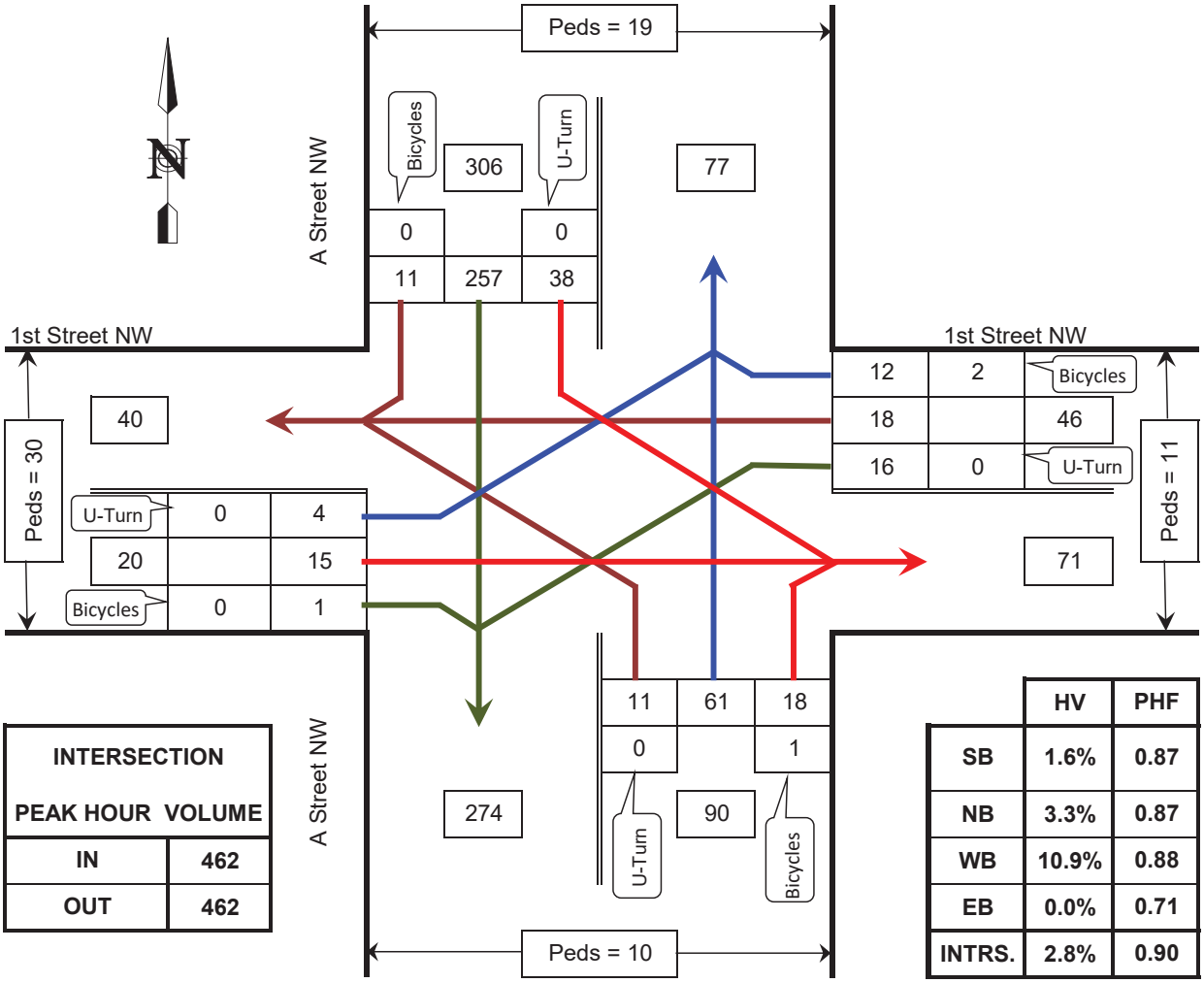
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON A Street NW							FROM SOUTH ON A Street NW							FROM EAST ON 2nd Street NW							FROM WEST ON 2nd Street NW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
3:00 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	1	0	6	0	4	269	0	18	0	0	0	0	82	8	7	1	0	0	4	1	0	7	1	0	0	1	1	5	375
4:15 PM - 5:15 PM	1	0	5	0	4	272	0	22	0	0	1	0	80	7	7	0	0	0	5	2	1	10	1	0	0	0	2	8	382
4:30 PM - 5:30 PM	2	0	5	0	4	279	0	19	0	1	1	0	88	4	7	0	0	0	4	1	3	10	0	0	0	1	1	6	392
4:45 PM - 5:45 PM	1	0	5	0	4	268	0	23	0	2	1	0	87	4	4	2	0	0	4	1	6	6	0	0	0	2	1	6	384
5:00 PM - 6:00 PM	1	0	3	0	4	256	0	18	0	3	1	1	91	2	5	2	0	0	4	1	7	5	0	0	0	2	1	6	376
5:15 PM - 6:15 PM	1	0	3	0	2	211	0	11	0	3	0	1	74	3	3	2	0	0	1	1	6	1	0	0	0	3	0	5	307
5:30 PM - 6:30 PM	0	0	3	0	1	167	1	13	0	3	0	1	74	4	5	2	0	0	1	1	4	3	0	0	0	3	0	4	261
5:45 PM - 6:45 PM	0	0	2	0	1	138	1	8	0	2	0	2	57	3	5	1	0	0	0	1	3	4	0	0	0	3	0	5	214
6:00 PM - 7:00 PM	0	0	2	0	1	113	1	6	0	1	0	1	39	4	4	1	0	0	1	1	2	3	0	0	0	3	0	5	171
4:00 PM - 7:00 PM Total:	2	0	11	0	9	638	1	42	0	4	1	2	212	14	16	4	0	0	9	3	9	15	1	0	0	6	2	16	922

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

4:00 PM - 7:00 PM PEAK HOUR: 4:30 PM TO 5:30 PM



INTERSECTION PEAK HOUR VOLUME	
IN	462
OUT	462

	HV	PHF
SB	1.6%	0.87
NB	3.3%	0.87
WB	10.9%	0.88
EB	0.0%	0.71
INTRS.	2.8%	0.90

PHF = Peak Hour Factor
HV = Heavy Vehicle

1st Street NW @ A Street NW

Auburn, WA

COUNTED BY: TDG

DATE OF COUNT: Tue. 6/12/18

REDUCTION DATE: Sat. 6/16/18

TIME OF COUNT: 4:00 PM - 7:00 PM

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: 1st Street NW @ A Street NW
Auburn, WA

DATE OF COUNT: Tue. 6/12/18
TIME OF COUNT: 4:00 PM - 7:00 PM

COUNTED BY: TDG
DATE OF REDUCTION: 6/16/2018

TIME INTERVAL ENDING AT	FROM NORTH ON A Street NW							FROM SOUTH ON A Street NW							FROM EAST ON 1st Street NW							FROM WEST ON 1st Street NW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	2	1	2	0	4	69	4	3	0	1	0	1	15	6	4	0	1	0	2	3	6	6	0	0	0	2	3	1	116
04:30 PM	6	0	1	0	8	64	2	3	0	1	0	1	11	5	3	1	1	0	3	4	2	7	0	1	0	0	1	0	101
04:45 PM	8	0	1	0	8	71	4	3	0	1	0	6	15	5	2	0	1	0	4	3	6	9	0	0	0	0	7	0	129
05:00 PM	2	0	2	0	7	48	5	0	0	2	0	2	15	6	2	0	0	0	2	4	2	6	0	0	0	0	3	0	94
05:15 PM	8	0	1	0	16	70	2	6	1	0	0	3	14	5	5	2	1	0	6	3	3	10	0	0	0	3	2	0	127
05:30 PM	1	0	1	0	7	68	0	1	0	0	0	0	17	2	2	0	3	0	4	8	1	5	0	0	0	1	3	1	112
05:45 PM	2	1	1	0	14	53	3	6	0	2	0	2	22	3	3	0	0	0	2	5	0	12	1	0	0	0	3	0	107
06:00 PM	2	0	0	0	5	39	1	1	0	1	0	2	19	2	1	0	2	0	4	6	2	6	0	0	0	6	1	0	87
06:15 PM	1	0	2	0	5	28	2	1	0	1	0	1	8	5	1	0	0	0	2	5	0	1	0	0	0	0	0	0	56
06:30 PM	0	0	1	0	3	26	3	3	0	0	0	3	14	4	4	0	2	0	3	3	1	6	0	0	0	4	1	1	66
06:45 PM	0	1	0	0	2	26	0	0	0	1	0	2	4	2	0	0	1	0	1	1	2	4	0	0	0	0	0	0	40
07:00 PM	0	0	0	0	2	21	0	1	0	0	0	2	7	1	0	0	1	0	4	2	2	2	0	0	0	0	0	0	41
PEAK HOUR TOTALS	**19**	**0**	**5**	**0**	**38**	**257**	**11**	**10**	**1**	**3**	**0**	**11**	**61**	**18**	**11**	**2**	**5**	**0**	**16**	**18**	**12**	**30**	**0**	**0**	**0**	**4**	**15**	**1**	**INTERSECTION**
ALL MOVEMENTS				**306**							**90**							**46**							**20**			**462**
% HV			**1.6%**							**3.3%**							**10.9%**							**0.0%**				**2.8%**
PEAK HOUR FACTOR				**0.87**							**0.87**							**0.88**							**0.71**			**0.90**

HV = Heavy Vehicle
PHF = Peak Hour Factor

4:00 PM - 7:00 PM PEAK HOUR: 4:30 PM TO 5:30 PM

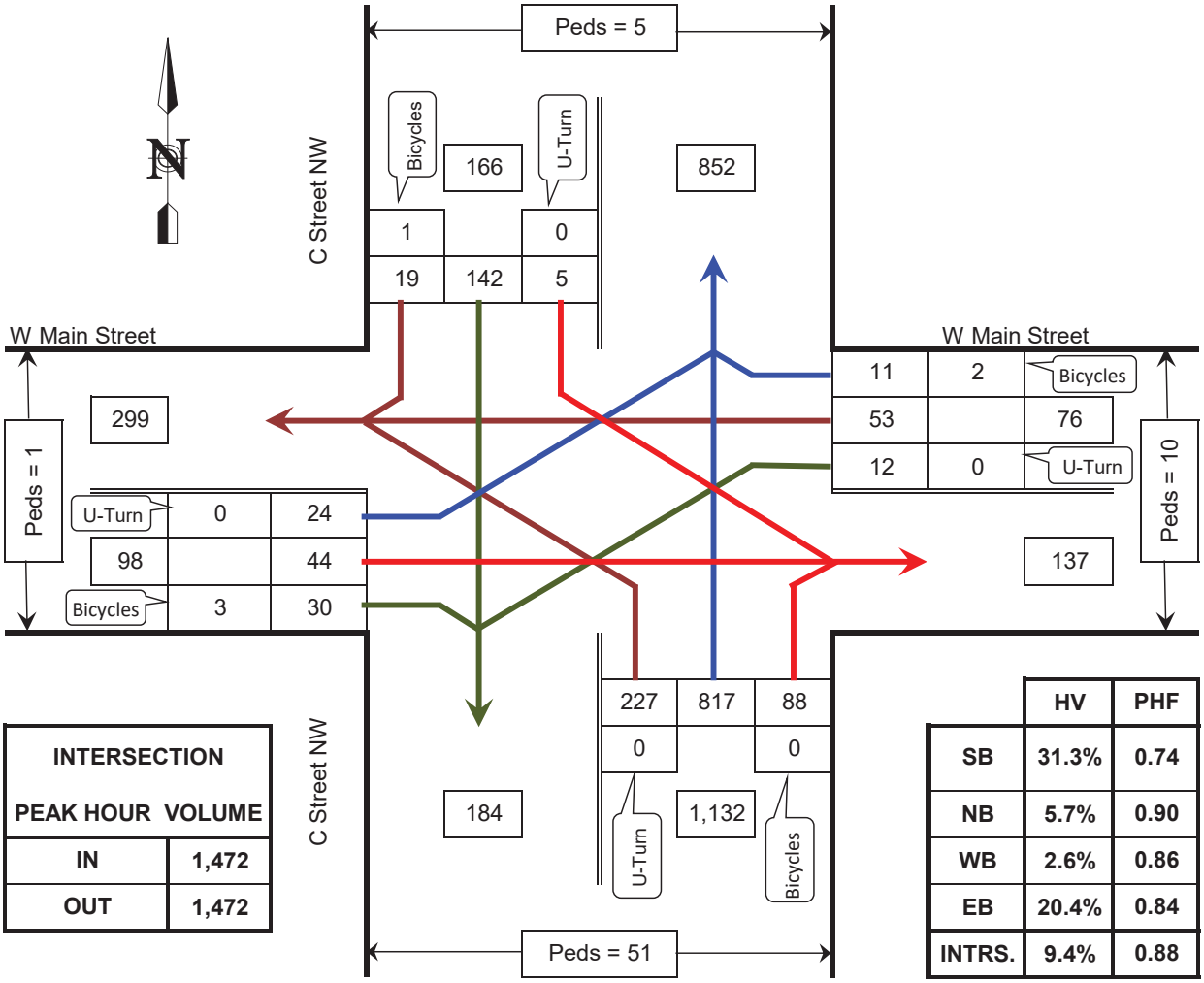
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON A Street NW							FROM SOUTH ON A Street NW							FROM EAST ON 1st Street NW							FROM WEST ON 1st Street NW							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
3:00 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	18	1	6	0	27	252	15	9	0	5	0	10	56	22	11	1	3	0	11	14	16	28	0	1	0	2	14	1	440
4:15 PM - 5:15 PM	24	0	5	0	39	253	13	12	1	4	0	12	55	21	12	3	3	0	15	14	13	32	0	1	0	3	13	0	451
4:30 PM - 5:30 PM	19	0	5	0	38	257	11	10	1	3	0	11	61	18	11	2	5	0	16	18	12	30	0	0	0	4	15	1	462
4:45 PM - 5:45 PM	13	1	5	0	44	239	10	13	1	4	0	7	68	16	12	2	4	0	14	20	6	33	1	0	0	4	11	1	440
5:00 PM - 6:00 PM	13	1	3	0	42	230	6	14	1	3	0	7	72	12	11	2	6	0	16	22	6	33	1	0	0	10	9	1	433
5:15 PM - 6:15 PM	6	1	4	0	31	188	6	9	0	4	0	5	66	12	7	0	5	0	12	24	3	24	1	0	0	7	7	1	362
5:30 PM - 6:30 PM	5	1	4	0	27	146	9	11	0	4	0	8	63	14	9	0	4	0	11	19	3	25	1	0	0	10	5	1	316
5:45 PM - 6:45 PM	3	1	3	0	15	119	6	5	0	3	0	8	45	13	6	0	5	0	10	15	5	17	0	0	0	10	2	1	249
6:00 PM - 7:00 PM	1	1	3	0	12	101	5	5	0	2	0	8	33	12	5	0	4	0	10	11	5	13	0	0	0	4	1	1	203
4:00 PM - 7:00 PM Total:	32	3	12	0	81	583	26	28	1	10	0	25	161	46	27	3	13	0	37	47	27	74	1	1	0	16	24	3	1076

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

6:00 AM - 9:00 AM PEAK HOUR: 6:15 AM TO 7:15 AM



INTERSECTION PEAK HOUR VOLUME	
IN	1,472
OUT	1,472

	HV	PHF
SB	31.3%	0.74
NB	5.7%	0.90
WB	2.6%	0.86
EB	20.4%	0.84
INTRS.	9.4%	0.88

PHF = Peak Hour Factor
HV = Heavy Vehicle

C Street NW @ W Main Street

Auburn, WA

COUNTED BY: TDG

DATE OF COUNT: Tue. 6/12/18

REDUCTION DATE: Thu. 6/14/18

TIME OF COUNT: 6:00 AM - 9:00 AM

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: C Street NW @ W Main Street
Auburn, WA

DATE OF COUNT: Tue. 6/12/18
TIME OF COUNT: 6:00 AM - 9:00 AM

COUNTED BY: TDG
DATE OF REDUCTION: 6/14/2018

TIME INTERVAL ENDING AT	FROM NORTH ON C Street NW							FROM SOUTH ON C Street NW							FROM EAST ON W Main Street							FROM WEST ON W Main Street							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	16	0	3	35	2	12	0	10	0	33	182	13	0	1	0	0	2	10	4	3	0	2	0	4	7	5	300
06:30 AM	0	0	7	0	1	24	2	11	0	16	0	61	196	26	2	1	1	0	4	12	1	0	1	2	0	4	7	4	342
06:45 AM	2	1	11	0	1	30	3	19	0	6	0	44	199	24	3	1	0	0	4	13	3	1	0	4	0	6	13	8	348
07:00 AM	1	0	24	0	2	45	9	8	0	17	0	70	221	22	4	0	0	0	2	17	3	0	0	6	0	5	15	9	420
07:15 AM	2	0	10	0	1	43	5	13	0	25	0	52	201	16	1	0	1	0	2	11	4	0	2	8	0	9	9	9	362
07:30 AM	1	0	9	0	2	29	9	20	0	8	0	47	167	22	1	0	1	0	3	10	3	1	0	7	0	12	17	7	328
07:45 AM	3	0	14	0	4	47	5	13	0	13	0	38	179	15	2	1	2	0	6	24	1	3	3	5	0	6	20	4	349
08:00 AM	0	0	10	0	2	47	2	12	0	15	0	48	166	24	0	1	0	0	3	17	5	2	1	2	0	8	25	8	355
08:15 AM	2	0	7	0	3	35	7	16	0	28	0	40	131	22	0	0	0	0	5	12	2	2	0	10	0	14	23	16	310
08:30 AM	0	0	16	0	5	42	5	5	1	14	1	32	99	24	0	1	1	0	13	14	3	0	0	11	0	16	9	15	278
08:45 AM	1	0	12	0	1	46	4	2	0	14	0	27	88	9	0	1	1	0	8	11	2	0	0	2	0	5	29	11	241
09:00 AM	1	0	13	0	6	55	2	6	0	16	0	21	115	21	0	0	1	0	3	7	4	0	0	9	0	12	28	14	288
PEAK HOUR TOTALS	5	1	52	0	5	142	19	51	0	64	0	227	817	88	10	2	2	0	12	53	11	1	3	20	0	24	44	30	INTERSECTION
ALL MOVEMENTS				166							1132							76							98				1472
% HV			31.3%							5.7%							2.6%							20.4%					9.4%
PEAK HOUR FACTOR				0.74							0.90							0.86							0.84				0.88

HV = Heavy Vehicle
PHF = Peak Hour Factor

6:00 AM - 9:00 AM PEAK HOUR: 6:15 AM TO 7:15 AM

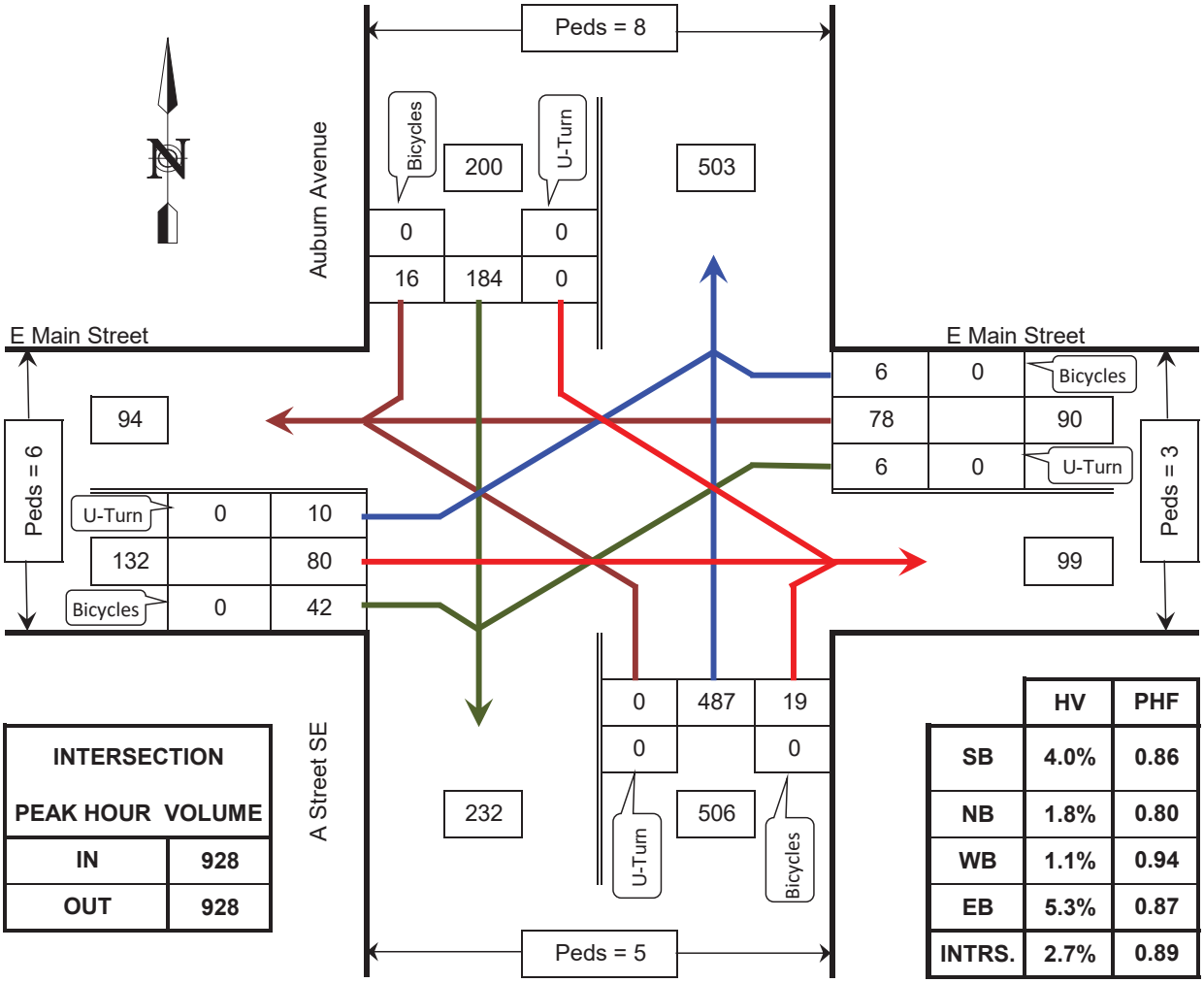
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON C Street NW							FROM SOUTH ON C Street NW							FROM EAST ON W Main Street							FROM WEST ON W Main Street							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
5:00 AM - 6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 7:00 AM	3	1	58	0	7	134	16	50	0	49	0	208	798	85	9	3	1	0	12	52	11	4	1	14	0	19	42	26	1410
6:15 AM - 7:15 AM	5	1	52	0	5	142	19	51	0	64	0	227	817	88	10	2	2	0	12	53	11	1	3	20	0	24	44	30	1472
6:30 AM - 7:30 AM	6	1	54	0	6	147	26	60	0	56	0	213	788	84	9	1	2	0	11	51	13	2	2	25	0	32	54	33	1458
6:45 AM - 7:45 AM	7	0	57	0	9	164	28	54	0	63	0	207	768	75	8	1	4	0	13	62	11	4	5	26	0	32	61	29	1459
7:00 AM - 8:00 AM	6	0	43	0	9	166	21	58	0	61	0	185	713	77	4	2	4	0	14	62	13	6	6	22	0	35	71	28	1394
7:15 AM - 8:15 AM	6	0	40	0	11	158	23	61	0	64	0	173	643	83	3	2	3	0	17	63	11	8	4	24	0	40	85	35	1342
7:30 AM - 8:30 AM	5	0	47	0	14	171	19	46	1	70	1	158	575	85	2	3	3	0	27	67	11	7	4	28	0	44	77	43	1292
7:45 AM - 8:45 AM	3	0	45	0	11	170	18	35	1	71	1	147	484	79	0	3	2	0	29	54	12	4	1	25	0	43	86	50	1184
8:00 AM - 9:00 AM	4	0	48	0	15	178	18	29	1	72	1	120	433	76	0	2	3	0	29	44	11	2	0	32	0	47	89	56	1117
6:00 AM - 9:00 AM Total:	13	1	149	0	31	478	55	137	1	182	1	513	1944	238	13	7	8	0	55	158	35	12	7	68	0	101	202	110	3921

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

6:00 AM - 9:00 AM PEAK HOUR: 7:45 AM TO 8:45 AM



INTERSECTION PEAK HOUR VOLUME	
IN	928
OUT	928

	HV	PHF
SB	4.0%	0.86
NB	1.8%	0.80
WB	1.1%	0.94
EB	5.3%	0.87
INTRS.	2.7%	0.89

PHF = Peak Hour Factor
HV = Heavy Vehicle

E Main Street @ Auburn Avenue

Auburn, WA

COUNTED BY: TDG

DATE OF COUNT: Tue. 6/12/18

REDUCTION DATE: Thu. 6/14/18

TIME OF COUNT: 6:00 AM - 9:00 AM

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: E Main Street @ Auburn Avenue
Auburn, WA

DATE OF COUNT: Tue. 6/12/18
TIME OF COUNT: 6:00 AM - 9:00 AM

COUNTED BY: TDG
DATE OF REDUCTION: 6/14/2018

TIME INTERVAL ENDING AT	FROM NORTH ON Auburn Avenue							FROM SOUTH ON A Street SE							FROM EAST ON E Main Street							FROM WEST ON E Main Street							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	1	0	1	0	0	26	2	1	0	2	0	0	133	0	1	0	0	0	0	9	0	0	0	1	0	1	4	1	176
06:30 AM	4	0	2	0	0	13	3	3	0	2	0	0	144	3	2	0	0	0	2	7	0	2	0	1	0	0	7	2	181
06:45 AM	2	0	1	0	0	23	1	0	0	3	0	1	148	1	0	0	0	0	0	14	0	1	0	1	0	2	5	2	197
07:00 AM	1	0	3	0	0	35	2	1	0	2	0	0	158	5	2	0	0	0	0	14	1	0	0	0	0	2	5	3	225
07:15 AM	0	0	2	0	0	31	10	0	0	2	0	0	135	1	0	1	0	0	0	6	1	0	1	1	0	2	11	6	203
07:30 AM	3	0	3	0	0	35	3	2	0	1	0	0	148	4	1	0	0	0	1	9	1	6	0	1	0	2	19	2	224
07:45 AM	5	0	0	0	0	35	4	5	0	1	0	0	105	7	4	0	0	0	2	23	3	2	1	0	0	1	16	4	200
08:00 AM	4	0	1	0	0	38	6	0	0	4	0	0	150	9	1	0	0	0	2	19	3	2	0	2	0	2	23	8	260
08:15 AM	2	0	2	0	0	51	2	4	0	1	0	0	112	3	2	0	0	0	1	21	2	2	0	1	0	1	17	10	220
08:30 AM	1	0	1	0	0	55	3	1	0	1	0	0	117	3	0	0	1	0	3	21	0	1	0	2	0	6	23	9	240
08:45 AM	1	0	4	0	0	40	5	0	0	3	0	0	108	4	0	0	0	0	0	17	1	1	0	2	0	1	17	15	208
09:00 AM	1	0	4	0	0	55	9	2	0	0	0	1	118	10	1	0	0	0	2	19	1	2	0	2	0	0	25	8	248
PEAK HOUR TOTALS	8	0	8	0	0	184	16	5	0	9	0	0	487	19	3	0	1	0	6	78	6	6	0	7	0	10	80	42	INTERSECTION
ALL MOVEMENTS				200							506							90								132			928
% HV			4.0%							1.8%							1.1%							5.3%					2.7%
PEAK HOUR FACTOR				0.86							0.80							0.94								0.87			0.89

HV = Heavy Vehicle
PHF = Peak Hour Factor

6:00 AM - 9:00 AM PEAK HOUR: 7:45 AM TO 8:45 AM

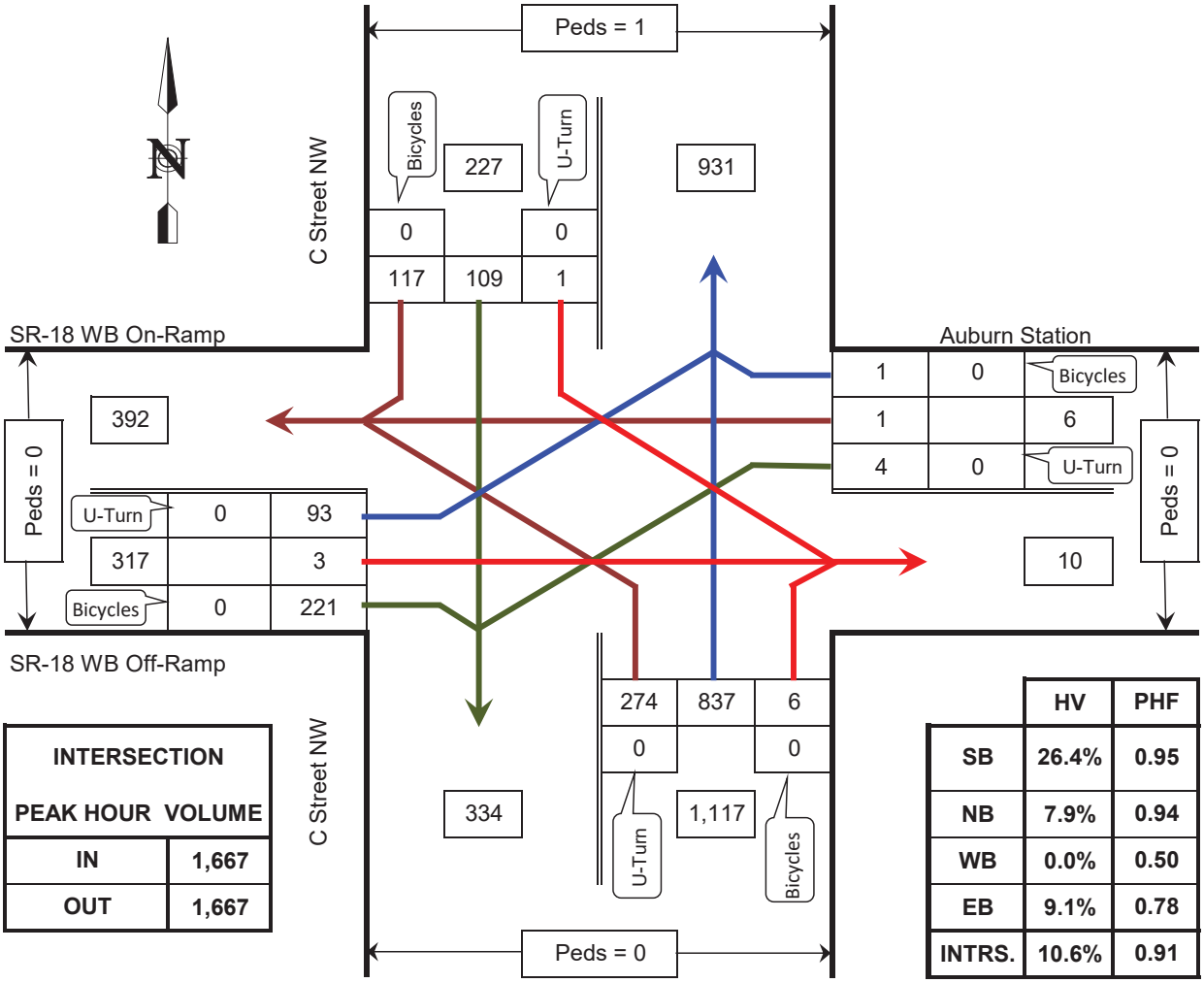
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON Auburn Avenue							FROM SOUTH ON A Street SE							FROM EAST ON E Main Street							FROM WEST ON E Main Street							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
5:00 AM - 6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 7:00 AM	8	0	7	0	0	97	8	5	0	9	0	1	583	9	5	0	0	0	2	44	1	3	0	3	0	5	21	8	779
6:15 AM - 7:15 AM	7	0	8	0	0	102	16	4	0	9	0	1	585	10	4	1	0	0	2	41	2	3	1	3	0	6	28	13	806
6:30 AM - 7:30 AM	6	0	9	0	0	124	16	3	0	8	0	1	589	11	3	1	0	0	1	43	3	7	1	3	0	8	40	13	849
6:45 AM - 7:45 AM	9	0	8	0	0	136	19	8	0	6	0	0	546	17	7	1	0	0	3	52	6	8	2	2	0	7	51	15	852
7:00 AM - 8:00 AM	12	0	6	0	0	139	23	7	0	8	0	0	538	21	6	1	0	0	5	57	8	10	2	4	0	7	69	20	887
7:15 AM - 8:15 AM	14	0	6	0	0	159	15	11	0	7	0	0	515	23	8	0	0	0	6	72	9	12	1	4	0	6	75	24	904
7:30 AM - 8:30 AM	12	0	4	0	0	179	15	10	0	7	0	0	484	22	7	0	1	0	8	84	8	7	1	5	0	10	79	31	920
7:45 AM - 8:45 AM	8	0	8	0	0	184	16	5	0	9	0	0	487	19	3	0	1	0	6	78	6	6	0	7	0	10	80	42	928
8:00 AM - 9:00 AM	5	0	11	0	0	201	19	7	0	5	0	1	455	20	3	0	1	0	6	78	4	6	0	7	0	8	82	42	916
6:00 AM - 9:00 AM Total:	25	0	24	0	0	437	50	19	0	22	0	2	1576	50	14	1	1	0	13	179	13	19	2	14	0	20	172	70	2582

TRAFFIC DATA GATHERING

TURNING MOVEMENTS DIAGRAM

6:00 AM - 9:00 AM PEAK HOUR: 6:30 AM TO 7:30 AM



INTERSECTION PEAK HOUR	VOLUME
IN	1,667
OUT	1,667

	HV	PHF
SB	26.4%	0.95
NB	7.9%	0.94
WB	0.0%	0.50
EB	9.1%	0.78
INTRS.	10.6%	0.91

PHF = Peak Hour Factor
HV = Heavy Vehicle

C Street NW @ SR-18 WB Ramps

Auburn, WA

COUNTED BY: TDG

DATE OF COUNT: Tue. 6/12/18

REDUCTION DATE: Thu. 6/14/18

TIME OF COUNT: 6:00 AM - 9:00 AM

TRAFFIC DATA GATHERING

INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: C Street NW @ SR-18 WB Ramps
Auburn, WA

DATE OF COUNT: Tue. 6/12/18
TIME OF COUNT: 6:00 AM - 9:00 AM

COUNTED BY: TDG
DATE OF REDUCTION: 6/14/2018

TIME INTERVAL ENDING AT	FROM NORTH ON C Street NW							FROM SOUTH ON C Street NW							FROM EAST ON Auburn Station							FROM WEST ON SR-18 WB Ramps							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
06:15 AM	0	0	12	0	0	25	13	0	0	11	0	39	173	0	0	0	0	0	0	0	0	0	0	10	0	25	1	47	**323**
06:30 AM	1	0	7	1	0	23	14	0	0	15	0	50	182	1	0	0	0	0	0	0	0	0	0	3	0	15	1	69	**356**
06:45 AM	0	0	15	0	0	29	28	0	0	19	0	70	222	1	0	0	0	0	2	1	0	0	0	8	0	23	0	66	**442**
07:00 AM	0	0	24	0	0	29	31	0	0	24	0	68	227	1	0	0	0	0	0	0	0	0	0	9	0	29	1	71	**457**
07:15 AM	0	0	9	0	1	23	32	0	0	20	0	70	187	2	0	0	0	0	1	0	1	0	0	5	0	17	0	44	**378**
07:30 AM	1	0	12	0	0	28	26	0	0	25	0	66	201	2	0	0	0	0	1	0	0	0	0	7	0	24	2	40	**390**
07:45 AM	1	0	13	0	0	37	33	0	0	22	0	74	183	3	0	0	0	0	2	1	0	0	0	8	0	18	1	45	**397**
08:00 AM	0	0	13	0	0	51	20	0	0	19	0	53	168	0	0	0	0	0	0	0	0	0	0	6	0	31	0	43	**366**
08:15 AM	1	0	9	0	0	36	24	0	0	20	0	55	135	2	0	0	0	0	1	0	1	0	0	3	0	28	0	38	**320**
08:30 AM	0	0	15	0	1	56	30	0	0	22	0	65	117	1	0	0	0	0	0	0	1	0	0	3	0	14	0	30	**315**
08:45 AM	0	0	13	0	1	33	20	0	0	29	0	62	89	0	0	0	0	0	0	0	1	0	0	5	0	13	0	30	**249**
09:00 AM	0	0	16	0	1	47	20	0	0	17	0	54	108	0	0	0	0	0	0	0	1	0	0	7	0	11	0	40	**282**
PEAK HOUR TOTALS	**1**	**0**	**60**	**0**	**1**	**109**	**117**	**0**	**0**	**88**	**0**	**274**	**837**	**6**	**0**	**0**	**0**	**0**	**4**	**1**	**1**	**0**	**0**	**29**	**0**	**93**	**3**	**221**	**INTERSECTION**
ALL MOVEMENTS				**227**							**1117**							**6**							**317**			**1667**
% HV			**26.4%**							**7.9%**							**0.0%**							**9.1%**				**10.6%**
PEAK HOUR FACTOR				**0.95**							**0.94**							**0.50**							**0.78**			**0.91**

HV = Heavy Vehicle
PHF = Peak Hour Factor

6:00 AM - 9:00 AM PEAK HOUR: 6:30 AM TO 7:30 AM

ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON C Street NW							FROM SOUTH ON C Street NW							FROM EAST ON Auburn Station							FROM WEST ON SR-18 WB Ramps							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Street	Bicycle	HV	U-Turn	Left	Thru	Right	
5:00 AM - 6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM - 6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM - 6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM - 6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 7:00 AM	1	0	58	1	0	106	86	0	0	69	0	227	804	3	0	0	0	0	2	1	0	0	0	30	0	92	3	253	1578
6:15 AM - 7:15 AM	1	0	55	1	1	104	105	0	0	78	0	258	818	5	0	0	0	0	3	1	1	0	0	25	0	84	2	250	1633
6:30 AM - 7:30 AM	1	0	60	0	1	109	117	0	0	88	0	274	837	6	0	0	0	0	4	1	1	0	0	29	0	93	3	221	1667
6:45 AM - 7:45 AM	2	0	58	0	1	117	122	0	0	91	0	278	798	8	0	0	0	0	4	1	1	0	0	29	0	88	4	200	1622
7:00 AM - 8:00 AM	2	0	47	0	1	139	111	0	0	86	0	263	739	7	0	0	0	0	4	1	1	0	0	26	0	90	3	172	1531
7:15 AM - 8:15 AM	3	0	47	0	0	152	103	0	0	86	0	248	687	7	0	0	0	0	4	1	1	0	0	24	0	101	3	166	1473
7:30 AM - 8:30 AM	2	0	50	0	1	180	107	0	0	83	0	247	603	6	0	0	0	0	3	1	2	0	0	20	0	91	1	156	1398
7:45 AM - 8:45 AM	1	0	50	0	2	176	94	0	0	90	0	235	509	3	0	0	0	0	1	0	3	0	0	17	0	86	0	141	1250
8:00 AM - 9:00 AM	1	0	53	0	3	172	94	0	0	88	0	236	449	3	0	0	0	0	1	0	4	0	0	18	0	66	0	138	1166
6:00 AM - 9:00 AM Total:	4	0	158	1	4	417	291	0	0	243	0	726	1992	13	0	0	0	0	7	2	5	0	0	74	0	248	6	563	4275

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

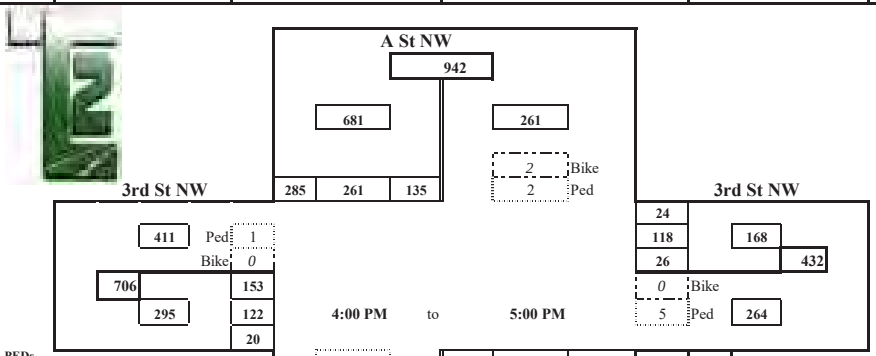
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: A St NW & 3rd St NW **Date of Count:** Thurs 2/15/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) A St NW				From South on (NB) A St NW				From East on (WB) 3rd St NW				From West on (EB) 3rd St NW				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	5	41	85	92	1	3	26	0	0	5	35	6	1	42	33	5	373
4:30 P	4	28	54	55	0	3	22	3	0	8	30	8	6	35	32	6	284
4:45 P	4	38	68	68	0	1	21	0	2	8	25	5	3	38	30	2	304
5:00 P	5	28	54	70	2	1	15	4	4	5	28	5	2	38	27	7	282
5:15 P	1	24	81	80	1	2	26	2	1	8	30	3	2	31	26	0	313
5:30 P	6	23	58	70	1	0	13	1	1	3	27	5	1	33	28	3	264
5:45 P	2	23	42	69	0	3	27	3	0	7	19	6	2	33	24	0	256
6:00 P	4	16	38	36	0	1	22	2	2	5	26	5	0	26	21	1	199
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	31	221	480	540	5	14	172	15	10	49	220	43	17	276	221	24	2275
	Peak Hour: 4:00 PM to 5:00 PM																
Total	18	135	261	285	3	8	84	7	6	26	118	24	12	153	122	20	1243
Approach	681				99				168				295				1243
%HV	2.6%				3.0%				3.6%				4.1%				3.1%
PHF	0.78				0.85				0.91				0.92				0.83



1492 *1.0 PHF Peak Hour Volume*

	PHF	%HV
EB	0.92	4.1%
WB	0.91	3.6%
NB	0.85	3.0%
SB	0.78	2.6%
T Int.	0.83	3.1%

Check In: 1243 Out: 1243

PEDs Across:

	N	S	E	W	
INT 01			1		1
INT 02			2		2
INT 03	2			1	3
INT 04			2		2
INT 05					0
INT 06					0
INT 07					0
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	2	0	5	1	8

Bicycles From:

	N	S	E	W	
INT 01		1			1
INT 02		1			1
INT 03	1				1
INT 04	1				1
INT 05		1			1
INT 06					0
INT 07					0
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	2	3	0	0	5

N U's	S U's	E U's	W U's
0		0	
3		1	
0		0	
0		0	
0		0	
0		0	
0		0	
3	0	1	0

Special Notes

AUB18014TM_121p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

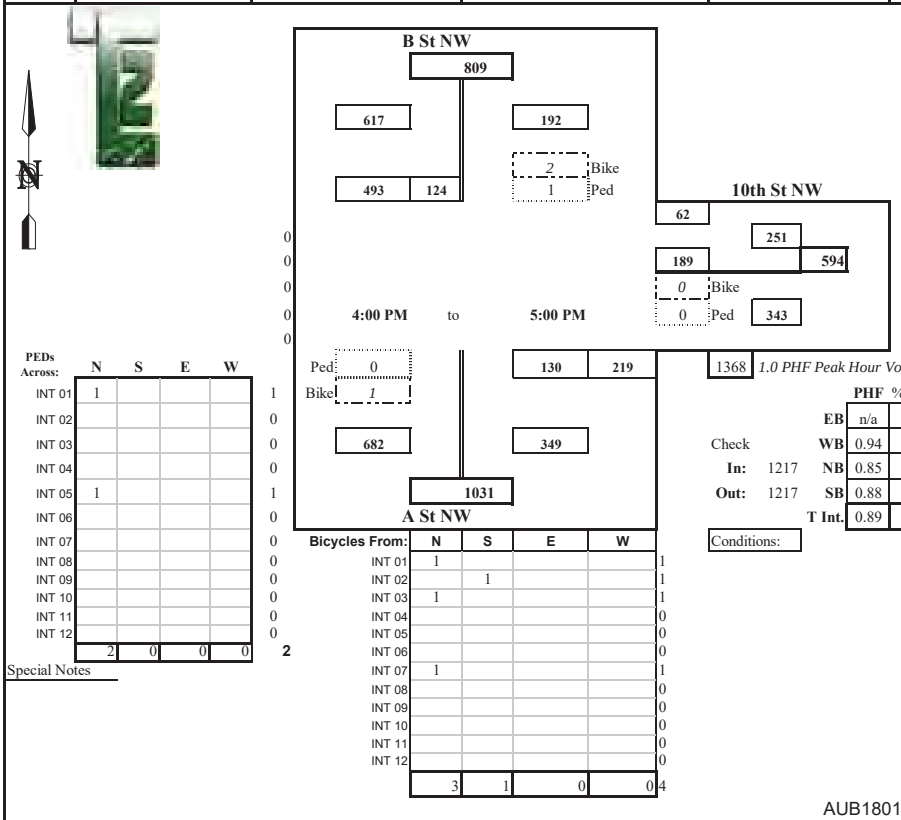
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: B St NW/A St NW & 10th St NW **Date of Count:** Wed 2/14/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) B St NW				From South on (NB) A St NW				From East on (WB) 10th St NW				From West on (EB) 0				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	8	28	147	0	2	0	46	57	2	47	0	17	0	0	0	0	342
4:30 P	6	41	123	0	0	0	28	59	1	48	0	9	0	0	0	0	308
4:45 P	5	33	129	0	2	0	30	53	2	45	0	22	0	0	0	0	312
5:00 P	0	22	94	0	3	0	26	50	0	49	0	14	0	0	0	0	255
5:15 P	2	39	142	0	2	0	26	55	0	44	0	5	0	0	0	0	311
5:30 P	8	23	110	0	1	0	32	48	1	51	0	14	0	0	0	0	278
5:45 P	2	17	90	0	2	0	33	33	3	43	0	11	0	0	0	0	227
6:00 P	0	22	69	0	2	0	18	24	0	35	0	10	0	0	0	0	178
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	31	225	904	0	14	0	239	379	9	362	0	102	0	0	0	0	2211
Peak Hour: 4:00 PM to 5:00 PM																	
Total	19	124	493	0	7	0	130	219	5	189	0	62	0	0	0	0	1217
Approach	617				349				251				0				1217
%HV	3.1%				2.0%				2.0%				n/a				2.5%
PHF	0.88				0.85				0.94				n/a				0.89



PEDs Across:	N	S	E	W	
INT 01	1				1
INT 02					0
INT 03					0
INT 04					0
INT 05	1				1
INT 06					0
INT 07					0
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	2	0	0	0	2

Bicycles From:	N	S	E	W	
INT 01	1				1
INT 02		1			1
INT 03	1				1
INT 04					0
INT 05					0
INT 06					0
INT 07	1				1
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	3	1	0	0	4

	PHF	%HV
EB	n/a	n/a
WB	0.94	2.0%
NB	0.85	2.0%
SB	0.88	3.1%
T Int.	0.89	2.5%

Check In: 1217 Out: 1217

Conditions:

Special Notes

AUB18014TM_025p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

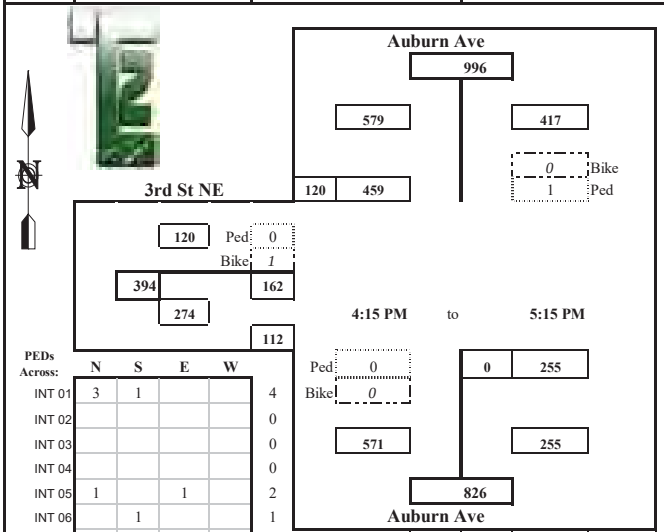
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: Auburn Ave & 3rd St NE **Date of Count:** Thurs 2/15/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) Auburn Ave				From South on (NB) Auburn Ave				From East on (WB) 0				From West on (EB) 3rd St NE				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	3	0	75	20	0	1	66	0	0	0	0	0	2	48	0	41	251
4:30 P	1	0	106	36	2	0	63	0	0	0	0	0	1	48	0	31	284
4:45 P	3	0	125	22	0	0	68	0	0	0	0	0	0	38	0	30	283
5:00 P	4	0	98	30	1	0	65	0	0	0	0	0	0	36	0	29	258
5:15 P	1	0	130	32	0	0	59	0	0	0	0	0	0	40	0	22	283
5:30 P	2	0	119	25	1	0	45	0	0	0	0	0	0	31	0	28	248
5:45 P	4	0	110	25	0	0	58	0	0	0	0	0	1	31	0	21	245
6:00 P	1	0	129	23	0	0	41	0	0	0	0	0	0	30	0	13	236
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	19	0	892	213	4	1	465	0	0	0	0	0	4	302	0	215	2088
Peak Hour: 4:15 PM to 5:15 PM																	
Total	9	0	459	120	3	0	255	0	0	0	0	0	1	162	0	112	1108
Approach	579				255				0				274				1108
%HV	1.6%				1.2%				n/a				0.4%				1.2%
PHF	0.89				0.94				n/a				0.87				0.98



PEDs Across:	N	S	E	W	
INT 01	3	1			4
INT 02					0
INT 03					0
INT 04					0
INT 05	1		1		2
INT 06		1			1
INT 07	2		1	1	4
INT 08	1			1	2
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	7	2	2	2	13

Bicycles From:	N	S	E	W	
INT 01					0
INT 02				1	1
INT 03					0
INT 04					0
INT 05					0
INT 06					0
INT 07					0
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	0	0	0	1	1

Special Notes

1136 *1.0 PHF Peak Hour Volume*

		PHF	%HV
	EB	0.87	0.4%
Check	WB	n/a	n/a
In: 1108	NB	0.94	1.2%
Out: 1108	SB	0.89	1.6%
	T Int.	0.98	1.2%

Conditions:

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

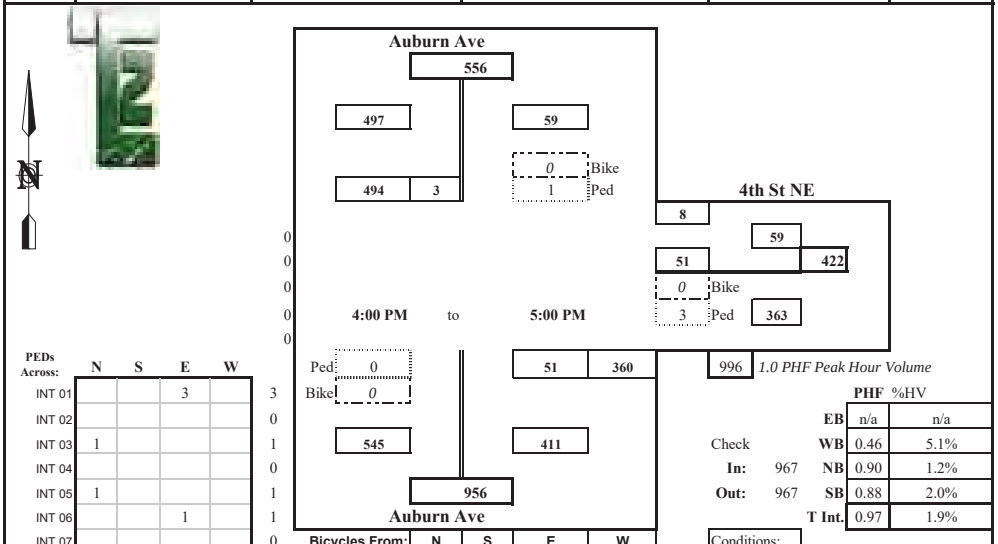
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: Auburn Ave & 4th St NE **Date of Count:** Thurs 2/15/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) Auburn Ave				From South on (NB) Auburn Ave				From East on (WB) 4th St NE				From West on (EB) 0				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	4	0	101	0	0	0	12	102	0	10	0	1	0	0	0	0	226
4:30 P	3	0	130	0	3	0	17	88	0	8	0	0	0	0	0	0	243
4:45 P	2	1	141	0	0	0	13	86	0	8	0	0	0	0	0	0	249
5:00 P	1	2	122	0	2	0	9	84	3	25	0	7	0	0	0	0	249
5:15 P	1	0	63	0	0	0	8	100	0	10	0	2	0	0	0	0	183
5:30 P	1	0	148	0	1	0	4	66	1	8	0	0	0	0	0	0	226
5:45 P	4	0	129	0	1	0	12	71	0	5	0	1	0	0	0	0	218
6:00 P	0	0	154	0	0	0	6	59	0	8	0	2	0	0	0	0	229
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	16	3	988	0	7	0	81	656	4	82	0	13	0	0	0	0	1823
	Peak Hour: 4:00 PM to 5:00 PM																
Total	10	3	494	0	5	0	51	360	3	51	0	8	0	0	0	0	967
Approach	497				411				59				0				967
%HV	2.0%				1.2%				5.1%				n/a				1.9%
PHF	0.88				0.90				0.46				n/a				0.97



PEDs Across:	N	S	E	W	
INT 01			3		3
INT 02					0
INT 03	1				1
INT 04					0
INT 05	1				1
INT 06			1		1
INT 07					0
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	2	0	4	0	6

Bicycles From:	N	S	E	W	
INT 01					0
INT 02					0
INT 03					0
INT 04					0
INT 05			1		1
INT 06					0
INT 07					0
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	0	0	1	0	1

		PHF	%HV
	EB	n/a	n/a
Check	WB	0.46	5.1%
In: 967	NB	0.90	1.2%
Out: 967	SB	0.88	2.0%
	T Int.	0.97	1.9%

Conditions:

Special Notes

AUB18014TM_123p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

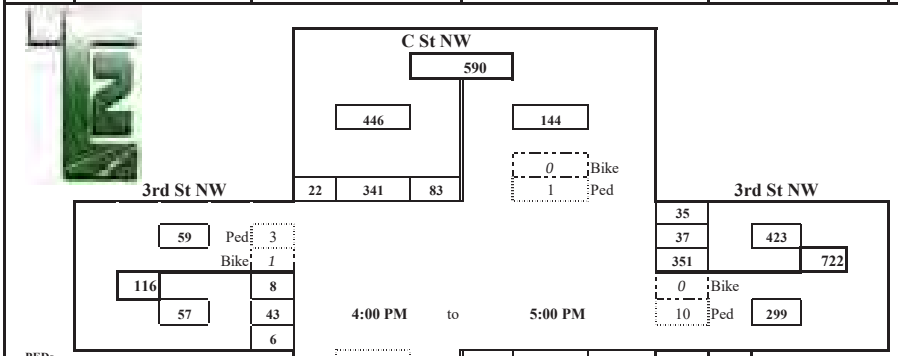
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: C St NW & 3rd St NW **Date of Count:** Thurs 2/15/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) C St NW				From South on (NB) C St NW				From East on (WB) 3rd St NW				From West on (EB) 3rd St NW				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	3	19	77	4	4	0	24	45	6	100	15	11	1	3	17	4	319
4:30 P	9	28	102	7	7	0	30	40	2	69	8	9	2	2	9	0	304
4:45 P	7	17	85	3	8	0	26	45	5	99	5	6	1	3	9	0	298
5:00 P	9	19	77	8	1	0	21	43	5	83	9	9	0	0	8	2	279
5:15 P	7	10	83	6	8	1	23	34	1	99	8	10	1	1	12	3	290
5:30 P	8	18	84	2	4	0	25	38	3	88	4	4	0	1	8	1	273
5:45 P	5	14	64	1	6	0	30	29	1	81	4	9	0	0	8	0	240
6:00 P	3	8	51	2	1	0	11	26	2	48	12	3	0	0	9	0	170
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	51	133	623	33	39	1	190	300	25	667	65	61	5	10	80	10	2173
	Peak Hour: 4:00 PM to 5:00 PM																
Total	28	83	341	22	20	0	101	173	18	351	37	35	4	8	43	6	1200
Approach	446				274				423				57				1200
%HV	6.3%				7.3%				4.3%				7.0%				5.8%
PHF	0.81				0.96				0.84				0.59				0.94



PEDs Across:

	N	S	E	W	
INT 01	1		4	1	6
INT 02		1	2		3
INT 03			3	2	5
INT 04			1		1
INT 05			1	1	2
INT 06					0
INT 07					0
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	1	1	11	4	**17**

Bicycles From:

	N	S	E	W	
INT 01		1			1
INT 02				1	1
INT 03					0
INT 04					0
INT 05					0
INT 06					0
INT 07					0
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	0	1	0	1	2

1276 *1.0 PHF Peak Hour Volume*

		PHF	%HV
		EB	0.59	7.0%
Check		**WB**	0.84	4.3%
In:	1200	**NB**	0.96	7.3%
Out:	1200	**SB**	0.81	6.3%
		T Int.	0.94	5.8%

Conditions:

Special Notes

AUB18014TM_120p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

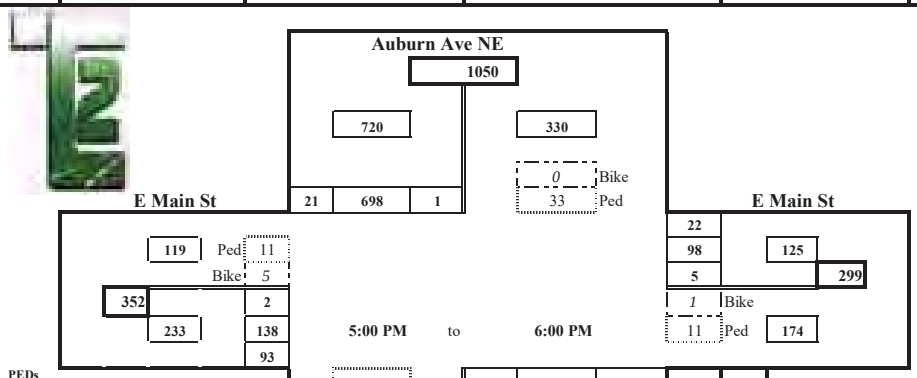
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: Auburn Ave NE/A St SE & E Main St **Date of Count:** Wed 4/18/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) Auburn Ave NE				From South on (NB) A St SE				From East on (WB) E Main St				From West on (EB) E Main St				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	13	0	174	4	4	0	75	5	2	0	27	8	11	1	49	23	366
4:30 P	18	0	184	9	6	0	73	8	1	0	22	3	2	2	39	27	367
4:45 P	12	0	153	6	11	0	82	9	2	0	20	2	5	1	27	25	325
5:00 P	15	0	171	7	10	0	74	2	4	2	29	3	3	1	38	20	347
5:15 P	12	1	185	2	5	0	80	8	1	0	27	7	6	0	40	25	375
5:30 P	13	0	183	9	6	0	71	6	2	1	16	4	4	0	36	17	343
5:45 P	14	0	177	4	5	0	73	12	3	0	25	7	5	2	28	20	348
6:00 P	13	0	153	6	9	0	82	9	3	4	30	4	5	0	34	31	353
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	110	1	1380	47	56	0	610	59	18	7	196	38	41	7	291	188	2824
Peak Hour: 5:00 PM to 6:00 PM																	
Total	52	1	698	21	25	0	306	35	9	5	98	22	20	2	138	93	1419
Approach	720				341				125				233				1419
%HV	7.2%				7.3%				7.2%				8.6%				7.5%
PHF	0.94				0.94				0.82				0.90				0.95



PEDs Across:	N	S	E	W	
INT 01	6	14	10		30
INT 02	7	10	4		21
INT 03	8	3		2	13
INT 04	6	1			7
INT 05	7	3	4		14
INT 06	6	1		5	12
INT 07	11	6	5	1	23
INT 08	9	5	2	5	21
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	60	43	25	13	141

Bicycles From:	N	S	E	W	
INT 01					0
INT 02					0
INT 03					0
INT 04					0
INT 05				1	1
INT 06			1	1	2
INT 07					0
INT 08				3	3
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	0	0	1	5	6

1500 *1.0 PHF Peak Hour Volume*

		PHF	%HV
	EB	0.90	8.6%
Check	WB	0.82	7.2%
In: 1419	NB	0.94	7.3%
Out: 1419	SB	0.94	7.2%
	T Int.	0.95	7.5%

Conditions:

Special Notes

AUB18014TM_125p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

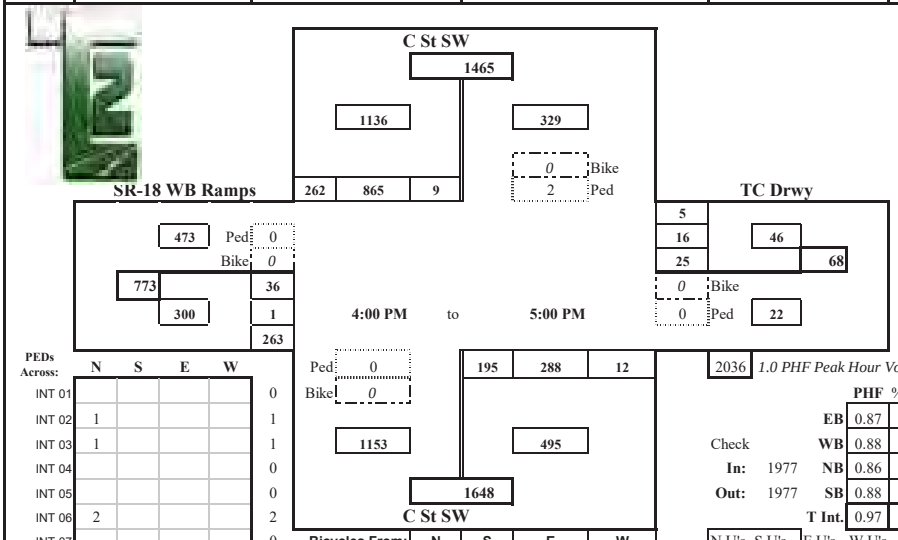
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: C St SW & SR-18 WB Ramps **Date of Count:** Wed 3/21/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) C St SW				From South on (NB) C St SW				From East on (WB) TC Drwy				From West on (EB) SR-18 WB Ramps				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	7	1	202	66	20	56	86	2	0	6	4	3	19	10	0	70	506
4:30 P	12	1	199	48	15	49	64	5	0	6	3	1	26	16	0	70	462
4:45 P	12	5	239	79	11	37	59	3	0	7	3	1	9	7	1	59	500
5:00 P	3	2	225	69	12	53	79	2	0	6	6	0	4	3	0	64	509
5:15 P	11	4	209	66	1	67	63	3	0	5	2	3	7	7	0	50	479
5:30 P	6	1	185	62	9	45	62	1	0	2	3	0	7	10	2	62	435
5:45 P	4	0	170	39	7	46	47	2	0	2	1	0	10	8	1	53	369
6:00 P	7	2	154	52	8	32	48	1	0	3	3	1	3	7	0	50	353
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	62	16	1583	481	83	385	508	19	0	37	25	9	85	68	4	478	3613
	Peak Hour: 4:00 PM to 5:00 PM																
Total	34	9	865	262	58	195	288	12	0	25	16	5	58	36	1	263	1977
Approach	1136				495				46				300				1977
%HV	3.0%				11.7%				n/a				19.3%				7.6%
PHF	0.88				0.86				0.88				0.87				0.97



2036 *1.0 PHF Peak Hour Volume*

	PHF	%HV
EB	0.87	19.3%
WB	0.88	n/a
NB	0.86	11.7%
SB	0.88	3.0%
T Int.	0.97	7.6%

Check In: 1977 Out: 1977

PEDs Across:

	N	S	E	W	
INT 01					0
INT 02	1				1
INT 03	1				1
INT 04					0
INT 05					0
INT 06	2				2
INT 07					0
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	4	0	0	0	4

Bicycles From:

	N	S	E	W	
INT 01					0
INT 02					0
INT 03					0
INT 04					0
INT 05					0
INT 06	NO BIKES				0
INT 07					0
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	0	0	0	0	0

	N U's	S U's	E U's	W U's
	0	1		
	0	0		
	0	0		
	0	0		
	1	1		
	0	0		
	0	0		
	0	0		
	1	2	0	0

Special Notes

AUB18014TM_132p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

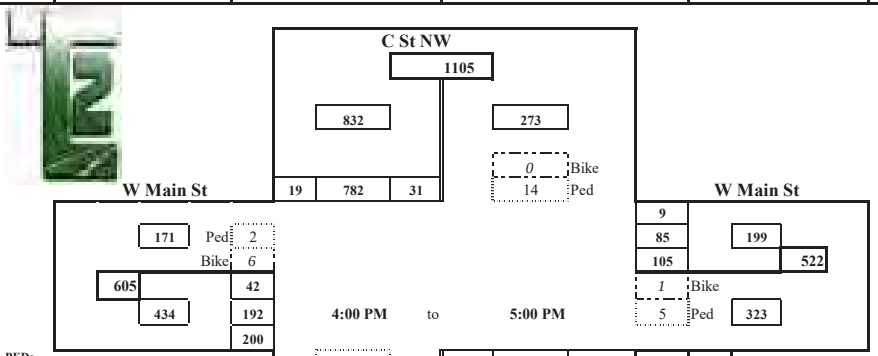
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: C St NW/SW & W Main St **Date of Count:** Wed 3/21/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) C St NW				From South on (NB) C St SW				From East on (WB) W Main St				From West on (EB) W Main St				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	2	7	180	9	13	19	73	23	0	23	22	1	2	17	54	52	480
4:30 P	9	8	205	5	8	14	62	21	0	23	20	2	1	11	38	52	461
4:45 P	7	8	200	2	6	16	42	24	1	30	20	1	0	9	41	53	446
5:00 P	2	8	197	3	6	18	45	32	0	29	23	5	0	5	59	43	467
5:15 P	9	8	184	3	4	13	56	16	0	31	28	1	1	7	33	54	434
5:30 P	5	7	184	2	7	16	51	15	0	16	14	1	1	9	41	46	402
5:45 P	2	10	153	5	5	11	32	10	0	23	15	3	0	8	39	43	352
6:00 P	6	12	148	4	4	16	42	19	0	17	14	2	0	4	38	45	361
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	42	68	1451	33	53	123	403	160	1	192	156	16	5	70	343	388	3403
	Peak Hour: 4:00 PM to 5:00 PM																
Total	20	31	782	19	33	67	222	100	1	105	85	9	3	42	192	200	1854
Approach			832				389				199				434		1854
%HV			2.4%				8.5%				0.5%				0.7%		3.1%
PHF			0.95				0.85				0.87				0.88		0.97



1920 *1.0 PHF Peak Hour Volume*

		PHF	%HV
		EB	0.88	0.7%
Check		WB	0.87	0.5%
In:	1854	NB	0.85	8.5%
Out:	1854	SB	0.95	2.4%
		T Int.	0.97	3.1%

Conditions:

PEDs Across:	N	S	E	W	
INT 01	6	7			13
INT 02		9	1	1	11
INT 03	3	4		1	8
INT 04	5	13	4		22
INT 05	7	17			24
INT 06	3	18	1		22
INT 07		2			2
INT 08	4	20		1	25
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	28	90	6	3	**127**

Bicycles From:	N	S	E	W	
INT 01				1	1
INT 02				1	1
INT 03				2	2
INT 04			1	2	3
INT 05	1			1	2
INT 06				1	1
INT 07			1	1	2
INT 08			3		3
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	1	0	5	9	15

Special Notes

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

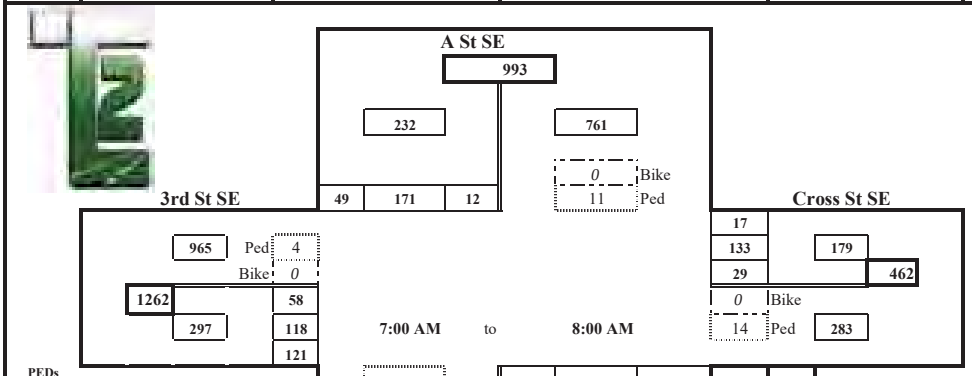
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: A St SE & Cross St SE/3rd St SE **Date of Count:** Wed 4/18/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) A St SE				From South on (NB) A St SE				From East on (WB) Cross St SE				From West on (EB) 3rd St SE				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
7:15 A	8	4	42	8	63	195	188	36	6	3	23	3	21	10	36	28	576
7:30 A	6	2	42	10	60	178	175	39	8	6	31	5	10	19	27	29	563
7:45 A	12	3	40	18	59	205	160	40	12	9	34	4	20	19	30	36	598
8:00 A	14	3	47	13	40	205	163	38	17	11	45	5	14	10	25	28	593
8:15 A	13	7	40	10	32	143	102	26	5	13	31	3	9	13	20	29	437
8:30 A	12	3	54	14	35	174	118	33	8	14	27	2	14	16	23	34	512
8:45 A	15	5	49	16	34	174	132	33	7	15	30	2	13	12	21	16	505
9:00 A	10	4	40	19	36	149	125	27	10	6	29	1	7	7	19	22	448
9:15 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	90	31	354	108	359	1423	1163	272	73	77	250	25	108	106	201	222	4232
	Peak Hour: 7:00 AM to 8:00 AM																
Total	40	12	171	49	222	783	686	153	43	29	133	17	65	58	118	121	2330
Approach	232				1622				179				297				2330
%HV	17.2%				13.7%				24.0%				21.9%				15.9%
PHF	0.92				0.97				0.73				0.87				0.97



PEDs Across:

	N	S	E	W	
INT 01	2		1	1	4
INT 02	2		4	1	7
INT 03	1		7	2	10
INT 04	6		2		8
INT 05	1		5	2	8
INT 06	2		6	1	9
INT 07	1		1	1	3
INT 08	1		1		2
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	16	0	27	8	**51**

Bicycles From:

	N	S	E	W	
INT 01					0
INT 02					0
INT 03					0
INT 04					0
INT 05					0
INT 06					0
INT 07			1		1
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	0	0	1	0	1

2392 *1.0 PHF Peak Hour Volume*

		PHF	%HV
		EB	0.87	21.9%
Check		WB	0.73	24.0%
In:	2330	NB	0.97	13.7%
Out:	2330	SB	0.92	17.2%
		T Int.	0.97	15.9%

Conditions:

Special Notes

AUB18014TM_130a

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

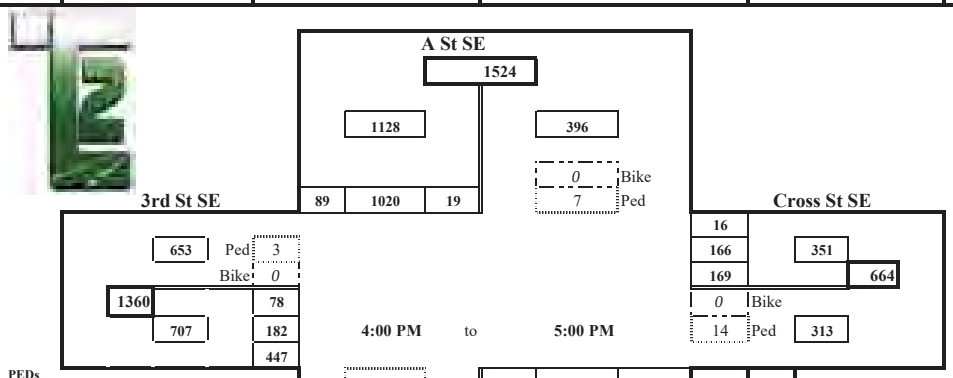
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: A St SE & Cross St SE/3rd St SE **Date of Count:** Wed 4/18/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) A St SE				From South on (NB) A St SE				From East on (WB) Cross St SE				From West on (EB) 3rd St SE				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	26	6	271	15	27	92	98	34	5	44	36	7	4	20	50	115	788
4:30 P	22	5	267	26	21	104	67	30	4	38	40	3	10	17	48	104	749
4:45 P	21	5	220	23	17	103	74	22	7	38	46	2	15	21	47	121	722
5:00 P	18	3	262	25	13	99	63	26	6	49	44	4	15	20	37	107	739
5:15 P	20	5	274	14	23	124	82	35	3	40	37	3	13	12	45	84	755
5:30 P	19	6	241	26	15	107	71	19	7	37	46	5	10	13	54	113	738
5:45 P	16	5	225	21	15	112	76	20	2	34	56	5	12	17	52	112	735
6:00 P	12	9	232	33	13	112	90	23	2	34	43	8	9	10	56	120	770
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	154	44	1992	183	144	853	621	209	36	314	348	37	88	130	389	876	5996
	Peak Hour: 4:00 PM to 5:00 PM																
Total	87	19	1020	89	78	398	302	112	22	169	166	16	44	78	182	447	2998
Approach	1128				812				351				707				2998
%HV	7.7%				9.6%				6.3%				6.2%				7.7%
PHF	0.95				0.91				0.90				0.94				0.95



PEDs Across:	N	S	E	W	
INT 01	1		3	1	5
INT 02	4		3		7
INT 03			5		5
INT 04	2		3	2	7
INT 05	4		5	6	15
INT 06	2		3		5
INT 07			3	3	6
INT 08	1		1	1	3
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	14	0	26	13	**53**

Bicycles From:	N	S	E	W	
INT 01					0
INT 02					0
INT 03					0
INT 04					0
INT 05					0
INT 06	NO BIKES				0
INT 07					0
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	0	0	0	0	0

3152 *1.0 PHF Peak Hour Volume*

	PHF	%HV
EB	0.94	6.2%
WB	0.90	6.3%
NB	0.91	9.6%
SB	0.95	7.7%
T Int.	0.95	7.7%

Check In: 2998 Out: 2998

Conditions:

Special Notes

AUB18014TM_130p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

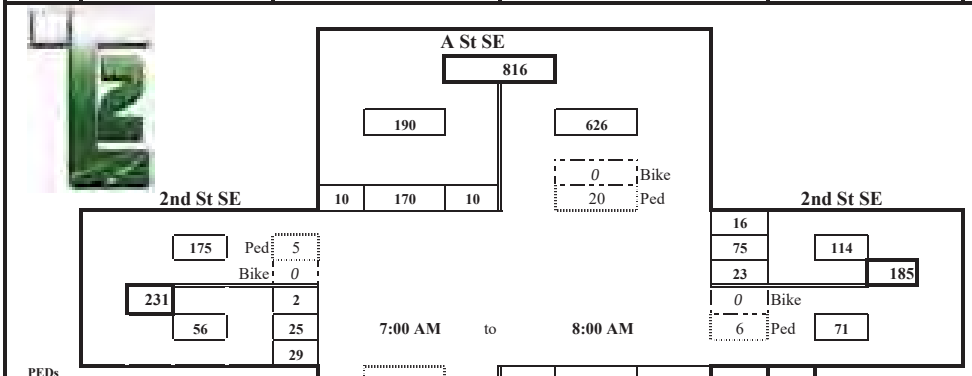
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: A St SE & 2nd St SE **Date of Count:** Wed 4/18/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) A St SE				From South on (NB) A St SE				From East on (WB) 2nd St SE				From West on (EB) 2nd St SE				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
7:15 A	6	3	41	1	18	25	165	7	7	4	24	5	2	0	8	7	290
7:30 A	6	2	38	6	22	23	162	13	3	3	18	1	2	0	6	12	284
7:45 A	10	1	49	1	9	24	130	11	4	7	21	5	2	0	7	6	262
8:00 A	14	4	42	2	12	18	151	5	2	9	12	5	2	2	4	4	258
8:15 A	11	2	46	3	9	15	97	7	4	9	22	5	3	1	5	2	214
8:30 A	7	1	56	3	9	13	118	14	5	8	9	6	1	1	5	1	235
8:45 A	11	2	56	0	9	6	121	10	7	9	16	4	7	3	5	5	237
9:00 A	4	7	41	0	11	8	89	11	4	11	14	5	4	0	7	8	201
9:15 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	69	22	369	16	99	132	1033	78	36	60	136	36	23	7	47	45	1981
Peak Hour: 7:00 AM to 8:00 AM																	
Total	36	10	170	10	61	90	608	36	16	23	75	16	8	2	25	29	1094
Approach	190				734				114				56				1094
%HV	18.9%				8.3%				14.0%				14.3%				11.1%
PHF	0.93				0.93				0.86				0.78				0.94



1160 *1.0 PHF Peak Hour Volume*

PEDs Across:	N	S	E	W	
INT 01	3	3	2	2	10
INT 02	7	3	2	2	14
INT 03	5	1	2	1	9
INT 04	5				5
INT 05	4	1	2	2	9
INT 06	1		2	2	5
INT 07	1		2	1	4
INT 08	2				2
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	28	8	12	10	**58**

Bicycles From:	N	S	E	W	
INT 01					0
INT 02					0
INT 03					0
INT 04					0
INT 05					0
INT 06					0
INT 07		1			1
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	0	1	0	0	1

		PHF	%HV
	EB	0.78	14.3%
Check	WB	0.86	14.0%
In: 1094	NB	0.93	8.3%
Out: 1094	SB	0.93	18.9%
	T Int.	0.94	11.1%

Conditions:

Special Notes

AUB18014TM_129a

Prepared for: **City of Auburn**

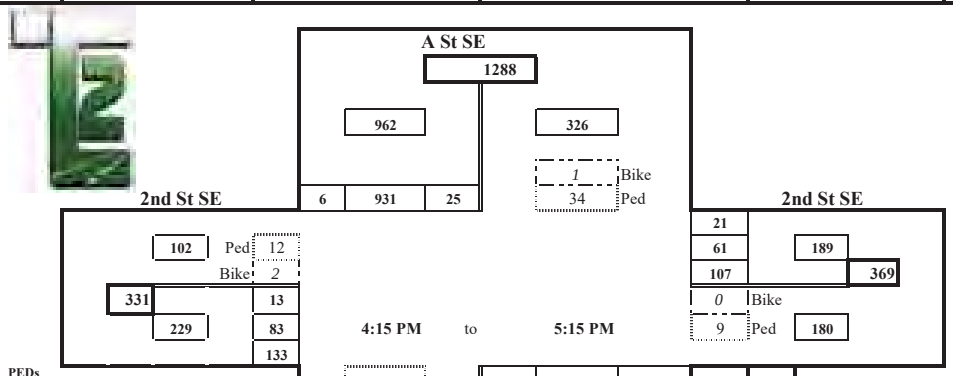
Traffic Count Consultants, Inc.

Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: A St SE & 2nd St SE
Location: Auburn, Washington
Date of Count: Wed 4/18/2018
Checked By: Jess

Time Interval Ending at	From North on (SB) A St SE				From South on (NB) A St SE				From East on (WB) 2nd St SE				From West on (EB) 2nd St SE				Interval Total
	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	19	5	240	0	3	6	73	10	6	17	17	4	7	5	21	33	431
4:30 P	17	6	221	1	14	10	75	22	7	28	12	3	7	6	18	39	441
4:45 P	15	5	209	2	16	9	83	24	4	26	13	9	3	1	17	24	422
5:00 P	20	11	233	1	15	9	70	19	1	28	18	4	4	2	23	42	460
5:15 P	19	3	268	2	10	7	64	7	7	25	18	5	4	4	25	28	456
5:30 P	12	11	217	0	13	7	63	10	3	28	15	7	7	3	21	26	408
5:45 P	18	8	227	1	6	5	87	14	5	33	12	3	7	2	21	19	432
6:00 P	15	1	206	3	11	14	79	7	1	26	17	1	3	4	20	29	407
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	135	50	1821	10	88	67	594	113	34	211	122	36	42	27	166	240	3457
Peak Hour: 4:15 PM to 5:15 PM																	
Total	71	25	931	6	55	35	292	72	19	107	61	21	18	13	83	133	1779
Approach	962				399				189				229				1779
%HV	7.4%				13.8%				10.1%				7.9%				9.2%
PHF	0.88				0.86				0.95				0.85				0.97



PEDs Across:	N	S	E	W	
INT 01	7	5		2	14
INT 02	4	1		2	7
INT 03	9	4	4	5	22
INT 04	11	1	3	1	16
INT 05	10	3	2	4	19
INT 06	9	10	3	4	26
INT 07	5	1	4	4	14
INT 08	8	3		3	14
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	63	28	16	25	**132**

Bicycles From:	N	S	E	W	
INT 01	2				2
INT 02	1			2	3
INT 03					0
INT 04					0
INT 05					0
INT 06					0
INT 07	2				2
INT 08				1	1
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	5	0	0	3	8

1840 *1.0 PHF Peak Hour Volume*

	PHF	%HV
EB	0.85	7.9%
WB	0.95	10.1%
NB	0.86	13.8%
SB	0.88	7.4%
T Int.	0.97	9.2%

Check **In:** 1779 **Out:** 1779

N U's	S U's	E U's	W U's
0		0	
0		0	
0		0	
0		0	
0		0	
0		1	
2		0	
1		0	
0			
0			
0			
0			
0	0	1	0

Special Notes

AUB18014TM_129p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

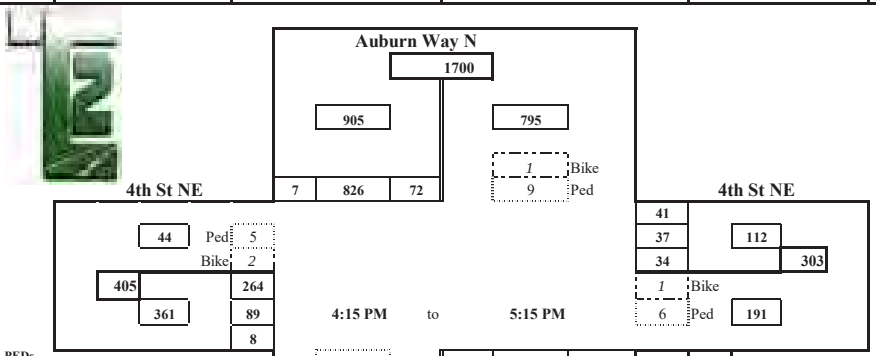
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: Auburn Way N & 4th St NE **Date of Count:** Thurs 2/15/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) Auburn Way N				From South on (NB) Auburn Way N				From East on (WB) 4th St NE				From West on (EB) 4th St NE				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	8	9	268	3	5	0	135	3	0	3	6	6	0	68	23	0	524
4:30 P	12	17	238	1	3	0	110	6	2	5	7	20	2	73	23	2	502
4:45 P	6	18	203	2	5	0	118	9	1	8	5	5	0	59	20	0	447
5:00 P	1	22	149	2	3	0	129	10	1	8	14	6	2	65	17	1	423
5:15 P	2	15	236	2	2	0	133	5	0	13	11	10	0	67	29	5	526
5:30 P	3	9	187	1	0	0	120	6	0	3	7	9	1	53	10	2	407
5:45 P	3	15	183	0	5	0	128	7	0	2	5	12	0	54	10	1	417
6:00 P	4	12	151	1	7	0	114	6	0	9	8	8	0	38	12	5	364
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	39	117	1615	12	30	0	987	52	4	51	63	76	5	477	144	16	3610
	Peak Hour: 4:15 PM to 5:15 PM																
Total	21	72	826	7	13	0	490	30	4	34	37	41	4	264	89	8	1898
Approach	905				520				112				361				1898
%HV	2.3%				2.5%				3.6%				1.1%				2.2%
PHF	0.88				0.94				0.82				0.89				0.90



PEDs Across:

	N	S	E	W	
INT 01	8	1	2	1	12
INT 02	5	1	1	1	8
INT 03					0
INT 04	1	1	5	2	9
INT 05	3			2	5
INT 06					0
INT 07		1	1	1	3
INT 08		5		4	9
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	17	9	9	11	**46**

Bicycles From:

	N	S	E	W	
INT 01					0
INT 02	1			2	3
INT 03					0
INT 04			1		1
INT 05					0
INT 06					0
INT 07					0
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	1	0	1	2	4

2104 *1.0 PHF Peak Hour Volume*

		PHF	%HV
	EB	0.89	1.1%
Check	WB	0.82	3.6%
In: 1898	NB	0.94	2.5%
Out: 1898	SB	0.88	2.3%
	T Int.	0.90	2.2%

Conditions:

Special Notes

AUB18014TM_031p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

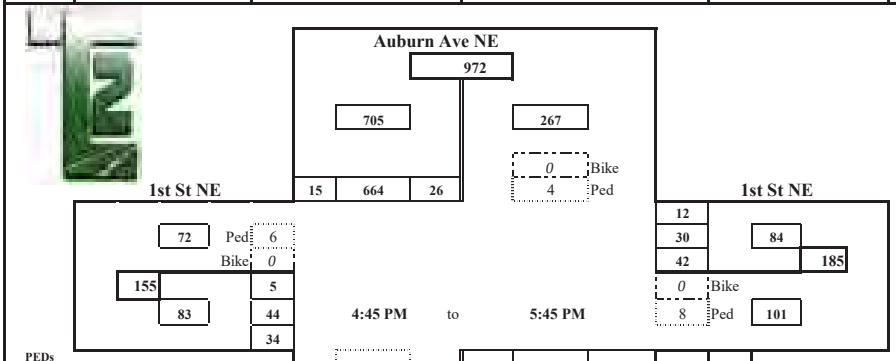
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: Auburn Ave NE & 1st St NE **Date of Count:** Wed 4/18/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) Auburn Ave NE				From South on (NB) Auburn Ave NE				From East on (WB) 1st St NE				From West on (EB) 1st St NE				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	20	7	154	2	6	15	50	4	1	10	8	4	4	6	11	9	280
4:30 P	12	9	160	1	7	5	60	12	4	16	9	2	2	2	15	7	298
4:45 P	10	7	124	5	9	8	61	7	4	16	3	2	2	5	12	12	262
5:00 P	13	4	168	4	8	8	63	6	1	8	7	5	2	1	11	8	293
5:15 P	10	8	173	6	7	6	65	10	1	9	11	3	0	2	17	15	325
5:30 P	7	8	162	3	5	9	50	8	0	12	6	1	3	0	10	6	275
5:45 P	16	6	161	2	4	4	72	7	0	13	6	3	0	2	6	5	287
6:00 P	9	5	135	3	4	13	63	5	0	7	7	1	0	2	7	6	254
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	97	54	1237	26	50	68	484	59	11	91	57	21	13	20	89	68	2274
	Peak Hour: 4:45 PM to 5:45 PM																
Total	46	26	664	15	24	27	250	31	2	42	30	12	5	5	44	34	1180
Approach	705				308				84				83				1180
%HV	6.5%				7.8%				2.4%				6.0%				6.5%
PHF	0.94				0.93				0.91				0.61				0.91



PEDs Across:

	N	S	E	W	
INT 01	1		2		3
INT 02	2	1	2	7	12
INT 03	1	2	4	2	9
INT 04	2	1	2		5
INT 05		5	3		8
INT 06		2	1	6	9
INT 07	2	3	2		7
INT 08	1	4		4	9
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	9	18	16	19	62

Bicycles From:

	N	S	E	W	
INT 01	1				1
INT 02	1				1
INT 03					0
INT 04					0
INT 05					0
INT 06					0
INT 07					0
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	2	0	0	0	2

1300 *1.0 PHF Peak Hour Volume*

		PHF	%HV
	EB	0.61	6.0%
Check	WB	0.91	2.4%
In: 1180	NB	0.93	7.8%
Out: 1180	SB	0.94	6.5%
	T Int.	0.91	6.5%

Conditions:

Special Notes

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

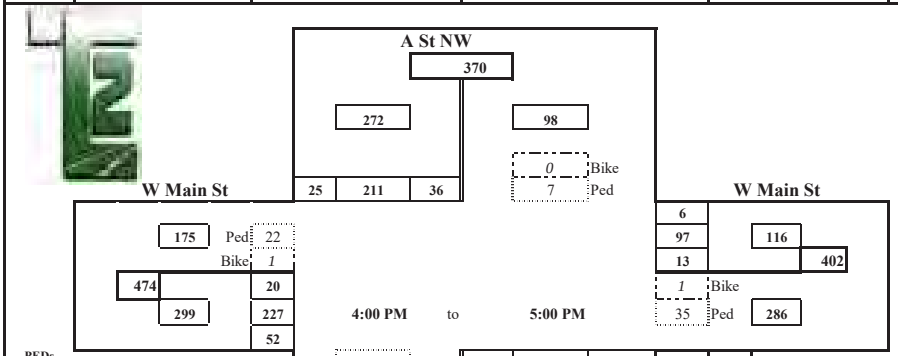
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: A St NW/SW & W Main St **Date of Count:** Wed 3/21/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) A St NW				From South on (NB) A St SW				From East on (WB) W Main St				From West on (EB) W Main St				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	2	9	56	7	1	8	23	8	1	4	25	1	0	6	52	14	213
4:30 P	1	7	49	3	2	16	18	8	2	4	28	2	3	2	52	12	201
4:45 P	4	12	51	10	1	17	12	0	2	3	17	3	6	4	48	11	188
5:00 P	0	8	55	5	0	12	19	7	0	2	27	0	1	8	75	15	233
5:15 P	3	16	51	5	2	21	20	5	0	3	28	1	3	3	49	5	207
5:30 P	1	8	46	5	1	19	21	4	0	4	12	1	2	2	50	11	183
5:45 P	2	3	50	3	0	10	12	5	0	5	17	0	0	3	38	12	158
6:00 P	3	9	51	3	0	9	22	9	1	6	18	2	1	8	49	10	196
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	16	72	409	41	7	112	147	46	6	31	172	10	16	36	413	90	1579
	Peak Hour: 4:00 PM to 5:00 PM																
Total	7	36	211	25	4	53	72	23	5	13	97	6	10	20	227	52	835
Approach	272				148				116				299				835
%HV	2.6%				2.7%				4.3%				3.3%				3.1%
PHF	0.93				0.88				0.85				0.76				0.90



PEDs Across:	N	S	E	W	
INT 01	2	2		11	15
INT 02	3	9	4	2	18
INT 03	1	14	12	3	30
INT 04	1	12	19	6	38
INT 05	4	24	4	5	37
INT 06	1	17	6	7	31
INT 07	4	7	3	3	17
INT 08		15	3	3	21
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	16	100	51	40	207

Bicycles From:	N	S	E	W	
INT 01					0
INT 02					0
INT 03				1	1
INT 04			1		1
INT 05					0
INT 06					0
INT 07	1		1	1	3
INT 08				1	1
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	1	0	2	3	6

932 *1.0 PHF Peak Hour Volume*

		PHF	%HV
	EB	0.76	3.3%
Check	WB	0.85	4.3%
In: 835	NB	0.88	2.7%
Out: 835	SB	0.93	2.6%
	T Int.	0.90	3.1%

Special Notes

AUB18014TM_127p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

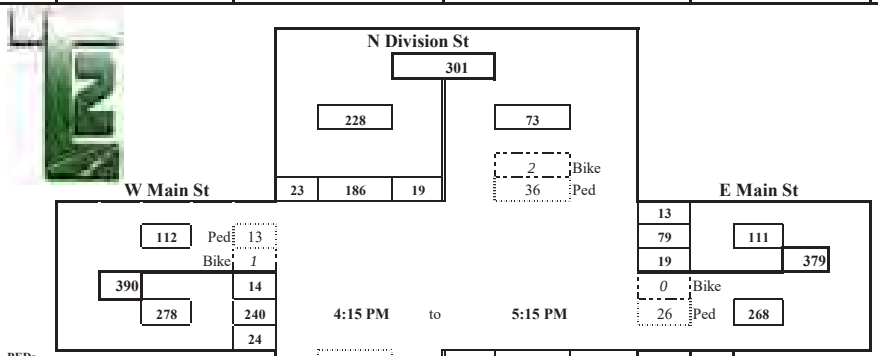
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: N/S Division St & E/W Main St **Date of Count:** Wed 3/21/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) N Division St				From South on (NB) S Division St				From East on (WB) E Main St				From West on (EB) W Main St				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	0	4	42	2	0	5	10	4	2	4	25	6	0	8	54	4	168
4:30 P	1	7	35	7	0	2	11	3	2	5	24	1	2	5	47	7	154
4:45 P	0	7	54	5	0	0	13	2	1	5	16	8	2	1	62	2	175
5:00 P	0	3	36	6	0	4	12	3	0	5	22	0	0	5	78	7	181
5:15 P	0	2	61	5	0	4	10	1	0	4	17	4	2	3	53	8	172
5:30 P	1	4	34	4	0	2	10	4	0	3	10	1	2	1	49	9	131
5:45 P	0	3	43	0	0	1	16	2	0	5	21	1	0	2	43	5	142
6:00 P	0	0	19	2	0	6	8	2	1	7	17	0	2	3	55	7	126
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	2	30	324	31	0	24	90	21	6	38	152	21	10	28	441	49	1249
	Peak Hour: 4:15 PM to 5:15 PM																
Total	1	19	186	23	0	10	46	9	3	19	79	13	6	14	240	24	682
Approach	228				65				111				278				682
%HV	0.4%				n/a				2.7%				2.2%				1.5%
PHF	0.84				0.86				0.93				0.77				0.94



724 *1.0 PHF Peak Hour Volume*

	PHF	%HV
EB	0.77	2.2%
WB	0.93	2.7%
NB	0.86	n/a
SB	0.84	0.4%
T Int.	0.94	1.5%

Check In: 682 Out: 682

PEDs Across:

	N	S	E	W	
INT 01	11	2	2	5	20
INT 02	10	6	5	1	22
INT 03	9	4	10	2	25
INT 04	8	3	2	4	17
INT 05	9	4	9	6	28
INT 06	2	4	2	2	10
INT 07	2	3	7		12
INT 08	4	9	1	2	16
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	55	35	38	22	150

Bicycles From:

	N	S	E	W	
INT 01					0
INT 02					0
INT 03	1			1	2
INT 04	1	1			2
INT 05		2			2
INT 06		2			2
INT 07				1	1
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	2	5	0	2	9

Special Notes

WB traffic backed up frequently throughout count period.

AUB18014TM_126p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

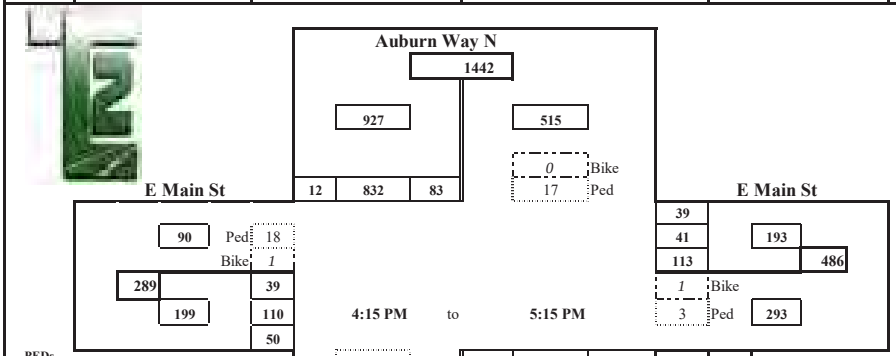
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: Auburn Way N/S & E Main St **Date of Count:** Thurs 2/15/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) Auburn Way N				From South on (NB) Auburn Way S				From East on (WB) E Main St				From West on (EB) E Main St				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	6	14	248	7	7	10	114	27	1	28	14	12	0	9	28	6	517
4:30 P	8	18	243	1	3	16	95	22	4	37	12	10	0	10	30	10	504
4:45 P	5	15	195	4	5	10	111	36	3	20	6	11	0	11	23	15	457
5:00 P	2	21	143	3	4	3	122	23	2	27	10	11	0	4	24	14	405
5:15 P	1	29	251	4	0	8	109	19	0	29	13	7	0	14	33	11	527
5:30 P	2	27	172	4	4	3	129	25	2	21	17	8	1	1	22	11	440
5:45 P	3	11	192	2	4	4	110	16	2	26	3	8	0	9	15	9	405
6:00 P	3	17	183	3	5	7	116	24	2	23	21	9	0	7	21	9	440
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	30	152	1627	28	32	61	906	192	16	211	96	76	1	65	196	85	3695
	Peak Hour: 4:15 PM to 5:15 PM																
Total	16	83	832	12	12	37	437	100	9	113	41	39	0	39	110	50	1893
Approach	927				574				193				199				1893
%HV	1.7%				2.1%				4.7%				n/a				2.0%
PHF	0.82				0.91				0.82				0.86				0.90



2108 *1.0 PHF Peak Hour Volume*

	PHF	%HV
EB	0.86	n/a
WB	0.82	4.7%
NB	0.91	2.1%
SB	0.82	1.7%
T Int.	0.90	2.0%

Check In: 1893 Out: 1893

Conditions:

PEDs Across:

	N	S	E	W	
INT 01	6	2	1	3	12
INT 02	5	2	1	8	16
INT 03	3	3	1		7
INT 04	1	3	1	4	9
INT 05	8	5		6	19
INT 06		4		4	8
INT 07	4	2	1	2	9
INT 08	5	3	1		9
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	32	24	6	27	**89**

Bicycles From:

	N	S	E	W	
INT 01					0
INT 02			1	1	2
INT 03					0
INT 04					0
INT 05					0
INT 06				1	1
INT 07				2	2
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	0	0	1	4	5

Special Notes

Prepared for: **City of Auburn**

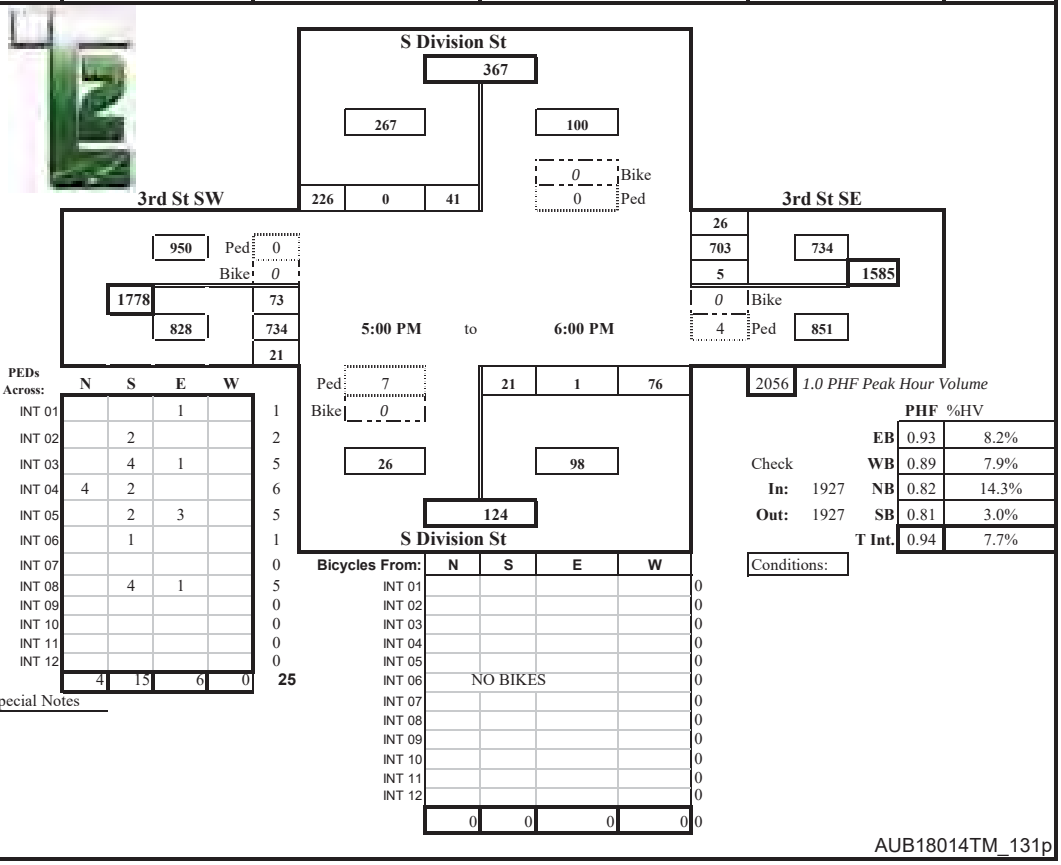
Traffic Count Consultants, Inc.

Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: S Division St & 3rd St SE/SW
Location: Auburn, Washington
Date of Count: Wed 4/18/2018
Checked By: Jess

Time Interval Ending at	From North on (SB) S Division St				From South on (NB) S Division St				From East on (WB) 3rd St SE				From West on (EB) 3rd St SW				Interval Total
	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	5	14	0	51	6	5	1	22	8	2	162	7	15	10	181	2	457
4:30 P	8	4	0	50	6	5	0	27	22	1	175	3	19	9	193	3	470
4:45 P	4	10	0	54	4	3	0	17	20	2	160	17	18	17	197	1	478
5:00 P	4	7	0	46	2	6	0	11	13	1	180	5	15	21	156	4	437
5:15 P	3	18	0	64	3	5	0	16	9	0	155	8	15	16	187	2	471
5:30 P	2	6	0	68	5	7	0	23	15	2	167	6	20	23	179	6	487
5:45 P	1	7	0	46	4	4	0	15	17	3	180	7	17	18	166	9	455
6:00 P	2	10	0	48	2	5	1	22	17	0	201	5	16	16	202	4	514
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	29	76	0	427	32	40	2	153	121	11	1380	58	135	130	1461	31	3769
Peak Hour: 5:00 PM to 6:00 PM																	
Total	8	41	0	226	14	21	1	76	58	5	703	26	68	73	734	21	1927
Approach	267				98				734				828				1927
%HV	3.0%				14.3%				7.9%				8.2%				7.7%
PHF	0.81				0.82				0.89				0.93				0.94



PEDs Across:

	N	S	E	W	
INT 01			1		1
INT 02		2			2
INT 03		4	1		5
INT 04	4	2			6
INT 05		2	3		5
INT 06		1			1
INT 07					0
INT 08		4	1		5
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	4	15	6	0	25

Bicycles From:

	N	S	E	W	
INT 01					0
INT 02					0
INT 03					0
INT 04					0
INT 05					0
INT 06	NO BIKES				0
INT 07					0
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	0	0	0	0	0

2056 *1.0 PHF Peak Hour Volume*

		PHF	%HV
		EB	0.93	8.2%
Check		WB	0.89	7.9%
In:	1927	NB	0.82	14.3%
Out:	1927	SB	0.81	3.0%
		T Int.	0.94	7.7%

Conditions:

Special Notes

AUB18014TM_131p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

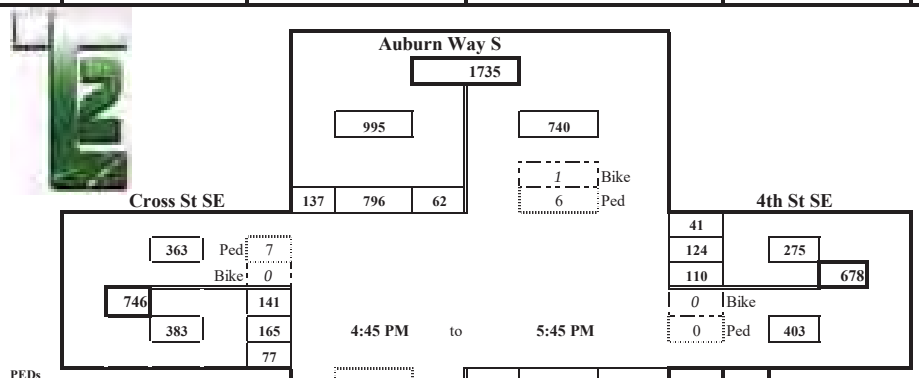
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: Auburn Way S & 4th St SE/Cross St SE **Date of Count:** Wed 4/18/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) Auburn Way S				From South on (NB) Auburn Way S				From East on (WB) 4th St SE				From West on (EB) Cross St SE				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	8	12	191	37	26	18	115	38	2	23	30	3	1	38	39	17	561
4:30 P	20	5	216	28	13	21	139	33	6	29	30	6	5	34	41	22	604
4:45 P	9	14	211	31	6	22	123	31	2	31	36	12	6	37	36	22	606
5:00 P	10	14	191	42	15	27	145	56	0	24	27	7	4	36	33	20	622
5:15 P	11	10	213	30	21	13	133	31	1	29	32	7	6	33	37	15	583
5:30 P	10	15	220	35	25	29	139	56	0	22	24	15	10	33	53	22	663
5:45 P	18	23	172	30	5	33	141	33	3	35	41	12	6	39	42	20	621
6:00 P	15	16	173	31	17	18	116	47	0	25	33	14	5	24	35	21	553
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	101	109	1587	264	128	181	1051	325	14	218	253	76	43	274	316	159	4813
Peak Hour:	4:45 PM to 5:45 PM																
Total	49	62	796	137	66	102	558	176	4	110	124	41	26	141	165	77	2489
Approach	995				836				275				383				2489
%HV	4.9%				7.9%				1.5%				6.8%				5.8%
PHF	0.92				0.92				0.78				0.89				0.94



2652 *1.0 PHF Peak Hour Volume*

PEDs Across:	N	S	E	W	
INT 01	2	2	1		5
INT 02	1				1
INT 03		1			1
INT 04	1	6			7
INT 05	3	7		3	13
INT 06	1	3		1	5
INT 07	1	5		3	9
INT 08	3	4	1		8
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	12	28	2	7	49

	PHF	%HV
EB	0.89	6.8%
WB	0.78	1.5%
NB	0.92	7.9%
SB	0.92	4.9%
T Int.	0.94	5.8%

Check In: 2489 Out: 2489

Bicycles From:	N	S	E	W		N U's	S U's	E U's	W U's
INT 01					0	0			0
INT 02	1				1	1			0
INT 03					0	0			1
INT 04		1			1	2			1
INT 05	1				1	0			0
INT 06					0	0			0
INT 07		1			1	0			0
INT 08	1				1	0			0
INT 09					0				
INT 10					0				
INT 11					0				
INT 12					0				
	3	2	0	0	5	3	0	0	2

Special Notes

AUB18014TM_037p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

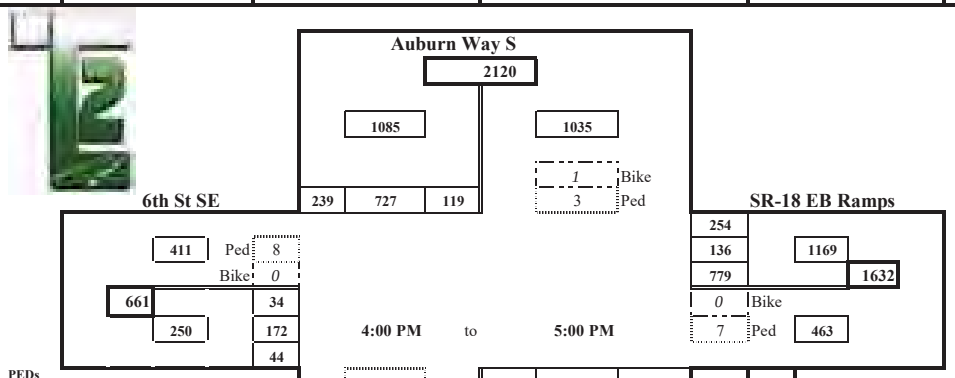
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: Auburn Way S & SR-18 EB Ramps/6th St SE **Date of Count:** Wed 4/25/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) Auburn Way S				From South on (NB) Auburn Way S				From East on (WB) SR-18 EB Ramps				From West on (EB) 6th St SE				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	5	26	180	71	3	12	198	46	3	195	38	65	2	4	44	9	888
4:30 P	4	24	168	80	9	6	199	45	7	197	33	76	1	8	49	12	897
4:45 P	1	31	190	81	7	8	174	38	4	176	34	54	2	14	39	13	852
5:00 P	3	38	189	7	4	10	176	43	3	211	31	59	1	8	40	10	822
5:15 P	1	24	183	72	4	14	191	47	0	191	26	42	1	17	39	10	856
5:30 P	3	26	182	84	0	9	179	34	2	193	25	57	1	15	38	8	850
5:45 P	6	32	179	78	2	11	166	33	1	179	33	59	1	12	41	8	831
6:00 P	2	18	179	83	0	4	171	34	2	178	42	62	0	5	26	7	809
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	25	219	1450	556	29	74	1454	320	22	1520	262	474	9	83	316	77	6805
Peak Hour: 4:00 PM to 5:00 PM																	
Total	13	119	727	239	23	36	747	172	17	779	136	254	6	34	172	44	3459
Approach	1085				955				1169				250				3459
%HV	1.2%				2.4%				1.5%				2.4%				1.7%
PHF	0.90				0.93				0.96				0.91				0.96



PEDs Across:	N	S	E	W	
INT 01			4	4	8
INT 02	1		2	1	4
INT 03	1		1	1	3
INT 04	1			2	3
INT 05				3	3
INT 06	1			1	2
INT 07			1	2	3
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	4	0	8	14	**26**

Bicycles From:	N	S	E	W	
INT 01					0
INT 02					0
INT 03	1				1
INT 04		1			1
INT 05	1				1
INT 06					0
INT 07					0
INT 08		1			1
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	2	2	0	0	4

N U's	S U's	E U's	W U's
	1		
	2		
	1		
	1		
	3		
	0		
	1		
	5		
0	14	0	0

3588 *1.0 PHF Peak Hour Volume*

	PHF	%HV
EB	0.91	2.4%
WB	0.96	1.5%
NB	0.93	2.4%
SB	0.90	1.2%
T Int.	0.96	1.7%

Check In: 3459 Out: 3459

Special Notes

AUB18014TM_038p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

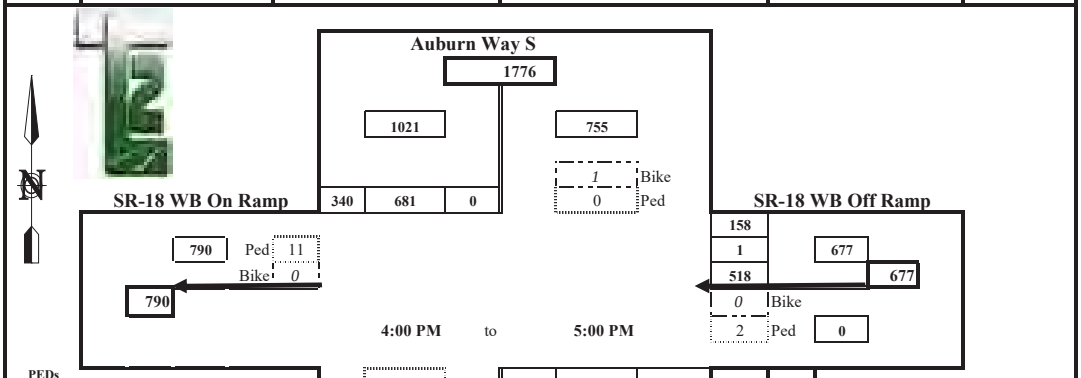
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: Auburn Way S & SR-18 WB Ramps **Date of Count:** Wed 4/25/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) Auburn Way S				From South on (NB) Auburn Way S				From East on (WB) SR-18 WB Off Ramp				From West on (EB) SR-18 WB On Ramp				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	7	0	172	86	4	124	153	0	5	114	1	38	0	0	0	0	688
4:30 P	6	0	158	82	7	124	154	0	2	127	0	40	0	0	0	0	685
4:45 P	1	0	167	80	13	101	147	0	1	140	0	40	0	0	0	0	675
5:00 P	3	0	184	92	4	100	143	0	1	137	0	40	0	0	0	0	696
5:15 P	0	0	154	76	5	123	134	0	2	145	0	41	0	0	0	0	673
5:30 P	1	0	174	70	1	122	133	0	3	128	0	40	0	0	0	0	667
5:45 P	3	0	152	94	2	132	135	0	3	132	0	45	0	0	0	0	690
6:00 P	1	0	144	77	1	114	132	0	3	140	0	39	0	0	0	0	646
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	22	0	1305	657	37	940	1131	0	20	1063	1	323	0	0	0	0	5420
Peak Hour: 4:00 PM to 5:00 PM																	
Total	17	0	681	340	28	449	597	0	9	518	1	158	0	0	0	0	2744
Approach	1021				1046				677				0				2744
%HV	1.7%				2.7%				1.3%				n/a				2.0%
PHF	0.92				0.94				0.94				n/a				0.99



PEDs Across:

	N	S	E	W	
INT 01			2	5	7
INT 02				2	2
INT 03				2	2
INT 04				2	2
INT 05				4	4
INT 06				3	3
INT 07				1	1
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	0	0	2	19	21

Bicycles From:

	N	S	E	W	
INT 01					0
INT 02					0
INT 03	1				1
INT 04		1			1
INT 05	1				1
INT 06	1				1
INT 07	1				1
INT 08		1			1
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	4	2	0	0	6

2784 *1.0 PHF Peak Hour Volume*

		PHF	%HV
	EB	n/a	n/a
Check	WB	0.94	1.3%
In: 2744	NB	0.94	2.7%
Out: 2744	SB	0.92	1.7%
	T Int.	0.99	2.0%

Conditions:

Special Notes

AUB18014TM_041p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

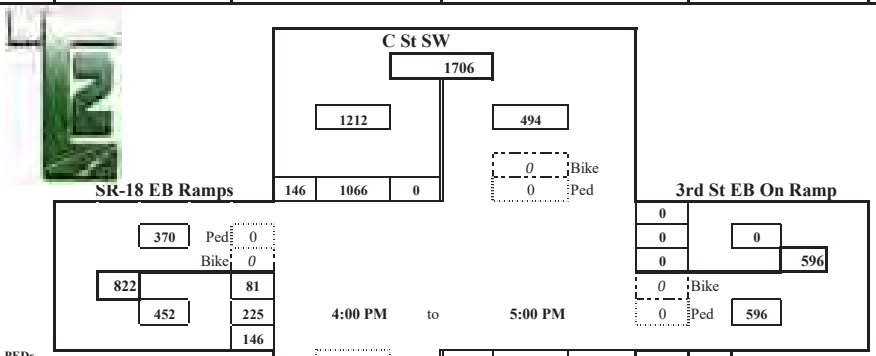
Phone: (253) 770-1407 FAX: (253) 770-1411 E-Mail: Team@TC2inc.com

WBE/DBE

Intersection: C St SW & 3rd St EB On Ramp/SR-18 EB Ramps (off-set) **Date of Count:** Wed 3/21/2018

Location: Auburn, Washington **Checked By:** Jess

Time Interval	From North on (SB) C St SW				From South on (NB) C St SW				From East on (WB) 3rd St EB On Ramp				From West on (EB) SR-18 EB Ramps				Interval Total
Ending at	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	25	0	267	32	12	64	107	92	0	0	0	0	7	24	64	47	697
4:30 P	32	0	242	26	6	56	96	84	0	0	0	0	9	23	46	31	604
4:45 P	16	0	297	54	9	47	93	81	0	0	0	0	9	15	59	37	683
5:00 P	8	0	260	34	12	57	117	114	0	0	0	0	10	19	56	31	688
5:15 P	9	0	236	37	5	58	118	104	0	0	0	0	9	15	47	38	653
5:30 P	17	0	240	22	10	46	94	87	0	0	0	0	12	11	66	30	596
5:45 P	7	0	229	25	5	39	76	80	0	0	0	0	7	14	69	47	579
6:00 P	6	1	217	24	9	44	68	76	0	0	0	0	7	13	44	40	527
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	120	1	1988	254	68	411	769	718	0	0	0	0	70	134	451	301	5027
	Peak Hour: 4:00 PM to 5:00 PM																
Total	81	0	1066	146	39	224	413	371	0	0	0	0	35	81	225	146	2672
Approach	1212				1008				0				452				2672
%HV	6.7%				3.9%				n/a				7.7%				5.8%
PHF	0.86				0.88				n/a				0.84				0.96



PEDs Across:	N	S	E	W	
INT 01		2			2
INT 02					0
INT 03		1			1
INT 04		3			3
INT 05					0
INT 06		1			1
INT 07		1			1
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	0	8	0	0	8

Special Notes

Ped 6
Bike 0

224 413 371

1212 1008

2220

C St SW

Bicycles From:	N	S	E	W	
INT 01					0
INT 02					0
INT 03					0
INT 04					0
INT 05		1			1
INT 06					0
INT 07					0
INT 08		1			1
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	0	2	0	0	2

2788 *1.0 PHF Peak Hour Volume*

		PHF	%HV
		EB	0.84	7.7%
Check		WB	n/a	n/a
In:	2672	NB	0.88	3.9%
Out:	2672	SB	0.86	6.7%
		T Int.	0.96	5.8%

N U's	S U's	E U's	W U's
0			
0			
0			
0			
0			
0			
0			
1			
1	0	0	0

AUB18014TM_133p

Prepared for: **City of Auburn**

Traffic Count Consultants, Inc.

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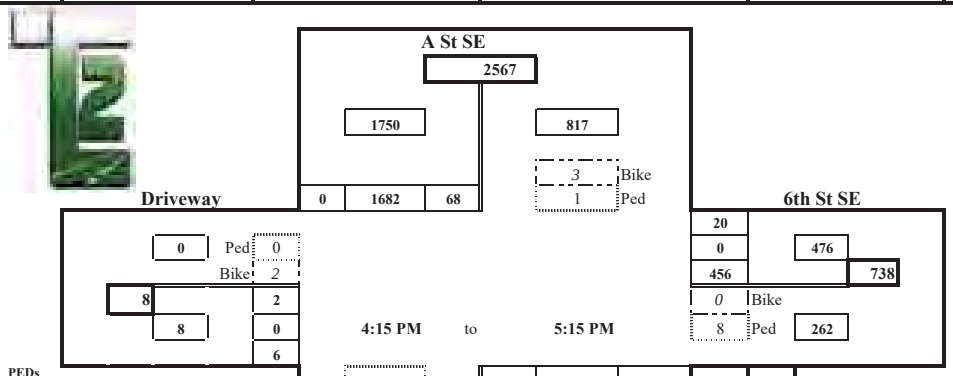
WBE/DBE

Intersection: A St SE & 6th St SE
Location: Auburn, Washington
Date of Count: Wed 4/25/2018
Checked By: Jess

Time Interval Ending at	From North on (SB) A St SE				From South on (NB) A St SE				From East on (WB) 6th St SE				From West on (EB) Driveway				Interval Total
	T	L	S	R	T	L	S	R	T	L	S	R	T	L	S	R	
4:15 P	4	18	373	0	4	0	179	44	2	131	0	7	0	0	0	0	752
4:30 P	2	20	446	0	10	0	213	42	2	114	0	2	0	0	0	0	837
4:45 P	2	12	403	0	4	0	192	45	1	124	0	3	0	0	0	0	779
5:00 P	3	17	393	0	3	0	197	51	1	116	0	5	0	0	0	3	782
5:15 P	3	19	440	0	1	0	193	56	0	102	0	10	0	2	0	3	825
5:30 P	2	10	387	0	6	0	205	34	2	126	1	5	0	0	0	0	768
5:45 P	1	10	362	0	0	0	222	48	4	101	0	2	0	1	0	1	747
6:00 P	3	13	310	0	3	0	169	24	0	136	0	5	0	0	0	0	657
6:15 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	20	119	3114	0	31	0	1570	344	12	950	1	39	0	3	0	7	6147
Peak Hour:	4:15 PM to 5:15 PM																
Total	10	68	1682	0	18	0	795	194	4	456	0	20	0	2	0	6	3223
Approach	1750				989				476				8				3223
%HV	0.6%				1.8%				0.8%				n/a				1.0%
PHF	0.94				0.97				0.94				0.40				0.96



PEDs Across:	N	S	E	W	
INT 01	2		1		3
INT 02	1		3		4
INT 03			2		2
INT 04			3		3
INT 05					0
INT 06	1		1		2
INT 07	1		4		5
INT 08	2		1		3
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	7	0	15	0	22

Bicycles From:	N	S	E	W	
INT 01					0
INT 02					0
INT 03	1			1	2
INT 04	1	1			2
INT 05	1			1	2
INT 06	1				1
INT 07	1	3			4
INT 08					0
INT 09					0
INT 10					0
INT 11					0
INT 12					0
	5	4	0	2	11

		PHF	%HV
	EB	0.40	n/a
Check	WB	0.94	0.8%
In: 3223	NB	0.97	1.8%
Out: 3223	SB	0.94	0.6%
	T Int.	0.96	1.0%

Conditions:

Special Notes

Appendix B
Existing Parking Conditions

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Street[1,2]	Segment	Restriction	Block face[3]	Number Spaces	Occupied	% Occupied	Spaces Available	Distance to Station (miles)	Distance to New Garage (miles)
Block faces closer to the station entrance than to the new garage									
2nd Street SE	Auburn Way S to D Street SE	3-Hour	N	9	7	78%	2	0.42	0.55
2nd Street SE	Auburn Way S to D Street SE	No Parking	S	0	0	n/a[4]	n/a	0.42	0.55
4th Street NE	Auburn Avenue to Auburn Way N	No Parking	S	0	0	n/a	n/a	0.42	0.55
4th Street SE	Auburn Way S to D Street SE	No Parking	N	0	0	n/a	n/a	0.47	0.60
4th Street SE	Auburn Way S to D Street SE	3-Hour	S	7	2	29%	5	0.47	0.60
2nd Street SE	D Street SE to E Street SE	Unrestricted	N	8	2	25%	6	0.49	0.62
2nd Street SE	D Street SE to E Street SE	Unrestricted	S	8	4	50%	4	0.49	0.62
4th Street SE	D Street SE to E Street SE	Unrestricted	N	10	2	20%	8	0.54	0.67
4th Street SE	D Street SE to E Street SE	Unrestricted	S	6	1	17%	5	0.54	0.67
E Street SE	4th Street SE to 2nd Street SE	Unrestricted	W	22	9	41%	13	0.58	0.71
E Street SE	4th Street SE to 2nd Street SE	No Parking	E	0	0	n/a	n/a	0.58	0.71
E Street SE	2nd Street SE to E Main Street	Unrestricted	W	19	7	37%	12	0.58	0.71
E Street SE	2nd Street SE to E Main Street	No Parking	E	0	0	n/a	n/a	0.58	0.71
		Subtotal		**89**	**34**	**38%**	**55**		
		Unrestricted		**73**	**25**	**34%**	**48**		
		3-Hour		**16**	**9**	**56%**	**7**		
Block faces less than one-half mile from new parking garage, and closer to the new garage than to the station entrance									
3rd Street SE	A Street SW to Auburn Avenue SE	No Parking	N	0	0	n/a	n/a	0.46	0.33
3rd Street SE	A Street SW to Auburn Avenue SE	No Parking	S	0	0	n/a	n/a	0.46	0.33
A Street SW	2nd Street NW to 3rd Street NW	Unrestricted	W	3	3	100%	0	0.27	0.08
A Street SW	2nd Street NW to 3rd Street NW	No Parking	E	0	0	n/a	n/a	0.27	0.08
A Street SW	2nd Street NW to 3rd Street NW	3-Hour	W	7	0	0%	7	0.27	0.08
A Street SW	2nd Street NW to 3rd Street NW	3-Hour	E	4	2	50%	2	0.27	0.08
N Division Street	2nd Street NW to 3rd Street NE	3-Hour	W	9	9	100%	0	0.32	0.13

Street[1,2]	Segment	Restriction	Block face[3]	Number Spaces	Occupied	% Occupied	Spaces Available	Distance to Station (miles)	Distance to New Garage (miles)
N Division Street	2nd Street NW to 3rd Street NE	3-Hour	E	11	9	82%	2	0.32	0.13
A Street NE	3rd Street NE to 5th Street NE	Unrestricted	W	18	16	89%	2	0.47	0.28
A Street NE	3rd Street NE to 5th Street NE	Unrestricted	E	17	14	82%	3	0.47	0.28
3rd Street NE	Auburn Avenue to Auburn Way N	3-Hour	N	8	6	75%	2	0.45	0.32
3rd Street NE	Auburn Avenue to Auburn Way N	3-Hour	S	7	1	14%	6	0.45	0.32
1st Street NE	Auburn Way N to D Street NE	3-Hour	N	13	1	8%	12	0.46	0.33
1st Street NE	Auburn Way N to D Street NE	3-Hour	S	12	2	17%	10	0.46	0.33
B Street NE	3rd Street NE to 5th Street NE	Unrestricted	W	16	14	88%	2	0.52	0.33
B Street NE	3rd Street NE to 5th Street NE	Unrestricted	E	20	11	55%	9	0.52	0.33
E Main Street	Auburn Way N to D Street NE	No Parking	N	0	0	n/a	n/a	0.40	0.36
E Main Street	Auburn Way N to D Street NE	3-Hour	S	3	1	33%	2	0.40	0.36
A Street NE	5th Street NE to 7th Street NE	Unrestricted	W	11	1	9%	10	0.56	0.37
A Street NE	5th Street NE to 7th Street NE	Unrestricted	E	14	5	36%	9	0.56	0.37
5th Street NE	A Street NE to B Street NE	3-Hour	N	7	1	14%	6	0.56	0.37
5th Street NE	A Street NE to B Street NE	3-Hour	S	7	0	0%	7	0.56	0.37
2nd Street NE	Auburn Way N to D Street NE	Unrestricted	N	15	11	73%	4	0.52	0.39
2nd Street NE	Auburn Way N to D Street NE	Unrestricted	S	12	7	58%	5	0.52	0.39
1st Street NE	D Street NE to E Street NE	Unrestricted	N	10	6	60%	4	0.53	0.40
1st Street NE	D Street NE to E Street NE	Unrestricted	S	6	6	100%	0	0.53	0.40
D Street NE	1st Street NE to 2nd Street NE	Unrestricted	W	7	3	43%	4	0.53	0.40
D Street NE	1st Street NE to 2nd Street NE	Unrestricted	E	8	4	50%	4	0.53	0.40
B Street NE	5th Street NE to 7th Street NE	Unrestricted	W	7	7	100%	0	0.61	0.42
B Street NE	5th Street NE to 7th Street NE	Unrestricted	E	14	13	93%	1	0.61	0.42
E Main Street	D Street NE to E Street NE	Closed for Construction	N			n/a	n/a	0.47	0.43
E Main Street	D Street NE to E Street NE	2-Hour	S	7	6	86%	1	0.47	0.43

Street[1,2]	Segment	Restriction	Block face[3]	Number Spaces	Occupied	% Occupied	Spaces Available	Distance to Station (miles)	Distance to New Garage (miles)
D Street NE	E Main Street to 1st Street NE	3-Hour	W	7	0	0%	7	0.47	0.43
D Street NE	E Main Street to 1st Street NE	3-Hour	E	7	0	0%	7	0.47	0.43
4th Street NE	Auburn Avenue to Auburn Way N	No Parking	N	0	0	n/a	n/a	0.55	0.42
3rd Street NE	Auburn Way N to D Street NE	Unrestricted	N	9	5	56%	4	0.57	0.44
3rd Street NE	Auburn Way N to D Street NE	Unrestricted	S	17	4	24%	13	0.57	0.44
7th Street NE	A Street NE to B Street NE	No Parking	N	0	0	n/a	n/a	0.63	0.44
7th Street NE	A Street NE to B Street NE	Unrestricted	S	11	6	55%	5	0.63	0.44
2nd Street NE	D Street NE to E Street NE	Unrestricted	N	9	6	67%	3	0.59	0.46
2nd Street NE	D Street NE to E Street NE	Unrestricted	S	9	3	33%	6	0.59	0.46
D Street NE	2nd Street NE to 3rd Street NE	Unrestricted	W	4	2	50%	2	0.59	0.46
D Street NE	2nd Street NE to 3rd Street NE	Unrestricted	E	4	1	25%	3	0.59	0.46
E Street NE	E Main Street to 1st Street NE	Unrestricted	W	4	3	75%	1	0.53	0.49
E Street NE	E Main Street to 1st Street NE	No Parking	E	0	0	n/a	n/a	0.53	0.49
4th Street NE	Auburn Way N to D Street NE	Unrestricted	N	19	6	32%	13	0.62	0.49
4th Street NE	Auburn Way N to D Street NE	Unrestricted	S	7	3	43%	4	0.62	0.49
D Street SE	4th Street SE to 2nd Street SE	Unrestricted	W	19	11	58%	8	0.62	0.49
D Street SE	4th Street SE to 2nd Street SE	No Parking	E	0	0	n/a	n/a	0.62	0.49
D Street SE	2nd Street SE to E Main Street	Unrestricted	W	5	2	40%	3	0.62	0.49
D Street SE	2nd Street SE to E Main Street	No Parking	E	0	0	n/a	n/a	0.62	0.49
		Subtotal		**404**	**211**	**52%**	**193**		
		Unrestricted		**295**	**173**	**59%**	**122**		
		3-Hour, 2 Hour		**109**	**38**	**35%**	**71**		
Block faces more than one-half mile from new parking garage, and closer to the new garage than to the station entrance									
3rd Street NE	D Street NE to E Street NE	Unrestricted	N	7	3	43%	4	0.64	0.51
3rd Street NE	D Street NE to E Street NE	Unrestricted	S	7	2	29%	5	0.64	0.51
D Street NE	3rd Street NE to 4th Street NE	Unrestricted	W	9	1	11%	8	0.64	0.51

Street[1,2]	Segment	Restriction	Block face[3]	Number Spaces	Occupied	% Occupied	Spaces Available	Distance to Station (miles)	Distance to New Garage (miles)
D Street NE	3rd Street NE to 4th Street NE	Unrestricted	E	6	1	17%	5	0.64	0.51
E Street NE	1st Street NE to 2nd Street NE	Unrestricted	W	9	6	67%	3	0.59	0.55
E Street NE	1st Street NE to 2nd Street NE	Unrestricted	E	5	4	80%	1	0.59	0.55
D Street SE	Dead end to 4th Street SE	Unrestricted	W	3	2	67%	1	0.68	0.55
D Street SE	Dead end to 4th Street SE	Unrestricted	E	5	4	80%	1	0.68	0.55
E Street NE	2nd Street NE to 3rd Street NE	Unrestricted	W	7	4	57%	3	0.65	0.61
E Street NE	2nd Street NE to 3rd Street NE	Unrestricted	E	11	7	64%	4	0.65	0.61
		Subtotal		**69**	**34**	**49%**	**35**		
		Unrestricted		**69**	**34**	**49%**	**35**		

1. Streets selected by City of Auburn, September 2018
2. Inventory and occupancy data collected Thursday, 9/27/18, midday.
3. N=north side, S=south side, W=west side, E=east side
4. Not applicable (n/a). Block faces with no parking are not included in the occupancy calculations.

Appendix C
Queuing Analysis

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Queuing Analysis

This Appendix documents the approach and the results of the queuing analysis for intersections and driveways performed within the study area.

Introduction

The purpose of the queuing analysis is to identify if the additional traffic generated by the proposed parking garage in 2037 would result in any project impact on queuing. A queuing impact would occur if an upstream intersection or driveway not blocked under No-Build conditions becomes blocked in Project conditions.

Queue reports from the Synchro models developed for the traffic analysis are used to estimate queue lengths for each approach at studied intersections. The queuing analysis process is described in more details in the following section, then the findings are presented.

Process

Queue Lengths

1. Identify the 95th percentile queue lengths for each movement at the study intersections using the Synchro queue reports.

Impact on Upstream Intersection:

2. Identify link lengths (distance to the upstream intersection) for each approach at the study intersections. When link length is available from Synchro, the link length from the Synchro model network is used. If not, link length is measured from intersection to intersection using Google Earth. **Figure 1** shows an example of identification of queue lengths for the study intersections.

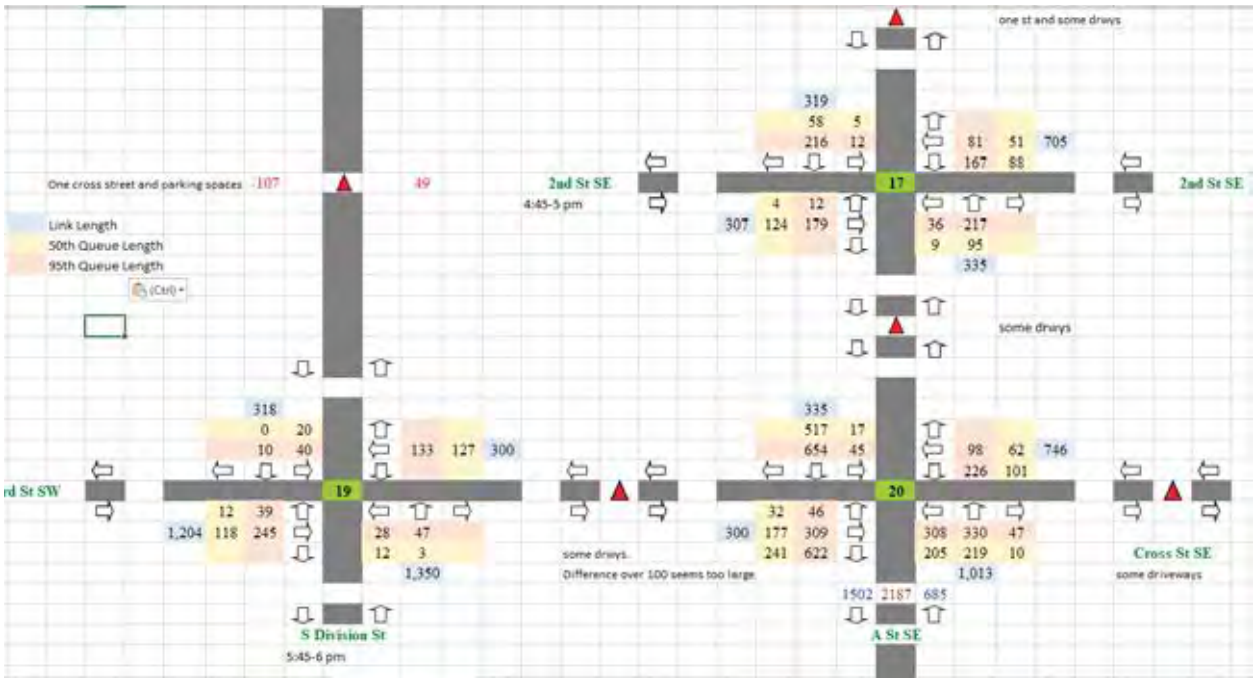

Figure 1: Queue and link lengths

3. Check if any queue length for the movements in each approach of the study intersections is equal to or larger than link length. If so, it means the queue(s) blocks the upstream intersection. **Figure 2** shows an example of checking if queue(s) blocks the upstream intersection.

#	Intersection		No-Build											
			Northbound			Southbound			Eastbound			Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
1	B St NW & 10th St NE	na												
2	Auburn Ave & 4th St NE	Queue Len		48	37		226					22		
		Link Len		188			456						200	
3	Auburn Way N & 4th St NE	Queue Len		251		53	405		209	272			58	
		Link Len		284			313			200			478	
4	C St NW & 3rd St NW	Queue Len		119		66	300			38			374	13
		Link Len		391			1,277			264			512	
5	A St NW & 3rd St NW	Queue Len		138			652	134	299	175		42	189	
		Link Len		385			627			512			265	
6	Auburn Ave & 3rd St NE	Queue Len		36			116	0	108					
		Link Len		116			188			175				
7	C St NW & 2nd St NW	na												
8	A St NW & 2nd St NW	na												
9	A St NW & 1st St NW	na												
10	Auburn Ave & 1st St NW	Queue Len	14	94		15	416		19	118		54	59	12
		Link Len		318			376			422			340	
11	C St NW & W Main St	Queue Len	100	186	26	34	432		43	446		63	73	
		Link Len		230			569			270			262	
12	W Main St & A St NW	Queue Len	27	61		21	163		26	221			70	
		Link Len		321			254			240			290	

Figure 2: Queues blocking an upstream intersection

4. If the queues do not block the upstream intersection in the No-Build scenario, but they do in the Project scenario, there is a project impact.

Impact on Driveways:

5. Identify the driveways between the intersection and the upstream intersection, and the distance of each driveway to the intersection. Driveways are pin-pointed and the distance is measured in Google Earth. A driveway is defined as either A) Driveway linking to a parking lot used by a business, retail store, apartment community, or single-family home; or B) A small alley that does not count as an intersection.

The type A driveway (the vast majority of driveways identified) affects the downstream intersection on the same side, while the type B driveway affects the downstream intersection on both sides.

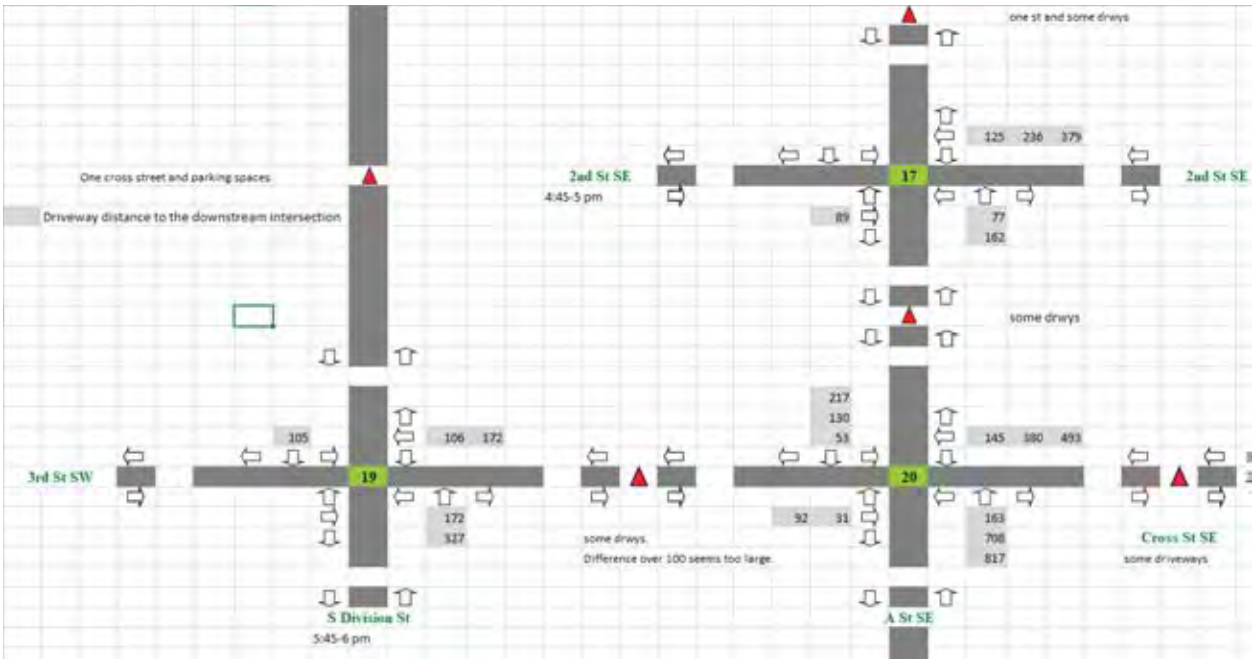

Figure 3: Identification of driveways

6. Check the number of driveways whose distance to the intersection is less than or equal to the highest queue length to see how many driveways are blocked by the queues.

#	Intersection		No-Build											
			Northbound			Southbound			Eastbound			Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
1	B St NW & 10th St NE	na												
2	Auburn Ave & 4th St NE	Queue Len		48	37		226					22		
		# of Driveways Blocked		0			1						0	
3	Auburn Way N & 4th St NE	Queue Len		251		53	405		209	272			58	
		# of Driveways Blocked		2			3			1			0	
4	C St NW & 3rd St NW	Queue Len		119		66	300			38			374	13
		# of Driveways Impacted		0			3			0			1	
5	A St NW & 3rd St NW	Queue Len		138			652	134	299	175		42	189	
		# of Driveways Impacted		0			2			2			1	
6	Auburn Ave & 3rd St NE	Queue Len		36			116	0	108					
		# of Driveways Impacted		0			1			1				
7	C St NW & 2nd St NW	na												
8	A St NW & 2nd St NW	na												
9	A St NW & 1st St NW	na												
10	Auburn Ave & 1st St NW	Queue Len	14	94		15	416		19	118		54	59	12
		# of Driveways Impacted		1			1			1			0	
11	C St NW & W Main St	Queue Len	100	186	26	34	432		43	446		63	73	
		# of Driveways Impacted		2			4			1			1	
12	W Main St & A St NW	Queue Len	27	61		21	163		26	221			70	
		# of Driveways Impacted		0			1			0			0	

Figure 4: Driveways blocked by queues

7. If the number of driveways blocked by the queues increases in the Project scenario compared to the No-Build scenario, there is a project impact.

Analysis Results

Based on the process and criteria described in the previous section, the queuing analysis did not identify any project impact on upstream intersections or an driveways.

All upstream intersections or driveways that are blocked by queues in the Project scenario are already blocked by queues in the No-Build scenario. The queuing analysis results are summarized in **Tables 1** through **4**. Tables 1 and 2 show the queuing analysis for intersections while Tables 3 and 4 show the queuing analysis for driveways. Any instances with queues blocking an upstream intersection or driveway are highlighted in red in the tables.

Table 1 – 2037 AM Intersection Queuing Impact

ID	Intersection	Length (ft)	Northbound		Southbound		Eastbound		Westbound	
			No-Build	Project	No-Build	Project	No-Build	Project	No-Build	Project
11	C St NW & W Main St	Queue[1,2]	1,008	1,008	105	105	89	89	85	85
		Link	230		569		270		262	
14	E Main St & Auburn Ave	Queue	15	15	53	54	139	139	111	114
		Link	324		318		295		458	
17	A St SE & 2nd St SE	Queue	52	56	18	18	58	58	135	135
		Link	335		319		307		705	
18	C St SW & Westbound SR-18 Ramps	Queue	92	94	31	32	110	117	0	0
		Link	730		675		1,410		665	
20	3rd St SE & A St SE	Queue	728	753	98	101	138	138	78	78
		Link	1,013		335		300		746	

[1] Queue lengths documented in this table are the longest queue length by movement on each approach.

[2] Queue lengths that exceed link lengths are highlighted in red.

Table 2 – 2037 PM Intersection Queuing Impact

ID	Intersection	Length (ft)	Northbound		Southbound		Eastbound		Westbound	
			No-Build	Project	No-Build	Project	No-Build	Project	No-Build	Project
2	Auburn Ave & 4th St NE	Queue[1,2]	48	52	226	226	-	-	22	22
		Link	188		456		-		200	
3	Auburn Way N & 4th St NE	Queue	251	270	405	405	272	304	58	58
		Link	284		313		200		478	
4	C St NW & 3rd St NW	Queue	119	122	300	300	38	38	374	374
		Link	391		1,277		264		512	
5	A St NW & 3rd St NW	Queue	138	160	652	652	299	298	189	189
		Link	385		627		512		265	
6	Auburn Ave & 3rd St NE	Queue	36	38	116	117	108	106	-	-
		Link	116		188		175		-	
10	Auburn Ave & 1st St NW	Queue	94	94	416	416	118	282	59	78
		Link	318		376		422		340	
11	C St NW & W Main St	Queue	186	182	432	432	446	446	73	238
		Link	230		569		270		262	
12	W Main St & A St NW	Queue	61	61	163	163	221	221	70	70
		Link	321		254		240		290	
13	W Main St & Division St	Queue	49	49	107	107	127	138	39	39
		Link	321		261		290		295	
14	E Main St & Auburn Ave	Queue	143	143	544	871	309	345	145	145
		Link	324		318		295		458	
15	E Main St & Auburn Way S	Queue	252	252	713	713	286	326	137	137
		Link	652		299		250		404	
17	A St SE & 2nd St SE	Queue	217	217	216	227	179	190	167	165
		Link	335		319		307		705	
18	C St SW & Westbound SR-18 Ramps	Queue	129	125	453	485	65	64	60	46
		Link	730		675		1410		665	
19	3rd St SW & Division St	Queue	47	47	40	45	245	241	133	130
		Link	1,350		318		1,204		300	

20	3rd St SE & A St SE	Queue	330	330	654	746	622	609	226	230
		Link	1,013		335		300		746	
21	4th St SE & Auburn Way S	Queue	286	286	275	286	198	198	127	127
		Link	247		574		746		396	
22	Auburn Way S & Westbound SR-18 Ramps	Queue	382	382	545	600	-	-	844	844
		Link	542		247		-		787	
23	C St SW & Eastbound SR-18 Ramps	Queue	320	320	561	598	352	352	-	-
		Link	845		730		1,523		-	
24	A St SE & 6th St SE	Queue	526	527	1,204	1,314	-	-	740	740
		Link	293		1,025		-		787	
25	Auburn Way S & Eastbound SR-18 Ramps/6th St SE	Queue	379	379	790	822	483	483	824	824
		Link	769		542		787		1,024	

* Queue lengths documented in this table are the longest queue length by movement on each approach.

**Queue lengths that exceed link lengths are highlighted in red.

Table 3 – 2037 AM Driveway Queuing Impact

ID	Intersection		Northbound		Southbound		Eastbound		Westbound	
			No-Build	Project	No-Build	Project	No-Build	Project	No-Build	Project
11	C St NW & W Main St	Queue Length* (ft)	1,008	1,008	105	105	89	89	85	85
		# of Driveways Impacted	3	3	0	0	0	0	1	1
14	E Main St & Auburn Ave	Queue Length* (ft)	15	15	53	54	139	139	111	114
		# of Driveways Impacted	0	0	0	0	0	0	0	0
17	A St SE & 2nd St SE	Queue Length* (ft)	52	56	18	18	58	58	135	135
		# of Driveways Impacted	0	0	0	0	0	0	1	1
18	C St SW & Westbound SR-18 Ramps	Queue Length* (ft)	92	94	31	32	110	117	0	0
		# of Driveways Impacted	0	0	0	0	0	0	0	0
20	3rd St SE & A St SE	Queue Length* (ft)	728	753	98	101	138	138	78	78
		# of Driveways Impacted	2	2	1	1	2	2	0	0

* Queue lengths documented in this table are the longest queue length by movement on each approach.

Table 4 – 2037 PM Driveway Queuing Impact

ID	Intersection		Northbound		Southbound		Eastbound		Westbound	
			No-Build	Project	No-Build	Project	No-Build	Project	No-Build	Project
2	Auburn Ave & 4th St NE	Queue Length* (ft)	48	52	226	226	-	-	22	22
		# of Driveways Impacted	0	0	1	1	-	-	0	0
3	Auburn Way N & 4th St NE	Queue Length* (ft)	251	270	405	405	272	304	58	58
		# of Driveways Impacted	2	2	3	3	1	1	0	0
4	C St NW & 3rd St NW	Queue Length* (ft)	119	122	300	300	38	38	374	374
		# of Driveways Impacted	0	0	3	3	0	0	1	1
5	A St NW & 3rd St NW	Queue Length* (ft)	138	160	652	652	299	298	189	189
		# of Driveways Impacted	0	0	2	2	2	2	1	1
6	Auburn Ave & 3rd St NE	Queue Length* (ft)	36	38	116	117	108	106	-	-
		# of Driveways Impacted	0	0	1	1	1	1	-	-
10	Auburn Ave & 1st St NW	Queue Length* (ft)	94	94	416	416	118	282	59	78
		# of Driveways Impacted	1	1	1	1	1	1	0	0
11	C St NW & W Main St	Queue Length* (ft)	186	182	432	432	446	446	73	238
		# of Driveways Impacted	2	2	4	4	1	1	1	1
12	W Main St & A St NW	Queue Length* (ft)	61	61	163	163	221	221	70	70
		# of Driveways Impacted	0	0	1	1	0	0	0	0
13	W Main St & Division St	Queue Length* (ft)	49	49	107	107	127	138	39	39
		# of Driveways Impacted	0	0	1	1	0	0	0	0
14	E Main St & Auburn Ave	Queue Length* (ft)	143	143	544	871	309	345	145	145
		# of Driveways Impacted	0	0	1	1	0	0	0	0
15	E Main St & Auburn Way S	Queue Length* (ft)	252	252	713	713	286	326	137	137
		# of Driveways Impacted	2	2	2	2	0	0	0	0
17	A St SE & 2nd St SE	Queue Length* (ft)	217	217	216	227	179	190	167	165
		# of Driveways Impacted	2	2	0	0	1	1	1	1
18	C St SW & Westbound SR-18 Ramps	Queue Length* (ft)	129	125	453	485	65	64	60	46
		# of Driveways Impacted	0	0	0	0	0	0	0	0
19	3rd St SW & Division St	Queue Length* (ft)	47	47	40	45	245	241	133	130
		# of Driveways Impacted	0	0	0	0	0	0	1	1

20	3rd St SE & A St SE	Queue Length* (ft)	330	330	654	746	622	609	226	230
		# of Driveways Impacted	1	1	3	3	2	2	1	1
21	4th St SE & Auburn Way S	Queue Length* (ft)	286	286	275	286	198	198	127	127
		# of Driveways Impacted	1	1	1	1	1	1	1	1
22	Auburn Way S & Westbound SR-18 Ramps	Queue Length* (ft)	382	382	545	600	-	-	844	844
		# of Driveways Impacted	2	2	1	1	-	-	0	0
23	C St SW & Eastbound SR-18 Ramps	Queue Length* (ft)	320	320	561	598	352	352	-	-
		# of Driveways Impacted	0	0	0	0	0	0	-	-
24	A St SE & 6th St SE	Queue Length* (ft)	526	527	1,204	1,314	-	-	740	740
		# of Driveways Impacted	1	1	3	3	-	-	3	3
25	Auburn Way S & Eastbound SR-18 Ramps/6th St SE	Queue Length* (ft)	379	379	790	822	483	483	824	824
		# of Driveways Impacted	1	1	1	1	3	3	0	0

* Queue lengths documented in this table are the longest queue length by movement on each approach.

Appendix D
Year-of-Opening Analysis

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Year-of-Opening Traffic Analysis

A limited traffic analysis was performed for year-of-opening (2024) to check if any mitigation might be needed due to immediate project impact.

The following intersections were studied for 2024 PM peak conditions:

- #1: B St NW & 10th St NE (side-street stop controlled)
- #4: C St NW & 3rd St NW (signalized)
- #20: 3rd St SE & A St SE (signalized)
- #25: Auburn Way S & Eastbound SR-18 Ramps/6th St SE (WSDOT, signalized)

The following intersection was studied for 2014 AM peak conditions:

- #20: 3rd St SE & A St SE (signalized)

In general, the approach followed for conducting the 2024 traffic analysis is the same as what was described for the 2037 analysis. However, for developing the background (without project) traffic volumes in 2024, an annual growth rate of 2.65 percent was applied to the 2018 volume counts instead of the 1.2 percent growth rate used to derive the 2037 volumes. This background traffic growth rate (2.65 percent) was derived from the City transportation model by comparing the 2012 and 2022 model volumes. An assumption that the new garage would fill up immediately after opening was made.

The Synchro analysis results for year-of-opening are shown in the attached LOS summary tables, for the PM peak period (**Table 1**) and AM peak period (**Table 2**).

As shown in Table 1, two intersections are projected to exceed the LOS standard under the No-Build and Project scenarios under 2024 PM peak conditions. At intersection #1, the average delay on the worst movement increases by 3.6 seconds with the project. At intersection #4, the average delay is projected to decrease by 0.3 second with the project. Given that the expected increase in average delay would be less than 4 seconds, these intersections do not meet the LOS impact threshold and therefore no mitigation is required for year-of-opening LOS impact.

Potential queue spillback conditions (intersections, driveways) were checked for the same intersections and no project impact on queuing was identified.

Appendix E

Regional VMT Evaluation

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Auburn Station Access Improvements VMT Evaluation

	2037 Daily Build Trip Generation		2037 Daily No Build Trip Generation		Total Daily Change in Trips (Build - No Build)
	Boardings	Alightings	Boardings	Alightings	
Auburn Station	2,633	2,652	2,312	2,331	642 (1)
Access Mode	**Arriving at Station**	**Leaving Station**	**Arriving at Station**	**Leaving Station**	
Walked/Wheelchair	263	265	301	303	-75
Drove Alone (Veh)	1,395	1,406	855	862	1,083
Dropoff/Pickup (Veh)	290	292	370	373	-162
Carpool or Vanpool (Veh)	72	72	95	95	-46 (2)
Bicycles	132	133	139	140	-14
Transit	395	398	439	443	-89

Source: Trip Generation spreadsheet.

Notes:

(1) 321 people (642 round trips) that would ride Sounder under Build would reach their destination in a different way (driving or shifting to different transit route/Sounder station) under No Build.

(2) This equates to -46 x 2.2 = -101 person trips

Change in Trips Accessing Auburn Station

Access Mode	Total Daily Change in Trips by Mode (Build - No Build)	VMT per Trip (1)
Walked/Wheelchair	-75	0
Drove Alone (Veh)	1,083	6.4
Dropoff/Pickup (Veh)	-162	6.4
Carpool or Vanpool (Veh)	-46	6.4
Bicycles	-14	0
Transit	-89	0
Auburn Station Net Change in VMT (Build-No Build)		**5,605**

Note:

(1) Based on average trip distance from license plate survey results. Note that the dropoff/pickup distance assumption is likely low because some trips may return to their origin rather than being a pass-by trip. However, because there are more pickup/dropoff trips under No Build than Build, this results in a conservatively high result for the VMT increase associated with the Build scenario.

Change in Trips From Vehicle (No Build) to Sounder (Build)

Estimated VMT for the 321 people who would not use Auburn Station under No Build

Assumptions (1,2)	
Average trip distance	26.6
Percent of riders that would drive to their destination	54%
Percent of riders that would shift to a different transit route	46%
Calculations	
Net increase in No Build vehicle trips between home locations and ultimate destination	346
Non-Auburn Station Net Change in VMT (Build-No Build)	**(9,204)**
Total Net Change in VMT (Build-No Build)	**(3,599)**

Notes:

(1) Based on KCM Park-and-Ride Paid Permit Parking Analysis, February 2018

(2) This analysis assumes the change to VMT associated with traveling to a different transit route would be negligible.

Attachment C

Visual Impact Assessment

Auburn Station Parking and Access Improvements

Visual Impact Assessment

401 South Jackson Street
Seattle, WA 98104-2826

January 2020

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1.0 Introduction

This memorandum provides a visual assessment of the Auburn Station Parking and Access Improvements Project (Project).

2.0 Project Description

The Project includes a new parking garage and pedestrian, bicycle, and transit amenities serving patrons of the Sounder South Rail system at the Auburn Station in Auburn, Washington. The parking garage (Project site) is owned by the City of Auburn (City) and is currently in use as a surface parking lot for the One East Main Street Building. The project site is bounded by 1st Street Northwest (NW) on the south, an alleyway on the north, BNSF Railway on the west, and A Street NW on the east as shown in **Figure 1**. The current design includes five levels with a partial half level at a height of 58 feet. The proposed garage would provide approximately 675 parking stalls for transit patrons and replacement parking for the existing surface parking lot.

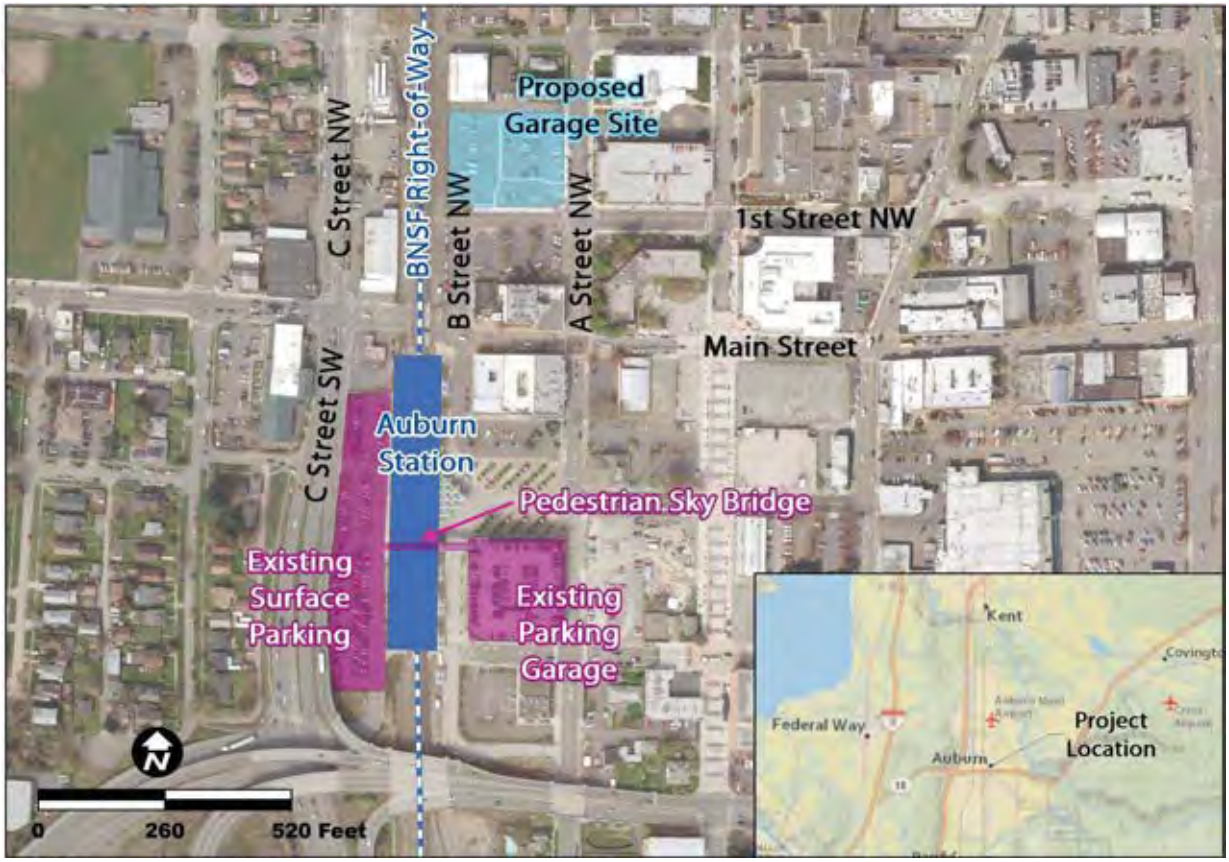

Figure 1 Proposed Garage Site Vicinity Map

The following pedestrian, bicycle, and transit amenities are proposed adjacent to and near the project site to enhance overall access to the Auburn Station. Details of these amenities would be finalized as part of final design and in collaboration with the City.

- Adjacent to the project site amenities include painted crosswalks, signals, lighting, and signage.

- At the intersection of W Main Street and B Street NW the following amenities would improve pedestrian safety and traffic calming:
  - Rechannelizing the W Main Street approach to B Street NW and installing a curb extension and concrete median curb.
  - Implementing a bicycle left-turn pocket to accommodate bicycle access from westbound W Main St into the station.
  - Installing a rapid-flashing beacon at the W Main Street crossing just east of B Street NW.
- At the Auburn Station, planned bicycle improvements include modifications to prepare for future increases in bicycle storage options; smart lockers provide opportunities for commuters to pay and reserve lockers.
- At five existing stops along the routes that connect with the Auburn Station, new bus shelters would be installed.

Temporary construction easements near the project site would be required prior to constructing the proposed improvements. The easements include a staging area for temporary storage of construction materials, areas where utility relocation would occur and where construction equipment and materials would be transported to and from the project site, and areas where overhead airspace would be required for the movement of cranes.

The parking garage would be an approximately five-level concrete structure with an elevator control room and stair tower that includes architectural treatment and features, such as articulation of the stair tower, screening, and ground-level canopies. The screening would cover portions of the garage structure and create visual interest. Canopies at street level would provide protection from the rain and entries and exits would be enhanced with transparent materials to help with pedestrian orientation and safety. The exterior and interior light fixtures would be shielded from producing off-site glare consistent with the City of Auburn's design standards. Landscaping, including screening of the parking garage, would be incorporated into the site design and would integrate with its surroundings. Sound Transit is committed to the communities within its service area and sets aside construction dollars for public art. The Sound Transit Public Art Program (STart) will manage the integration and maintenance of art into the new facility.

In support of sustainability, Sound Transit is committed to environmentally sustainable features in the design and building of its parking garages–such as charging stations for electric vehicles, photo-voltaic arrays, and material choices–which may be included in the design or added in the future.

3.0 Regulatory Context and Guidance

This visual assessment provides supporting information for the Federal Transit Administration's National Environmental Policy Act (NEPA) Documented Categorical Exclusion (DCE) Worksheet and Sound Transit's threshold determination under the Washington State Environmental Policy Act (SEPA). This visual assessment is based on the Federal Highway Administration (FHWA)'s

Guidelines for the Visual Impact Assessment of Highway Projects (January, 2015) methodology, hereafter referred to as the "FHWA guidelines," for assessing potential visual impacts.

3.1 City of Auburn Downtown Urban Center Policies

The City of Auburn's Municipal Code Supplemental Development Standards (Section 18.31 through 18.31.200), include architectural and site design regulations that provide an administrative review process for evaluating the design and arrangement of development (i.e., site design and interrelationship with surroundings). These regulations are intended to: (1) foster good decision-making for development through architectural and site design within the context of the community's built and natural environmental character, scale and diversity; (2) promote the use of appropriate scale of buildings and the configuration of open space and parking areas for development to safely and comfortably accommodate pedestrian activities; (3) coordinate the interrelationship of buildings and public and private open space; (4) discourage monotony in building design and arrangement, while promoting harmony among distinct building identities; and, (5) mitigate, through design and site plan measures, the visual impact of large building facades, particularly those which have high public visibility (i.e. encourage the creative use of architectural and landscape features in order to reduce the actual and perceived scale and bulk of structures).

In addition, the Project is located in the City of Auburn Downtown Urban Center District, which strongly encourages parking structures, and must adhere to the Downtown Urban Center Design Standards that include requirements for parking structures to provide screening or architectural treatment of the upper levels, screening of light fixtures, and incorporation of pedestrian-oriented features, such as canopies at the ground-level.

3.2 Analysis Process

This visual and aesthetics analysis is based on, but does not strictly follow, the FHWA guidelines. This visual analysis first assesses the visual character and visual quality of the landscape, and then takes into consideration how typical viewers may respond to what they see around them. This assessment uses a professional observational approach that involves using projections about the visual preferences of viewers from certain locations, as characterized in the FHWA guidelines. Viewer preferences are discussed when the affected population is described within the landscape units identified and discussed in the section below.

Visual quality addresses aesthetics, which is the study of perceptual experiences that are pleasing to people. Visual quality is, therefore, the experience of having pleasing visual perceptions. Two visual simulations are used at key view locations. Although background and former experiences make each individual's experience of visual quality unique, human perception of what constitutes a pleasing landscape is remarkably consistent, not only within a society but across cultures.

A viewer observing an existing scene has a range of available responses that are inherent to all human beings. The FHWA guidelines recognize three types of visual perception, corresponding to the three types of visual resources:

- Natural environment (a landscape devoid of built elements): viewers inherently evaluate the natural harmony of the existing scene, determining if the composition is harmonious or inharmonious.
- Cultural environment (a landscape composed of built elements or that is otherwise highly manipulated): viewers evaluate the scene's cultural order, determining if the composition is orderly or disorderly.
- Project environment (a landscape within the project area, whether it is natural or cultural environment): viewers evaluate the coherence of the project components, determining if the project's composition is coherent or incoherent.

This visual assessment was conducted and the Project impacts were identified by considering these elements. This visual assessment describes the existing conditions and the impacts of the Project in the foreground view within approximately 0.25 miles. Views beyond the 0.25 mile foreground, as well as many views within the foreground, are blocked by the existing built environment in the Auburn downtown area.

4.0 Affected Environment

The project site is an existing surface parking lot located in Auburn's Downtown Urban Center, shown in Figure 1. Downtown Auburn is characterized by a main street bisected by major street corridors and the BNSF railroad line. In addition to commercial and residential uses, it includes a regional medical center, transit center, civic buildings, and Auburn High School. There are a variety of building types and ages, as well as varied building heights and densities, throughout the downtown.

The project site is located two blocks north of the existing Sounder Lakewood-Seattle commuter rail Auburn Station at the corner of 1st Street NW and A Street NW. The site is bordered to the west by the BNSF railroad line. The project site is bordered to the north by an existing 20-foot wide alley. Typical of the downtown area, development in the vicinity of the project site includes buildings that range in height from one- to five-stories, with variable ages and construction types (i.e., masonry, fabricated metal structures, and wood-framed structures). In addition to the railroad corridor to the west, the surrounding uses include commercial, public institutional, residential, light industrial, and surface and structured parking. Vegetation in the vicinity is generally limited to small pockets of ornamental landscaping of varying density and quality along site perimeters. Although, several sites, such as Auburn City Hall, have more extensive landscaping, including an array of deciduous trees.

4.1 Area of Visual Effect

The area of project visibility is referred to as the Area of Visual Effect (AVE). It is determined by the physical constraints of the environment and the physiological limits of human sight. For this project, the AVE is the foreground view, generally bound by development on the northside of 2nd

Street NW to the north, D Street NW on the west, the development on the southside of Main Street to the south, and Division Street on the east, as shown in **Figure 2**. The AVE focuses on foreground views within 0.25 miles because views of the site beyond the 0.25 mile foreground are largely obscured by existing development. Existing development also obscures views from several locations within the AVE.

A landscape unit can be conceived of as a spatially defined landscape with a particular visual identity—a distinctive "outdoor room." The two landscape units defined for this Project are:

- Downtown West of the BNSF Tracks
- Downtown East of the BNSF Tracks

Figure 2 Area of Visual Effect and Key View Locations for the Auburn Station Access Project

The landscape units are shown in **Figure 3** and **Figure 4** below.

The following two key view locations of the Project (see arrows on Figure 2) were identified as representative of the two landscape units to illustrate and compare existing and proposed visual conditions:

- Key View Location 1 - C Street NW looking east
- Key View Location 2 - Intersection of A Street NW and 2nd Street NW looking southwest

Figure 3 Downtown West of BNSF Tracks

These two view locations include multi- and single-family residential uses, which were determined to be the most sensitive viewers. Viewer sensitivity addresses the degree to which viewers are sensitive to changes in the visual character of visual resources. It is the consequence of viewer exposure and viewer awareness. Viewer exposure is related to proximity (distance between viewer and visual resource being viewed) and extent (number of viewers viewing the visual resource). Viewer awareness pertains to attention (level of observation based on routine and familiarity) and protection (legal and social constraints on the use of visual resources). The greater the attention, the more viewers would be concerned about visual impacts.

4.2 Visual Character, Quality and Viewer Population

An area's buildings, infrastructure, structures, art, and landscaping create the character of the cultural visual environment. The project site is located in downtown Auburn, which has a varied visual character and quality blended into a defined downtown area, including a mix of residential, commercial, industrial, and public uses. Likewise, as described in greater detail below, the visual character and quality varies between the two landscape units. The Downtown West of the BNSF Tracks landscape unit primarily contains one-story wood frame residential buildings and warehouse buildings, and the Downtown East of the BNSF Tracks landscape unit has masonry and frame buildings of varied heights and uses comprising the downtown area.

The viewing population in the AVE includes residents, employees and customers/visitors at area businesses and institutions, commuters, and people passing through the area. Viewers preferences identified below are based on the viewer categories and visual preferences identified in the FHWA guidelines.

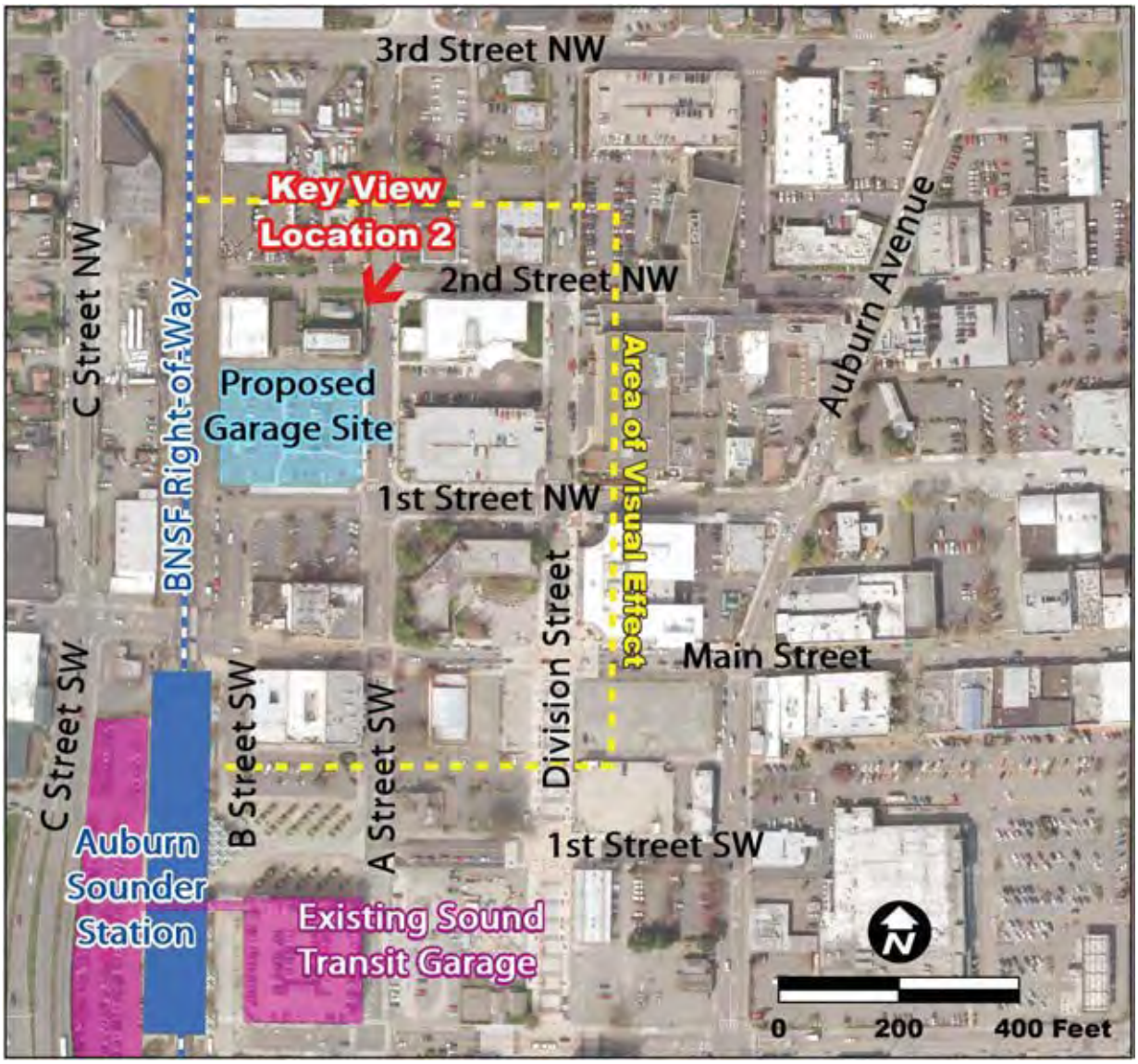

Figure 4 Downtown East of the BNSF Tracks

Downtown West of the BNSF Tracks

The proposed parking garage location is bounded by the BNSF railroad line on the west (Figure 3). The area west of the railroad line is lower density than the main downtown urban core and consists primarily of single-story buildings on individual lots with varied uses. West of the tracks and east of C Street NW, are commercial/light industrial uses comprised of an auto collision repair service center and a propane gas distributor. As shown in Figure 3, surface parking for these uses is located immediately to the west of the garage site. Opposite these uses on the west side of C Street NW are single-family residential units. Commercial uses, including a

sign business and surface parking, are located near the intersection with West Main Street. South of West Main Street on C Street Southwest (SW) are a hardware store, a gas station and convenience store, and a surface parking lot.

The single-family residences along C Street NW are generally one-story wood framed structures with fenced front yards set back approximately 15 feet from the sidewalk. The residences were constructed in the mid- to middle 20th century. While views to the east towards the project site are largely obscured by intervening structures, there are views of the project site available from the residential units directly to the west (opposite the surface parking lot on the eastern side of C Street NW). The commercial and light industrial buildings in this landscape unit are primarily fabricated metal structures with minimal windows. In addition to the structures, prominent visual features at these businesses consist of surface parking, chain link fencing, and equipment, including large and small propane tanks. Views of the project site are available from surface parking lots and the rear of the properties along C Street NW and C Street SW.

Landscaping in this area consists of several small pockets along the sidewalks and several trees and turf on residential properties. While the structures in this area are all one-story buildings that provide a degree of visual order, the mix of uses and building construction types results in a contrasting visual environment that contributes to a low visual quality and continuity.

The affected populations in this downtown residential and commercial area west of the BNSF tracks include residents, merchants, shoppers, and commercial/industrial workers. The FHWA guidelines describe the following population preferences. Residents tend towards a desire to maintain the existing landscape as it is. While residents are often interested in visual order and a natural harmony, the existing mix of uses and visual elements in the area detract from visual harmony.

Merchants tend to be more permanent and prefer heightened visibility, free of competing visual intrusions. Shoppers prefer visual clarity to guide them to their destination; once at their destination, they prefer to concentrate on the shopping experience with few distractions. Commercial/industrial workers who manufacture goods and services or transport goods and services may benefit from good order and project coherence, but do not depend on those visual attributes.

All of these populations have preferences for good visual order and project coherence.

Downtown East of the BNSF Tracks

The Downtown East of the BNSF Tracks landscape unit (see Figure 4), which includes the project site, is more densely developed and urbanized than the area west of the BNSF tracks. It is comprised of a greater variety of land uses and building types and heights, suggestive of a downtown area that has grown and developed over time. Near the project site to the east are three-story office buildings and a four-level parking garage for the City offices. To the east of the City's parking garage, at the edge of the AVE on the eastern side of Division Avenue, are three-story office buildings, the Auburn Regional Medical Plaza, and a five-story multi-family residential building with retail on the ground floor. Auburn City Hall is located to the southeast at 1st Street NW and A Street NW; the back entrance is diagonal from the project site. To the north of the project site are two- and three-story multi-family residential buildings including an

apartment building for seniors, a single-family residential building that has been converted to commercial uses, and a warehouse building. North of 2nd Street NW the uses include single-family residences, a multi-family residential building and commercial uses, including a warehouse and oil distribution company. To the west are the BNSF tracks. To the south are a surface parking lot and commercial and residential buildings that vary from one to five-stories. The buildings located adjacent to the project site have clear views of the site. Views of the site from buildings one block or more away are generally obscured by intervening development, although some views are available from upper floors of the taller buildings.

The buildings in this landscape unit were constructed during different time periods using different construction methods and materials (including wood, masonry, and metal). The variety in building types, uses, and heights creates an eclectic visual character. Landscaping is typically limited to pockets along the site perimeter, with the exception of a more heavily landscaped City Hall.

The FHWA guidelines describe the following population preferences. The affected population in this area consists of residents who are often interested in visual order with a high degree of unity in terms of elements that join together into a harmonious whole. The affected populations in this downtown retail and commercial area east of the BNSF tracks includes merchants, shoppers, commercial/industrial workers, and institutional and civic workers and users. Institutional workers and users are primarily interested in cultural order but may have equal interest in natural harmony. Civic workers and users are interested in cultural order and project coherence.

Both of the landscape units also have a substantial component of commuters who access the rail station by driving, by bus, or by walking or bicycling. Commuters take a regular pattern of trips on a routine or daily basis. The trips tend to become routine and not a singular experience. Commuters, like all travelers, are particularly interested in visual coherence. They are also interested in cultural order and natural harmony to the extent that it contributes to wayfinding. Commuter rail users would experience direct views of the station and the proposed parking garage. Their perception of the site, however, is likely to be largely influenced by the station's usefulness in meeting their needs; transportation and parking would be regarded positively as facilities that support their commuting activities.

Along the western edge of the project site, the views from Sound Transit trains are from windows of the train during stops and form a relatively narrow field of view, including the platforms and elements immediately behind the platforms. The view is limited by buildings that block the view. Amtrak trains do not stop at Auburn and views are limited to a duration of several seconds and include the same elements viewable from Sounder trains.

Persons traveling to and from local neighborhoods to downtown for non-commuting trips, such as trips to the store, medical center, civic center, or for other activities, also pass near the site on surrounding streets. These travelers form an impression of the area from frequent viewing that likely emphasizes cultural order and natural harmony to the extent that it contributes to wayfinding.

5.0 Potential Impacts

Visual impacts are changes to the environment (measured by the change in the compatibility of the impact to the surrounding area) or to viewers (measured by sensitivity to the impacts). Together, the compatibility of the impact and the sensitivity of the viewers yield the degree of the impact to visual quality. These impacts are defined below:

- Compatibility of the change is defined as the ability of environment to absorb the project with the surrounding environment by having compatible visual character. The project can be considered compatible or incompatible.
- Sensitivity to the change is defined by the ability of viewers to see and be affected (either negatively or positively) by the changed setting. The sensitivity to impact is based on viewer sensitivity to changes in the visual character of visual resources. Viewers are either sensitive or insensitive to impacts. By itself, the sensitivity of the impact should not be confused or conflated with the value of the impact.
- Degree of the impact is defined as either a beneficial, adverse, or neutral change to visual quality. A proposed project may benefit visual quality by either enhancing visual resources or by creating better views of those resources and improving the experience of visual quality by viewers. Similarly, it may adversely affect visual quality by degrading visual resources or obstructing or altering desired views.

Potential impacts of the Project result from the most prominent element which is the parking garage. Impacts would vary for the neighboring areas, as well as for persons traveling on the commuter trains or on local roads, as discussed below.

5.1 Operational Impacts

The proposed parking garage would be visible as one of a variety of buildings on the east side of the railroad tracks that make up the downtown urban core. It would be similar in height as the existing station parking garage to the south and other taller buildings located in the area.

Downtown West of the BNSF Tracks

Figure 5 shows key view location 1 from C Street NW looking east at the proposed parking garage location from single-family residential buildings in the vicinity. It illustrates the existing visual character near key view location 1, which includes a variety of contrasting elements to the single-family residential units. The view is looking across a surface parking lot surrounded by fencing and the BNSF railroad line. Power lines and C Street NW can also be seen in the foreground. Fabricated metal buildings are to the right and large propane tanks are located to the left of the of view. This is a representative view from the residential neighborhood and illustrates the relative scale of the downtown urban core in the distance as observed from this landscape unit. Centered in the distance is the existing four-level parking garage for City Hall. To the left is the Auburn Regional Medical Plaza, which can be seen between the existing parking garage and medical office building and intermittently rising above the parking garage. To the left of the Auburn Regional Medical Plaza is a three-story multi-family residential building. On the far right of the figure, is the edge of a five-story multi-family residential building.

Source: CDM Smith, 2018

Figure 5 Key View Location 1 from C Street NW Looking East

Figure 6 shows a rendering of the proposed parking garage from key view location 1. Given that it is closer in proximity to the viewer from this location than other buildings in the downtown area, it appears larger in scale and would be the dominant feature visible along this block. While it would result in a change of view from this location, the Project is visually consistent with the downtown urban setting that forms the view to the east from this location. Screening on the building would add visual interest and screen views of interior parked vehicles. Perimeter landscaping (not shown in the simulation) would screen the structure but it would take 15 to 20 years for the plants to grow large enough to provide a screen for a portion of the proposed garage. The visual simulation provided in Figure 6 shows conceptual screening of the proposed parking garage. An addition of a photovoltaic array on the top level of the parking structure may be included in the design or be added in the future (the array is not depicted in Figure 6). The top of the array may be visible from this location; however, from this distance it would appear to be integrated into the overall structure and would not create a new intrusive visual element. The non-motorized improvements would generally be low profile, including sidewalk and roadway markings and bicycle racks and lockers. These features would not be visible from key view location 1.

Source: CDM Smith Rendering

Figure 6 Key View Location 1 Rendering from C Street NW Looking East

The proposed garage would likely be viewed as part of this expected cultural environment of mixed uses, rather than part of the residential neighborhood. Only a few of the single-family residences along the arterial would have this direct view of the Project. Most other residents and persons traveling to or through the residential neighborhood further west on D Street NW would not have direct views of the proposed garage, except through momentary gaps between buildings and trees. For residents further from the site, the proposed garage is less visible and would also likely be viewed as part of the expected cultural environment of the rail corridor and the downtown urban core to the east, rather than part of the residential neighborhood. Similarly, the Project would likely be viewed as part of the expected cultural environment of the downtown urban core by merchants, shoppers, and commercial/industrial workers west of the site.

Overall, the Project's building heights, materials and features such as screening would be in accordance with the Downtown Urban Center Design Standards and would be generally consistent with the visual character and continuity of the downtown area. The Project would blend with the downtown urban core and be part of the expected visual environment as seen from this location. Therefore, the Project has a compatible visual character and would have a neutral change in visual quality. Only a few of the single-family residences and businesses along the arterial would have direct exposure to views of the Project but since it is compatible with the existing visual character their awareness would likely be low over time. The overall viewing population is expected to have a low sensitivity to the neutral visual quality impact.

Downtown East of the BNSF Tracks

Figure 7 shows key view location 2 from the intersection of A Street NW and 2nd Street NW looking southwest at the proposed parking garage location. This is a typical view from the downtown area and illustrates the relative scale of the existing building as observed from this location. The view shows two older wood structures, a three-story 17-unit multi-family residential building and a former two-story single-family residential unit that is now a coffee house, in the center left of the figure. At the center of the photo, left of the multi-story residential building, perimeter landscaping and vehicles using the existing surface parking lot at the project site are visible. Beyond the project site, a two-story office building connected to a five-story multi-family residential building can be seen in the distance. To the left side of the figure is a single-story section of the three-story medical office building that represents the modern construction using concrete material.

Source: CDM Smith, 2018

Figure 7 Key View Location 2 from the Intersection of A Street NW and 2nd Street NW Looking Southwest

Figure 8 shows a rendering of the parking garage from key view location 2. The proposed garage is larger in scale than the adjacent three-story multi-family residential building and medical building. Given its proximity and height, the proposed garage would be the dominant feature visible along this block. The proposed garage provides a uniform upper façade, which is consistent with most of the existing structures of three-stories or more in the area. An addition of a photovoltaic array on the top level of the parking structure may be included in the design or be added in the future (not depicted in Figure 8). Given the height of the building, views of the array would generally be limited to the top floors or rooftop of buildings with similar or greater heights.

While the top of the array may be visible from a distance to viewers on the ground, from a distance it would appear to be integrated into the overall structure and would not create a new intrusive visual element.

Source: CDM Smith Rendering

Figure 8 Key View Location 2 Rendering from the Intersection of A Street NW and 2nd Street NW Looking Southwest

While the proposed parking garage would be taller than the neighboring buildings, it would comply with Downtown Urban Center maximum height requirements. Further, it would be similar in size and scale to other nearby structures that are not shown in key view location 2, such as the City's parking garage and the Auburn Regional Medical Plaza located east of the project site. Additionally, the design complies with the design standards that encourage building of structures on designated pedestrian streets, such as at the intersection of A Street NW and 1st Street NW, to the back of the existing sidewalk line with minimal setbacks. Placing the building in this location would be consistent with pedestrian orientation design standards.

Non-motorized improvements (not shown in Figure 8) would generally be low profile, including sidewalk and roadway markings and bicycle racks and lockers. These features would not be visible from key view location 2 but would be visible from locations to the south. The features would be consistent with the existing urban setting which has similar existing features along rights-of-way and parking lots.

While the Project would be consistent with the Downtown Urban Center Design Standards and be visually consistent with the downtown urban core setting, the proposed parking garage would represent a change in views to nearby residents of the three-story multi-family residential buildings immediately to the north. There are no windows facing the Project in the two-story multi-family residential building and therefore, no visual impact would occur. Approximately eight southward facing apartments in the three-story building would overlook the alley and have views of the side of the parking garage. Operational visual impacts on the residents facing the alley would include lighting and a reduction in daylight and solar access. The Project is located in the City of Auburn Downtown Urban Center District, which strongly encourages parking structures, and the Project would be compliant with the City of Auburns Downtown Urban Design Standards, which governs development of the site. The City's design standards include the implementation of architectural features and screening, which would reduce lighting impacts and add visual interest and screening of the proposed parking garage interior from the adjacent building. In addition, the upper levels of parking and light fixtures at the exterior and interior of the proposed parking garage would be shielded from producing off-site glare consistent with the Downtown Urban Center Design Standards. Landscaping with trees along A Street NW and 1st Street NW would provide some screening of the lower elevation of the proposed parking garage, but it would take 15 to 20 years for the plants to grow large enough to provide a screening of the middle elevations. The visual simulation provided in Figure 8 shows conceptual tree plantings and screening on the proposed parking garage.

From the single-family and multi-family residential units north of 2nd Street NW, the parking garage would not be visible from most units. Limited and obstructed views would be available from locations near the intersection of 2nd Street NW and A St NW, but from this location, the proposed parking garage would visually blend into the existing development to the south of 2nd Street NW. Thus, the change in visual quality would be neutral.

There are two multi-family residential buildings located approximately 165 feet south of the Project, separated by 1st Street NW and a parking lot. Mature landscaping in the parking lot between the Project and the multi-family residential buildings obscures views of the proposed parking garage; although it would be partially visible from some of the north facing units (particularly in the winter months when the trees do not have foliage). The proposed parking garage would be consistent with the heights of buildings located immediately to the east and south of the multi-family residential buildings, as well as other buildings in the downtown area. Given the distance from the parking garage, intervening mature landscaping, and the downtown urban setting, as well as proposed screening of the parking garage, the change in visual quality would be neutral.

The new parking garage design would reflect the overall character of the Auburn downtown and would be compatible with the surrounding mixed uses. The exterior facade and landscape design would screen views of the structure and add visual interest. While the Project would result in a new visual element that has greater size and scale than existing buildings to the south, it would be consistent with the downtown urban setting. Therefore, the Project has a compatible visual character and would have a neutral change in visual quality. However, given the sensitivity of adjacent residential viewers, the visual quality impacts on this small viewing population would be neutral to moderate.

For merchants, shoppers, visitors, and institutional and civic workers and users, the Project would be consistent in visual character with other parking garages and structures within the downtown urban core. It would be part of the expected visual context associated with the rail corridor and downtown setting, regardless of its bulk and scale. Overall, the Project's building materials and features would be in accordance with Auburn design codes and would add unity to the downtown area. Therefore, the Project has a compatible visual character and would have a neutral change in visual quality. This viewing population of merchants, shoppers, visitors, and institutional and civic workers and users would be expected to have a low sensitivity to the change in visual setting and the visual quality impacts on this viewing population would be low or neutral.

Persons who pass by or through the site on local streets, are likely to view the parking garage as a normal part of the downtown urban setting. Commuters using the station are likely to regard the garage positively as contributing to their commute trip. Train travelers are likely to see it as a normal element in the rail corridor, similar to existing parking garages near the Kent and Auburn stations. Amtrak passengers, who do not stop and have a view for a few seconds, likely would regard the parking garage as similar to urban features found at multiple locations along the route. The Project has a compatible visual character and would have a neutral change in visual quality. Travelers generally would have low sensitivity to the change in visual setting and the visual quality impact would be low.

Overall, the Project has a compatible visual character to the surrounding area and would have a neutral change in visual quality. Most of the viewing population in the downtown area would have low sensitivity to the change in visual setting and the visual quality impact would be low. A few residents of the three-story multi-family residential building immediately to the north of the project site would have a higher exposure to views of the Project resulting in a low to moderate impact.

5.2 Construction Impacts

Construction impacts, although temporary, could last for up to two years. Site clearing would involve removal of existing asphalt and landscaping. Other sources of visual effects could include construction staging areas, detours or temporary roadways, lighting, signage, heavy equipment, trailers, fences, scaffolding, cranes, and material storage. This construction work would result in visual clutter and little visual unity for viewer groups given the variety of construction activities, equipment, and stored materials that would change throughout the temporary construction period. The construction and staging areas would lack visual cohesion and have low visual quality compared with the existing conditions or the expected visual character after construction. Sound Transit would place construction screens or barriers to limit the visibility of work areas, where practical. There may be nighttime construction activities, which would warrant directional lighting away from adjacent residents. Therefore, because of their short duration, construction-related visual impacts would be low.

6.0 Conclusion

Foreground views from residential and commercial areas, as well as views available to travelers, would be altered by the new parking garage. The Project's visual character, however, would be compatible with the visual character of the existing cultural environment of the rail corridor and

the downtown commercial core. Further, the proposed parking garage would add to the existing visual character and unity of the surrounding downtown area. For visitors and workers in the Downtown Urban Center, the parking garage would be visually consistent with the wide variety of building types and scales that are seen regularly in this location, and that include commercial, residential and industrial buildings. In this context, the additional variety in bulk, height, and character provided by the proposed parking garage would likely be perceived as features that are expected and in visual character with the surroundings. Screening, including landscaping, and architectural features would be incorporated into the site design and add visual interest. The Project would be consistent with the City's design standards and integrates well within the context of the community's built environmental character and scale. With the proposed landscaping and contextual facade design, the Project would have a compatible visual character and have an overall neutral visual quality impact to this area.

For residents of the single-family residential units and other viewers located west of the BNSF railroad line, the proposed parking garage is likely to be seen as part of the expected visual environment of the view of the downtown urban core to the east and are expected to have a low sensitivity to the neutral visual quality impact.

For residents located in the Downtown East of the BNSF Tracks area and in close proximity to the project site, the Project would represent a change in the immediate visual character and be larger in scale than several of the adjacent buildings. However, implementation of architectural features, and landscaping would provide screening and visual interest. The parking garage design would generally reflect the overall character of the Auburn downtown and be visually compatible with the surrounding mixed uses. However, given the sensitivity of adjacent residential viewers in the three-story multi-family residential building immediately to the north, the visual quality impacts would be low to moderate. There are two multi-family residential buildings located approximately 165 feet south of the project site, separated by 1st Street NW and a parking lot. Given the distance from the parking garage, intervening mature landscaping, and the downtown urban setting, as well as proposed screening of the parking garage, the change in visual quality would be neutral.

During construction, the presence of construction equipment, materials and activities would have a temporary disruption the typical visual environment. However, Sound Transit would place construction screens or barriers to limit the visibility of work areas, where practical. Sound Transit would shield light sources used in nighttime construction to reduce the lighting impacts.

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Attachment D

Air Quality Detailed Calculations

FTA Calculator Data Inputs

Auburn Station

Construction Information

Structured Parking Spots	675

Transit Operations Information

No data entered on this screen because no change in transit operations would occur.

Displaced Emissions

Mode	Sedan/Auto
Fuel Source	Gas/Ethanol

Change in Trips Accessing Auburn Station

Access Mode	VMT per Trip	Daily Trips		Daily VMT		Difference
		Build	No Build	Build	No Build	
Walked/Wheelchair	0	529	604	0	0	0
Drove Alone (Veh)	6.4	2,801	1,718	17,927	10,995	6,932
Dropoff/Pickup (Veh)	6.4	581	743	3,721	4,754	-1,034
Carpool or Vanpool (Veh)	6.4	144	190	922	1,216	-293
Bicycles	0	264	279	0	0	0
Transit	0	793	882	0	0	0
	Total	**5,112**	**4,415**	**22,570**	**16,965**	**5,605**

Change in Trips Not Accessing Auburn Station

Average Trip Distance	26.6	miles
No Build Vehicle Trips	346	
Non-Auburn Station Net Change in VMT	9,204	miles

Total Daily VMT			**Annual**	
Build	22,570	miles	8,237,989	
No Build	26,168	miles	9,551,462	
Difference	3,599	miles	1,313,473	Displaced VMT

Facility Operations Information

No data entered on this screen because no change in facility (e.g., station and maintenance/storage facility) operations would occur.

Data in cells with green fill color were the inputs for the FTA GHG Estimator Tool

Auburn Station Access Improvements Project - FTA GHG Emission Estimator Results Table

Results

GHG Emissions by Project Phase (MTCO2e)

	Build
Construction - Upstream	67.5
Construction - Downstream	0
Operations - Upstream	0
Operations - Downstream	0.0675
Maintenance	0
Displaced VMT	537
Total Annual GHG Emissions	**-470**

Supporting Documentation -->

Auburn Station Access Improvements VMT Evaluation*

	2037 Daily Build Trip Generation		2037 Daily No Build Trip Generation		Total Daily Change in Trips (Build - No Build)[1]
	Boardings	Alightings	Boardings	Alightings	
Auburn Station	2,633	2,652	2,312	2,331	642
Access Mode	**Arriving at Station**	**Leaving Station**	**Arriving at Station**	**Leaving Station**	
Walked/Wheelchair	263	265	301	303	-75
Drove Alone (Veh)	1,395	1,406	855	862	1,083
Dropoff/Pickup (Veh)	290	292	370	373	-162
Carpool or Vanpool (Veh)	72	72	95	95	-46
Bicycles	132	133	139	140	-14
Transit	395	398	439	443	-89

Source: Trip Generation spreadsheet.

[1] 321 people that would ride Sounder under Build would reach their destination in a different way (driving or shifting to different transit route/Sounder station) under No Build.

Change in Trips Accessing Auburn Station

Access Mode	Total Daily Change in Trips by Mode (Build - No Build)	VMT per Trip[1]
Walked/Wheelchair	-75	0
Drove Alone (Veh)	1,083	6.4
Dropoff/Pickup (Veh)[2]	-162	6.4
Carpool or Vanpool (Veh)	-46	6.4
Bicycles	-14	0
Transit	-89	0
Auburn Station Net Change in VMT (Build-No Build)		**5,605**

[1] Based on average trip distance from license plate survey results.

[2] Note that the dropoff/pickup distance assumption is likely low because some trips may return to their origin rather than being a pass-by trip. However, because there are more pickup/dropoff trips under No Build than Build, this results in a conservatively high result for the VMT increase associated with the Build scenario.

Change in Trips Not Accessing Auburn Station

Estimated VMT for the 321 people who would not use Auburn Station under No Build

Assumptions[1,2]	
Average trip distance	26.6
Percent of riders that would drive to their destination	54%
Percent of riders that would shift to a different transit route	46%
Calculations	
Net increase in No Build vehicle trips between home locations and ultimate destination	346
Non-Auburn Station Net Change in VMT (Build-No Build)	**(9,204)**
Total Net Change in VMT (Build-No Build)	**(3,599)**

[1] Based on KCM Park-and-Ride Paid Permit Parking Analysis, February 2018, page 7. See next tab.

[2] This analysis assumes the change to VMT associated with traveling to a different transit route would be negligible.

*Source: Fehr & Peers

Kent&Auburn Average Distances*

Kent Station Distribution	Share	Distance (miles)
King Street Station	91.4%	20
Puyallup Station	0.2%	17
South Tacoma Station	1.2%	21
Sumner Station	4.5%	15
Tacoma Dome Station	2.6%	19
Total	99.9%	
Weighted Average Distance to Destination:		19.7

Notes: Distance based on city/neighborhood center, not station location

Auburn Station Distribution	Share	Distance (miles)
King Street Station	90.6%	28
Kent Station	2.4%	7
Tukwila Station	6.8%	16
Total	99.8%	
Weighted Average Distance to Destination:		26.6

Notes: Distance based on city/neighborhood center, not station location

Average distance from vehicle a to Kent Station[1]: 4.3 miles

[1]Based on license plate survey data

Average distance from license plate survey data to Auburn Station[1]: 6.4 miles

[1]Based on license plate survey data

c. U-District

3. Both Metro and Sound Transit will prioritize HOV parking since it generates more riders per parking stall. HOV permits will constitute between 5-15 percent of the total lot capacity. This assumption is based on the experience of the current Metro and Sound Transit HOV permit programs. Lots that fill very quickly in the morning (e.g., Sounder) have higher HOV permit rates, while lots that take longer to fill (e.g., Eastgate) have lower HOV permit rates. The fill rate for each lot in the analysis was estimated based on current conditions and future transit service characteristics (e.g., light rail lots are likely to fill early in the morning).
4. The proportion of displaced park-and-ride users would behave as listed below (based on Metro and Sound Transit park-and-ride lot user surveys):
   a. Drive all the way to the final destination: 35%
   b. Park in another park-and-ride lot on a route that serves the ultimate destination: 30% (if there is capacity at the other lot)
   c. Park on the street somewhere along the transit route serving their final destination: 20%
   d. Use the park-and-ride lot but get there another way: 15% (e.g. get dropped off, carpool, connect via transfer, bike, walk, etc.)
5. Users that choose to park in another park-and-ride lot would behave as follows[4]:
   a. First, attempt to park at a park-and-ride within a close proximity (one mile or less) of the managed lot and take the same transit route
   b. Second, drive to an underutilized park-and-ride up to five miles away (downstream) of the managed lot and take any route that serves the same final destination
   c. Third, drive to an underutilized park-and-ride up to two miles away (upstream) and take any route that serves the same final destination[4]
6. Current park-and-ride lot users who "poach" spaces (park in the lot but do not ride transit or a vanpool/carpool) would be excluded from the permitted part of the lot. For Scenarios 1 and 2, poaching rates would remain unchanged (at 2-5 percent based on King County Metro observations)[5] for the unpermitted part of the lot.

FEHR & PEERS

Drive to destination	35%
Use non-Auburn Station transit/Sounder route	30%
Share of those who drive[1]	54%

Source: Based on KCM Park-and-Ride Paid Permit Parking Analysis, February 2018, page 7

[1] Used as an assumption in the "Change in Trips Not Accessing Auburn Station" table

*Source: Fehr & Peers