

TRANSPORTATION IMPACT STUDY

FOR

LEWIS RIVER TOWNHOMES SUBDIVISION

720 SANDALWOOD ROAD

CITY OF WOODLAND, WASHINGTON



11/4/2022

PREPARED BY

KELLY ENGINEERING

November 2022

TRANSPORTATION IMPACT STUDY

Lewis River Townhomes Subdivision

City of Woodland, Washington

November 4, 2022

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TRANSPORTATION IMPACT STUDY

LEWIS RIVER TOWNHOMES SUBDIVISION

November 4, 2022

INTRODUCTION

A transportation impact study (TIS) for the Lewis River Townhomes Subdivision was conducted to determine the potential traffic related impacts of the development to the surrounding roadway system. The development will consist of 39 single family attached townhomes. The site is located at 720 Sandalwood Road (Parcel 50492) in the City of Woodland, Washington. The zoning designation for the 5.56 acre site is MDR, Medium Density Residential. A projected date of occupancy for the development is the fall/winter of 2024.

The site is undeveloped with no existing buildings or structures. Land uses within the vicinity of the site consist of undeveloped land and commercial uses. The Woodland State Airport is to the southwest. The area along the banks of the river to the east of the site are vegetated and there are several oak trees. The vegetation and trees will be retained with the development. Frontage improvements will be along the western boundary of the site. A vicinity map, aerial photograph and proposed development plan are shown in Figures 1a, 1b and 1c.

Roadway Characteristics

The site will have access onto E CC Street. E CC Street is a multijurisdictional two lane paved roadway with no shoulders. Double yellow striping is along the centerline of the roadway indicating that passing is prohibited. The posted speed limit is 25 mph.

Sandalwood Road runs north south along the western boundary of the site. Sandalwood Road is a dead end paved roadway that varies in width between 12 and 24 feet. The roadway serves a sewer plant and the Woodland State Airport.

The Sandalwood Road/E CC Street intersection is controlled by a stop sign on the Sandalwood Road approach. On the opposite side of Sandalwood Road is a driveway serving an Arco gas station/convenience store. The intersections to the north and west of the site are controlled by fully actuated traffic signals. The lane configurations at the intersections are shown in Figure 2.

Traffic Volumes

The traffic counts in this report were conducted from 7:00 to 9:00 am and 4:00 to 6:00 pm during October and November 2022. The traffic counts were conducted to determine the peak hours. The peak hour at an intersection is the one hour time period when traffic on the adjacent streets are the highest and congestion is most likely to occur. The existing traffic volumes are shown in Figures 3a and 3b. The raw traffic count data is included in Appendix A.

Trip Generation/Distribution

The Lewis River Townhomes Subdivision will generate approximately 281 trips per day. A trip is a one directional vehicle movement. Nineteen trips will occur during the weekday AM peak hour and 22 trips will occur during the PM peak hour, ITE Trip Generation Manual, 11th edition. The trip generation rates are shown in Table 1.

Table 1
Site Traffic Generation
Lewis River Townhomes Subdivision

| Land Use | ITE code | Dwelling Units | Daily Trips | AM Peak Hour Trips | PM Peak Hour Trips |
|---------------------------------------|----------|----------------|-------------|--------------------|--------------------|
| <i>Single-Family Attached Housing</i> | 215 | 39 | 281 | 19 (in-6, out-13) | 22 (in-13, out-9) |

The directional distribution of traffic generated by the development was assigned to the study area intersections. The distribution was based on the existing traffic volumes. The site traffic distribution and assignment diagrams are shown in Figures 6a and 6b.

Year 2024 Traffic Volumes

The year 2024 traffic volumes included a 2.0 percent per year compounded growth factor over the existing traffic volumes and in-process traffic from the Woodland Creek and Oak Creek developments. In-process traffic is traffic from developments that have been approved but are not generating full build out traffic volumes. The in-process traffic volumes are shown in Figures 4a, 4b and Appendix B. The year 2024 traffic volumes without the project are shown in Figures 5a and 5b. The year 2024 traffic volumes with the project are shown in Figures 7a and 7b.

Peak Hour Traffic Operations

The scope of the transportation impact study was based on discussions with representatives from Gibbs and Olson Engineering Inc., Cowlitz County and the WSDOT. Based on the discussions an analysis was conducted at the following intersections during the weekday AM and PM peak hours:

- (1) I-5 southbound on-ramp & Lewis River Road
- (2) I-5 northbound off-ramp & Lewis River Road
- (3) Lewis River Road & E CC Street
- (4) Sandalwood Road & E CC Street
- (5) E CC Street & site access (future)

The study area intersections were analyzed to determine existing, year 2024 without project and year 2024 with project conditions. The assumption was made that the Lewis River Townhomes Subdivision will be built out and occupied within a two year time period.

The intersection operational analysis was conducted using the procedures in the 2010 Highway Capacity Manual. These procedures describe the operation of an intersection in terms of its level of service (LOS). The LOS criteria ranges from "A", which indicates little, if any, delay to "F", which indicates that vehicles experience very long delays. The LOS criteria with the corresponding delay in seconds per vehicle is shown in Table 2. The capacity analysis summary is shown in Table 3 on page 4.

**Table 2
Level of Service Criteria**

| Level of Service (LOS) | A | B | C | D | E | F |
|-------------------------------------|-----|----------|----------|----------|----------|-----|
| <i>Signalized intersections</i> | | | | | | |
| Average Delay (seconds per vehicle) | ≤10 | >10 - 20 | >20 - 35 | >35 - 55 | >55 - 80 | >80 |
| <i>Unsignalized intersections</i> | | | | | | |
| Average Delay (seconds per vehicle) | ≤10 | >10 - 15 | >15 - 25 | >25 - 35 | >35 - 50 | >50 |

**Table 3
Capacity Analysis Summary**

| | AM Peak Hour | | PM Peak Hour | |
|---|--------------|--------------------|--------------|--------------------|
| | LOS | Delay (sec/veh) | LOS | Delay (sec/veh) |
| <i>Lewis River Road & I-5 SB on-ramp</i> | | | | |
| Existing | B | 14.1 | B | 14.6 |
| Year 2024 w/o Project | B | 14.8 | B | 15.5 |
| Year 2024 with Project | B | 14.9 | B | 15.6 |
| <i>Lewis River Road & I-5 NB off-ramp</i> | | | | |
| Existing | B | 15.0 | C | 24.3 |
| Year 2024 w/o Project | B | 15.9 | C | 28.0 |
| Year 2024 with Project | B | 16.0 | C | 28.4 |
| <i>Lewis River Road & E CC Street</i> | | | | |
| Existing | A | 7.0 | A | 6.9 |
| Year 2024 w/o Project | A | 7.1 | A | 7.2 |
| Year 2024 with Project | A | 7.3 | A | 7.4 |
| <i>Sandalwood Road & E CC Street</i> | | | | |
| Existing | B | 11.6 | B | 13.5 |
| Year 2024 w/o Project | B | 11.8 | B | 13.9 |
| Year 2024 with Project | B | 11.6 | B | 13.1 |
| <i>E CC Street & site access</i> | | | | |
| Existing | n/a | | | |
| Year 2024 w/o Project | n/a | | | |
| Year 2024 with Project | B | 12.3 | C | 15.8 |

Based on the results of the capacity analysis the study area intersections will operate at acceptable levels with build out of the Lewis River Townhomes Subdivision. The LOS computer printouts are included in Appendix E.

Traffic Queues

Traffic queues were observed on E CC Street and the queues could extend past Sandalwood Road. However, the queues dispersed on each green indication for northbound traffic at the Lewis River Road/E CC Street intersection. The Sandalwood Road/E CC Street intersection is also operating at a very acceptable LOS “C” or better during all time periods.

Pedestrian/Bicycle/Transit Considerations

No pedestrian or bicycle activities were observed within the vicinity of the site along Sandalwood Road or E CC Street. The site is not served by public transit service.

Sight Distance

Sight distance was measured at the site access onto E CC Street. The measured intersection sight distance was over 300 feet when looking towards the east and west. Based on the criteria in AASHTO, A Policy on Geometric Design of Highways and Streets, 2011 and the posted speed limit of 25 mph on E CC Street the recommended intersection sight distance is 280 feet. Therefore, the sight distance requirement is met.

Turn Lanes

The requirement for additional turn lanes was evaluated at the study area intersections as based on guidelines in the Washington State Design Manual. Based on the findings additional turn lanes are not required.

Transportation Improvements

Two transportation improvement projects within the vicinity of the site are identified in the City of Woodland's 2022 to 2027 Transportation Improvement Program. The first project is at the I-5 exit 21 interchange. This is a funded project. The project is to develop designs at the interchange on both sides of I-5 from Pacific Avenue to Atlantic Avenue. The second project is a bridge upgrade/replacement on E CC Street. An exact timeline for the improvements is not available at the present time. A drawing showing the transportation improvement projects is shown in Appendix D.

Collision Data

Collision data was obtained from the Washington State Department of Transportation (WSDOT) for the most recent three years of available data. Based on the data the calculated accident rates are below the threshold of 1.0 accidents per MEV that usually identifies an intersection with a high accident rate. The collision data is shown in Table 4 and Appendix C.

Table 4
Collision Data

| Intersection | Number of Collisions | Collision Type | | | | | Rate MEV* |
|-------------------------------------|----------------------|----------------|----------|----------------|--------------------|-------|-----------|
| | | Angle | Rear End | Same Direction | Opposite Direction | Other | |
| I-5 SB on-ramp/ Lewis River Rd. | 9 | | 3 | | 3 | 3 | 0.41 |
| I-5 NB off-ramp/ Lewis River Rd. | 15 | 1 | 5 | 1 | 6 | 2 | 0.64 |
| E CC St./ Lewis River Rd. | 2 | | 1 | | 1 | | 0.10 |
| E CC St./ Sandalwood Rd. | 6 | 5 | | 1 | | | 0.72 |

* Accident rate per million entering vehicles.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of this transportation impact study the surrounding roadway system can adequately accommodate traffic from the Lewis River Townhomes Subdivision. The study area intersections will operate at acceptable levels during the weekday AM and PM peak hours with build out of the development. No off site transportation improvements or traffic control devices were identified to accommodate the development.

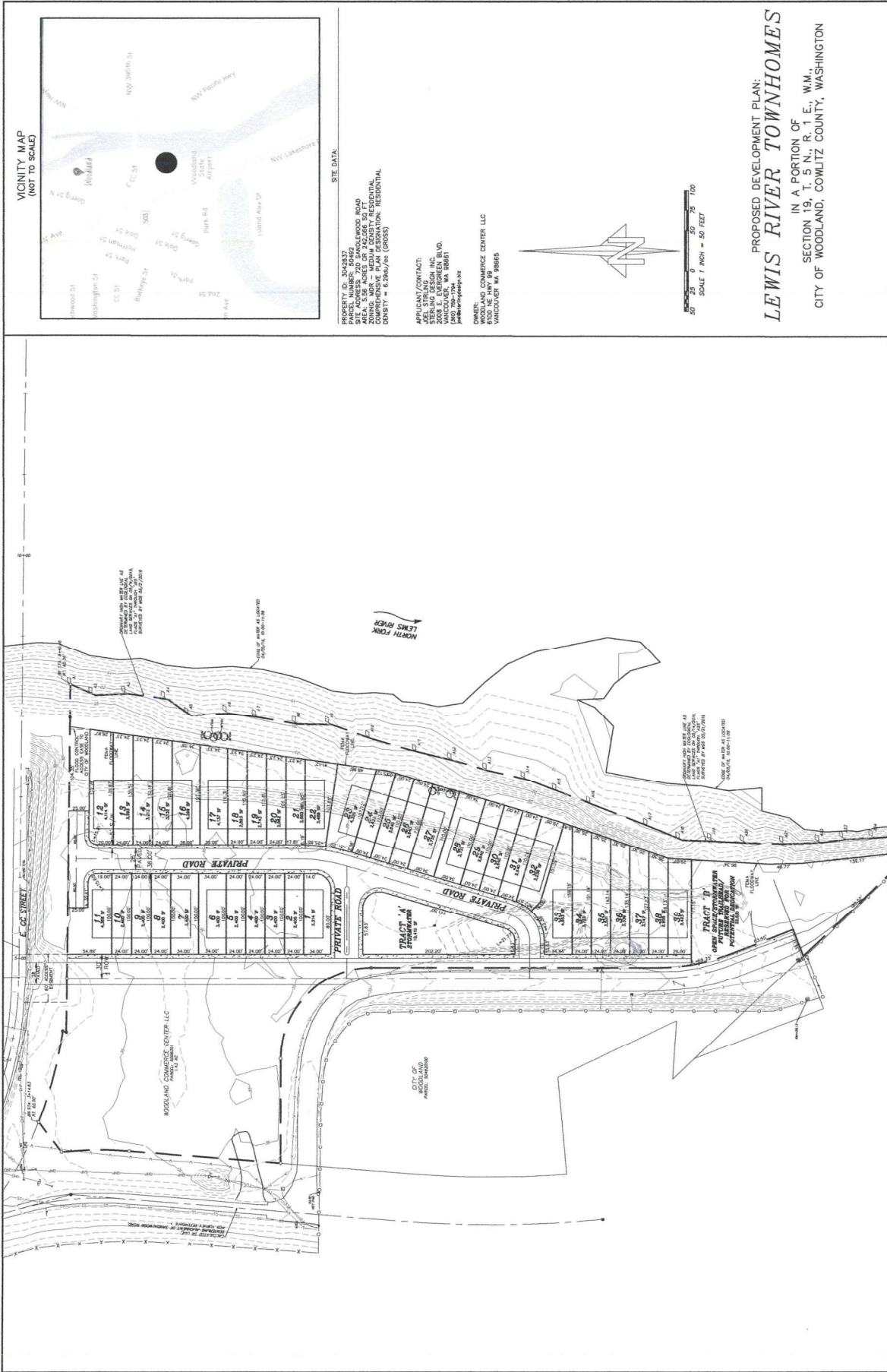
The assumption was made in this report that Sandalwood Road will be terminated at the existing location opposite the ARCO driveway at E CC Street. This will occur with development of the Lewis River Townhomes Subdivision. Sandalwood Road will continue to the north and access E CC Street at the northeast corner of the development.

The City of Woodland's Six Year Transportation Improvement Program identifies design plans for improvements that will be necessary at the I-5 interchange on both sides of I-5 from Pacific Avenue to Atlantic Avenue. These improvements will be necessary and are recommended to accommodate future growth and congestion within the vicinity of the I-5 interchange.

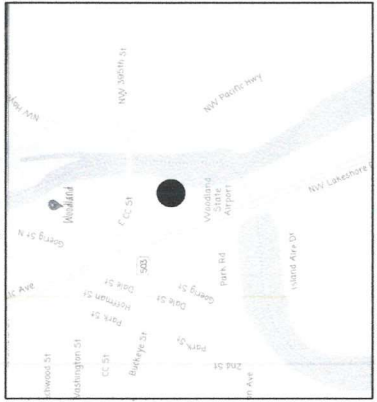
Adequate sight distance should be maintained at the site access onto E CC Street. Obstructions by signs, vegetation or other objects should not be allowed.



FIGURE 1b



VICINITY MAP
(NOT TO SCALE)

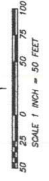
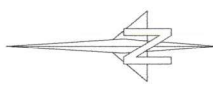


SITE DATA

PROPERTY ID: 304237
 OWNER: WOODLAND CENTER LLC
 SITE ADDRESS: 720 SINKWOOD ROAD
 AREA: 5.56 ACRES OR 242,089 SQ FT
 COMPREHENSIVE PLAN DESIGNATION: RESIDENTIAL
 DENSITY: 6.2366/AC (GRSS)

APPLICANT/CONTACT:
 ADEL STRAND INC.
 2008 E. EVERETT BLVD.
 VANCOUVER, WA 98661
 (206) 295-1774
 adels@adelstrand.com

OWNER: WOODLAND CENTER LLC
 8700 NE HWY 99
 VANCOUVER WA 98665

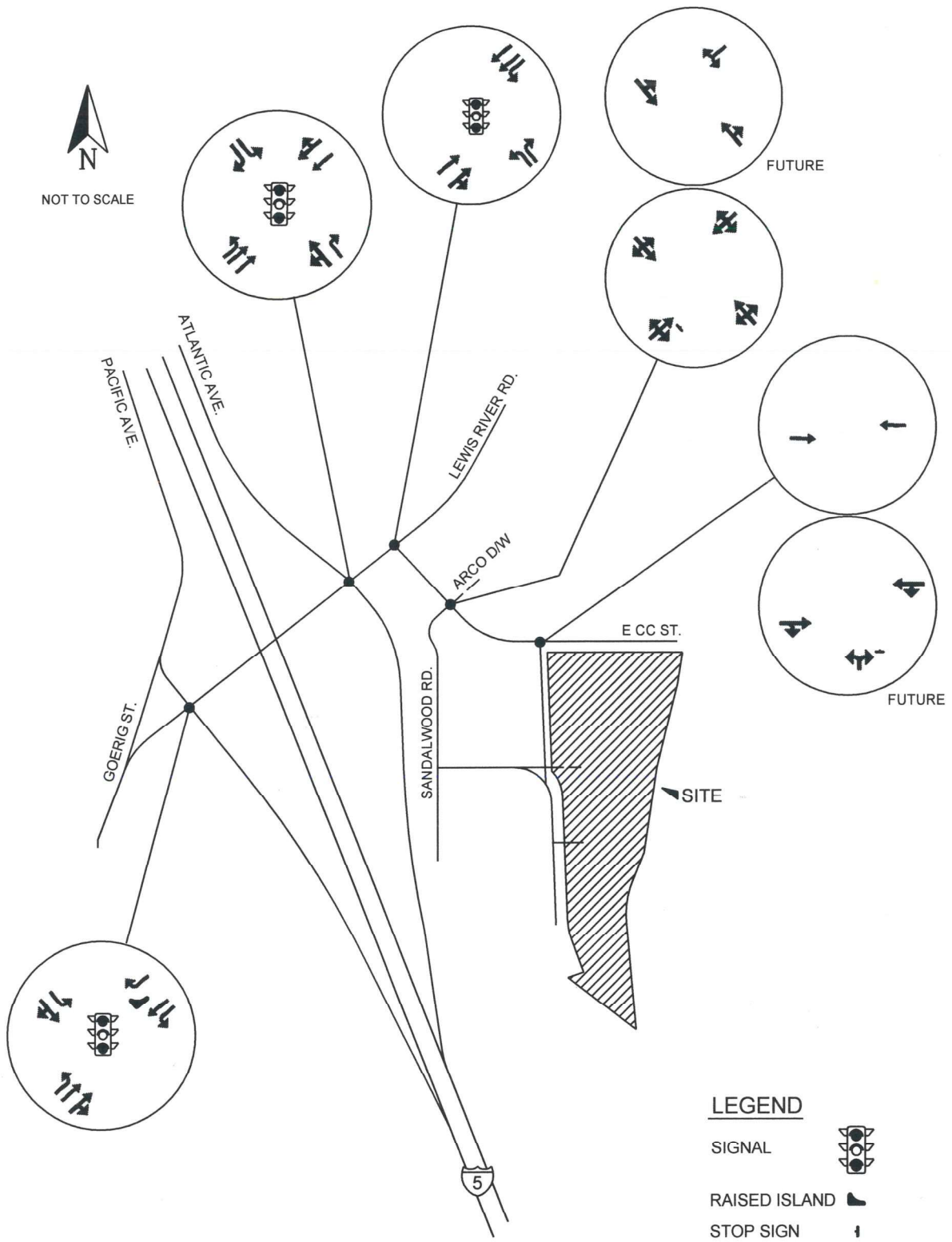


PROPOSED DEVELOPMENT PLAN:
LEWIS RIVER TOWNHOMES
 IN A PORTION OF
 SECTION 19, T. 5 N., R. 1 E., W.M.
 CITY OF WOODLAND, COWLITZ COUNTY, WASHINGTON

FIGURE 1c



NOT TO SCALE



EXISTING CONDITIONS UNLESS NOTED

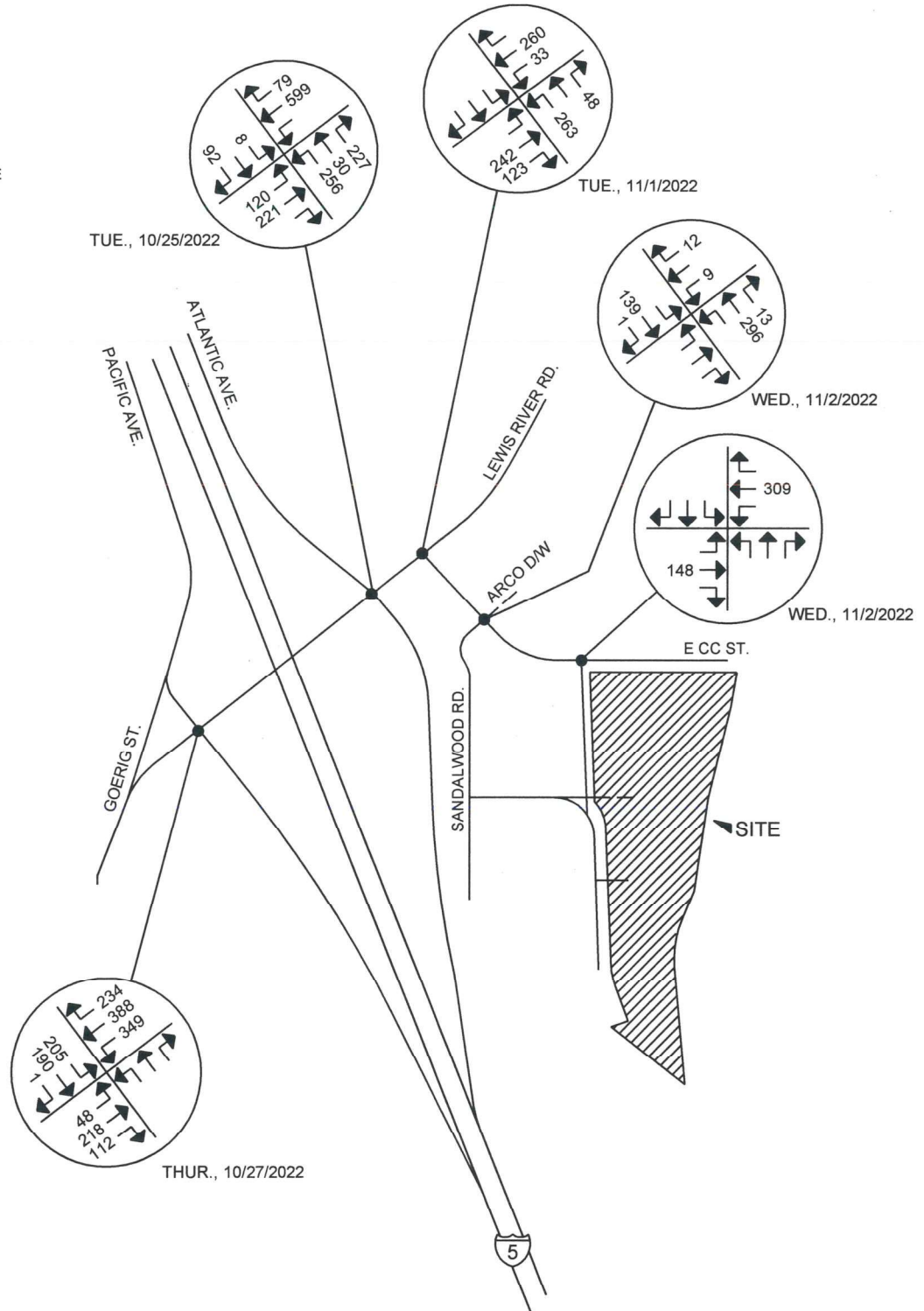
LEWIS RIVER ROAD TOWNHOME SUBDIVISION

FIGURE 2
LANE CONFIGURATIONS

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Phone: 360-433-7530



NOT TO SCALE



LEWIS RIVER TOWNHOMES SUBDIVISION

FIGURE 3a
EXISTING TRAFFIC VOLUMES
AM PEAK HOUR

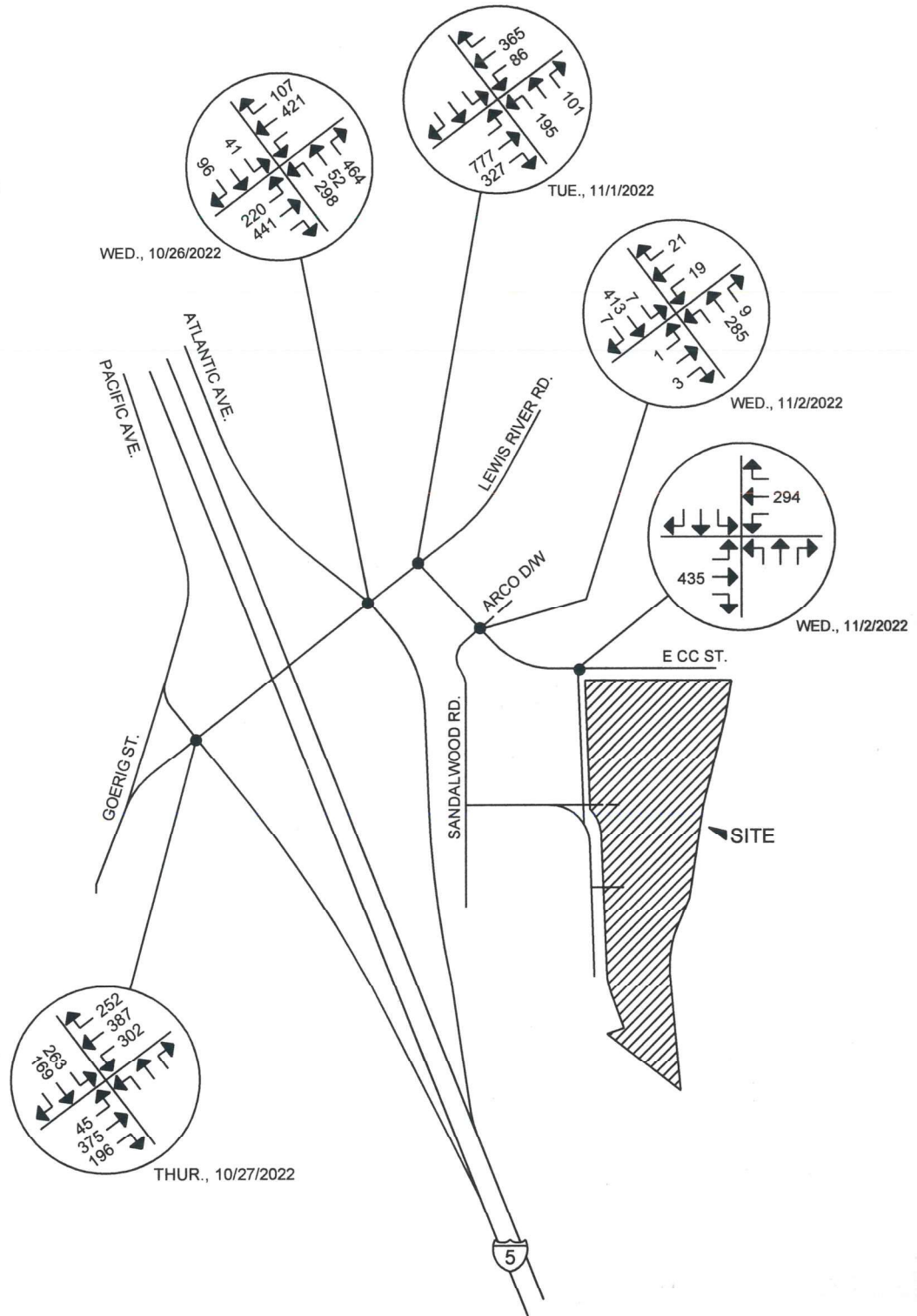
KELLY ENGINEERING

1805 NE 94th St., No. 19, Vancouver, WA 98665

Phone: 360-433-7530



NOT TO SCALE



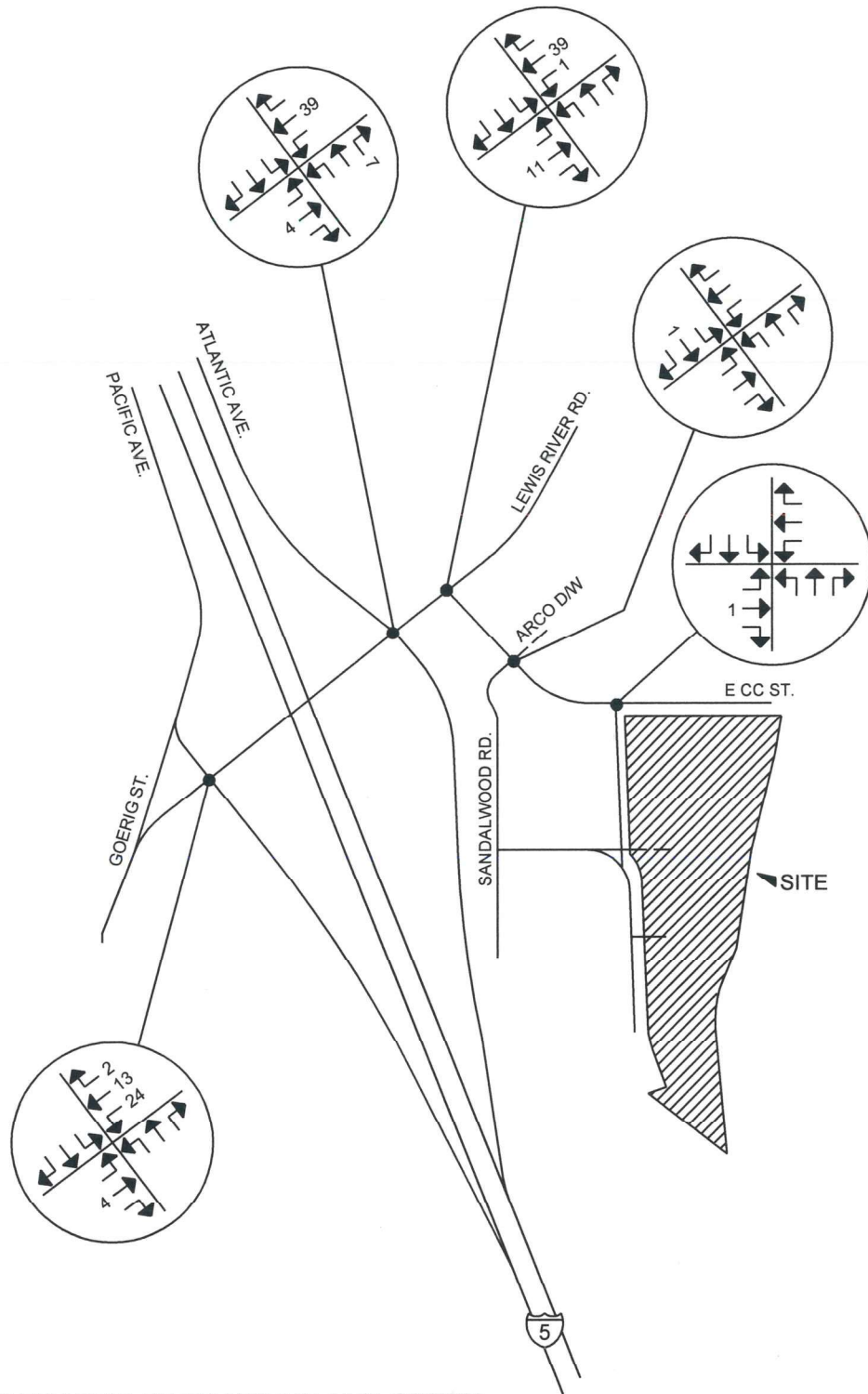
LEWIS RIVER TOWNHOMES SUBDIVISION

FIGURE 3b
EXISTING TRAFFIC VOLUMES
PM PEAK HOUR

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Phone: 360-433-7530



NOT TO SCALE



IN-PROCESS TRAFFIC FROM WOODLAND CREEK
AND OAK CREEK DEVELOPMENTS

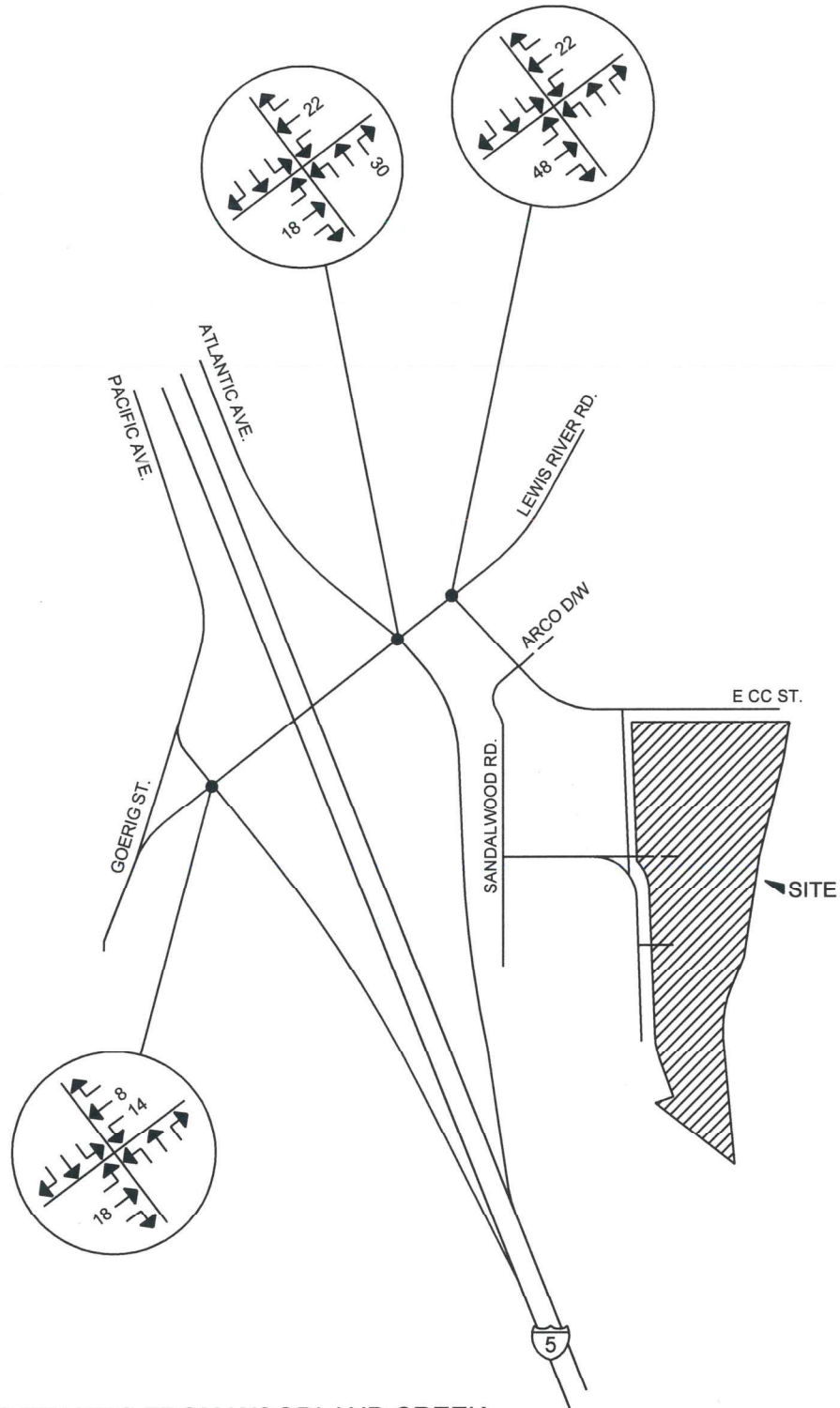
LEWIS RIVER TOWNHOMES SUBDIVISION

FIGURE 4a
IN-PROCESS TRAFFIC
AM PEAK HOUR

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NOT TO SCALE



IN-PROCESS TRAFFIC FROM WOODLAND CREEK
AND OAK CREEK DEVELOPMENTS

LEWIS RIVER TOWNHOMES SUBDIVISION

FIGURE 4b
IN-PROCESS TRAFFIC
PM PEAK HOUR

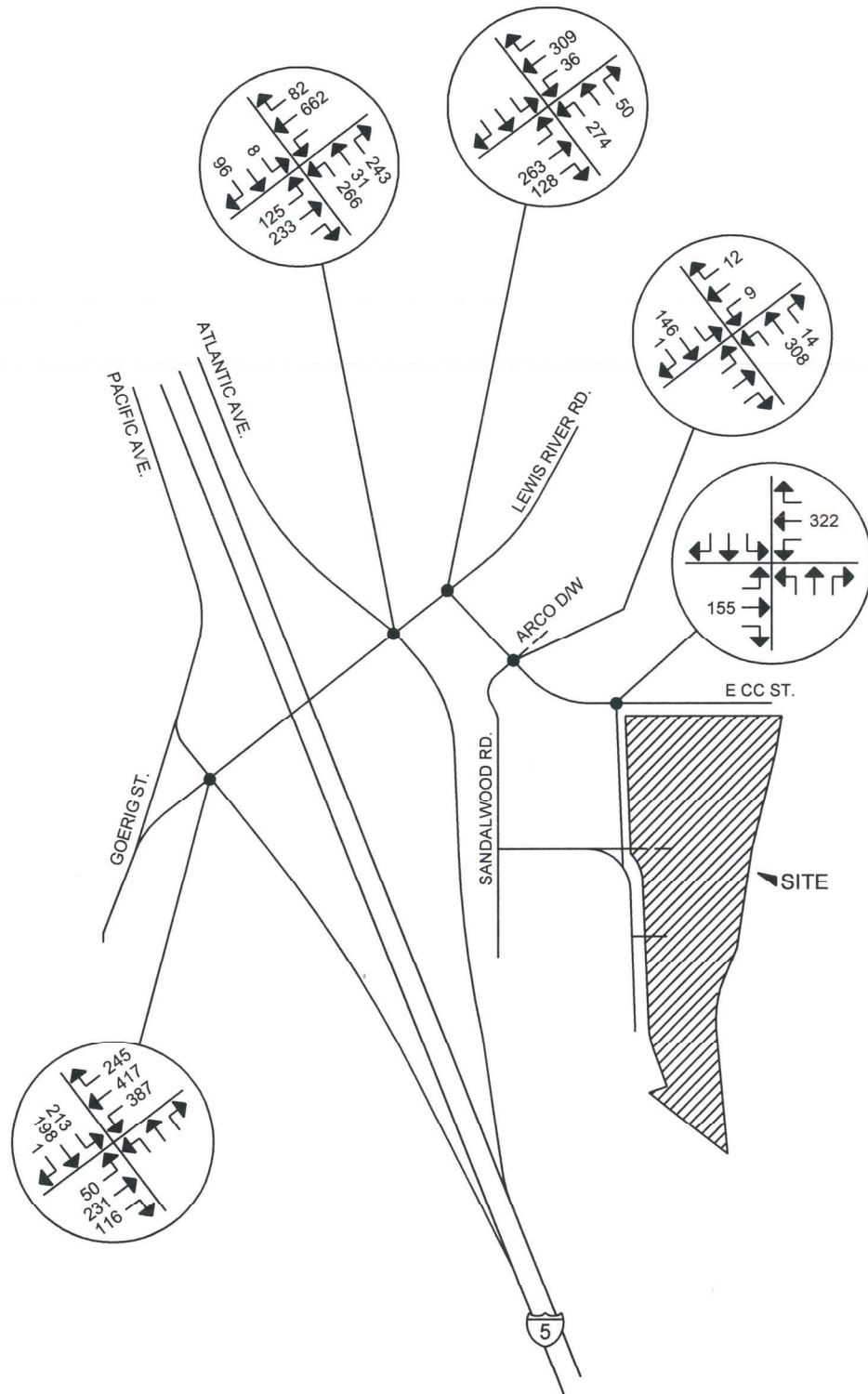
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Phone: 360-433-7530



NOT TO SCALE



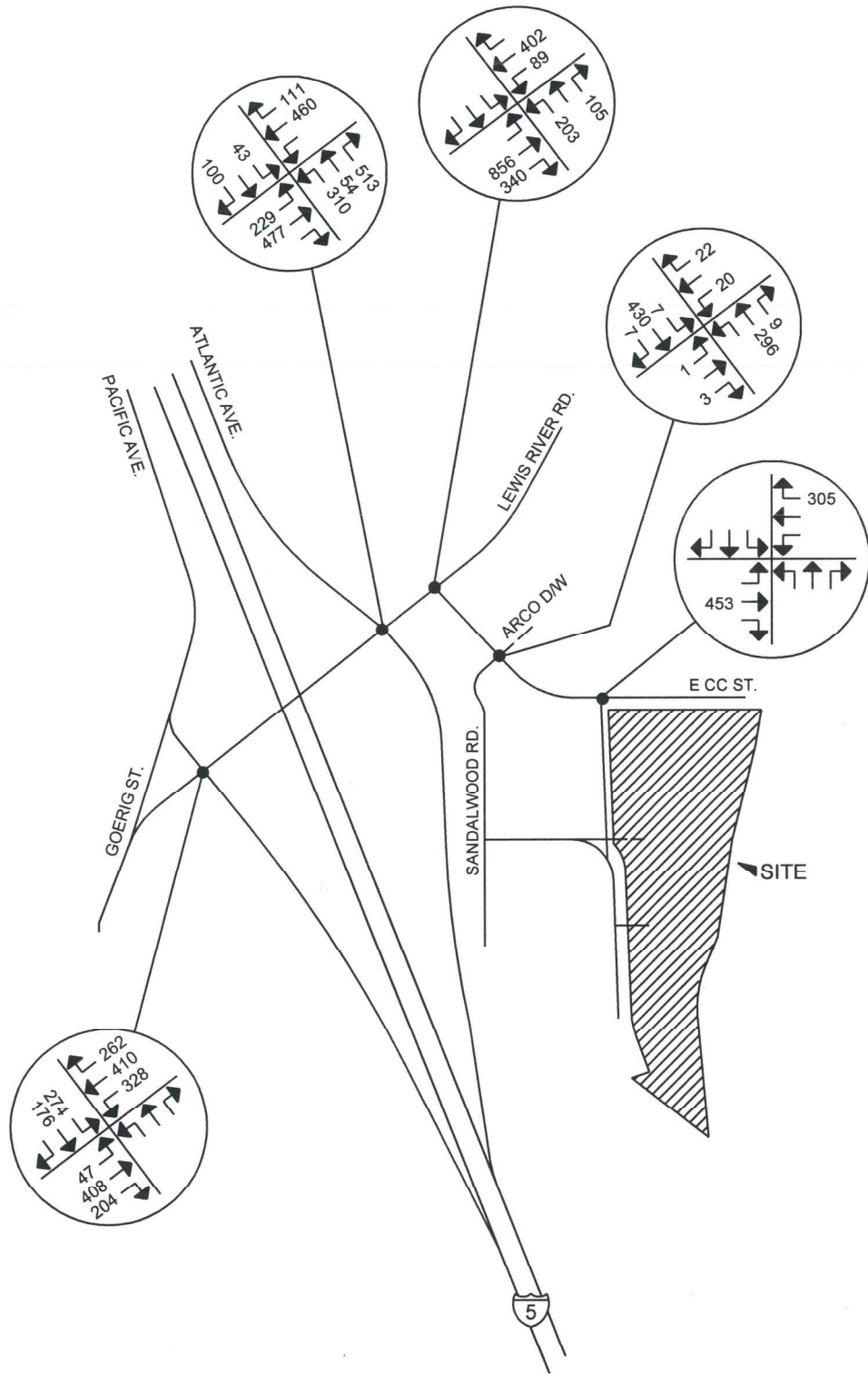
LEWIS RIVER TOWNHOMES SUBDIVISION

FIGURE 5a
YEAR 2024 TRAFFIC VOLUMES W/O PROJECT
AM PEAK HOUR

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Phone: 360-433-7530



NOT TO SCALE

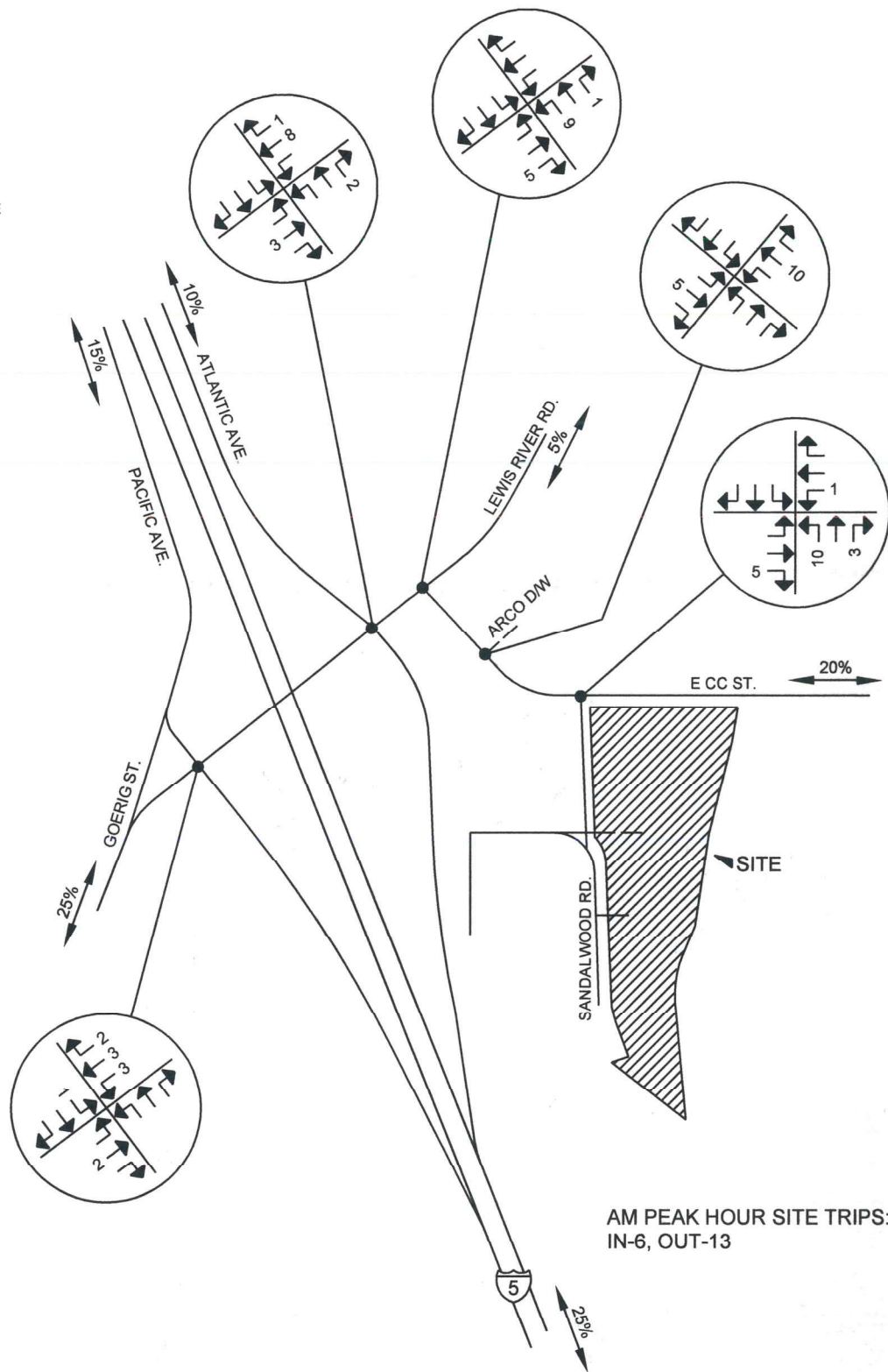


LEWIS RIVER TOWNHOMES SUBDIVISION

FIGURE 5b
YEAR 2024 TRAFFIC VOLUMES W/O PROJECT
PM PEAK HOUR

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N
NOT TO SCALE



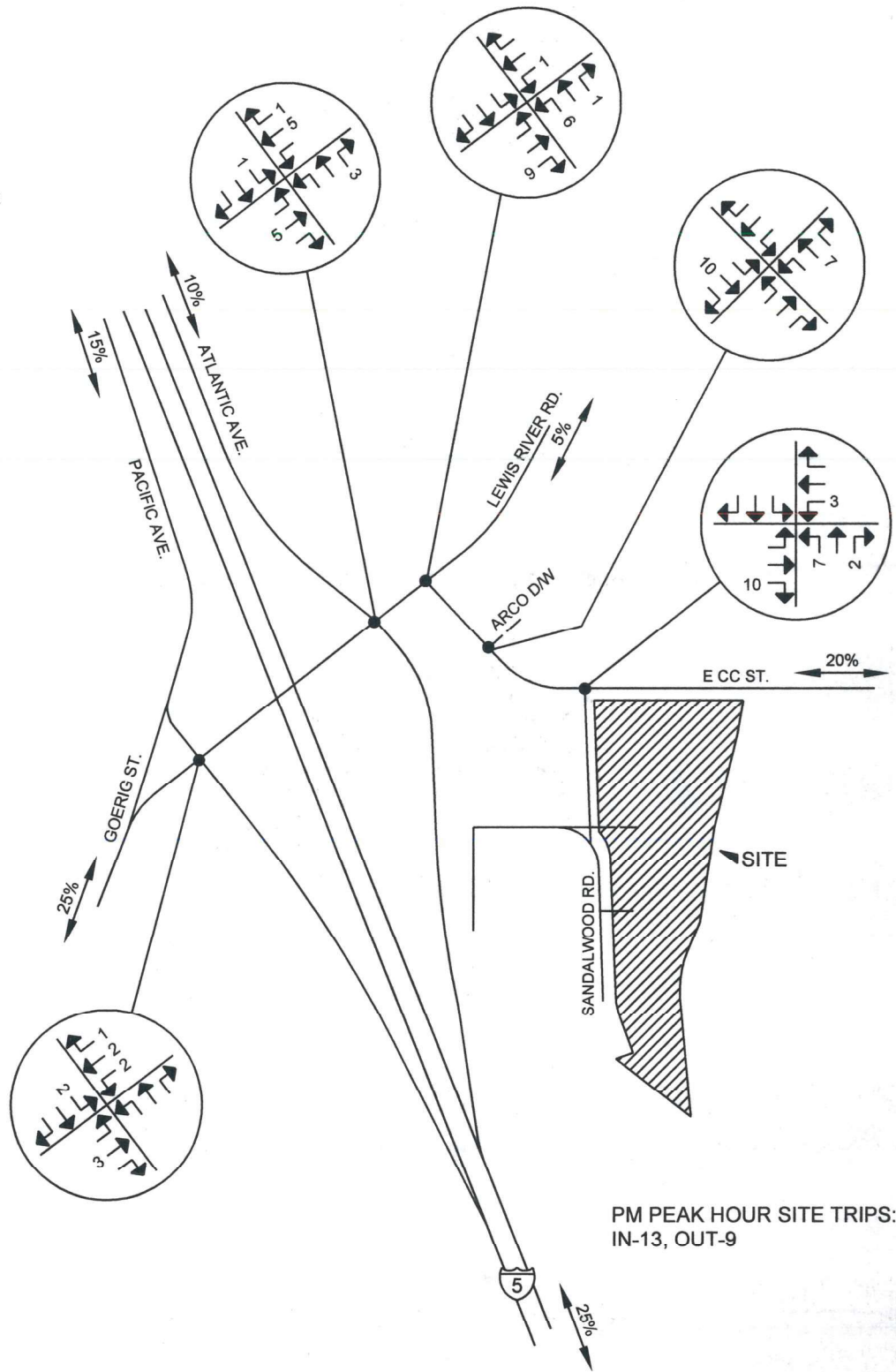
AM PEAK HOUR SITE TRIPS:
IN-6, OUT-13

LEWIS RIVER TOWNHOMES SUBDIVISION

FIGURE 6a
**SITE TRAFFIC DISTRIBUTION/
ASSIGNMENT, AM PEAK HOUR**

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 NOT TO SCALE



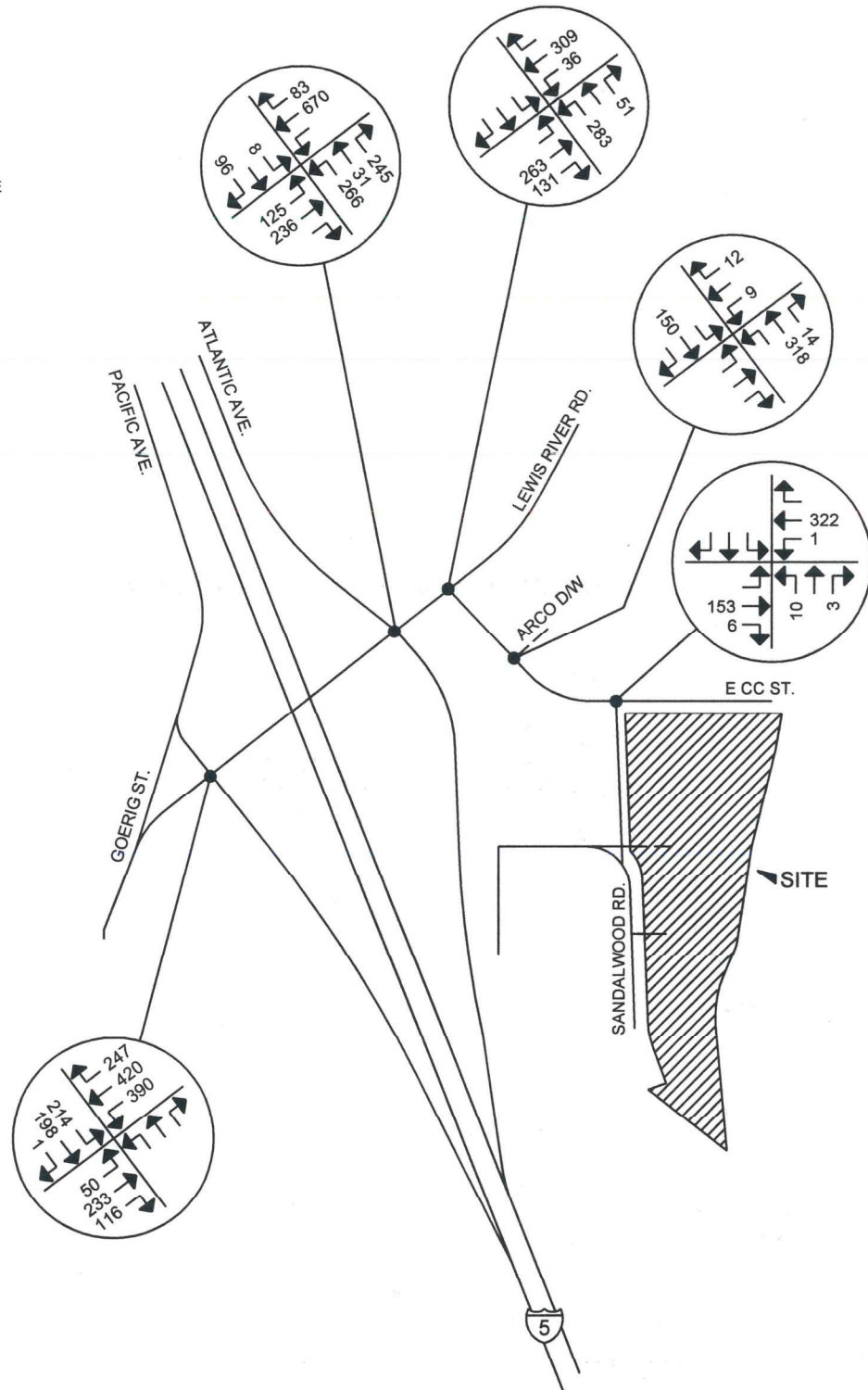
LEWIS RIVER TOWNHOMES SUBDIVISION

FIGURE 6b
**SITE TRAFFIC DISTRIBUTION/
 ASSIGNMENT, PM PEAK HOUR**

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 1805 NE 94th St., No. 19, Vancouver, WA 98665
 Phone: 360-433-7530



NOT TO SCALE



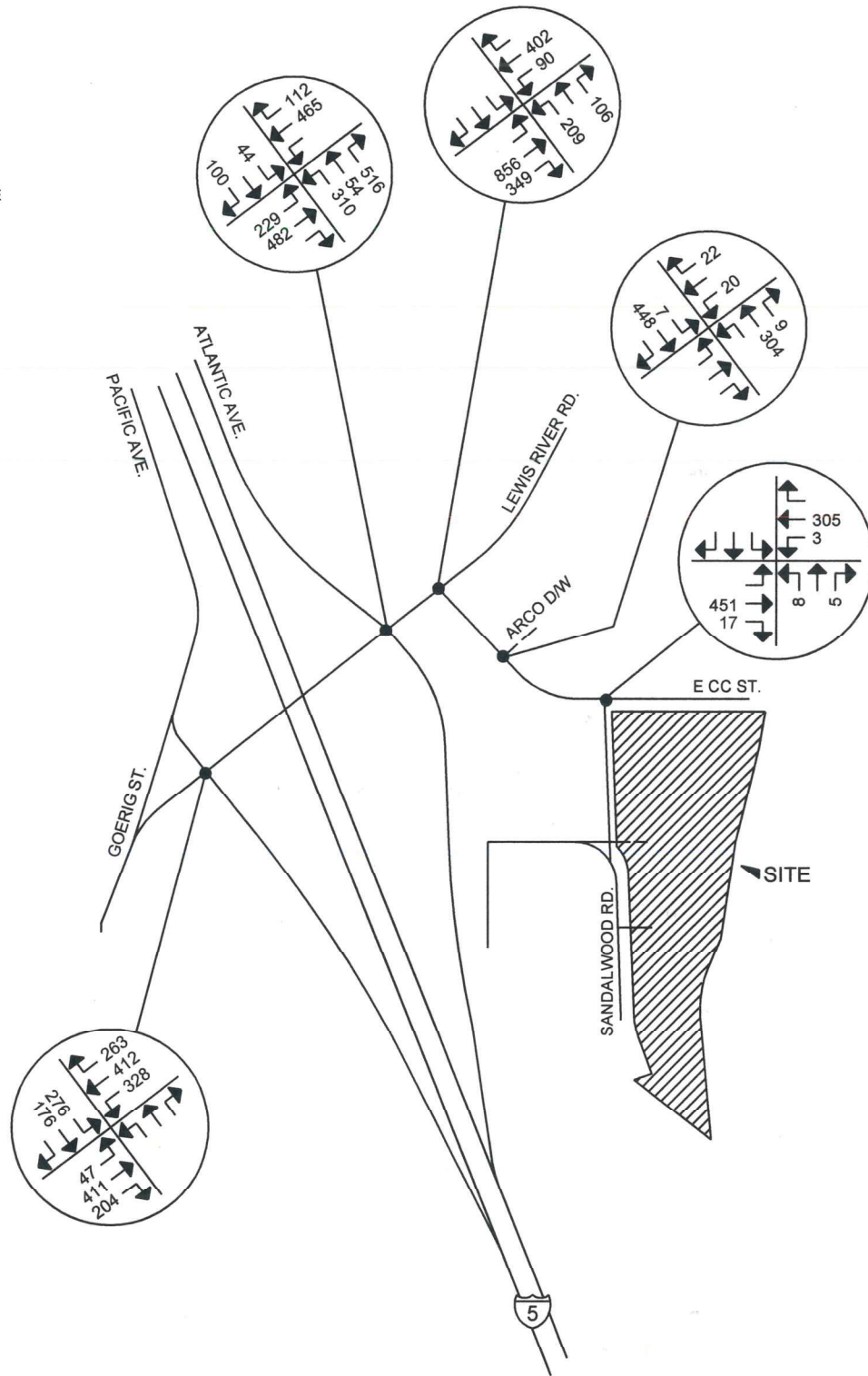
LEWIS RIVER TOWNHOMES SUBDIVISION

FIGURE 7a
YEAR 2024 TRAFFIC VOLUMES WITH PROJECT
AM PEAK HOUR

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NOT TO SCALE



LEWIS RIVER TOWNHOMES SUBDIVISION

FIGURE 8b
YEAR 2024 TRAFFIC VOLUMES WITH PROJECT
PM PEAK HOUR

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APPENDIX A
RAW TRAFFIC COUNT DATA

**INTERSECTION TURN MOVEMENT SURVEY
I-5 SOUTHBOUND ON-RAMP & LEWIS RIVER ROAD**

DATE OF COUNT: 10/27/2022, 07:00-09:00
 DAY OF WEEK: THUR.
 WEATHER: CLOUDY
 COUNTER: KAK

| Time Period From – To | FROM NORTH | | | FROM EAST | | | FROM SOUTH | | | FROM WEST | | | TOTAL |
|--------------------------|------------|------------|----------|------------|------------|------------|------------|----------|----------|-----------|------------|------------|-------------|
| | L | T | R | L | T | R | L | T | R | L | T | R | |
| 07:00-07:05 | 11 | 13 | 0 | 52 | 10 | 6 | 0 | 0 | 0 | 2 | 5 | 18 | 117 |
| 07:05-07:10 | 9 | 15 | 0 | 25 | 19 | 13 | 0 | 0 | 0 | 2 | 11 | 10 | 104 |
| 07:10-07:15 | 13 | 18 | 0 | 41 | 19 | 12 | 0 | 0 | 0 | 0 | 12 | 15 | 130 |
| 07:15-07:20 | 9 | 10 | 0 | 38 | 23 | 18 | 0 | 0 | 0 | 2 | 12 | 13 | 125 |
| 07:20-07:25 | 11 | 14 | 0 | 38 | 19 | 20 | 0 | 0 | 0 | 2 | 9 | 11 | 124 |
| 07:25-07:30 | 19 | 27 | 0 | 45 | 16 | 11 | 0 | 0 | 0 | 3 | 7 | 8 | 136 |
| 07:30-07:35 | 9 | 15 | 0 | 47 | 29 | 12 | 0 | 0 | 0 | 0 | 5 | 9 | 126 |
| 07:35-07:40 | 11 | 18 | 0 | 30 | 33 | 15 | 0 | 0 | 0 | 4 | 9 | 13 | 133 |
| 07:40-07:45 | 7 | 15 | 0 | 25 | 26 | 21 | 0 | 0 | 0 | 1 | 13 | 9 | 117 |
| 07:45-07:50 | 12 | 12 | 0 | 29 | 47 | 23 | 0 | 0 | 0 | 7 | 16 | 14 | 160 |
| 07:50-07:55 | 18 | 10 | 0 | 31 | 26 | 25 | 0 | 0 | 0 | 4 | 11 | 8 | 133 |
| 07:55-08:00 | 19 | 14 | 0 | 25 | 36 | 21 | 0 | 0 | 0 | 7 | 19 | 5 | 146 |
| 08:00-08:05 | 12 | 14 | 0 | 29 | 29 | 14 | 0 | 0 | 0 | 8 | 10 | 11 | 127 |
| 08:05-08:10 | 12 | 28 | 0 | 31 | 23 | 15 | 0 | 0 | 0 | 1 | 12 | 9 | 131 |
| 08:10-08:15 | 15 | 13 | 1 | 28 | 27 | 18 | 0 | 0 | 0 | 3 | 10 | 12 | 127 |
| 08:15-08:20 | 9 | 13 | 0 | 18 | 35 | 18 | 0 | 0 | 0 | 2 | 13 | 8 | 116 |
| 08:20-08:25 | 17 | 14 | 0 | 34 | 39 | 23 | 0 | 0 | 0 | 5 | 24 | 6 | 162 |
| 08:25-08:30 | 22 | 16 | 0 | 26 | 38 | 32 | 0 | 0 | 0 | 5 | 26 | 7 | 172 |
| 08:30-08:35 | 21 | 19 | 0 | 36 | 34 | 14 | 0 | 0 | 0 | 1 | 32 | 10 | 167 |
| 08:35-08:40 | 24 | 18 | 0 | 28 | 35 | 17 | 0 | 0 | 0 | 3 | 26 | 14 | 165 |
| 08:40-08:45 | 24 | 19 | 0 | 34 | 19 | 14 | 0 | 0 | 0 | 2 | 19 | 8 | 139 |
| 08:45-08:50 | 10 | 15 | 0 | 31 | 21 | 16 | 0 | 0 | 0 | 2 | 8 | 7 | 110 |
| 08:50-08:55 | 11 | 16 | 0 | 27 | 25 | 19 | 0 | 0 | 0 | 1 | 10 | 10 | 119 |
| 08:55-09:00 | 8 | 13 | 0 | 25 | 17 | 15 | 0 | 0 | 0 | 2 | 0 | 9 | 89 |
| Peak Hour Total | 205 | 190 | 1 | 349 | 388 | 234 | 0 | 0 | 0 | 48 | 218 | 112 | 1745 |
| % Trucks | 3 | 1 | 0 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 5 | 4 | |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Bikes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

PEAK HOUR: 07:45-08:45
 PHF Intersection: 0.87

**INTERSECTION TURN MOVEMENT SURVEY
I-5 SOUTHBOUND ON-RAMP & LEWIS RIVER ROAD**

DATE OF COUNT: 10/27/2022, 16:00-18:00
 DAY OF WEEK: THUR.
 WEATHER: CLOUDY
 COUNTER: KAK

| Time Period From – To | FROM NORTH | | | FROM EAST | | | FROM SOUTH | | | FROM WEST | | | TOTAL |
|--------------------------|------------|------------|----------|------------|------------|------------|------------|----------|----------|-----------|------------|------------|-------------|
| | L | T | R | L | T | R | L | T | R | L | T | R | |
| 16:00-16:05 | 29 | 16 | 0 | 26 | 22 | 20 | 0 | 0 | 0 | 6 | 31 | 21 | 171 |
| 16:05-16:10 | 29 | 11 | 0 | 22 | 19 | 20 | 0 | 0 | 0 | 3 | 37 | 25 | 166 |
| 16:10-16:15 | 25 | 20 | 0 | 26 | 36 | 19 | 0 | 0 | 0 | 1 | 28 | 20 | 175 |
| 16:15-16:20 | 20 | 14 | 0 | 29 | 28 | 18 | 0 | 0 | 0 | 8 | 33 | 12 | 162 |
| 16:20-16:25 | 19 | 11 | 0 | 33 | 33 | 15 | 0 | 0 | 0 | 7 | 26 | 13 | 157 |
| 16:25-16:30 | 22 | 9 | 0 | 27 | 34 | 22 | 0 | 0 | 0 | 3 | 26 | 18 | 161 |
| 16:30-16:35 | 19 | 7 | 0 | 23 | 31 | 20 | 0 | 0 | 0 | 8 | 36 | 26 | 170 |
| 16:35-16:40 | 21 | 15 | 0 | 31 | 35 | 17 | 0 | 0 | 0 | 4 | 25 | 22 | 170 |
| 16:40-16:45 | 26 | 17 | 0 | 22 | 28 | 18 | 0 | 0 | 0 | 4 | 40 | 14 | 169 |
| 16:45-16:50 | 19 | 22 | 0 | 28 | 31 | 22 | 0 | 0 | 0 | 1 | 33 | 18 | 174 |
| 16:50-16:55 | 20 | 5 | 0 | 19 | 34 | 26 | 0 | 0 | 0 | 3 | 19 | 7 | 133 |
| 16:55-17:00 | 24 | 12 | 0 | 17 | 34 | 22 | 0 | 0 | 0 | 1 | 36 | 15 | 161 |
| 17:00-17:05 | 24 | 20 | 0 | 23 | 34 | 26 | 0 | 0 | 0 | 3 | 40 | 15 | 185 |
| 17:05-17:10 | 24 | 17 | 0 | 24 | 29 | 27 | 0 | 0 | 0 | 2 | 33 | 16 | 172 |
| 17:10-17:15 | 16 | 15 | 0 | 14 | 24 | 24 | 0 | 0 | 0 | 1 | 30 | 20 | 144 |
| 17:15-17:20 | 22 | 13 | 0 | 25 | 29 | 11 | 0 | 0 | 0 | 4 | 26 | 16 | 146 |
| 17:20-17:25 | 20 | 13 | 0 | 31 | 25 | 17 | 0 | 0 | 0 | 5 | 27 | 20 | 158 |
| 17:25-17:30 | 25 | 12 | 0 | 26 | 36 | 18 | 0 | 0 | 0 | 2 | 36 | 30 | 185 |
| 17:30-17:35 | 14 | 3 | 0 | 34 | 32 | 30 | 0 | 0 | 0 | 3 | 26 | 23 | 165 |
| 17:35-17:40 | 14 | 1 | 0 | 20 | 18 | 15 | 0 | 0 | 0 | 2 | 50 | 23 | 143 |
| 17:40-17:45 | 17 | 10 | 0 | 22 | 20 | 17 | 0 | 0 | 0 | 1 | 27 | 24 | 138 |
| 17:45-17:50 | 16 | 5 | 0 | 15 | 25 | 29 | 0 | 0 | 0 | 3 | 25 | 9 | 127 |
| 17:50-17:55 | 19 | 9 | 0 | 19 | 24 | 11 | 0 | 0 | 0 | 4 | 23 | 11 | 120 |
| 17:55-18:00 | 21 | 10 | 0 | 21 | 19 | 21 | 0 | 0 | 0 | 2 | 28 | 12 | 134 |
| Peak Hour Total | 263 | 169 | 0 | 302 | 387 | 252 | 0 | 0 | 0 | 45 | 375 | 196 | 1989 |
| % Trucks | 1 | 2 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Bikes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

PEAK HOUR: 16:10-17:10
 PHF Intersection: 0.96

**INTERSECTION TURN MOVEMENT SURVEY
I-5 NORTHBOUND OFF-RAMP & LEWIS RIVER ROAD**

DATE OF COUNT: 10/25/2022, 07:00-09:00
 DAY OF WEEK: TUE.
 WEATHER: CLOUDY
 COUNTER: KAK

| Time Period From – To | FROM NORTH | | | FROM EAST | | | FROM SOUTH | | | FROM WEST | | | TOTAL |
|--------------------------|------------|----------|-----------|-----------|------------|-----------|------------|-----------|------------|------------|------------|----------|-------------|
| | L | T | R | L | T | R | L | T | R | L | T | R | |
| 07:00-07:05 | 0 | 0 | 7 | 0 | 56 | 8 | 17 | 1 | 8 | 11 | 14 | 0 | 122 |
| 07:05-07:10 | 0 | 0 | 4 | 0 | 39 | 11 | 19 | 0 | 19 | 7 | 15 | 0 | 114 |
| 07:10-07:15 | 0 | 0 | 14 | 0 | 55 | 8 | 18 | 0 | 16 | 9 | 8 | 0 | 128 |
| 07:15-07:20 | 0 | 0 | 2 | 0 | 45 | 14 | 24 | 3 | 15 | 1 | 5 | 0 | 109 |
| 07:20-07:25 | 0 | 0 | 3 | 0 | 52 | 7 | 14 | 0 | 20 | 9 | 14 | 0 | 119 |
| 07:25-07:30 | 2 | 0 | 3 | 0 | 61 | 7 | 21 | 0 | 10 | 4 | 8 | 0 | 116 |
| 07:30-07:35 | 4 | 0 | 9 | 0 | 52 | 9 | 34 | 3 | 13 | 9 | 9 | 0 | 142 |
| 07:35-07:40 | 1 | 0 | 7 | 0 | 73 | 4 | 11 | 1 | 20 | 4 | 10 | 0 | 131 |
| 07:40-07:45 | 0 | 0 | 7 | 0 | 52 | 10 | 17 | 4 | 9 | 14 | 8 | 0 | 121 |
| 07:45-07:50 | 0 | 0 | 10 | 0 | 71 | 4 | 9 | 4 | 18 | 4 | 10 | 0 | 130 |
| 07:50-07:55 | 0 | 0 | 6 | 0 | 48 | 7 | 23 | 2 | 15 | 16 | 19 | 0 | 136 |
| 07:55-08:00 | 2 | 0 | 9 | 0 | 54 | 12 | 21 | 3 | 19 | 3 | 9 | 0 | 132 |
| 08:00-08:05 | 1 | 0 | 3 | 0 | 43 | 6 | 29 | 0 | 30 | 12 | 19 | 0 | 143 |
| 08:05-08:10 | 0 | 0 | 12 | 0 | 55 | 6 | 32 | 3 | 9 | 12 | 14 | 0 | 143 |
| 08:10-08:15 | 1 | 0 | 9 | 0 | 50 | 7 | 18 | 1 | 25 | 9 | 18 | 0 | 138 |
| 08:15-08:20 | 1 | 0 | 3 | 0 | 36 | 8 | 22 | 1 | 17 | 7 | 12 | 0 | 107 |
| 08:20-08:25 | 0 | 0 | 1 | 0 | 55 | 9 | 24 | 6 | 10 | 17 | 9 | 0 | 131 |
| 08:25-08:30 | 2 | 0 | 14 | 0 | 48 | 4 | 19 | 5 | 20 | 10 | 15 | 0 | 137 |
| 08:30-08:35 | 0 | 0 | 11 | 0 | 47 | 4 | 22 | 2 | 17 | 13 | 23 | 0 | 139 |
| 08:35-08:40 | 0 | 0 | 9 | 0 | 47 | 7 | 18 | 0 | 27 | 9 | 35 | 0 | 152 |
| 08:40-08:45 | 1 | 0 | 5 | 0 | 45 | 5 | 19 | 3 | 20 | 8 | 38 | 0 | 144 |
| 08:45-08:50 | 0 | 0 | 7 | 0 | 50 | 7 | 18 | 2 | 11 | 7 | 10 | 0 | 112 |
| 08:50-08:55 | 0 | 0 | 6 | 0 | 47 | 5 | 11 | 0 | 9 | 8 | 8 | 0 | 94 |
| 08:55-09:00 | 0 | 0 | 4 | 0 | 36 | 7 | 13 | 1 | 11 | 6 | 7 | 0 | 94 |
| Peak Hour Total | 8 | 0 | 92 | 0 | 599 | 79 | 256 | 30 | 227 | 120 | 221 | 0 | 1632 |
| % Trucks | 0 | 0 | 2 | 0 | 1 | 1 | 4 | 0 | 1 | 6 | 3 | 0 | |
| Peds | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Bikes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

PEAK HOUR: 07:45-08:45
 PHF Intersection: 0.94

**INTERSECTION TURN MOVEMENT SURVEY
I-5 NORTHBOUND OFF-RAMP & LEWIS RIVER ROAD**

DATE OF COUNT: 10//26/2022, 16:00-18:00
 DAY OF WEEK: WED.
 WEATHER: CLOUDY
 COUNTER: DSK

| Time Period From – To | FROM NORTH | | | FROM EAST | | | FROM SOUTH | | | FROM WEST | | | TOTAL |
|--------------------------|------------|----------|-----------|-----------|------------|------------|------------|-----------|------------|------------|------------|----------|-------------|
| | L | T | R | L | T | R | L | T | R | L | T | R | |
| 16:00-16:05 | 3 | 0 | 3 | 0 | 32 | 7 | 20 | 2 | 46 | 24 | 41 | 0 | 178 |
| 16:05-16:10 | 4 | 0 | 4 | 0 | 43 | 10 | 24 | 0 | 28 | 16 | 51 | 0 | 180 |
| 16:10-16:15 | 5 | 0 | 8 | 0 | 25 | 7 | 21 | 8 | 48 | 21 | 23 | 0 | 166 |
| 16:15-16:20 | 4 | 0 | 7 | 0 | 38 | 12 | 31 | 0 | 50 | 12 | 29 | 0 | 183 |
| 16:20-16:25 | 5 | 0 | 13 | 0 | 37 | 12 | 30 | 2 | 40 | 19 | 39 | 0 | 197 |
| 16:25-16:30 | 7 | 0 | 8 | 0 | 42 | 13 | 21 | 5 | 39 | 21 | 42 | 0 | 198 |
| 16:30-16:35 | 4 | 0 | 7 | 0 | 32 | 7 | 26 | 5 | 42 | 10 | 40 | 0 | 173 |
| 16:35-16:40 | 1 | 0 | 9 | 0 | 34 | 13 | 23 | 6 | 36 | 17 | 32 | 0 | 171 |
| 16:40-16:45 | 3 | 0 | 8 | 0 | 44 | 1 | 23 | 6 | 31 | 18 | 32 | 0 | 166 |
| 16:45-16:50 | 2 | 0 | 14 | 0 | 38 | 11 | 24 | 8 | 39 | 16 | 40 | 0 | 192 |
| 16:50-16:55 | 2 | 0 | 8 | 0 | 32 | 7 | 29 | 5 | 20 | 28 | 37 | 0 | 168 |
| 16:55-17:00 | 1 | 0 | 7 | 0 | 24 | 7 | 26 | 5 | 45 | 18 | 35 | 0 | 168 |
| 17:00-17:05 | 5 | 0 | 10 | 0 | 27 | 5 | 28 | 4 | 46 | 15 | 29 | 0 | 169 |
| 17:05-17:10 | 2 | 0 | 10 | 0 | 28 | 9 | 23 | 6 | 48 | 16 | 29 | 0 | 171 |
| 17:10-17:15 | 3 | 0 | 5 | 0 | 47 | 5 | 29 | 2 | 42 | 9 | 27 | 0 | 169 |
| 17:15-17:20 | 4 | 0 | 12 | 0 | 42 | 10 | 23 | 4 | 37 | 14 | 30 | 0 | 176 |
| 17:20-17:25 | 2 | 0 | 8 | 0 | 42 | 9 | 21 | 4 | 45 | 12 | 38 | 0 | 181 |
| 17:25-17:30 | 0 | 0 | 12 | 0 | 46 | 11 | 27 | 3 | 36 | 16 | 23 | 0 | 174 |
| 17:30-17:35 | 0 | 0 | 7 | 0 | 37 | 10 | 20 | 2 | 36 | 20 | 35 | 0 | 167 |
| 17:35-17:40 | 2 | 0 | 2 | 0 | 28 | 3 | 24 | 4 | 42 | 30 | 54 | 0 | 189 |
| 17:40-17:45 | 0 | 0 | 5 | 0 | 31 | 6 | 25 | 3 | 43 | 17 | 37 | 0 | 167 |
| 17:45-17:50 | 2 | 0 | 8 | 0 | 29 | 7 | 20 | 5 | 39 | 15 | 39 | 0 | 164 |
| 17:50-17:55 | 1 | 0 | 7 | 0 | 35 | 4 | 22 | 4 | 40 | 10 | 25 | 0 | 148 |
| 17:55-18:00 | 1 | 0 | 4 | 0 | 28 | 8 | 25 | 2 | 38 | 13 | 28 | 0 | 147 |
| Peak Hour Total | 41 | 0 | 96 | 0 | 421 | 107 | 298 | 52 | 464 | 220 | 441 | 0 | 2140 |
| % Trucks | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 2 | 1 | 1 | 0 | 0 | |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Bikes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

PEAK HOUR: 16:00-17:00
 PHF Intersection: 0.93

**INTERSECTION TURN MOVEMENT SURVEY
LEWIS RIVER ROAD & E CC STREET**

DATE OF COUNT: 11/1/2022, 07:00-09:00
 DAY OF WEEK: TUE.
 WEATHER: RAIN
 COUNTER: KAK

| Time Period From – To | FROM NORTH | | | FROM EAST | | | FROM SOUTH | | | FROM WEST | | | TOTAL |
|--------------------------|------------|----------|----------|-----------|------------|----------|------------|----------|-----------|-----------|------------|------------|------------|
| | L | T | R | L | T | R | L | T | R | L | T | R | |
| 07:00-07:05 | 0 | 0 | 0 | 1 | 21 | 0 | 16 | 0 | 1 | 0 | 15 | 6 | 60 |
| 07:05-07:10 | 0 | 0 | 0 | 3 | 17 | 0 | 16 | 0 | 0 | 0 | 19 | 5 | 60 |
| 07:10-07:15 | 0 | 0 | 0 | 2 | 17 | 0 | 18 | 0 | 1 | 0 | 21 | 6 | 65 |
| 07:15-07:20 | 0 | 0 | 0 | 1 | 18 | 0 | 20 | 0 | 1 | 0 | 18 | 9 | 67 |
| 07:20-07:25 | 0 | 0 | 0 | 3 | 20 | 0 | 19 | 0 | 1 | 0 | 16 | 8 | 67 |
| 07:25-07:30 | 0 | 0 | 0 | 2 | 25 | 0 | 25 | 0 | 4 | 0 | 15 | 8 | 79 |
| 07:30-07:35 | 0 | 0 | 0 | 2 | 16 | 0 | 17 | 0 | 2 | 0 | 19 | 8 | 64 |
| 07:35-07:40 | 0 | 0 | 0 | 1 | 23 | 0 | 24 | 0 | 5 | 0 | 25 | 4 | 82 |
| 07:40-07:45 | 0 | 0 | 0 | 1 | 25 | 0 | 25 | 0 | 1 | 0 | 16 | 5 | 71 |
| 07:45-07:50 | 0 | 0 | 0 | 3 | 31 | 0 | 31 | 0 | 10 | 0 | 23 | 9 | 107 |
| 07:50-07:55 | 0 | 0 | 0 | 4 | 25 | 0 | 24 | 0 | 6 | 0 | 16 | 8 | 83 |
| 07:55-08:00 | 0 | 0 | 0 | 5 | 17 | 0 | 19 | 0 | 5 | 0 | 25 | 5 | 76 |
| 08:00-08:05 | 0 | 0 | 0 | 6 | 24 | 0 | 24 | 0 | 5 | 0 | 16 | 10 | 85 |
| 08:05-08:10 | 0 | 0 | 0 | 2 | 24 | 0 | 24 | 0 | 2 | 0 | 15 | 12 | 79 |
| 08:10-08:15 | 0 | 0 | 0 | 4 | 15 | 0 | 17 | 0 | 1 | 0 | 21 | 21 | 79 |
| 08:15-08:20 | 0 | 0 | 0 | 1 | 15 | 0 | 16 | 0 | 1 | 0 | 13 | 9 | 55 |
| 08:20-08:25 | 0 | 0 | 0 | 2 | 20 | 0 | 20 | 0 | 1 | 0 | 12 | 11 | 66 |
| 08:25-08:30 | 0 | 0 | 0 | 1 | 11 | 0 | 11 | 0 | 3 | 0 | 20 | 8 | 54 |
| 08:30-08:35 | 0 | 0 | 0 | 0 | 25 | 0 | 24 | 0 | 4 | 0 | 23 | 12 | 88 |
| 08:35-08:40 | 0 | 0 | 0 | 2 | 27 | 0 | 27 | 0 | 3 | 0 | 31 | 9 | 99 |
| 08:40-08:45 | 0 | 0 | 0 | 3 | 26 | 0 | 26 | 0 | 7 | 0 | 27 | 9 | 98 |
| 08:45-08:50 | 0 | 0 | 0 | 1 | 20 | 0 | 19 | 0 | 4 | 0 | 18 | 10 | 72 |
| 08:50-08:55 | 0 | 0 | 0 | 0 | 20 | 0 | 21 | 0 | 1 | 0 | 21 | 10 | 73 |
| 08:55-09:00 | 0 | 0 | 0 | 1 | 19 | 0 | 21 | 0 | 0 | 0 | 18 | 8 | 67 |
| Peak Hour Total | 0 | 0 | 0 | 33 | 260 | 0 | 263 | 0 | 48 | 0 | 242 | 123 | 969 |
| % Trucks | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Bikes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

PEAK HOUR: 07:45-08:45
 PHF Intersection: 0.85

**INTERSECTION TURN MOVEMENT SURVEY
LEWIS RIVER ROAD & E CC STREET**

DATE OF COUNT: 11/1/2022, 16:00-18:00
 DAY OF WEEK: TUE.
 WEATHER: CLOUDY
 COUNTER: KAK

| Time Period From – To | FROM NORTH | | | FROM EAST | | | FROM SOUTH | | | FROM WEST | | | TOTAL |
|--------------------------|------------|----------|----------|-----------|------------|----------|------------|----------|------------|-----------|------------|------------|-------------|
| | L | T | R | L | T | R | L | T | R | L | T | R | |
| 16:00-16:05 | 0 | 0 | 0 | 11 | 31 | 0 | 21 | 0 | 10 | 0 | 59 | 27 | 159 |
| 16:05-16:10 | 0 | 0 | 0 | 9 | 30 | 0 | 13 | 0 | 2 | 0 | 71 | 26 | 151 |
| 16:10-16:15 | 0 | 0 | 0 | 9 | 34 | 0 | 17 | 0 | 7 | 0 | 63 | 25 | 155 |
| 16:15-16:20 | 0 | 0 | 0 | 5 | 35 | 0 | 15 | 0 | 10 | 0 | 80 | 22 | 167 |
| 16:20-16:25 | 0 | 0 | 0 | 4 | 31 | 0 | 10 | 0 | 15 | 0 | 52 | 31 | 143 |
| 16:25-16:30 | 0 | 0 | 0 | 6 | 23 | 0 | 19 | 0 | 10 | 0 | 60 | 25 | 143 |
| 16:30-16:35 | 0 | 0 | 0 | 7 | 38 | 0 | 17 | 0 | 5 | 0 | 55 | 30 | 152 |
| 16:35-16:40 | 0 | 0 | 0 | 7 | 40 | 0 | 16 | 0 | 9 | 0 | 67 | 28 | 167 |
| 16:40-16:45 | 0 | 0 | 0 | 10 | 20 | 0 | 22 | 0 | 7 | 0 | 64 | 27 | 150 |
| 16:45-16:50 | 0 | 0 | 0 | 8 | 23 | 0 | 22 | 0 | 10 | 0 | 55 | 29 | 147 |
| 16:50-16:55 | 0 | 0 | 0 | 7 | 31 | 0 | 13 | 0 | 9 | 0 | 79 | 24 | 163 |
| 16:55-17:00 | 0 | 0 | 0 | 3 | 29 | 0 | 10 | 0 | 7 | 0 | 72 | 33 | 154 |
| 17:00-17:05 | 0 | 0 | 0 | 9 | 25 | 0 | 27 | 0 | 11 | 0 | 52 | 22 | 146 |
| 17:05-17:10 | 0 | 0 | 0 | 16 | 27 | 0 | 19 | 0 | 7 | 0 | 49 | 21 | 139 |
| 17:10-17:15 | 0 | 0 | 0 | 10 | 30 | 0 | 20 | 0 | 7 | 0 | 71 | 24 | 162 |
| 17:15-17:20 | 0 | 0 | 0 | 10 | 22 | 0 | 14 | 0 | 9 | 0 | 52 | 30 | 137 |
| 17:20-17:25 | 0 | 0 | 0 | 14 | 30 | 0 | 25 | 0 | 6 | 0 | 47 | 33 | 155 |
| 17:25-17:30 | 0 | 0 | 0 | 7 | 27 | 0 | 11 | 0 | 10 | 0 | 60 | 35 | 150 |
| 17:30-17:35 | 0 | 0 | 0 | 2 | 40 | 0 | 19 | 0 | 7 | 0 | 57 | 23 | 148 |
| 17:35-17:40 | 0 | 0 | 0 | 5 | 38 | 0 | 23 | 0 | 7 | 0 | 47 | 16 | 136 |
| 17:40-17:45 | 0 | 0 | 0 | 7 | 27 | 0 | 19 | 0 | 10 | 0 | 50 | 20 | 133 |
| 17:45-17:50 | 0 | 0 | 0 | 7 | 22 | 0 | 14 | 0 | 9 | 0 | 41 | 21 | 114 |
| 17:50-17:55 | 0 | 0 | 0 | 4 | 27 | 0 | 10 | 0 | 4 | 0 | 42 | 19 | 106 |
| 17:55-18:00 | 0 | 0 | 0 | 7 | 29 | 0 | 11 | 0 | 7 | 0 | 50 | 24 | 125 |
| Peak Hour Total | 0 | 0 | 0 | 86 | 365 | 0 | 195 | 0 | 101 | 0 | 777 | 327 | 1851 |
| % Trucks | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Bikes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

PEAK HOUR: 16:00-17:00
 PHF Intersection: 0.98

**INTERSECTION TURN MOVEMENT SURVEY
SANDALWOOD ROAD & E CC STREET**

DATE OF COUNT: 11/2/2022, 07:00-09:00
 DAY OF WEEK: WED.
 WEATHER: CLOUDY
 COUNTER: KAK

| Time Period From – To | FROM NORTH | | | FROM EAST | | | FROM SOUTH | | | FROM WEST | | | TOTAL |
|--------------------------|------------|------------|----------|-----------|----------|-----------|------------|------------|-----------|-----------|----------|----------|------------|
| | L | T | R | L | T | R | L | T | R | L | T | R | |
| 07:00-07:05 | 0 | 6 | 0 | 1 | 0 | 0 | 0 | 21 | 1 | 0 | 0 | 0 | 29 |
| 07:05-07:10 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 30 |
| 07:10-07:15 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 19 | 2 | 0 | 0 | 0 | 29 |
| 07:15-07:20 | 0 | 11 | 0 | 1 | 0 | 1 | 0 | 17 | 1 | 0 | 0 | 0 | 31 |
| 07:20-07:25 | 0 | 18 | 0 | 2 | 0 | 0 | 0 | 18 | 1 | 0 | 0 | 0 | 39 |
| 07:25-07:30 | 0 | 7 | 0 | 3 | 0 | 5 | 0 | 24 | 0 | 0 | 0 | 0 | 39 |
| 07:30-07:35 | 0 | 7 | 0 | 1 | 0 | 1 | 0 | 17 | 0 | 0 | 0 | 0 | 26 |
| 07:35-07:40 | 0 | 6 | 0 | 0 | 0 | 2 | 0 | 25 | 0 | 0 | 0 | 0 | 33 |
| 07:40-07:45 | 0 | 12 | 0 | 2 | 0 | 1 | 0 | 25 | 3 | 0 | 0 | 0 | 43 |
| 07:45-07:50 | 0 | 13 | 0 | 1 | 0 | 4 | 0 | 34 | 1 | 0 | 0 | 0 | 53 |
| 07:50-07:55 | 0 | 14 | 0 | 1 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 45 |
| 07:55-08:00 | 0 | 14 | 0 | 0 | 0 | 1 | 0 | 21 | 0 | 0 | 0 | 0 | 36 |
| 08:00-08:05 | 0 | 10 | 0 | 0 | 0 | 2 | 0 | 25 | 2 | 0 | 0 | 0 | 39 |
| 08:05-08:10 | 0 | 15 | 0 | 1 | 0 | 0 | 0 | 26 | 3 | 0 | 0 | 0 | 45 |
| 08:10-08:15 | 0 | 8 | 0 | 2 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 29 |
| 08:15-08:20 | 0 | 13 | 0 | 1 | 0 | 1 | 0 | 14 | 2 | 0 | 0 | 0 | 31 |
| 08:20-08:25 | 0 | 9 | 0 | 1 | 0 | 2 | 0 | 18 | 0 | 0 | 0 | 0 | 30 |
| 08:25-08:30 | 0 | 11 | 1 | 0 | 0 | 0 | 0 | 21 | 2 | 0 | 0 | 0 | 35 |
| 08:30-08:35 | 0 | 11 | 0 | 0 | 0 | 1 | 0 | 31 | 0 | 0 | 0 | 0 | 43 |
| 08:35-08:40 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 41 |
| 08:40-08:45 | 0 | 9 | 0 | 1 | 0 | 1 | 0 | 21 | 1 | 0 | 0 | 0 | 33 |
| 08:45-08:50 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 33 |
| 08:50-08:55 | 0 | 11 | 0 | 0 | 0 | 1 | 0 | 22 | 0 | 0 | 0 | 0 | 34 |
| 08:55-09:00 | 0 | 8 | 0 | 1 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 28 |
| Peak Hour Total | 0 | 139 | 1 | 9 | 0 | 12 | 0 | 296 | 13 | 0 | 0 | 0 | 470 |
| % Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bikes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

PEAK HOUR: 07:40-08:40
 PHF Intersection: 0.83

**INTERSECTION TURN MOVEMENT SURVEY
SANDALWOOD ROAD & E CC STREET**

DATE OF COUNT: 11/2/2022, 16:00-18:00
 DAY OF WEEK: WED.
 WEATHER: CLOUDY
 COUNTER: KAK

| Time Period From – To | FROM NORTH | | | FROM EAST | | | FROM SOUTH | | | FROM WEST | | | TOTAL |
|--------------------------|------------|------------|----------|-----------|----------|-----------|------------|------------|----------|-----------|----------|----------|------------|
| | L | T | R | L | T | R | L | T | R | L | T | R | |
| 16:00-16:05 | 0 | 35 | 0 | 2 | 0 | 1 | 0 | 35 | 0 | 0 | 0 | 0 | 73 |
| 16:05-16:10 | 0 | 30 | 1 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 46 |
| 16:10-16:15 | 0 | 29 | 0 | 2 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 51 |
| 16:15-16:20 | 0 | 32 | 0 | 0 | 0 | 2 | 0 | 24 | 0 | 1 | 0 | 0 | 59 |
| 16:20-16:25 | 0 | 35 | 1 | 4 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 67 |
| 16:25-16:30 | 0 | 32 | 0 | 0 | 0 | 6 | 0 | 26 | 0 | 0 | 0 | 0 | 64 |
| 16:30-16:35 | 0 | 33 | 0 | 3 | 0 | 0 | 0 | 20 | 3 | 0 | 0 | 1 | 60 |
| 16:35-16:40 | 0 | 34 | 0 | 2 | 0 | 1 | 0 | 25 | 0 | 0 | 0 | 0 | 62 |
| 16:40-16:45 | 1 | 37 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 58 |
| 16:45-16:50 | 0 | 36 | 1 | 2 | 0 | 1 | 0 | 35 | 0 | 0 | 0 | 0 | 75 |
| 16:50-16:55 | 0 | 30 | 0 | 3 | 0 | 0 | 0 | 20 | 2 | 1 | 0 | 1 | 57 |
| 16:55-17:00 | 3 | 30 | 2 | 0 | 0 | 4 | 0 | 12 | 0 | 0 | 0 | 1 | 52 |
| 17:00-17:05 | 0 | 31 | 0 | 1 | 0 | 2 | 0 | 37 | 0 | 0 | 0 | 0 | 71 |
| 17:05-17:10 | 0 | 30 | 2 | 0 | 0 | 0 | 0 | 14 | 2 | 0 | 0 | 0 | 48 |
| 17:10-17:15 | 3 | 40 | 0 | 2 | 0 | 4 | 0 | 29 | 0 | 0 | 0 | 0 | 78 |
| 17:15-17:20 | 0 | 45 | 1 | 2 | 0 | 3 | 0 | 20 | 2 | 0 | 0 | 0 | 73 |
| 17:20-17:25 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 53 |
| 17:25-17:30 | 0 | 32 | 0 | 0 | 0 | 2 | 0 | 17 | 0 | 0 | 0 | 0 | 51 |
| 17:30-17:35 | 2 | 24 | 2 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 48 |
| 17:35-17:40 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 52 |
| 17:40-17:45 | 0 | 31 | 0 | 1 | 0 | 2 | 0 | 19 | 0 | 0 | 0 | 0 | 53 |
| 17:45-17:50 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 42 |
| 17:50-17:55 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 39 |
| 17:55-18:00 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 41 |
| Peak Hour Total | 7 | 413 | 7 | 19 | 0 | 21 | 0 | 285 | 9 | 1 | 0 | 3 | 765 |
| % Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Peds | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bikes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

PEAK HOUR: 16:15-17:15
 PHF Intersection: 0.96

APPENDIX B
IN-PROCESS TRAFFIC

FILE: 2020-26flow.dwg

PLOT DATE: 11.10.2020

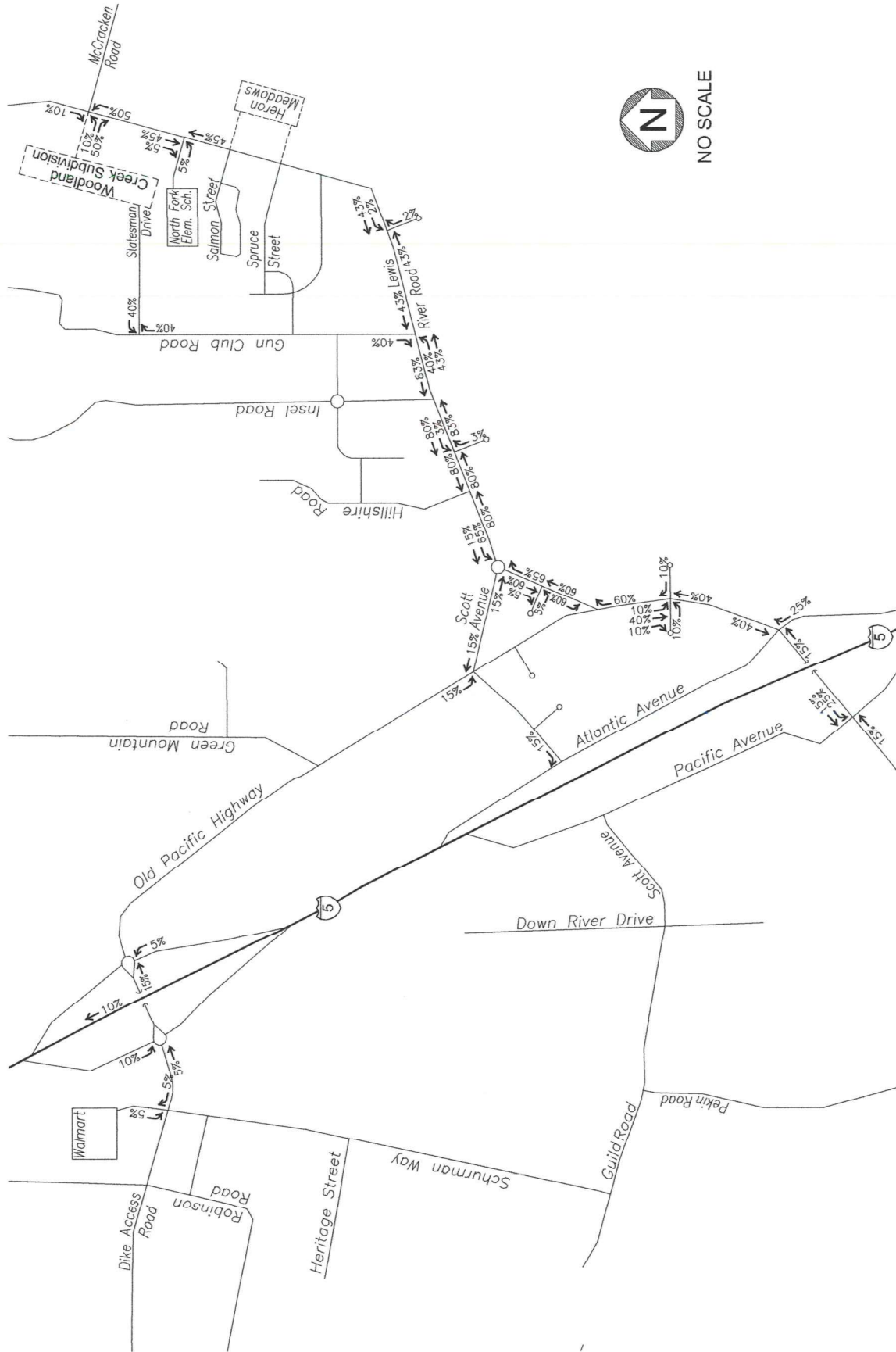


FIGURE 4

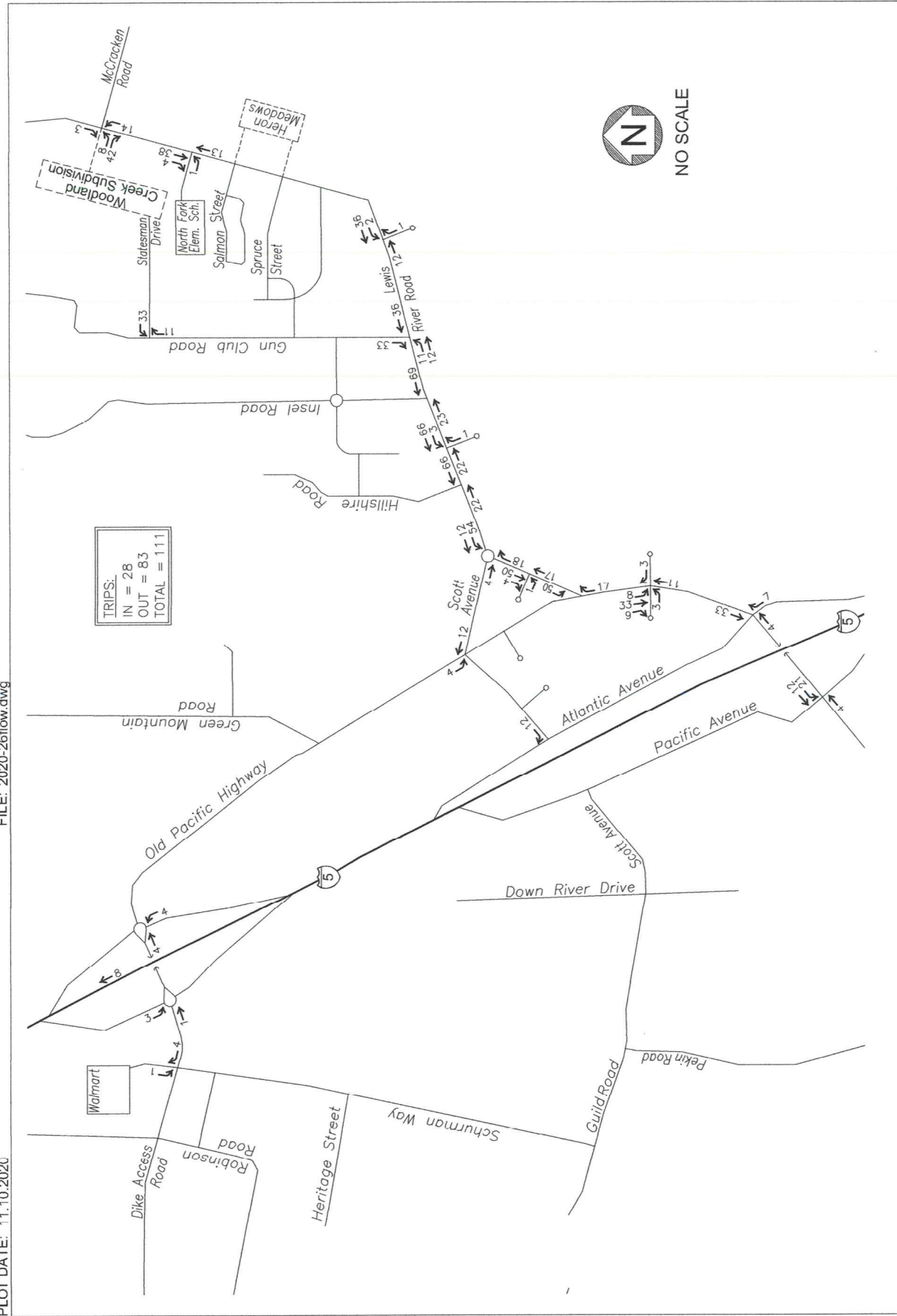
TRIP DISTRIBUTION
AM PEAK HOUR AND PM PEAK HOUR
WOODLAND CREEK SUBDIVISION

NOTES: Trip distribution based on engineering judgment.

CHARBONNEAU ENGINEERING LLC
PROJECT: 2020-26

FILE: 2020-26flow.dwg

PLOT DATE: 11.10.2020



| | |
|--|--------|
| <p>TRIP ASSIGNMENT AM PEAK HOUR WOODLAND CREEK SUBDIVISION</p> | FIGURE |
| | 5a |

NOTES: Trip generation calculated with Single-Family Residential (ITE 210) trip rates.

CHARBONNEAU ENGINEERING LLC
PROJECT: 2020-26

FILE: 2020-26flow.dwg

PLOT DATE: 11.10.2020

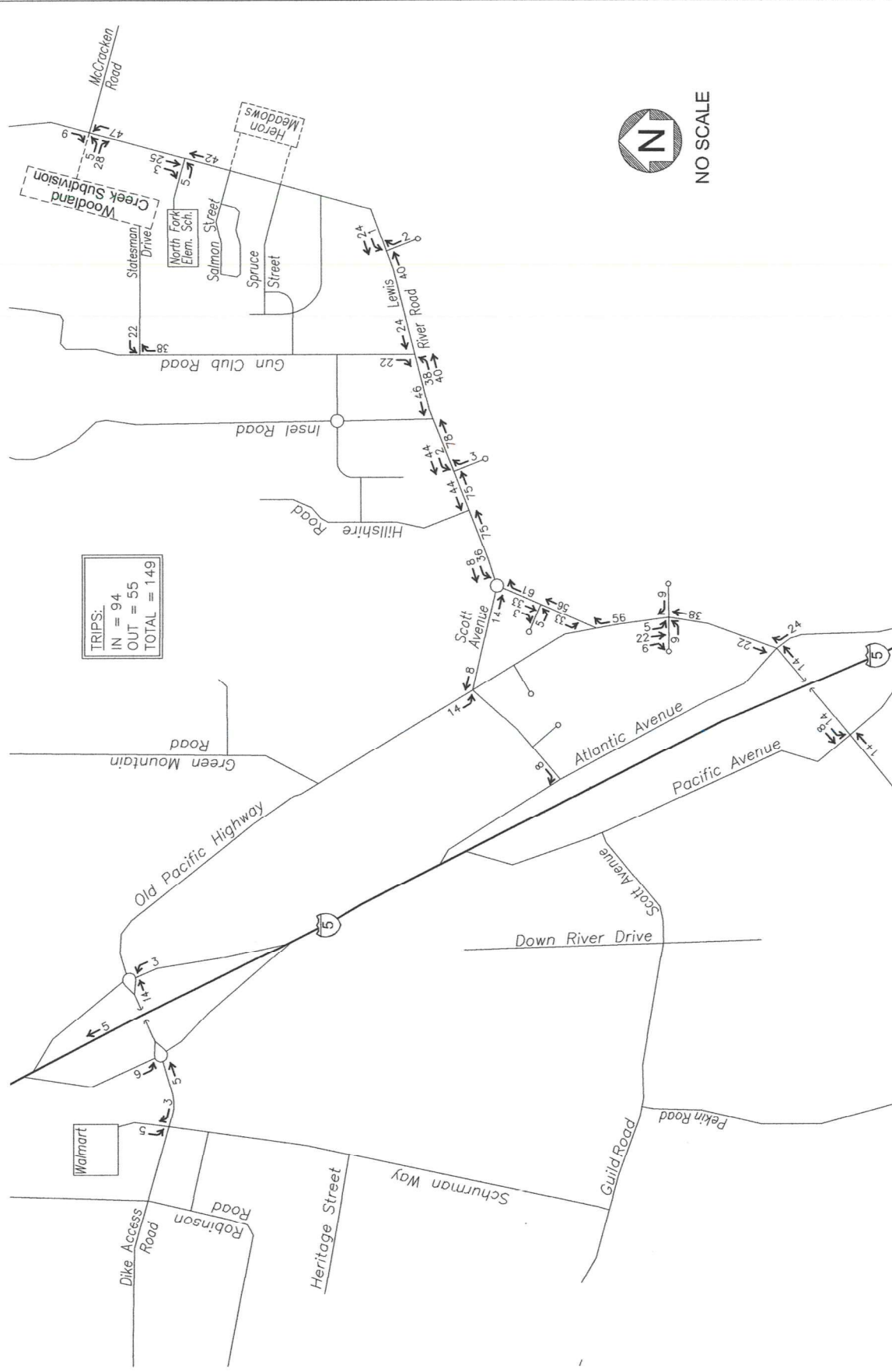


FIGURE
5b

TRIP ASSIGNMENT
 PM PEAK HOUR
 WOODLAND CREEK SUBDIVISION

NOTES: Trip generation calculated with
 Single-Family Residential (ITE 210) trip rates.

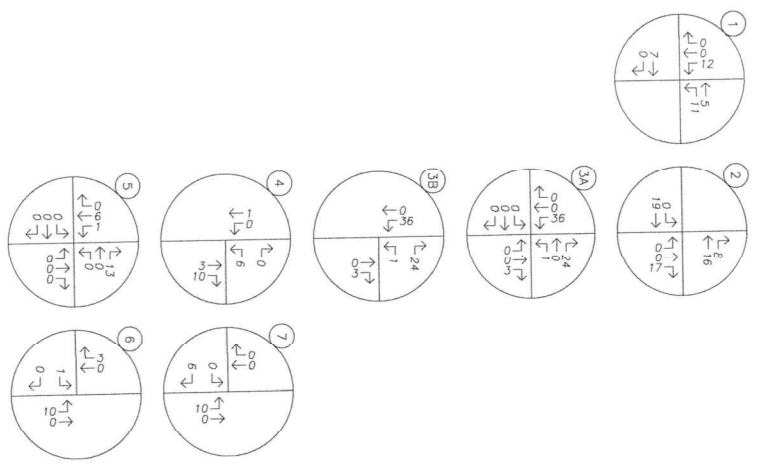
CHARBONNEAU
 ENGINEERING LLC
 PROJECT: 2020-26



LEGEND

| PERCENT OF PROJECT TRIPS | |
|--------------------------|-----------------|
| XX% | TRIP GENERATION |
| XX% | TOTAL |

| TRIP GENERATION | TOTAL |
|-----------------|-------|
| PM 49 | 50 |
| AM 51 | 50 |



SITE TRIP DISTRIBUTION & ASSIGNMENT
 Proposed Development Plan - Site Trips
 PM Peak Hour

Figure 3
 Oak Village Apartments
 6/16/2021

**APPENDIX C
COLLISION DATA**

CITY STREET

CC ST @ SANDLEWOOD RD / TREATMENT PLANT RD

STATE ROUTES

SR 005LX02108 (aka Lewis River Dr, MP 0.00 - 0.02) @ SB SR 5 on-ramp & Pacific Ave

SR 005FD02108 (aka Pacific Ave, MP 0.00 - 0.02) @ Lewis River Dr & SB SR 5 on-ramp

SR 005S102071 (MP 0.00 - 0.02) @ Lewis River Dr

SR 503 (aka Lewis River Dr, MP 54.32 - 54.36) @ NB SR 5 off-ramp & Atlantic St

SR 005FI02108 (aka Atlantic St, MP 0.00 - 0.02) @ SR 503 - *No Reported Crashes*

SR 005P102085 (MP 0.23 - 0.25) @ SR 503 - *No Reported Crashes*

SR 503 (aka Lewis River Dr, MP 54.28 - 54.31) @ CC St

OFFICER REPORTED CRASHES THAT OCCURRED AT OR IN THE VICINITY OF MULTIPLE INTERSECTIONS IN THE CITY OF WOODLAND
01/01/2019 - available 2022 See 2nd tab below for road information & interchange drawing for reference

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

| JURISDICTION | COUNTY | CITY | PRIMARY TRAFFICWAY | BLOCK NUMBER | INTERSECTING TRAFFICWAY | DIST FROM REF POINT | MI or FT | COMP DIR FROM REF POINT | REFERENCE POINT NAME |
|--------------|---------|----------|--------------------|--------------|----------------------------------|---------------------|----------|-------------------------|----------------------|
| City Street | Cowlitz | Woodland | CC ST | 100 | | 28 | F | NW | TREATMENT PLANT RD |
| City Street | Cowlitz | Woodland | E CC ST | 198 | SANDALWOOD RD | | | | |
| City Street | Cowlitz | Woodland | E CC ST | 198 | TREATMENT PLANT RD | | | | |
| City Street | Cowlitz | Woodland | E CC ST | 0 | TREATMENT PLANT RD | | | | |
| City Street | Cowlitz | Woodland | E CC ST | 0 | TREATMENT PLANT RD | | | | |
| City Street | Cowlitz | Woodland | E CC ST | 0 | TREATMENT PLANT RD/SANDALWOOD DR | | | | |
| City Street | Cowlitz | Woodland | E CC ST | 198 | | 181 | F | SE | LEWIS RIVER RD |
| City Street | Cowlitz | Woodland | E CC ST | 100 | | 300 | F | SE | LEWIS RIVER RD |
| City Street | Cowlitz | Woodland | E CC ST | 7200 | | 0.13 | M | E | TREATMENT PLANT RD |
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 503 | | | | | | |

| MILEPOST | A / B | SR ONLY HISTORY / SUSPENSE IND | REPORT NUMBER | DATE | TIME | MOST SEVERE INJURY TYPE | # I N J U R Y | # F A T A L I T Y | # P E D E S T R I A N | # B I K E S | VEHICLE 1 TYPE |
|----------|-------------|---|------------------|------------|-------|----------------------------|---------------------------------|---|---|----------------------------|---|
| | | No | E940127 | 07/08/2019 | 16:15 | No Apparent Injury | 0 | 0 | 2 | 0 | Passenger Car |
| | | No | EC56482 | 06/16/2022 | 22:10 | No Apparent Injury | 0 | 0 | 2 | 0 | Pickup,Panel Truck or Vanette under 10,000 lb |
| | | No | EC04503 | 12/24/2021 | 16:15 | Possible Injury | 2 | 0 | 2 | 0 | Passenger Car |
| | | No | E951447 | 08/18/2019 | 15:05 | No Apparent Injury | 0 | 0 | 2 | 0 | Passenger Car |
| | | No | E982977 | 11/14/2019 | 08:57 | No Apparent Injury | 0 | 0 | 2 | 0 | Pickup,Panel Truck or Vanette under 10,000 lb |
| | | No | E977092 | 10/31/2019 | 16:05 | No Apparent Injury | 0 | 0 | 2 | 0 | Pickup,Panel Truck or Vanette under 10,000 lb |
| | | No | EC58338 | 06/23/2022 | 18:40 | No Apparent Injury | 0 | 0 | 2 | 0 | Passenger Car |
| | | No | E914353 | 04/24/2019 | 18:32 | No Apparent Injury | 0 | 0 | 2 | 0 | Pickup,Panel Truck or Vanette under 10,000 lb |
| | | No | EB13935 | 03/15/2021 | 08:37 | No Apparent Injury | 0 | 0 | 2 | 0 | Pickup,Panel Truck or Vanette under 10,000 lb |
| 54.28 | | No | EB61373 | 08/25/2021 | 16:50 | Possible Injury | 1 | 0 | 3 | 0 | Pickup,Panel Truck or Vanette under 10,000 lb |
| 54.32 | | No | E957479 | 09/05/2019 | 16:23 | No Apparent Injury | 0 | 0 | 2 | 0 | Passenger Car |
| 54.32 | | No | EB31350 | 05/17/2021 | 17:15 | No Apparent Injury | 0 | 0 | 2 | 0 | Pickup,Panel Truck or Vanette under 10,000 lb |
| 54.33 | | No | EB34673 | 05/27/2021 | 19:05 | No Apparent Injury | 0 | 0 | 2 | 0 | Pickup,Panel Truck or Vanette under 10,000 lb |
| 54.33 | | No | EA89196 | 12/14/2020 | 06:10 | No Apparent Injury | 0 | 0 | 2 | 0 | Pickup,Panel Truck or Vanette under 10,000 lb |
| 54.33 | | No | EB66545 | 09/08/2021 | 11:30 | Suspected Minor Injury | 1 | 0 | 2 | 0 | Pickup,Panel Truck or Vanette under 10,000 lb |
| 54.33 | | No | EB83682 | 10/29/2021 | 06:46 | Possible Injury | 1 | 0 | 2 | 0 | Passenger Car |
| 54.33 | | No | E951912 | 08/19/2019 | 18:35 | No Apparent Injury | 0 | 0 | 2 | 0 | Pickup,Panel Truck or Vanette under 10,000 lb |
| 54.33 | | No | EB95544 | 11/30/2021 | 06:45 | Possible Injury | 1 | 0 | 2 | 0 | School Bus |
| 54.33 | | No | E886037 | 01/22/2019 | 07:47 | No Apparent Injury | 0 | 0 | 2 | 0 | Passenger Car |
| 54.33 | | No | E944841 | 07/28/2019 | 20:35 | No Apparent Injury | 0 | 0 | 1 | 0 | Passenger Car |
| 54.33 | | No | E898501 | 03/02/2019 | 12:45 | No Apparent Injury | 0 | 0 | 2 | 0 | Passenger Car |
| 54.33 | | No | EA00907 | 01/06/2020 | 07:50 | No Apparent Injury | 0 | 0 | 2 | 0 | Truck Tractor & Semi-Trailer |

| VEHICLE 2 TYPE | JUNCTION RELATIONSHIP | WEATHER | ROADWAY SURFACE CONDITION | LIGHTING CONDITION |
|---|---------------------------------------|------------------------|---------------------------|-----------------------|
| Passenger Car | Not at Intersection and Not Related | Clear or Partly Cloudy | Dry | Daylight |
| Passenger Car | At Intersection and Related | Clear or Partly Cloudy | Dry | Dark-Street Lights On |
| Pickup,Panel Truck or Vanette under 10,000 lb | At Driveway within Major Intersection | Overcast | Wet | Dusk |
| Passenger Car | At Driveway within Major Intersection | Clear or Partly Cloudy | Dry | Daylight |
| Passenger Car | At Driveway within Major Intersection | Clear or Partly Cloudy | Dry | Daylight |
| Pickup,Panel Truck or Vanette under 10,000 lb | At Driveway within Major Intersection | Clear or Partly Cloudy | Dry | Daylight |
| Passenger Car | At Driveway | Clear or Partly Cloudy | Dry | Daylight |
| Pickup,Panel Truck or Vanette under 10,000 lb | Not at Intersection and Not Related | Clear or Partly Cloudy | Dry | Daylight |
| Pickup,Panel Truck or Vanette under 10,000 lb | Not at Intersection and Not Related | Clear | Ice | Daylight |
| Pickup,Panel Truck or Vanette under 10,000 lb | Not at Intersection and Not Related | Clear or Partly Cloudy | Dry | Daylight |
| Pickup,Panel Truck or Vanette under 10,000 lb | At Intersection and Related | Clear or Partly Cloudy | Dry | Daylight |
| Passenger Car | At Intersection and Related | Overcast | Dry | Daylight |
| Passenger Car | At Intersection and Related | Clear or Partly Cloudy | Dry | Daylight |
| Truck Tractor & Semi-Trailer | At Intersection and Related | Fog or Smog or Smoke | Wet | Dark-Street Lights On |
| Pickup,Panel Truck or Vanette under 10,000 lb | At Intersection and Related | Clear | Dry | Daylight |
| Pickup,Panel Truck or Vanette under 10,000 lb | At Intersection and Related | Raining | Wet | Dark-Street Lights On |
| Pickup,Panel Truck or Vanette under 10,000 lb | At Intersection and Related | Clear or Partly Cloudy | Dry | Daylight |
| Pickup,Panel Truck or Vanette under 10,000 lb | At Intersection and Related | Overcast | Dry | Dawn |
| Pickup,Panel Truck or Vanette under 10,000 lb | At Intersection and Related | Clear or Partly Cloudy | Wet | Daylight |
| Pickup,Panel Truck or Vanette under 10,000 lb | At Intersection and Related | Clear or Partly Cloudy | Dry | Dusk |
| Pickup,Panel Truck or Vanette under 10,000 lb | At Intersection and Related | Clear or Partly Cloudy | Dry | Daylight |
| Pickup,Panel Truck or Vanette under 10,000 lb | At Intersection and Related | Raining | Wet | Daylight |

| FIRST COLLISION TYPE / OBJECT STRUCK | VEHICLE 1 ACTION | VEHICLE 2 ACTION | VEHICLE 1 COMPASS DIRECTION FROM |
|---|--------------------------------|--------------------------------|----------------------------------|
| From same direction - all others | Making U-Turn | Going Straight Ahead | Southwest |
| Entering at angle | Stopped at Signal or Stop Sign | Making Left Turn | Vehicle Stopped |
| Entering at angle | Starting in Traffic Lane | Going Straight Ahead | West |
| Entering at angle | Going Straight Ahead | Making Left Turn | North |
| Entering at angle | Making Left Turn | Going Straight Ahead | North |
| Entering at angle | Making Left Turn | Going Straight Ahead | North |
| From opposite direction - one left turn - one straight | Making Left Turn | Going Straight Ahead | North |
| From same direction - both going straight - one stopped - rear-end | Stopped for Traffic | Going Straight Ahead | Vehicle Stopped |
| Bridge Rail - Face | Going Straight Ahead | Going Straight Ahead | East |
| From same direction - both going straight - one stopped - rear-end | Going Straight Ahead | Stopped for Traffic | West |
| From same direction - both going straight - one stopped - rear-end | Stopped at Signal or Stop Sign | Going Straight Ahead | West |
| From same direction - both going straight - one stopped - sideswipe | Going Straight Ahead | Stopped at Signal or Stop Sign | West |
| From same direction - both going straight - one stopped - rear-end | Stopped for Traffic | Starting in Traffic Lane | West |
| From same direction - both going straight - one stopped - rear-end | Stopped at Signal or Stop Sign | Going Straight Ahead | Vehicle Stopped |
| From opposite direction - one left turn - one right turn | Making Left Turn | Making Right Turn | West |
| From opposite direction - one left turn - one straight | Making Left Turn | Going Straight Ahead | West |
| From same direction - both going straight - one stopped - rear-end | Going Straight Ahead | Stopped at Signal or Stop Sign | West |
| From opposite direction - one left turn - one straight | Making Left Turn | Going Straight Ahead | West |
| From opposite direction - one left turn - one straight | Making Left Turn | Going Straight Ahead | West |
| Tree or Stump (stationary) | Making Left Turn | | West |
| Entering at angle | Going Straight Ahead | Making Right Turn | East |
| From same direction - one left turn - one straight | Making Left Turn | Stopped at Signal or Stop Sign | West |

| VEHICLE 1 COMPASS DIRECTION TO | VEHICLE 2 COMPASS DIRECTION FROM | VEHICLE 2 COMPASS DIRECTION TO | MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1) | MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2) |
|--------------------------------------|--|--------------------------------------|---|---|
| Southwest | Northeast | Southwest | Did Not Grant RW to Vehicle | Driver Not Distracted |
| Vehicle Stopped | East | South | None | Under Influence of Alcohol |
| East | South | North | Did Not Grant RW to Vehicle | None |
| South | East | South | None | Did Not Grant RW to Vehicle |
| South | East | West | Exceeding Reas. Safe Speed | None |
| East | West | East | Did Not Grant RW to Vehicle | None |
| East | South | North | Did Not Grant RW to Vehicle | None |
| Vehicle Stopped | West | East | None | Inattention |
| West | West | East | Other Contributing Circ Not Listed | Other Contributing Circ Not Listed |
| East | Vehicle Stopped | Vehicle Stopped | Follow Too Closely | None |
| East | West | East | None | Follow Too Closely |
| East | Vehicle Stopped | Vehicle Stopped | Distractions Outside Vehicle | None |
| East | Vehicle Stopped | Vehicle Stopped | None | Other Distractions |
| Vehicle Stopped | North | East | None | Unknown Distraction |
| North | East | North | Did Not Grant RW to Vehicle | Unknown Distraction |
| North | East | West | Did Not Grant RW to Vehicle | None |
| East | West | Vehicle Stopped | Follow Too Closely | None |
| North | East | West | Did Not Grant RW to Vehicle | Unknown Distraction |
| North | East | West | Under Influence of Alcohol | None |
| West | North | West | Other Contributing Circ Not Listed | Other Contributing Circ Not Listed |
| North | Vehicle Stopped | Vehicle Stopped | Other Contributing Circ Not Listed | None |

| FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward) | WA STATE PLANE SOUTH - X 2010 - FORWARD | WA STATE PLANE SOUTH - Y 2010 - FORWARD |
|--|---|---|
| Lane of Primary Trafficway | 1070062.94 | 216944.1 |
| Intersecting Trafficway | 1070083.53 | 216924.79 |
| Lane of Primary Trafficway | 1070083.53 | 216924.79 |
| Lane of Primary Trafficway | 1070083.86 | 216926.08 |
| Lane of Primary Trafficway | 1070083.85 | 216926.07 |
| Lane of Primary Trafficway | 1070083.85 | 216926.07 |
| Lane of Primary Trafficway | 1070083.53 | 216924.79 |
| Lane of Primary Trafficway | 1070180.62 | 216869.09 |
| Outside Shoulder of Primary Trafficway | 1070741.42 | 216837.36 |
| Lane 1 Decreasing Milepost | 1070070.19 | 217158.74 |
| Lane 1 Decreasing Milepost | 1069920.08 | 217045.24 |
| Lane 1 Decreasing Milepost | 1069911.14 | 217037.6 |
| Lane 1 Decreasing Milepost | 1069863.27 | 217003.52 |
| Lane 1 Off Ramp Increasing Milepost Side of Mainline | 1069863.3 | 217005.87 |
| Lane 2 Increasing Milepost | 1069858.22 | 217005.93 |
| Lane 1 Increasing Milepost | 1069863.24 | 217003.56 |
| Left Turn Lane Decreasing Milepost | 1069853.6 | 216995.25 |
| Lane 1 Increasing Milepost | 1069862.26 | 217000.7 |
| Lane 1 Increasing Milepost | 1069853.6 | 216995.25 |
| Intersecting Road Increasing Milepost | 1069853.6 | 216995.25 |
| Lane 2 Increasing Milepost | 1069853.6 | 216995.25 |
| Lane 2 Decreasing Milepost | 1069853.62 | 216995.24 |

**OFFICER REPORTED CRASHES THAT OCCURRED AT OR IN THE VICINITY OF MULTIPLE INTERSECTIONS IN THE CITY OF WOODLAND
01/01/2019 - available 2022** See 2nd tab below for road information & interchange drawing for reference

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

| JURISDICTION | COUNTY | CITY | PRIMARY TRAFFICWAY | BLOCK NUMBER | INTERSECTING TRAFFICWAY | DIST FROM REF POINT | MI or FT | COMP DIR FROM REF POINT | REFERENCE POINT NAME |
|--------------|---------|----------|--------------------|--------------|-------------------------|---------------------|----------|-------------------------|----------------------|
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 503 | | | | | | |
| State Route | Cowlitz | Woodland | 005FD02108 | | | | | | |
| State Route | Cowlitz | Woodland | 005LX02108 | | | | | | |
| State Route | Cowlitz | Woodland | 005LX02108 | | | | | | |
| State Route | Cowlitz | Woodland | 005LX02108 | | | | | | |
| State Route | Cowlitz | Woodland | 005LX02108 | | | | | | |
| State Route | Cowlitz | Woodland | 005LX02108 | | | | | | |
| State Route | Cowlitz | Woodland | 005LX02108 | | | | | | |
| State Route | Cowlitz | Woodland | 005LX02108 | | | | | | |
| State Route | Cowlitz | Woodland | 005LX02108 | | | | | | |
| State Route | Cowlitz | Woodland | 005S102071 | | | | | | |

| MILEPOST | A / B | SR ONLY HISTORY / SUSPENSE IND | REPORT NUMBER | DATE | TIME | MOST SEVERE INJURY TYPE | # I N J U R I E S | # F A T A L S | # P E R I T S | # B I K E S | VEHICLE 1 TYPE | |
|----------|-------|--------------------------------|---------------|------------|-------|-------------------------|-------------------|---------------|---------------|-------------|----------------|--|
| 54.33 | | No | EA80049 | 11/09/2020 | 06:33 | No Apparent Injury | 0 | 0 | 2 | 0 | 0 | Passenger Car |
| 54.33 | | No | EA20325 | 03/03/2020 | 07:52 | No Apparent Injury | 0 | 0 | 2 | 0 | 0 | Passenger Car |
| 0.02 | | No | EA63911 | 09/15/2020 | 17:15 | No Apparent Injury | 0 | 0 | 2 | 0 | 0 | Pickup, Panel Truck or Vanette under 10,000 lb |
| 0.00 | | No | EB81982 | 10/25/2021 | 17:45 | No Apparent Injury | 0 | 0 | 2 | 0 | 0 | Pickup, Panel Truck or Vanette under 10,000 lb |
| 0.00 | | No | E897172 | 02/25/2019 | 21:41 | Suspected Minor Injury | 1 | 0 | 1 | 1 | 0 | Passenger Car |
| 0.00 | | No | E943343 | 07/24/2019 | 13:23 | Possible Injury | 2 | 0 | 2 | 0 | 0 | Passenger Car |
| 0.00 | | No | EA14176 | 02/12/2020 | 16:28 | No Apparent Injury | 0 | 0 | 2 | 0 | 0 | Pickup, Panel Truck or Vanette under 10,000 lb |
| 0.00 | | No | E918927 | 05/09/2019 | 01:46 | No Apparent Injury | 0 | 0 | 1 | 0 | 0 | Truck Tractor & Semi-Trailer |
| 0.00 | | No | EA99779 | 01/19/2021 | 17:58 | No Apparent Injury | 0 | 0 | 2 | 0 | 0 | Pickup, Panel Truck or Vanette under 10,000 lb |
| 0.00 | | No | EA63479 | 09/13/2020 | 14:23 | Possible Injury | 1 | 0 | 2 | 0 | 0 | Motorcycle |
| 0.01 | | No | EC33036 | 03/29/2022 | 14:23 | No Apparent Injury | 0 | 0 | 1 | 0 | 0 | Motorcycle |

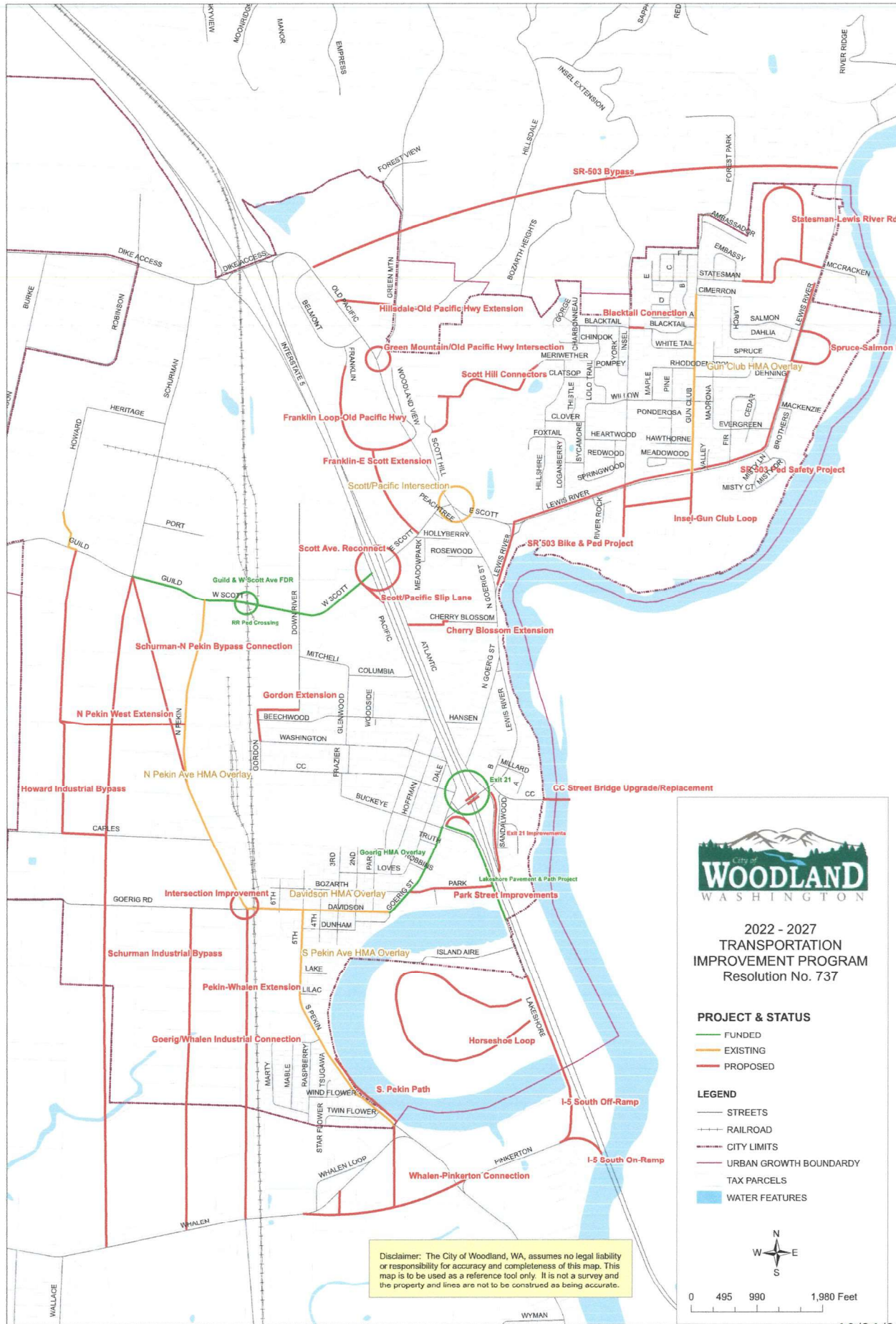
| VEHICLE 2 TYPE | JUNCTION RELATIONSHIP | WEATHER | ROADWAY SURFACE CONDITION | LIGHTING CONDITION |
|---|-------------------------------------|------------------------|---------------------------|-----------------------|
| Pickup,Panel Truck or Vanette under 10,000 lb | At Intersection and Related | Clear | Wet | Dark-Street Lights On |
| School Bus | At Intersection and Related | Clear | Wet | Daylight |
| Passenger Car | At Intersection and Related | Fog or Smog or Smoke | Dry | Dusk |
| Pickup,Panel Truck or Vanette under 10,000 lb | At Intersection and Related | Raining | Wet | Daylight |
| | At Intersection and Related | Clear or Partly Cloudy | Dry | Dark-Street Lights On |
| Pickup,Panel Truck or Vanette under 10,000 lb | At Intersection and Related | Clear or Partly Cloudy | Dry | Daylight |
| Passenger Car | At Intersection and Related | Clear or Partly Cloudy | Dry | Daylight |
| Passenger Car | At Intersection and Related | Clear or Partly Cloudy | Dry | Dark-Street Lights On |
| Pickup,Panel Truck or Vanette under 10,000 lb | At Intersection and Related | Clear or Partly Cloudy | Dry | Dark-Street Lights On |
| | At Intersection and Related | Fog or Smog or Smoke | Dry | Daylight |
| | Not at Intersection and Not Related | Overcast | Dry | Daylight |

| FIRST COLLISION TYPE / OBJECT STRUCK | VEHICLE 1 ACTION | VEHICLE 2 ACTION | VEHICLE 1 COMPASS DIRECTION FROM |
|--|----------------------|--------------------------------|----------------------------------|
| From opposite direction - one left turn - one right turn | Making Left Turn | Making Right Turn | North |
| From opposite direction - one left turn - one straight | Going Straight Ahead | Making Left Turn | East |
| From same direction - both going straight - one stopped - rear-end | Going Straight Ahead | Stopped at Signal or Stop Sign | North |
| From opposite direction - one left turn - one straight | Going Straight Ahead | Making Left Turn | West |
| Vehicle turning left hits pedestrian | Making Left Turn | | West |
| From same direction - both going straight - one stopped - rear-end | Going Straight Ahead | Stopped in Roadway | South |
| From same direction - both going straight - one stopped - rear-end | Going Straight Ahead | Stopped at Signal or Stop Sign | East |
| Signal Pole | Backing | | West |
| From opposite direction - one left turn - one straight | Making Left Turn | Going Straight Ahead | East |
| From opposite direction - one left turn - one straight | Going Straight Ahead | Making Left Turn | East |
| Vehicle overturned | Other* | | North |

| VEHICLE 1 COMPASS DIRECTION TO | VEHICLE 2 COMPASS DIRECTION FROM | VEHICLE 2 COMPASS DIRECTION TO | MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1) | MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2) |
|--------------------------------------|--|--------------------------------------|---|---|
| East | South | East | None | None |
| West | West | North | None | Did Not Grant RW to Vehicle |
| South | Vehicle Stopped | Vehicle Stopped | Distractions Outside Vehicle | None |
| East | East | South | None | Did Not Grant RW to Vehicle |
| North | | | Did Not Grant R/W to Non Motorist | |
| North | Vehicle Stopped | Vehicle Stopped | Driver Interacting with Passengers, Anim | Driver Not Distracted |
| West | Vehicle Stopped | Vehicle Stopped | Distractions Outside Vehicle | None |
| Vehicle Backing | | | Inattention | |
| South | West | East | Did Not Grant RW to Vehicle | Other Contributing Circ Not Listed |
| West | West | North | Exceeding Reas. Safe Speed | Did Not Grant RW to Vehicle |
| South | | | None | |

| | WA STATE PLANE SOUTH - X 2010 - FORWARD | WA STATE PLANE SOUTH - Y 2010 - FORWARD |
|---|---|---|
| FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward) | | |
| Lane 1 Decreasing Milepost | 1069862.42 | 217000.08 |
| Lane 1 Increasing Milepost | 1069863.27 | 217003.52 |
| Lane 2 Decreasing Milepost | 1069400.98 | 216767.94 |
| Lane 1 LX Increasing Milepost (Prior to 2002 Impact Location Code was not lane specific) | 1069435.17 | 216694.88 |
| Intersecting Road Decreasing Milepost | 1069437.79 | 216691.06 |
| Left Turn Lane LX Increasing Milepost (Prior to 2002 Impact Location Code was not lane specific) | 1069440.83 | 216692.56 |
| Left Turn Lane LX Decreasing Milepost | 1069435.92 | 216696.24 |
| Decreasing Other Location | 1069440.27 | 216695.46 |
| Lane 2 LX Increasing Milepost (Prior to 2002 Impact Location Code was not lane specific) | 1069435.51 | 216694.39 |
| Lane 2 LX Decreasing Milepost | 1069440.05 | 216687.75 |
| Lane 1 On Ramp Decreasing Milepost Side of Mainline | 1069474.3 | 216645.63 |

APPENDIX D
TRANSPORTATION IMPROVEMENT PROJECTS





Six Year Transportation Improvement Program From 2022 to 2027

Agency: Woodland
 County: Cowlitz
 MPO/RTPO: SWW RTPO

N Inside

Y Outside

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|----|-----------------|---|--|----------|---------|----------|---------|----------|-----------|--|----------------|-----|------------------|----|---------------|--|--------------|----------|--------------------|--|-------------|----|
| Functional Class | 01 | Priority Number | 4 | B. STIP ID | | Hearing | 09/07/21 | Adopted | 06/21/21 | Amendment | | Resolution No. | 737 | Improvement Type | 18 | Utility Codes | | Total Length | 0.800 CE | Environmental Type | | RW Required | No |
| | | | | G. Structure ID | WA-09993 | | | | | | | | | | | | | | | | | | |
| | | | | City of Woodland Exit 21 Interchange Project I-5 and SR-503 Pacific Avenue to Atlantic Avenue Develop designs for Exit 21 on both sides of I-5. | | | | | | | | | | | | | | | | | | | |

| Funding Status | Phase | Phase Start Year (YYYY) | Federal Fund Code | Federal Funds | State Fund Code | State Funds | Local Funds | Total Funds |
|----------------|-------|-------------------------|-------------------|----------------|-----------------|-------------|---------------|----------------|
| | | | | | | | | |
| S | PL | 2023 | | 600,000 | | 0 | 81,000 | 681,000 |
| | | | | 600,000 | | | 81,000 | 681,000 |

| Expenditure Schedule Phase | 1st | | 2nd | | 3rd | | 4th | | 5th & 6th | |
|----------------------------|-----|---|---------|---|-----|---|-----|---|-----------|---|
| | PL | 0 | 681,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Totals | 0 | 0 | 681,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



Six Year Transportation Improvement Program From 2022 to 2027

Agency: Woodland
County: Cowlitz

MPO/RTPO: SWW RTPO

N Inside

Y Outside

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|----|-----------------|---|------------------------------------|--|---------|----------|---------|----------|-----------|--|---------------|-----|------------------|----|---------------|--|--------------|--|--------------------|--|-------------|----|
| Functional Class | 00 | Priority Number | 5 | B. STIP ID | | Hearing | 06/21/21 | Adopted | 06/21/21 | Amendment | | Resolution No | 737 | Improvement Type | 03 | Utility Codes | | Total Length | | Environmental Type | | RW Required | No |
| A. PIN/Project No. | | | | G. Structure ID | | | | | | | | | | | | | | | | | | | |
| C. Project Title | | | | WA-11290 | | | | | | | | | | | | | | | | | | | |
| D. Road Name or Number | | | | Exit 21 Improvements | | | | | | | | | | | | | | | | | | | |
| E. Begin & End Termini | | | | to | | | | | | | | | | | | | | | | | | | |
| F. Project Description | | | | Exit 21 Improvements- Construction | | | | | | | | | | | | | | | | | | | |

| Funding Status | Phase | Phase Start Year (YYYY) | Federal Fund Code | Federal Funds | State Fund Code | State Funds | Local Funds | Total Funds |
|----------------|-------|-------------------------|-------------------|---------------|-----------------|-------------|-------------|-------------|
| P | ALL | 2024 | | 0 | | 0 | 0 | 1 |
| Totals | | | | 0 | | 0 | 0 | 1 |

| Expenditure Schedule | 1st | 2nd | 3rd | 4th | 5th & 6th |
|----------------------|----------|----------|----------|----------|-----------|
| Phase | 0 | 0 | 1 | 0 | 0 |
| ALL | 0 | 0 | 1 | 0 | 0 |
| Totals | 0 | 0 | 1 | 0 | 0 |



Six Year Transportation Improvement Program From 2022 to 2027

Agency: Woodland
County: Cowlitz
MPO/RTPO: SWW RTPO

N Inside

Y Outside

| | | | | | | | | | | | | | | | | | |
|------------------|----|-----------------|----|--|--|-----------------------------|----------|----------|---------|-----------|----------------|------------------|---------------|--------------|--------------------|-------------|----|
| Functional Class | 16 | Priority Number | 30 | A. PIN/Project No. C. Project Title D. Road Name or Number E. Begin & End Termini F. Project Description | | B. STIP ID | Hearing | | Adopted | Amendment | Resolution No. | Improvement Type | Utility Codes | Total Length | Environmental Type | RW Required | |
| | | | | CC Street Bridge Upgrade/Replacement to CC Street Bridge Upgrade/Replacement | | G. Structure ID WA-11268 | 05/18/20 | 06/01/20 | | | 717 | 10 | | | | | No |

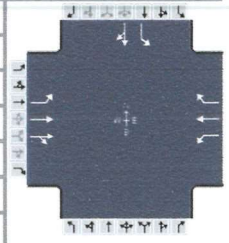
| Funding Status | Phase | Phase Start Year (YYYY) | Federal Fund Code | Federal Funds | State Fund Code | State Funds | Local Funds | Total Funds |
|----------------|-------|-------------------------|-------------------|---------------|-----------------|-------------|-------------|-------------|
| | | | | | | | | |
| P | ALL | 2027 | | 0 | | 0 | 0 | 1 |
| | | | | Totals | | 0 | 0 | 1 |

| Expenditure Schedule Phase | 1st | 2nd | 3rd | 4th | 5th & 6th |
|----------------------------|-----|-----|-----|-----|-----------|
| | | | | | |
| ALL | 0 | 0 | 0 | 0 | 1 |
| Totals | 0 | 0 | 0 | 0 | 1 |

APPENDIX E
LEVEL OF SERVICE COMPUTER PRINTOUTS

HCS 2010 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|--------------------------|---------------|--------------|--------------------------|-----------|--|--|
| Agency | | | | Duration, h | 0.25 | | |
| Analyst | | | | Analysis Date | 7/21/2019 | | |
| Jurisdiction | City of Woodland | Time Period | AM Peak Hour | Area Type | Other | | |
| Intersection | I-5 SB on-ramp & Lewis R | Analysis Year | 2022 | PHF | 0.87 | | |
| File Name | Streets1.xus | | | Analysis Period | 1> 7:00 | | |
| Project Description | Existing | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|----|-----|-----|-----|-----|-----|----|---|---|-----|-----|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 48 | 218 | 112 | 349 | 388 | 234 | | | | 205 | 190 | 1 |

| Signal Information | | | | Signal Timing Diagram | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|-----------------------|-----|-----|-----|-----|-----|--|--|--|--|--|--|
| Cycle, s | 42.1 | Reference Phase | 2 | | | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | | | | | | | | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | | | | |
| | | Green | | 2.4 | 4.0 | 7.7 | 7.9 | 0.0 | 0.0 | | | | | | |
| | | Yellow | | 4.0 | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | | | | | | |
| | | Red | | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | | | | | | |

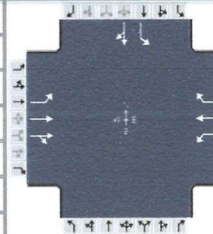
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|------|------|------|-----|-----|-----|------|
| Assigned Phase | 5 | 2 | 1 | 6 | | | | 4 |
| Case Number | 2.0 | 4.0 | 2.0 | 3.0 | | | | 10.0 |
| Phase Duration, s | 7.4 | 12.7 | 16.4 | 21.8 | | | | 12.9 |
| Change Period, (Y+R _c), s | 5.0 | 5.0 | 5.0 | 5.0 | | | | 5.0 |
| Max Allow Headway (MAH), s | 3.1 | 3.1 | 3.1 | 3.1 | | | | 3.1 |
| Queue Clearance Time (g _s), s | 3.3 | 5.7 | 10.7 | 9.8 | | | | 7.1 |
| Green Extension Time (g _e), s | 0.1 | 2.0 | 0.8 | 2.0 | | | | 0.8 |
| Phase Call Probability | 0.48 | 1.00 | 0.99 | 1.00 | | | | 1.00 |
| Max Out Probability | 0.00 | 0.00 | 0.00 | 0.00 | | | | 0.00 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|-------|-------|-------|-------|------|---|---|-------|-------|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 55 | 177 | 167 | 401 | 446 | 223 | | | | 236 | 220 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1810 | 1900 | 1725 | 1810 | 1900 | 1610 | | | | 1810 | 1898 | |
| Queue Service Time (g _s), s | 1.3 | 3.5 | 3.7 | 8.7 | 7.8 | 4.1 | | | | 5.1 | 4.5 | |
| Cycle Queue Clearance Time (g _c), s | 1.3 | 3.5 | 3.7 | 8.7 | 7.8 | 4.1 | | | | 5.1 | 4.5 | |
| Green Ratio (g/C) | 0.06 | 0.18 | 0.18 | 0.98 | 0.40 | 0.40 | | | | 0.19 | 0.19 | |
| Capacity (c), veh/h | 103 | 350 | 317 | 492 | 758 | 643 | | | | 341 | 358 | |
| Volume-to-Capacity Ratio (X) | 0.536 | 0.507 | 0.527 | 0.815 | 0.588 | 0.347 | | | | 0.691 | 0.614 | |
| Available Capacity (c _a), veh/h | 1287 | 1351 | 1227 | 1287 | 1351 | 1145 | | | | 1287 | 1350 | |
| Back of Queue (Q), veh/ln (50th percentile) | 0.5 | 1.3 | 1.2 | 3.0 | 2.3 | 1.0 | | | | 1.8 | 1.7 | |
| Queue Storage Ratio (RQ) (50th percentile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | 0.00 | 0.00 | |
| Uniform Delay (d ₁), s/veh | 19.3 | 15.5 | 15.6 | 14.4 | 10.0 | 8.8 | | | | 16.0 | 15.7 | |
| Incremental Delay (d ₂), s/veh | 1.6 | 0.4 | 0.5 | 1.3 | 0.3 | 0.1 | | | | 0.9 | 0.6 | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | |
| Control Delay (d), s/veh | 21.0 | 15.9 | 16.1 | 15.6 | 10.2 | 9.0 | | | | 16.9 | 16.3 | |
| Level of Service (LOS) | C | B | B | B | B | A | | | | B | B | |
| Approach Delay, s/veh / LOS | 16.7 | | | B | | | 12.0 | | | B | | |
| Intersection Delay, s/veh / LOS | 14.1 | | | | | | B | | | | | |

| Multimodal Results | EB | | | WB | | | NB | | | SB | | |
|----------------------------|-----|---|--|-----|---|--|-----|---|--|-----|---|--|
| Pedestrian LOS Score / LOS | 1.9 | A | | 2.2 | B | | 2.9 | C | | 2.5 | B | |
| Bicycle LOS Score / LOS | 0.8 | A | | 2.3 | B | | | | | 1.2 | A | |

HCS 2010 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | |
|---------------------|---------------------------|---------------|--------------|--------------------------|---------|
| Agency | | | | Duration, h | 0.25 |
| Analyst | | Analysis Date | 7/21/2019 | Area Type | Other |
| Jurisdiction | City of Woodland | Time Period | AM Peak Hour | PHF | 0.87 |
| Intersection | I-5 SB on-ramp & Lewis Ri | Analysis Year | 2024 | Analysis Period | 1> 7:00 |
| File Name | Streets1.xus | | | | |
| Project Description | Year 2024 w/o Project | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|----|-----|-----|-----|-----|-----|----|---|---|-----|-----|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 50 | 231 | 116 | 387 | 417 | 245 | | | | 213 | 198 | 1 |

| Signal Information | | | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Cycle, s | 45.3 | Reference Phase | 2 | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | | | | | | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | | |
| | | Green | | 2.6 | 5.7 | 8.4 | 8.6 | 0.0 | 0.0 | | | | |
| | | Yellow | | 4.0 | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | | | | |
| | | Red | | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | | | | |

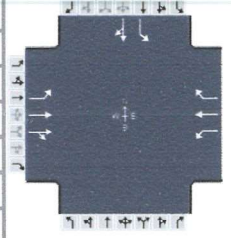
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|------|------|------|-----|-----|-----|------|
| Assigned Phase | 5 | 2 | 1 | 6 | | | | 4 |
| Case Number | 2.0 | 4.0 | 2.0 | 3.0 | | | | 10.0 |
| Phase Duration, s | 7.6 | 13.4 | 18.3 | 24.1 | | | | 13.6 |
| Change Period, (Y+R _c), s | 5.0 | 5.0 | 5.0 | 5.0 | | | | 5.0 |
| Max Allow Headway (MAH), s | 3.1 | 3.1 | 3.1 | 3.1 | | | | 3.1 |
| Queue Clearance Time (g _s), s | 3.4 | 6.2 | 12.5 | 10.9 | | | | 7.8 |
| Green Extension Time (g _e), s | 0.1 | 2.2 | 0.8 | 2.1 | | | | 0.8 |
| Phase Call Probability | 0.52 | 1.00 | 1.00 | 1.00 | | | | 1.00 |
| Max Out Probability | 0.00 | 0.00 | 0.00 | 0.01 | | | | 0.00 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|-------|-------|-------|-------|------|---|---|-------|-------|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 57 | 188 | 177 | 445 | 479 | 236 | | | | 245 | 229 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1810 | 1900 | 1726 | 1810 | 1900 | 1610 | | | | 1810 | 1898 | |
| Queue Service Time (g _s), s | 1.4 | 4.1 | 4.2 | 10.5 | 8.9 | 4.5 | | | | 5.8 | 5.0 | |
| Cycle Queue Clearance Time (g _c), s | 1.4 | 4.1 | 4.2 | 10.5 | 8.9 | 4.5 | | | | 5.8 | 5.0 | |
| Green Ratio (g/C) | 0.06 | 0.19 | 0.19 | 0.96 | 0.42 | 0.42 | | | | 0.19 | 0.19 | |
| Capacity (c), veh/h | 104 | 353 | 321 | 532 | 802 | 680 | | | | 344 | 361 | |
| Volume-to-Capacity Ratio (X) | 0.555 | 0.531 | 0.551 | 0.837 | 0.597 | 0.346 | | | | 0.712 | 0.634 | |
| Available Capacity (c _a), veh/h | 1195 | 1255 | 1140 | 1195 | 1255 | 1064 | | | | 1195 | 1254 | |
| Back of Queue (Q), veh/ln (50th percentile) | 0.6 | 1.5 | 1.5 | 3.6 | 2.7 | 1.2 | | | | 2.1 | 1.9 | |
| Queue Storage Ratio (RQ) (50th percentile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | 0.00 | 0.00 | |
| Uniform Delay (d ₁), s/veh | 20.8 | 16.7 | 16.8 | 15.0 | 10.1 | 8.9 | | | | 17.2 | 16.9 | |
| Incremental Delay (d ₂), s/veh | 1.7 | 0.5 | 0.6 | 1.4 | 0.3 | 0.1 | | | | 1.0 | 0.7 | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | |
| Control Delay (d), s/veh | 22.6 | 17.2 | 17.3 | 16.4 | 10.4 | 9.0 | | | | 18.3 | 17.6 | |
| Level of Service (LOS) | C | B | B | B | B | A | | | | B | B | |
| Approach Delay, s/veh / LOS | 18.0 | | | B | | | 12.4 | | | B | | |
| Intersection Delay, s/veh / LOS | 14.8 | | | | | | B | | | | | |

| Multimodal Results | EB | | | WB | | | NB | | | SB | | |
|----------------------------|-----|---|--|-----|---|--|-----|---|--|-----|---|--|
| Pedestrian LOS Score / LOS | 1.9 | A | | 2.2 | B | | 2.9 | C | | 2.5 | B | |
| Bicycle LOS Score / LOS | 0.8 | A | | 2.4 | B | | | | | 1.3 | A | |

HCS 2010 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | | |
|---------------------|---------------------------|--|---------------|--------------------------|-----------|-----------------|-----------|-------|
| Agency | | | | Duration, h | 0.25 | | | |
| Analyst | | | | Analysis Date | 7/21/2019 | | Area Type | Other |
| Jurisdiction | City of Woodland | | Time Period | AM Peak Hour | | PHF | 0.87 | |
| Intersection | I-5 SB on-ramp & Lewis Ri | | Analysis Year | 2024 | | Analysis Period | 1> 7:00 | |
| File Name | Streets1.xus | | | | | | | |
| Project Description | Year 2024 with Project | | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|----|-----|-----|-----|-----|-----|----|---|---|-----|-----|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 50 | 232 | 116 | 391 | 421 | 247 | | | | 214 | 198 | 1 |

| Signal Information | | | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|--------|-----|-----|-----|-----|-----|-----|--|--|--|
| Cycle, s | 45.7 | Reference Phase | 2 | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | Green | 2.6 | 5.9 | 8.5 | 8.7 | 0.0 | 0.0 | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | Yellow | 4.0 | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | | | |
| | | | | Red | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | | | |

| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|------|------|------|-----|-----|-----|------|
| Assigned Phase | 5 | 2 | 1 | 6 | | | | 4 |
| Case Number | 2.0 | 4.0 | 2.0 | 3.0 | | | | 10.0 |
| Phase Duration, s | 7.6 | 13.5 | 18.5 | 24.4 | | | | 13.7 |
| Change Period, (Y+R _c), s | 5.0 | 5.0 | 5.0 | 5.0 | | | | 5.0 |
| Max Allow Headway (MAH), s | 3.1 | 3.1 | 3.1 | 3.1 | | | | 3.1 |
| Queue Clearance Time (g _s), s | 3.4 | 6.3 | 12.6 | 11.0 | | | | 7.8 |
| Green Extension Time (g _e), s | 0.1 | 2.2 | 0.8 | 2.2 | | | | 0.8 |
| Phase Call Probability | 0.52 | 1.00 | 1.00 | 1.00 | | | | 1.00 |
| Max Out Probability | 0.00 | 0.00 | 0.00 | 0.01 | | | | 0.00 |

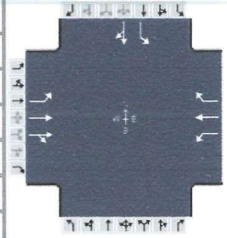
| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|-------|-------|-------|-------|-----|---|---|-------|-------|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 57 | 188 | 177 | 449 | 484 | 238 | | | | 246 | 229 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1810 | 1900 | 1727 | 1810 | 1900 | 1610 | | | | 1810 | 1898 | |
| Queue Service Time (g _s), s | 1.4 | 4.1 | 4.3 | 10.6 | 9.0 | 4.6 | | | | 5.8 | 5.1 | |
| Cycle Queue Clearance Time (g _c), s | 1.4 | 4.1 | 4.3 | 10.6 | 9.0 | 4.6 | | | | 5.8 | 5.1 | |
| Green Ratio (g/C) | 0.06 | 0.19 | 0.19 | 0.95 | 0.42 | 0.42 | | | | 0.19 | 0.19 | |
| Capacity (c), veh/h | 103 | 353 | 321 | 536 | 807 | 684 | | | | 344 | 361 | |
| Volume-to-Capacity Ratio (X) | 0.556 | 0.533 | 0.552 | 0.839 | 0.600 | 0.348 | | | | 0.714 | 0.633 | |
| Available Capacity (c _a), veh/h | 1186 | 1245 | 1132 | 1186 | 1245 | 1055 | | | | 1186 | 1244 | |
| Back of Queue (Q), veh/ln (50th percentile) | 0.6 | 1.6 | 1.5 | 3.7 | 2.8 | 1.2 | | | | 2.1 | 1.9 | |
| Queue Storage Ratio (RQ) (50th percentile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | 0.00 | 0.00 | |
| Uniform Delay (d ₁), s/veh | 21.0 | 16.8 | 16.9 | 15.1 | 10.2 | 8.9 | | | | 17.4 | 17.1 | |
| Incremental Delay (d ₂), s/veh | 1.7 | 0.5 | 0.6 | 1.4 | 0.3 | 0.1 | | | | 1.0 | 0.7 | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | |
| Control Delay (d), s/veh | 22.7 | 17.3 | 17.5 | 16.5 | 10.4 | 9.0 | | | | 18.4 | 17.7 | |
| Level of Service (LOS) | C | B | B | B | B | A | | | | B | B | |
| Approach Delay, s/veh / LOS | 18.1 | B | | 12.5 | B | | 0.0 | | | 18.1 | B | |
| Intersection Delay, s/veh / LOS | 14.9 | | | | | | B | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|-----|---|-----|---|-----|---|-----|---|
| Pedestrian LOS Score / LOS | 1.9 | A | 2.2 | B | 2.9 | C | 2.5 | B |
| Bicycle LOS Score / LOS | 0.8 | A | 2.4 | B | | | 1.3 | A |

HCS 2010 Signalized Intersection Results Summary

General Information

| | | | |
|---------------------|---------------------------|-----------------|--------------|
| Agency | | Duration, h | 0.25 |
| Analyst | | Analysis Date | 7/21/2019 |
| Jurisdiction | City of Woodland | Area Type | Other |
| Intersection | I-5 SB on-ramp & Lewis Ri | Time Period | PM Peak Hour |
| File Name | Streets1.xus | PHF | 0.96 |
| Project Description | Existing | Analysis Year | 2022 |
| | | Analysis Period | 1> 7:00 |



Demand Information

| Approach Movement | EB | | | WB | | | NB | | | SB | | |
|-------------------|----|-----|-----|-----|-----|-----|----|---|---|-----|-----|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 45 | 375 | 196 | 302 | 387 | 252 | | | | 263 | 169 | 0 |

Signal Information

| | | | | | | | | | | | | | |
|---------------|-------|-----------------|-----|--------|-----|-----|------|-----|-----|-----|--|--|--|
| Cycle, s | 44.1 | Reference Phase | 2 | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | Green | 2.2 | 2.5 | 10.4 | 9.1 | 0.0 | 0.0 | | | |
| | | | | Yellow | 4.0 | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | | | |

Timer Results

| | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|------|------|------|-----|-----|-----|------|
| Assigned Phase | 5 | 2 | 1 | 6 | | | | 4 |
| Case Number | 2.0 | 4.0 | 2.0 | 3.0 | | | | 10.0 |
| Phase Duration, s | 7.2 | 15.4 | 14.7 | 22.9 | | | | 14.1 |
| Change Period, (Y+R _c), s | 5.0 | 5.0 | 5.0 | 5.0 | | | | 5.0 |
| Max Allow Headway (MAH), s | 3.1 | 3.1 | 3.1 | 3.1 | | | | 3.1 |
| Queue Clearance Time (g _s), s | 3.1 | 8.0 | 9.3 | 9.1 | | | | 8.3 |
| Green Extension Time (g _e), s | 0.1 | 2.3 | 0.6 | 2.3 | | | | 0.8 |
| Phase Call Probability | 0.44 | 1.00 | 0.98 | 1.00 | | | | 1.00 |
| Max Out Probability | 0.00 | 0.00 | 0.00 | 0.01 | | | | 0.00 |

Movement Group Results

| Approach Movement | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|-------|-------|-------|-------|------|---|---|-------|-------|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 47 | 282 | 260 | 315 | 403 | 210 | | | | 274 | 0 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1810 | 1900 | 1719 | 1810 | 1900 | 1610 | | | | 1810 | 1898 | |
| Queue Service Time (g _s), s | 1.1 | 5.9 | 6.0 | 7.3 | 7.1 | 4.0 | | | | 6.3 | 0.0 | |
| Cycle Queue Clearance Time (g _c), s | 1.1 | 5.9 | 6.0 | 7.3 | 7.1 | 4.0 | | | | 6.3 | 0.0 | |
| Green Ratio (g/C) | 0.05 | 0.24 | 0.24 | 0.90 | 0.40 | 0.40 | | | | 0.21 | 0.19 | |
| Capacity (c), veh/h | 90 | 448 | 405 | 397 | 770 | 652 | | | | 372 | | |
| Volume-to-Capacity Ratio (X) | 0.518 | 0.631 | 0.643 | 0.792 | 0.524 | 0.323 | | | | 0.736 | 0.000 | |
| Available Capacity (c _a), veh/h | 1227 | 1288 | 1166 | 1227 | 1288 | 1092 | | | | 1227 | | |
| Back of Queue (Q), veh/ln (50th percentile) | 0.5 | 2.2 | 2.0 | 2.6 | 2.2 | 1.0 | | | | 2.3 | | |
| Queue Storage Ratio (RQ) (50th percentile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | 0.00 | 0.00 | |
| Uniform Delay (d ₁), s/veh | 20.5 | 15.2 | 15.2 | 16.3 | 9.9 | 9.0 | | | | 16.4 | | |
| Incremental Delay (d ₂), s/veh | 1.7 | 0.5 | 0.6 | 1.4 | 0.2 | 0.1 | | | | 1.1 | 0.0 | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | |
| Control Delay (d), s/veh | 22.2 | 15.7 | 15.9 | 17.7 | 10.1 | 9.1 | | | | 17.5 | | |
| Level of Service (LOS) | C | B | B | B | B | A | | | | B | | |
| Approach Delay, s/veh / LOS | 16.3 | | | B | | | 12.5 | | | B | | |
| Intersection Delay, s/veh / LOS | 14.6 | | | | | | B | | | | | |

Multimodal Results

| | EB | | | WB | | | NB | | | SB | | |
|----------------------------|-----|---|--|-----|---|--|-----|---|--|-----|---|--|
| Pedestrian LOS Score / LOS | 1.9 | A | | 2.2 | B | | 2.9 | C | | 2.5 | B | |
| Bicycle LOS Score / LOS | 1.0 | A | | 2.0 | B | | | | | 1.2 | A | |

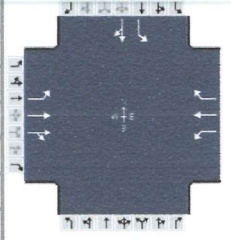
HCS 2010 Signalized Intersection Results Summary

General Information

| | |
|---------------------|---------------------------|
| Agency | |
| Analyst | |
| Jurisdiction | City of Woodland |
| Intersection | I-5 SB on-ramp & Lewis Ri |
| File Name | Streets1.xus |
| Project Description | Year 2024 w/o Project |

Intersection Information

| | |
|-----------------|----------|
| Duration, h | 0.25 |
| Area Type | Other |
| PHF | 0.96 |
| Analysis Period | 1 > 7:00 |



Demand Information

| Approach Movement | EB | | | WB | | | NB | | | SB | | |
|-------------------|----|-----|-----|-----|-----|-----|----|---|---|-----|-----|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 47 | 408 | 204 | 328 | 410 | 262 | | | | 274 | 176 | 0 |

Signal Information

| Cycle, s | 47.5 | Reference Phase | 2 | EB | | | | | | WB | | | NB | | | SB | | |
|---------------|-------|-----------------|-----|-------|--------|-----|-------|--------|-----|-------|--------|-----|-------|--------|-----|-------|--------|-----|
| Offset, s | 0 | Reference Point | End | Green | Yellow | Red | Green | Yellow | Red | Green | Yellow | Red | Green | Yellow | Red | Green | Yellow | Red |
| Uncoordinated | Yes | Simult. Gap E/W | On | 2.4 | 4.0 | 1.0 | 3.7 | 4.0 | 1.0 | 11.6 | 4.0 | 1.0 | 9.9 | 4.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| Force Mode | Fixed | Simult. Gap N/S | On | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Timer Results

| | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|------|------|------|-----|-----|-----|------|
| Assigned Phase | 5 | 2 | 1 | 6 | | | | 4 |
| Case Number | 2.0 | 4.0 | 2.0 | 3.0 | | | | 10.0 |
| Phase Duration, s | 7.4 | 16.6 | 16.1 | 25.2 | | | | 14.9 |
| Change Period, (Y+R _c), s | 5.0 | 5.0 | 5.0 | 5.0 | | | | 5.0 |
| Max Allow Headway (MAH), s | 3.1 | 3.1 | 3.1 | 3.1 | | | | 3.1 |
| Queue Clearance Time (g _s), s | 3.3 | 9.0 | 10.5 | 9.9 | | | | 9.1 |
| Green Extension Time (g _e), s | 0.1 | 2.5 | 0.6 | 2.5 | | | | 0.8 |
| Phase Call Probability | 0.48 | 1.00 | 0.99 | 1.00 | | | | 1.00 |
| Max Out Probability | 0.00 | 0.01 | 0.00 | 0.01 | | | | 0.00 |

Movement Group Results

| Approach Movement | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|-------|-------|-------|-------|-----|---|---|-------|-------|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 49 | 305 | 281 | 342 | 427 | 221 | | | | 285 | 0 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1810 | 1900 | 1723 | 1810 | 1900 | 1610 | | | | 1810 | 1898 | |
| Queue Service Time (g _s), s | 1.3 | 6.9 | 7.0 | 8.5 | 7.9 | 4.3 | | | | 7.1 | 0.0 | |
| Cycle Queue Clearance Time (g _c), s | 1.3 | 6.9 | 7.0 | 8.5 | 7.9 | 4.3 | | | | 7.1 | 0.0 | |
| Green Ratio (g/C) | 0.05 | 0.24 | 0.24 | 0.86 | 0.43 | 0.43 | | | | 0.21 | 0.19 | |
| Capacity (c), veh/h | 91 | 462 | 419 | 422 | 809 | 686 | | | | 378 | | |
| Volume-to-Capacity Ratio (X) | 0.535 | 0.660 | 0.669 | 0.810 | 0.528 | 0.322 | | | | 0.755 | 0.000 | |
| Available Capacity (c _a), veh/h | 1139 | 1196 | 1085 | 1139 | 1196 | 1014 | | | | 1139 | | |
| Back of Queue (Q), veh/ln (50th percentile) | 0.5 | 2.6 | 2.4 | 3.1 | 2.5 | 1.2 | | | | 2.6 | | |
| Queue Storage Ratio (RQ) (50th percentile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | 0.00 | 0.00 | |
| Uniform Delay (d ₁), s/veh | 22.1 | 16.3 | 16.3 | 17.3 | 10.1 | 9.1 | | | | 17.7 | | |
| Incremental Delay (d ₂), s/veh | 1.8 | 0.6 | 0.7 | 1.4 | 0.2 | 0.1 | | | | 1.2 | 0.0 | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | |
| Control Delay (d), s/veh | 23.9 | 16.9 | 17.0 | 18.7 | 10.3 | 9.2 | | | | 18.9 | | |
| Level of Service (LOS) | C | B | B | B | B | A | | | | B | | |
| Approach Delay, s/veh / LOS | 17.5 | | B | 13.0 | | B | 0.0 | | | 18.1 | | B |
| Intersection Delay, s/veh / LOS | 15.5 | | | | | | B | | | | | |

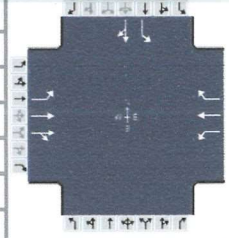
Multimodal Results

| | EB | | | WB | | | NB | | | SB | | |
|----------------------------|-----|--|---|-----|--|---|-----|--|---|-----|--|---|
| Pedestrian LOS Score / LOS | 1.9 | | A | 2.2 | | B | 2.9 | | C | 2.5 | | B |
| Bicycle LOS Score / LOS | 1.0 | | A | 2.1 | | B | | | | 1.3 | | A |

HCS 2010 Signalized Intersection Results Summary

General Information

| | | | |
|---------------------|---------------------------|-----------------|--------------|
| Agency | | Duration, h | 0.25 |
| Analyst | | Analysis Date | 7/21/2019 |
| Jurisdiction | City of Woodland | Area Type | Other |
| Intersection | I-5 SB on-ramp & Lewis Ri | Time Period | PM Peak Hour |
| File Name | Streets1.xus | PHF | 0.96 |
| Project Description | Year 2024 with Project | Analysis Year | 2024 |
| | | Analysis Period | 1> 7:00 |



Demand Information

| Approach Movement | EB | | | WB | | | NB | | | SB | | |
|-------------------|----|-----|-----|-----|-----|-----|----|---|---|-----|-----|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 47 | 411 | 204 | 330 | 412 | 263 | | | | 276 | 176 | 0 |

Signal Information

| | | | | | | | | | | | | | |
|---------------|-------|-----------------|-----|--------|-----|-----|------|------|-----|-----|--|--|--|
| Cycle, s | 47.9 | Reference Phase | 2 | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | Green | 2.4 | 3.8 | 11.7 | 10.0 | 0.0 | 0.0 | | | |
| | | | | Yellow | 4.0 | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | Red | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | | | |

Timer Results

| | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|------|------|------|------|-----|-----|-----|------|
| Assigned Phase | 5 | 2 | 1 | 6 | | | | 4 |
| Case Number | 2.0 | 4.0 | 2.0 | 3.0 | | | | 10.0 |
| Phase Duration, s | 7.4 | 16.7 | 16.2 | 25.4 | | | | 15.0 |
| Change Period, (Y+R _c), s | 5.0 | 5.0 | 5.0 | 5.0 | | | | 5.0 |
| Max Allow Headway (MAH), s | 3.1 | 3.1 | 3.1 | 3.1 | | | | 3.1 |
| Queue Clearance Time (g _s), s | 3.3 | 9.1 | 10.6 | 10.0 | | | | 9.2 |
| Green Extension Time (g _e), s | 0.1 | 2.5 | 0.6 | 2.5 | | | | 0.8 |
| Phase Call Probability | 0.48 | 1.00 | 0.99 | 1.00 | | | | 1.00 |
| Max Out Probability | 0.00 | 0.01 | 0.00 | 0.01 | | | | 0.00 |

Movement Group Results

| Approach Movement | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|-------|-------|-------|-------|-----|---|---|-------|-------|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 49 | 306 | 282 | 344 | 429 | 222 | | | | 288 | 0 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 1810 | 1900 | 1724 | 1810 | 1900 | 1610 | | | | 1810 | 1898 | |
| Queue Service Time (g _s), s | 1.3 | 7.0 | 7.1 | 8.6 | 8.0 | 4.4 | | | | 7.2 | 0.0 | |
| Cycle Queue Clearance Time (g _c), s | 1.3 | 7.0 | 7.1 | 8.6 | 8.0 | 4.4 | | | | 7.2 | 0.0 | |
| Green Ratio (g/C) | 0.05 | 0.24 | 0.24 | 0.86 | 0.43 | 0.43 | | | | 0.21 | 0.19 | |
| Capacity (c), veh/h | 91 | 463 | 420 | 423 | 812 | 688 | | | | 380 | | |
| Volume-to-Capacity Ratio (X) | 0.537 | 0.662 | 0.672 | 0.812 | 0.529 | 0.323 | | | | 0.758 | 0.000 | |
| Available Capacity (c _a), veh/h | 1131 | 1188 | 1078 | 1131 | 1188 | 1007 | | | | 1131 | | |
| Back of Queue (Q), veh/ln (50th percentile) | 0.5 | 2.6 | 2.4 | 3.2 | 2.5 | 1.2 | | | | 2.7 | | |
| Queue Storage Ratio (RQ) (50th percentile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | | 0.00 | 0.00 | |
| Uniform Delay (d ₁), s/veh | 22.2 | 16.4 | 16.4 | 17.4 | 10.2 | 9.1 | | | | 17.8 | | |
| Incremental Delay (d ₂), s/veh | 1.8 | 0.6 | 0.7 | 1.4 | 0.2 | 0.1 | | | | 1.2 | 0.0 | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | |
| Control Delay (d), s/veh | 24.1 | 17.0 | 17.1 | 18.8 | 10.4 | 9.2 | | | | 19.0 | | |
| Level of Service (LOS) | C | B | B | B | B | A | | | | B | | |
| Approach Delay, s/veh / LOS | 17.6 | | B | 13.0 | | B | 0.0 | | | 18.2 | | B |
| Intersection Delay, s/veh / LOS | 15.6 | | | | | | B | | | | | |

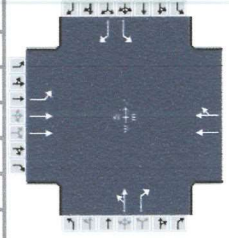
Multimodal Results

| | EB | | | WB | | | NB | | | SB | | |
|----------------------------|-----|--|---|-----|--|---|-----|--|---|-----|--|---|
| Pedestrian LOS Score / LOS | 1.9 | | A | 2.2 | | B | 2.9 | | C | 2.5 | | B |
| Bicycle LOS Score / LOS | 1.0 | | A | 2.1 | | B | | | | 1.3 | | A |

HCS 2010 Signalized Intersection Results Summary

General Information

| | | | | | |
|---------------------|----------------------------|---------------|--------------|-----------------|----------|
| Agency | | | | Duration, h | 0.25 |
| Analyst | | Analysis Date | 7/21/2019 | Area Type | Other |
| Jurisdiction | City of Woodland | Time Period | AM Peak Hour | PHF | 0.94 |
| Intersection | I-5 NB off-ramp & Lewis Ri | Analysis Year | 2022 | Analysis Period | 1 > 7:00 |
| File Name | Streets1.xus | | | | |
| Project Description | Existing | | | | |



Demand Information

| Approach Movement | EB | | | WB | | | NB | | | SB | | |
|-------------------|-----|-----|---|----|-----|----|-----|----|-----|----|---|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 120 | 221 | | | 599 | 79 | 256 | 30 | 227 | 8 | | 92 |

Signal Information

| | | | | | | | | | | | | | |
|---------------|-------|-----------------|-----|--------|------|-----|------|-----|-----|-----|--|--|--|
| Cycle, s | 51.6 | Reference Phase | 2 | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | Green | 21.4 | 4.1 | 11.1 | 0.0 | 0.0 | 0.0 | | | |
| | | Simult. Gap N/S | On | Yellow | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | | | |
| Force Mode | Fixed | | | Red | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | | | |

Timer Results

| | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|-----|------|-----|------|-----|------|-----|------|
| Assigned Phase | | 2 | | 6 | | 8 | | 4 |
| Case Number | | 6.0 | | 8.0 | | 11.0 | | 9.0 |
| Phase Duration, s | | 26.4 | | 26.4 | | 16.1 | | 9.1 |
| Change Period, (Y+R _c), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 |
| Max Allow Headway (MAH), s | | 3.3 | | 3.3 | | 3.2 | | 3.3 |
| Queue Clearance Time (g _s), s | | 19.2 | | 11.2 | | 10.1 | | 5.1 |
| Green Extension Time (g _e), s | | 2.2 | | 2.5 | | 1.0 | | 0.2 |
| Phase Call Probability | | 1.00 | | 1.00 | | 1.00 | | 0.78 |
| Max Out Probability | | 0.11 | | 0.01 | | 0.00 | | 0.00 |

Movement Group Results

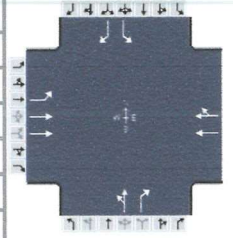
| Approach Movement | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|---|------|-------|-------|------|-------|-------|-------|---|------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | | | 6 | 16 | 3 | 8 | 18 | 7 | | 14 |
| Adjusted Flow Rate (v), veh/h | 128 | 235 | | | 355 | 345 | | 304 | 199 | 9 | | 98 |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 758 | 1809 | | | 1900 | 1840 | | 1819 | 1610 | 1810 | | 1610 |
| Queue Service Time (g _s), s | 8.0 | 2.1 | | | 9.2 | 7.0 | | 8.1 | 5.7 | 0.2 | | 3.1 |
| Cycle Queue Clearance Time (g _c), s | 17.2 | 2.1 | | | 9.2 | 7.0 | | 8.1 | 5.7 | 0.2 | | 3.1 |
| Green Ratio (g/C) | 0.41 | 0.41 | | | 0.41 | 0.41 | | 0.22 | 0.22 | 0.08 | | 0.08 |
| Capacity (c), veh/h | 318 | 1498 | | | 787 | 762 | | 392 | 347 | 144 | | 129 |
| Volume-to-Capacity Ratio (X) | 0.402 | 0.157 | | | 0.452 | 0.453 | | 0.777 | 0.574 | 0.059 | | 0.76 |
| Available Capacity (c _a), veh/h | 445 | 2104 | | | 1105 | 1070 | | 1058 | 937 | 1053 | | 937 |
| Back of Queue (Q), veh/ln (50th percentile) | 1.2 | 0.7 | | | 2.3 | 2.3 | | 3.1 | 1.9 | 0.1 | | 1.2 |
| Queue Storage Ratio (RQ) (50th percentile) | 0.00 | 0.00 | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | | 0.00 |
| Uniform Delay (d ₁), s/veh | 18.2 | 9.5 | | | 10.9 | 10.9 | | 19.1 | 18.1 | 21.9 | | 23.2 |
| Incremental Delay (d ₂), s/veh | 0.3 | 0.0 | | | 0.2 | 0.2 | | 1.3 | 0.6 | 0.1 | | 3.5 |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Control Delay (d), s/veh | 18.5 | 9.5 | | | 11.0 | 11.1 | | 20.3 | 18.7 | 22.0 | | 26.7 |
| Level of Service (LOS) | B | A | | | B | B | | C | B | C | | C |
| Approach Delay, s/veh / LOS | 12.6 | B | | 11.0 | B | | 19.7 | B | | 26.3 | | C |
| Intersection Delay, s/veh / LOS | 15.0 | | | | | | B | | | | | |

Multimodal Results

| | EB | | | WB | | | NB | | | SB | | |
|----------------------------|-----|---|--|-----|---|--|-----|---|--|-----|--|---|
| Pedestrian LOS Score / LOS | 1.7 | A | | 2.2 | B | | 2.8 | C | | 2.9 | | C |
| Bicycle LOS Score / LOS | 0.7 | A | | 1.1 | A | | 1.3 | A | | | | F |

HCS 2010 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|----------------------------|---------------|--------------|--------------------------|---------|--|--|
| Agency | | | | Duration, h | 0.25 | | |
| Analyst | | Analysis Date | 7/21/2019 | Area Type | Other | | |
| Jurisdiction | City of Woodland | Time Period | AM Peak Hour | PHF | 0.94 | | |
| Intersection | I-5 NB off-ramp & Lewis Ri | Analysis Year | 2024 | Analysis Period | 1> 7:00 | | |
| File Name | Streets1.xus | | | | | | |
| Project Description | Year 2024 w/o Project | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|-----|-----|---|----|-----|----|-----|----|-----|----|---|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 125 | 233 | | | 662 | 82 | 266 | 31 | 243 | 8 | | 96 |

| Signal Information | | | | | | | | | | | | |
|--------------------|-------|-----------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cycle, s | 56.1 | Reference Phase | 2 | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | | | | | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | |
| Green | 24.2 | 4.7 | 12.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Yellow | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Red | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

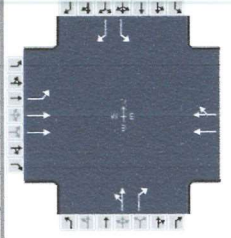
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|-----|------|-----|------|-----|------|-----|------|
| Assigned Phase | | 2 | | 6 | | 8 | | 4 |
| Case Number | | 6.0 | | 8.0 | | 11.0 | | 9.0 |
| Phase Duration, s | | 29.2 | | 29.2 | | 17.3 | | 9.7 |
| Change Period, (Y+R _c), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 |
| Max Allow Headway (MAH), s | | 3.3 | | 3.3 | | 3.2 | | 3.3 |
| Queue Clearance Time (g _s), s | | 22.1 | | 12.3 | | 11.2 | | 5.5 |
| Green Extension Time (g _e), s | | 2.1 | | 2.8 | | 1.0 | | 0.2 |
| Phase Call Probability | | 1.00 | | 1.00 | | 1.00 | | 0.82 |
| Max Out Probability | | 0.30 | | 0.02 | | 0.00 | | 0.00 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | | |
|---|-------|-------|---|----|-------|-------|----|-------|-------|-------|---|------|---|
| | L | T | R | L | T | R | L | T | R | L | T | R | |
| Assigned Movement | 5 | 2 | | | 6 | 16 | 3 | 8 | 18 | 7 | | 14 | |
| Adjusted Flow Rate (v), veh/h | 133 | 248 | | | 391 | 379 | | 316 | 216 | 9 | | 102 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 710 | 1809 | | | 1900 | 1842 | | 1819 | 1610 | 1810 | | 1610 | |
| Queue Service Time (g _s), s | 9.8 | 2.3 | | | 10.3 | 8.3 | | 9.2 | 6.8 | 0.2 | | 3.5 | |
| Cycle Queue Clearance Time (g _c), s | 20.1 | 2.3 | | | 10.3 | 8.3 | | 9.2 | 6.8 | 0.2 | | 3.5 | |
| Green Ratio (g/C) | 0.43 | 0.43 | | | 0.43 | 0.43 | | 0.22 | 0.22 | 0.08 | | 0.08 | |
| Capacity (c), veh/h | 303 | 1558 | | | 818 | 794 | | 397 | 352 | 151 | | 134 | |
| Volume-to-Capacity Ratio (X) | 0.439 | 0.159 | | | 0.477 | 0.478 | | 0.795 | 0.614 | 0.056 | | 0.76 | |
| Available Capacity (c _a), veh/h | 377 | 1935 | | | 1016 | 985 | | 973 | 861 | 968 | | 861 | |
| Back of Queue (Q), veh/ln (50th percentile) | 1.4 | 0.8 | | | 2.9 | 2.8 | | 3.6 | 2.3 | 0.1 | | 1.3 | |
| Queue Storage Ratio (RQ) (50th percentile) | 0.00 | 0.00 | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | | 0.00 | |
| Uniform Delay (d ₁), s/veh | 19.6 | 9.8 | | | 11.4 | 11.4 | | 20.7 | 19.8 | 23.7 | | 25.2 | |
| Incremental Delay (d ₂), s/veh | 0.4 | 0.0 | | | 0.2 | 0.2 | | 1.4 | 0.6 | 0.1 | | 3.3 | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Control Delay (d), s/veh | 20.0 | 9.8 | | | 11.6 | 11.6 | | 22.1 | 20.4 | 23.7 | | 28.5 | |
| Level of Service (LOS) | C | A | | | B | B | | C | C | C | | C | |
| Approach Delay, s/veh / LOS | 13.3 | | B | | 11.6 | | B | | 21.4 | | C | 28.1 | C |
| Intersection Delay, s/veh / LOS | 15.9 | | | | | | B | | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|-----|---|-----|---|-----|---|-----|---|
| Pedestrian LOS Score / LOS | 1.7 | A | 2.2 | B | 2.8 | C | 2.9 | C |
| Bicycle LOS Score / LOS | 0.8 | A | 1.1 | A | 1.4 | A | | F |

HCS 2010 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|----------------------------|---------------|--------------|--------------------------|-----------|--|--|
| Agency | | | | Duration, h | 0.25 | | |
| Analyst | | | | Analysis Date | 7/21/2019 | | |
| Jurisdiction | City of Woodland | Time Period | AM Peak Hour | Area Type | Other | | |
| Intersection | I-5 NB off-ramp & Lewis Ri | Analysis Year | 2024 | PHF | 0.94 | | |
| File Name | Streets1.xus | | | Analysis Period | 1 > 7:00 | | |
| Project Description | Year 2024 with Project | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|-----|-----|---|----|-----|----|-----|----|-----|----|---|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 125 | 235 | | | 672 | 83 | 266 | 31 | 244 | 8 | | 96 |

| Signal Information | | | | | | | | | | | | |
|--------------------|-------|-----------------|------|-----|------|-----|-----|-----|-----|--|--|--|
| Cycle, s | 56.6 | Reference Phase | 2 | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | | | | | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | |
| | | Green | 24.6 | 4.7 | 12.4 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Yellow | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| | | Red | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |

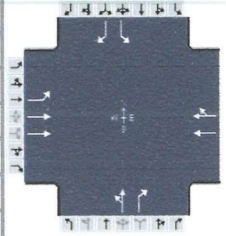
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|-----|------|-----|------|-----|------|-----|------|
| Assigned Phase | | 2 | | 6 | | 8 | | 4 |
| Case Number | | 6.0 | | 8.0 | | 11.0 | | 9.0 |
| Phase Duration, s | | 29.6 | | 29.6 | | 17.4 | | 9.7 |
| Change Period, (Y+R _c), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 |
| Max Allow Headway (MAH), s | | 3.3 | | 3.3 | | 3.2 | | 3.3 |
| Queue Clearance Time (g _s), s | | 22.5 | | 12.5 | | 11.3 | | 5.5 |
| Green Extension Time (g _e), s | | 2.1 | | 2.8 | | 1.0 | | 0.2 |
| Phase Call Probability | | 1.00 | | 1.00 | | 1.00 | | 0.82 |
| Max Out Probability | | 0.34 | | 0.02 | | 0.00 | | 0.00 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|---|------|-------|-------|------|-------|-------|-------|---|------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | | | 6 | 16 | 3 | 8 | 18 | 7 | | 14 |
| Adjusted Flow Rate (v), veh/h | 133 | 250 | | | 397 | 385 | | 316 | 217 | 9 | | 102 |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 702 | 1809 | | | 1900 | 1842 | | 1819 | 1610 | 1810 | | 1610 |
| Queue Service Time (g _s), s | 10.0 | 2.4 | | | 10.5 | 8.5 | | 9.3 | 6.9 | 0.2 | | 3.5 |
| Cycle Queue Clearance Time (g _c), s | 20.5 | 2.4 | | | 10.5 | 8.5 | | 9.3 | 6.9 | 0.2 | | 3.5 |
| Green Ratio (g/C) | 0.43 | 0.43 | | | 0.43 | 0.43 | | 0.22 | 0.22 | 0.08 | | 0.08 |
| Capacity (c), veh/h | 300 | 1568 | | | 824 | 799 | | 397 | 351 | 151 | | 134 |
| Volume-to-Capacity Ratio (X) | 0.443 | 0.159 | | | 0.482 | 0.482 | | 0.796 | 0.618 | 0.056 | | 0.76 |
| Available Capacity (c _a), veh/h | 368 | 1917 | | | 1007 | 976 | | 964 | 853 | 959 | | 853 |
| Back of Queue (Q), veh/ln (50th percentile) | 1.5 | 0.8 | | | 2.9 | 2.9 | | 3.7 | 2.4 | 0.1 | | 1.4 |
| Queue Storage Ratio (RQ) (50th percentile) | 0.00 | 0.00 | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | | 0.00 |
| Uniform Delay (d ₁), s/veh | 19.8 | 9.8 | | | 11.5 | 11.5 | | 20.9 | 20.0 | 23.9 | | 25.4 |
| Incremental Delay (d ₂), s/veh | 0.4 | 0.0 | | | 0.2 | 0.2 | | 1.4 | 0.7 | 0.1 | | 3.3 |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Control Delay (d), s/veh | 20.2 | 9.8 | | | 11.6 | 11.7 | | 22.3 | 20.7 | 24.0 | | 28.7 |
| Level of Service (LOS) | C | A | | | B | B | | C | C | C | | C |
| Approach Delay, s/veh / LOS | 13.4 | | B | 11.6 | | B | 21.7 | | C | 28.4 | | C |
| Intersection Delay, s/veh / LOS | 16.0 | | | | | | B | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|-----|---|-----|---|-----|---|-----|---|
| Pedestrian LOS Score / LOS | 1.7 | A | 2.2 | B | 2.8 | C | 2.9 | C |
| Bicycle LOS Score / LOS | 0.8 | A | 1.1 | A | 1.4 | A | | F |

HCS 2010 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|----------------------------|---------------|--------------|--------------------------|---------|--|--|
| Agency | | | | Duration, h | 0.25 | | |
| Analyst | | Analysis Date | 7/21/2019 | Area Type | Other | | |
| Jurisdiction | City of Woodland | Time Period | PM Peak Hour | PHF | 0.93 | | |
| Intersection | I-5 NB off-ramp & Lewis Ri | Analysis Year | 2022 | Analysis Period | 1> 7:00 | | |
| File Name | Streets1.xus | | | | | | |
| Project Description | Existing | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|-----|-----|---|----|-----|-----|-----|----|-----|----|---|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 230 | 441 | | | 421 | 107 | 298 | 52 | 464 | 41 | | 96 |

| Signal Information | | | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|--------|------|-----|------|-----|-----|-----|--|--|--|
| Cycle, s | 75.5 | Reference Phase | 2 | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | Green | 30.0 | 6.7 | 23.8 | 0.0 | 0.0 | 0.0 | | | |
| | | Simult. Gap N/S | On | Yellow | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | | | |
| Force Mode | Fixed | | | Red | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | | | |

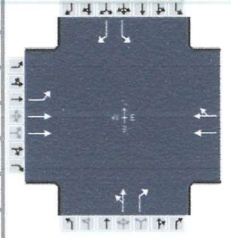
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|-----|------|-----|------|-----|------|-----|------|
| Assigned Phase | | 2 | | 6 | | 8 | | 4 |
| Case Number | | 6.0 | | 8.0 | | 11.0 | | 9.0 |
| Phase Duration, s | | 35.0 | | 35.0 | | 28.8 | | 11.7 |
| Change Period, (Y+R _c), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 |
| Max Allow Headway (MAH), s | | 3.4 | | 3.4 | | 3.3 | | 3.3 |
| Queue Clearance Time (g _s), s | | 31.1 | | 10.0 | | 22.4 | | 6.7 |
| Green Extension Time (g _e), s | | 0.0 | | 3.3 | | 1.4 | | 0.3 |
| Phase Call Probability | | 1.00 | | 1.00 | | 1.00 | | 0.95 |
| Max Out Probability | | 1.00 | | 0.02 | | 0.20 | | 0.00 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|---|------|-------|-------|------|-------|-------|-------|---|-------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Assigned Movement | 5 | 2 | | | 6 | 16 | 3 | 8 | 18 | 7 | | 14 |
| Adjusted Flow Rate (v), veh/h | 247 | 474 | | | 280 | 266 | | 376 | 456 | 44 | | 103 |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 874 | 1809 | | | 1900 | 1787 | | 1822 | 1610 | 1810 | | 1610 |
| Queue Service Time (g _s), s | 21.1 | 6.9 | | | 6.9 | 8.0 | | 13.4 | 20.4 | 1.7 | | 4.7 |
| Cycle Queue Clearance Time (g _c), s | 29.1 | 6.9 | | | 6.9 | 8.0 | | 13.4 | 20.4 | 1.7 | | 4.7 |
| Green Ratio (g/C) | 0.40 | 0.40 | | | 0.40 | 0.40 | | 0.32 | 0.32 | 0.09 | | 0.09 |
| Capacity (c), veh/h | 351 | 1438 | | | 755 | 710 | | 575 | 508 | 160 | | 142 |
| Volume-to-Capacity Ratio (X) | 0.705 | 0.330 | | | 0.371 | 0.375 | | 0.655 | 0.898 | 0.276 | | 0.726 |
| Available Capacity (c _a), veh/h | 351 | 1438 | | | 755 | 710 | | 725 | 640 | 719 | | 640 |
| Back of Queue (Q), veh/ln (50th percentile) | 4.6 | 2.6 | | | 3.1 | 3.0 | | 5.4 | 8.8 | 0.7 | | 1.9 |
| Queue Storage Ratio (RQ) (50th percentile) | 0.00 | 0.00 | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | | 0.00 |
| Uniform Delay (d ₁), s/veh | 26.4 | 15.8 | | | 16.1 | 16.1 | | 22.3 | 24.7 | 32.1 | | 33.5 |
| Incremental Delay (d ₂), s/veh | 5.4 | 0.0 | | | 0.1 | 0.1 | | 0.7 | 11.7 | 0.3 | | 2.6 |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Control Delay (d), s/veh | 31.8 | 15.8 | | | 16.2 | 16.2 | | 23.0 | 36.4 | 32.5 | | 36.1 |
| Level of Service (LOS) | C | B | | | B | B | | C | D | C | | D |
| Approach Delay, s/veh / LOS | 21.3 | C | | 16.2 | B | | 30.3 | C | | 35.0 | | D |
| Intersection Delay, s/veh / LOS | 24.3 | | | | | | C | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|-----|---|-----|---|-----|---|-----|---|
| Pedestrian LOS Score / LOS | 1.7 | A | 2.3 | B | 2.8 | C | 2.9 | C |
| Bicycle LOS Score / LOS | 1.0 | A | 0.9 | A | 1.9 | A | | F |

HCS 2010 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|----------------------------|---------------|--------------|--------------------------|-----------|--|--|
| Agency | | | | Duration, h | 0.25 | | |
| Analyst | | | | Analysis Date | 7/21/2019 | | |
| Jurisdiction | City of Woodland | Time Period | PM Peak Hour | Area Type | Other | | |
| Intersection | I-5 NB off-ramp & Lewis Ri | Analysis Year | 2024 | PHF | 0.93 | | |
| File Name | Streets1.xus | | | Analysis Period | 1> 7:00 | | |
| Project Description | Year 2024 w/o Project | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|-----|-----|---|----|-----|-----|-----|----|-----|----|---|-----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 229 | 477 | | | 460 | 111 | 310 | 54 | 513 | 43 | | 100 |

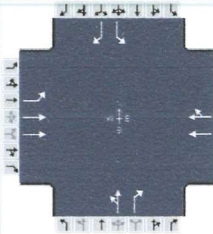
| Signal Information | | | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|--------|------|-----|------|-----|-----|-----|-----|-----|-----|
| Cycle, s | 79.3 | Reference Phase | 2 | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | Green | 30.0 | 7.2 | 27.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Force Mode | Fixed | Simult. Gap N/S | On | Yellow | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | Red | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|-----|------|-----|------|-----|------|-----|------|
| Assigned Phase | | 2 | | 6 | | 8 | | 4 |
| Case Number | | 6.0 | | 8.0 | | 11.0 | | 9.0 |
| Phase Duration, s | | 35.0 | | 35.0 | | 32.1 | | 12.2 |
| Change Period, (Y+R _c), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 |
| Max Allow Headway (MAH), s | | 3.4 | | 3.4 | | 3.3 | | 3.3 |
| Queue Clearance Time (g _s), s | | 32.0 | | 11.5 | | 26.1 | | 7.2 |
| Green Extension Time (g _e), s | | 0.0 | | 3.6 | | 1.0 | | 0.3 |
| Phase Call Probability | | 1.00 | | 1.00 | | 1.00 | | 0.97 |
| Max Out Probability | | 1.00 | | 0.04 | | 0.80 | | 0.00 |

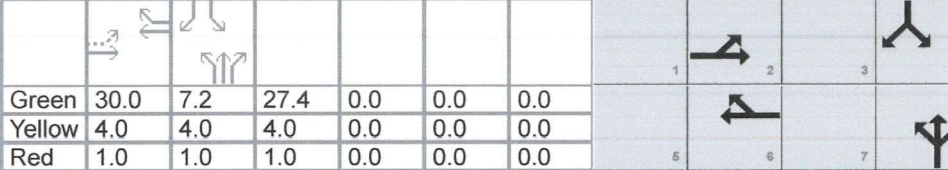
| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|---|------|-------|-------|------|-------|-------|-------|---|-------|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | | | 6 | 16 | 3 | 8 | 18 | 7 | | 14 |
| Adjusted Flow Rate (v), veh/h | 246 | 513 | | | 304 | 289 | | 391 | 509 | 46 | | 108 |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 838 | 1809 | | | 1900 | 1791 | | 1822 | 1610 | 1810 | | 1610 |
| Queue Service Time (g _s), s | 20.5 | 8.1 | | | 7.6 | 9.5 | | 14.3 | 24.1 | 1.9 | | 5.2 |
| Cycle Queue Clearance Time (g _c), s | 30.0 | 8.1 | | | 7.6 | 9.5 | | 14.3 | 24.1 | 1.9 | | 5.2 |
| Green Ratio (g/C) | 0.38 | 0.38 | | | 0.38 | 0.38 | | 0.34 | 0.34 | 0.09 | | 0.09 |
| Capacity (c), veh/h | 307 | 1368 | | | 719 | 677 | | 623 | 551 | 164 | | 146 |
| Volume-to-Capacity Ratio (X) | 0.801 | 0.375 | | | 0.423 | 0.426 | | 0.628 | 0.924 | 0.282 | | 0.736 |
| Available Capacity (c _a), veh/h | 307 | 1368 | | | 719 | 677 | | 689 | 609 | 684 | | 609 |
| Back of Queue (Q), veh/ln (50th percentile) | 5.7 | 3.2 | | | 3.9 | 3.7 | | 5.8 | 11.2 | 0.8 | | 2.1 |
| Queue Storage Ratio (RQ) (50th percentile) | 0.00 | 0.00 | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | | 0.00 |
| Uniform Delay (d ₁), s/veh | 30.6 | 17.9 | | | 18.2 | 18.3 | | 21.9 | 25.1 | 33.6 | | 35.1 |
| Incremental Delay (d ₂), s/veh | 13.1 | 0.1 | | | 0.1 | 0.2 | | 1.0 | 18.1 | 0.3 | | 2.7 |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Control Delay (d), s/veh | 43.7 | 17.9 | | | 18.4 | 18.4 | | 22.9 | 43.2 | 34.0 | | 37.8 |
| Level of Service (LOS) | D | B | | | B | B | | C | D | C | | D |
| Approach Delay, s/veh / LOS | 26.3 | C | | 18.4 | B | | 34.3 | C | | 36.7 | | D |
| Intersection Delay, s/veh / LOS | 28.0 | | | | | | C | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|-----|---|-----|---|-----|---|-----|---|
| Pedestrian LOS Score / LOS | 1.7 | A | 2.3 | B | 2.8 | C | 2.9 | C |
| Bicycle LOS Score / LOS | 1.1 | A | 1.0 | A | 2.0 | A | | F |

HCS 2010 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|----------------------------|-----------------|--------------|---|--|--|--|
| Agency | | Duration, h | 0.25 |  | | | |
| Analyst | | Analysis Date | 7/21/2019 | | | | |
| Jurisdiction | City of Woodland | Time Period | PM Peak Hour | | | | |
| Intersection | I-5 NB off-ramp & Lewis Ri | Analysis Year | 2024 | | | | |
| File Name | Streets1.xus | Analysis Period | 1 > 7:00 | | | | |
| Project Description | Year 2024 with Project | | | | | | |

| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|-----|-----|---|----|-----|-----|-----|----|-----|----|---|-----|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 229 | 482 | | | 465 | 112 | 310 | 54 | 517 | 44 | | 100 |

| Signal Information | | | |  | | | | | | | | |
|--------------------|-------|-----------------|------|--|-----|-----|-----|-----|-----|-----|-----|-----|
| Cycle, s | 79.6 | Reference Phase | 2 | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | | | | | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | |
| Green | 30.0 | 7.2 | 27.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Yellow | 4.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Red | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

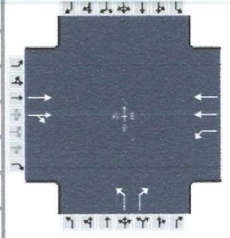
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|------------------------------|-----|------|-----|------|-----|------|-----|------|
| Assigned Phase | | 2 | | 6 | | 8 | | 4 |
| Case Number | | 6.0 | | 8.0 | | 11.0 | | 9.0 |
| Phase Duration, s | | 35.0 | | 35.0 | | 32.4 | | 12.2 |
| Change Period, (Y+Rc), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 |
| Max Allow Headway (MAH), s | | 3.4 | | 3.4 | | 3.3 | | 3.3 |
| Queue Clearance Time (gs), s | | 32.0 | | 11.7 | | 26.4 | | 7.2 |
| Green Extension Time (ge), s | | 0.0 | | 3.6 | | 1.0 | | 0.3 |
| Phase Call Probability | | 1.00 | | 1.00 | | 1.00 | | 0.97 |
| Max Out Probability | | 1.00 | | 0.04 | | 0.89 | | 0.00 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|---|------|-------|-------|------|-------|-------|-------|---|-------|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | | | 6 | 16 | 3 | 8 | 18 | 7 | | 14 |
| Adjusted Flow Rate (v), veh/h | 246 | 518 | | | 307 | 292 | | 391 | 513 | 47 | | 108 |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 833 | 1809 | | | 1900 | 1791 | | 1822 | 1610 | 1810 | | 1610 |
| Queue Service Time (gs), s | 20.3 | 8.3 | | | 7.7 | 9.7 | | 14.3 | 24.4 | 1.9 | | 5.2 |
| Cycle Queue Clearance Time (gc), s | 30.0 | 8.3 | | | 7.7 | 9.7 | | 14.3 | 24.4 | 1.9 | | 5.2 |
| Green Ratio (g/C) | 0.38 | 0.38 | | | 0.38 | 0.38 | | 0.34 | 0.34 | 0.09 | | 0.09 |
| Capacity (c), veh/h | 303 | 1363 | | | 716 | 675 | | 627 | 554 | 164 | | 146 |
| Volume-to-Capacity Ratio (X) | 0.812 | 0.380 | | | 0.429 | 0.432 | | 0.624 | 0.926 | 0.288 | | 0.736 |
| Available Capacity (ca), veh/h | 303 | 1363 | | | 716 | 675 | | 687 | 607 | 682 | | 607 |
| Back of Queue (Q), veh/ln (50th percentile) | 5.9 | 3.2 | | | 3.9 | 3.8 | | 5.9 | 11.5 | 0.8 | | 2.1 |
| Queue Storage Ratio (RQ) (50th percentile) | 0.00 | 0.00 | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | | 0.00 |
| Uniform Delay (d1), s/veh | 31.0 | 18.0 | | | 18.4 | 18.5 | | 21.8 | 25.1 | 33.8 | | 35.3 |
| Incremental Delay (d2), s/veh | 14.4 | 0.1 | | | 0.2 | 0.2 | | 1.0 | 18.7 | 0.4 | | 2.7 |
| Initial Queue Delay (d3), s/veh | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.0 |
| Control Delay (d), s/veh | 45.4 | 18.1 | | | 18.6 | 18.6 | | 22.8 | 43.8 | 34.1 | | 38.0 |
| Level of Service (LOS) | D | B | | | B | B | | C | D | C | | D |
| Approach Delay, s/veh / LOS | 26.9 | | C | 18.6 | | B | 34.7 | | C | 36.8 | | D |
| Intersection Delay, s/veh / LOS | 28.4 | | | | | | C | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|-----|---|-----|---|-----|---|-----|---|
| Pedestrian LOS Score / LOS | 1.7 | A | 2.3 | B | 2.8 | C | 2.9 | C |
| Bicycle LOS Score / LOS | 1.1 | A | 1.0 | A | 2.0 | A | | F |

HCS 2010 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|---------------------------|---------------|--------------|--------------------------|-----------|--|--|
| Agency | | | | Duration, h | 0.25 | | |
| Analyst | | | | Analysis Date | 7/21/2019 | | |
| Jurisdiction | City of Woodland | Time Period | AM Peak Hour | Area Type | Other | | |
| Intersection | E CC St. & Lewis River Rd | Analysis Year | 2022 | PHF | 0.85 | | |
| File Name | Streets1.xus | | | Analysis Period | 1> 7:00 | | |
| Project Description | Existing | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|----|-----|-----|----|-----|---|-----|---|----|----|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | | 242 | 123 | 33 | 260 | | 263 | | 48 | | | |

| Signal Information | | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cycle, s | 25.2 | Reference Phase | 2 | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | | | | | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | |
| | | Green | 9.3 | 5.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Yellow | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | Red | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

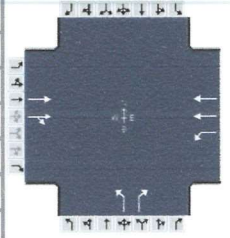
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|-----|------|-----|------|-----|------|-----|-----|
| Assigned Phase | | 2 | | 6 | | 8 | | |
| Case Number | | 8.0 | | 6.0 | | 9.0 | | |
| Phase Duration, s | | 14.3 | | 14.3 | | 10.9 | | |
| Change Period, (Y+R _c), s | | 5.0 | | 5.0 | | 5.0 | | |
| Max Allow Headway (MAH), s | | 3.1 | | 3.1 | | 3.1 | | |
| Queue Clearance Time (g _s), s | | 6.9 | | 7.7 | | 6.0 | | |
| Green Extension Time (g _e), s | | 1.6 | | 1.6 | | 0.6 | | |
| Phase Call Probability | | 1.00 | | 1.00 | | 0.89 | | |
| Max Out Probability | | 0.00 | | 0.00 | | 0.00 | | |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-----|-------|-------|-------|-------|---|-------|---|-------|-----|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | | 2 | 12 | 1 | 6 | | 3 | | 18 | | | |
| Adjusted Flow Rate (v), veh/h | | 207 | 193 | 39 | 306 | | 309 | | 9 | | | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | | 1900 | 1716 | 1000 | 1809 | | 1810 | | 1610 | | | |
| Queue Service Time (g _s), s | | 4.9 | 2.0 | 0.8 | 1.5 | | 4.0 | | 0.1 | | | |
| Cycle Queue Clearance Time (g _c), s | | 4.9 | 2.0 | 5.7 | 1.5 | | 4.0 | | 0.1 | | | |
| Green Ratio (g/C) | | 0.37 | 0.37 | 0.37 | 0.37 | | 0.23 | | 0.23 | | | |
| Capacity (c), veh/h | | 704 | 636 | 462 | 1340 | | 420 | | 374 | | | |
| Volume-to-Capacity Ratio (X) | | 0.294 | 0.304 | 0.084 | 0.228 | | 0.736 | | 0.025 | | | |
| Available Capacity (c _a), veh/h | | 2264 | 2045 | 1283 | 4311 | | 2156 | | 1919 | | | |
| Back of Queue (Q), veh/ln (50th percentile) | | 0.3 | 0.3 | 0.1 | 0.2 | | 1.0 | | 0.0 | | | |
| Queue Storage Ratio (RQ) (50th percentile) | | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 | | | |
| Uniform Delay (d ₁), s/veh | | 5.6 | 5.6 | 8.9 | 5.4 | | 8.9 | | 7.5 | | | |
| Incremental Delay (d ₂), s/veh | | 0.1 | 0.1 | 0.0 | 0.0 | | 1.0 | | 0.0 | | | |
| Initial Queue Delay (d ₃), s/veh | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | | | |
| Control Delay (d), s/veh | | 5.7 | 5.7 | 8.9 | 5.5 | | 9.9 | | 7.5 | | | |
| Level of Service (LOS) | | A | A | A | A | | A | | A | | | |
| Approach Delay, s/veh / LOS | 5.7 | A | | 5.9 | A | | 9.8 | A | | 0.0 | | |
| Intersection Delay, s/veh / LOS | 7.0 | | | | | | A | | | | | |

| Multimodal Results | EB | | | WB | | | NB | | | SB | | |
|----------------------------|-----|---|--|-----|---|--|-----|---|--|-----|---|--|
| Pedestrian LOS Score / LOS | 2.3 | B | | 0.7 | A | | 2.9 | C | | 2.7 | B | |
| Bicycle LOS Score / LOS | 0.8 | A | | 0.8 | A | | | F | | | | |

HCS 2010 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | |
|---------------------|---------------------------|---------------|--------------|--------------------------|-----------------|----------|
| Agency | | Duration, h | 0.25 | | | |
| Analyst | | Analysis Date | 7/21/2019 | | Area Type | Other |
| Jurisdiction | City of Woodland | Time Period | AM Peak Hour | | PHF | 0.85 |
| Intersection | E CC St. & Lewis River Rd | Analysis Year | 2024 | | Analysis Period | 1 > 7:00 |
| File Name | Streets1.xus | | | | | |
| Project Description | Year 2024 w/o Project | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|----|-----|-----|----|-----|---|-----|---|----|----|---|---|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | | 263 | 128 | 36 | 309 | | 274 | | 50 | | | |

| Signal Information | | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cycle, s | 26.5 | Reference Phase | 2 | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | | | | | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | |
| Green | 10.1 | 6.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Yellow | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Red | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

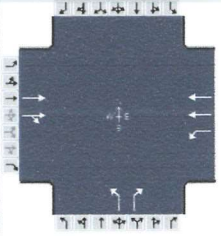
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|-----|------|-----|------|-----|------|-----|-----|
| Assigned Phase | | 2 | | 6 | | 8 | | |
| Case Number | | 8.0 | | 6.0 | | 9.0 | | |
| Phase Duration, s | | 15.1 | | 15.1 | | 11.4 | | |
| Change Period, (Y+R _c), s | | 5.0 | | 5.0 | | 5.0 | | |
| Max Allow Headway (MAH), s | | 3.1 | | 3.1 | | 3.1 | | |
| Queue Clearance Time (g _s), s | | 7.3 | | 8.3 | | 6.4 | | |
| Green Extension Time (g _e), s | | 1.8 | | 1.8 | | 0.6 | | |
| Phase Call Probability | | 1.00 | | 1.00 | | 0.91 | | |
| Max Out Probability | | 0.00 | | 0.00 | | 0.00 | | |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-----|-------|-------|-------|-------|---|-------|---|-------|-----|---|---|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | | 2 | 12 | 1 | 6 | | 3 | | 18 | | | |
| Adjusted Flow Rate (v), veh/h | | 223 | 208 | 42 | 364 | | 322 | | 12 | | | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | | 1900 | 1719 | 973 | 1809 | | 1810 | | 1610 | | | |
| Queue Service Time (g _s), s | | 5.3 | 2.2 | 1.0 | 1.8 | | 4.4 | | 0.1 | | | |
| Cycle Queue Clearance Time (g _c), s | | 5.3 | 2.2 | 6.3 | 1.8 | | 4.4 | | 0.1 | | | |
| Green Ratio (g/C) | | 0.38 | 0.38 | 0.38 | 0.38 | | 0.24 | | 0.24 | | | |
| Capacity (c), veh/h | | 726 | 657 | 448 | 1383 | | 435 | | 387 | | | |
| Volume-to-Capacity Ratio (X) | | 0.307 | 0.316 | 0.095 | 0.263 | | 0.741 | | 0.030 | | | |
| Available Capacity (c _a), veh/h | | 2151 | 1947 | 1177 | 4096 | | 2049 | | 1823 | | | |
| Back of Queue (Q), veh/ln (50th percentile) | | 0.4 | 0.4 | 0.1 | 0.3 | | 1.1 | | 0.0 | | | |
| Queue Storage Ratio (RQ) (50th percentile) | | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 | | | |
| Uniform Delay (d ₁), s/veh | | 5.7 | 5.7 | 9.3 | 5.6 | | 9.3 | | 7.7 | | | |
| Incremental Delay (d ₂), s/veh | | 0.1 | 0.1 | 0.0 | 0.0 | | 0.9 | | 0.0 | | | |
| Initial Queue Delay (d ₃), s/veh | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | | | |
| Control Delay (d), s/veh | | 5.8 | 5.9 | 9.3 | 5.7 | | 10.2 | | 7.7 | | | |
| Level of Service (LOS) | | A | A | A | A | | B | | A | | | |
| Approach Delay, s/veh / LOS | 5.8 | A | | 6.0 | A | | 10.2 | B | | 0.0 | | |
| Intersection Delay, s/veh / LOS | 7.1 | | | | | | A | | | | | |

| Multimodal Results | EB | | | WB | | | NB | | | SB | | |
|----------------------------|-----|---|--|-----|---|--|-----|---|--|-----|---|--|
| Pedestrian LOS Score / LOS | 2.3 | B | | 0.7 | A | | 2.9 | C | | 2.7 | B | |
| Bicycle LOS Score / LOS | 0.8 | A | | 0.8 | A | | | F | | | | |

HCS 2010 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | |
|---------------------|---------------------------|---------------|--------------|--------------------------|-----------------|----------|
| Agency | | Duration, h | 0.25 | | | |
| Analyst | | Analysis Date | 7/21/2019 | | Area Type | Other |
| Jurisdiction | City of Woodland | Time Period | AM Peak Hour | | PHF | 0.85 |
| Intersection | E CC St. & Lewis River Rd | Analysis Year | 2024 | | Analysis Period | 1 > 7:00 |
| File Name | Streets1.xus | | | | | |
| Project Description | Year 2024 with Project | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|----|-----|-----|----|-----|---|-----|---|----|----|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | | 263 | 131 | 36 | 309 | | 285 | | 51 | | | |

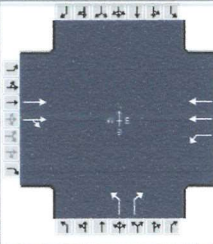
| Signal Information | | | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|--------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| Cycle, s | 26.9 | Reference Phase | 2 | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | Green | 10.2 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Force Mode | Fixed | Simult. Gap N/S | On | Yellow | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | Red | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|-----|------|-----|------|-----|------|-----|-----|
| Assigned Phase | | 2 | | 6 | | 8 | | |
| Case Number | | 8.0 | | 6.0 | | 9.0 | | |
| Phase Duration, s | | 15.2 | | 15.2 | | 11.7 | | |
| Change Period, (Y+R _c), s | | 5.0 | | 5.0 | | 5.0 | | |
| Max Allow Headway (MAH), s | | 3.1 | | 3.1 | | 3.1 | | |
| Queue Clearance Time (g _s), s | | 7.3 | | 8.4 | | 6.6 | | |
| Green Extension Time (g _e), s | | 1.8 | | 1.8 | | 0.7 | | |
| Phase Call Probability | | 1.00 | | 1.00 | | 0.93 | | |
| Max Out Probability | | 0.00 | | 0.00 | | 0.00 | | |

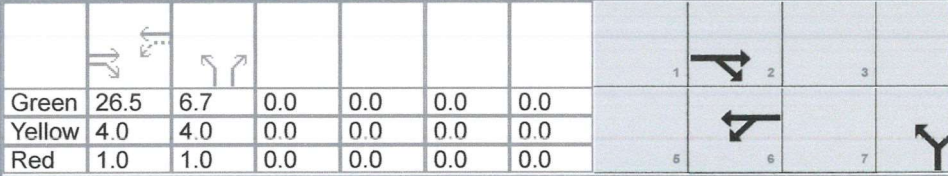
| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-----|-------|-------|-------|-------|---|-------|---|-------|-----|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Assigned Movement | | 2 | 12 | 1 | 6 | | 3 | | 18 | | | |
| Adjusted Flow Rate (v), veh/h | | 225 | 209 | 42 | 364 | | 335 | | 13 | | | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | | 1900 | 1716 | 969 | 1809 | | 1810 | | 1610 | | | |
| Queue Service Time (g _s), s | | 5.3 | 2.3 | 1.0 | 1.9 | | 4.6 | | 0.2 | | | |
| Cycle Queue Clearance Time (g _c), s | | 5.3 | 2.3 | 6.4 | 1.9 | | 4.6 | | 0.2 | | | |
| Green Ratio (g/C) | | 0.38 | 0.38 | 0.38 | 0.38 | | 0.25 | | 0.25 | | | |
| Capacity (c), veh/h | | 721 | 651 | 442 | 1373 | | 450 | | 400 | | | |
| Volume-to-Capacity Ratio (X) | | 0.312 | 0.321 | 0.096 | 0.265 | | 0.745 | | 0.032 | | | |
| Available Capacity (c _a), veh/h | | 2119 | 1914 | 1155 | 4034 | | 2018 | | 1796 | | | |
| Back of Queue (Q), veh/ln (50th percentile) | | 0.4 | 0.4 | 0.1 | 0.3 | | 1.2 | | 0.0 | | | |
| Queue Storage Ratio (RQ) (50th percentile) | | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 | | | |
| Uniform Delay (d ₁), s/veh | | 5.9 | 5.9 | 9.5 | 5.8 | | 9.3 | | 7.7 | | | |
| Incremental Delay (d ₂), s/veh | | 0.1 | 0.1 | 0.0 | 0.0 | | 0.9 | | 0.0 | | | |
| Initial Queue Delay (d ₃), s/veh | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | | | |
| Control Delay (d), s/veh | | 6.0 | 6.0 | 9.5 | 5.8 | | 10.3 | | 7.7 | | | |
| Level of Service (LOS) | | A | A | A | A | | B | | A | | | |
| Approach Delay, s/veh / LOS | 6.0 | A | | 6.2 | A | | 10.2 | B | | 0.0 | | |
| Intersection Delay, s/veh / LOS | 7.3 | | | | | | A | | | | | |

| Multimodal Results | EB | | | WB | | | NB | | | SB | | |
|----------------------------|-----|---|--|-----|---|--|-----|---|--|-----|---|--|
| Pedestrian LOS Score / LOS | 2.3 | B | | 0.7 | A | | 2.9 | C | | 2.7 | B | |
| Bicycle LOS Score / LOS | 0.8 | A | | 0.8 | A | | | F | | | | |

HCS 2010 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | | |
|---------------------|---------------------------|-----------------|--------------|---|--|--|--|
| Agency | | Duration, h | 0.25 |  | | | |
| Analyst | | Analysis Date | 7/21/2019 | | | | |
| Jurisdiction | City of Woodland | Time Period | PM Peak Hour | | | | |
| Intersection | E CC St. & Lewis River Rd | Analysis Year | 2022 | | | | |
| File Name | Streets1.xus | Analysis Period | 1 > 7:00 | | | | |
| Project Description | Existing | | | | | | |

| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|----|-----|-----|----|-----|---|-----|---|-----|----|---|---|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | | 777 | 327 | 86 | 365 | | 195 | | 101 | | | |

| Signal Information | | | | | | | | | | | | |
|--------------------|-------|-----------------|------|--|-----|-----|-----|-----|--|--|--|--|
| Cycle, s | 43.2 | Reference Phase | 2 |  | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | | | | | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | |
| | | Green | 26.5 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Yellow | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Red | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |

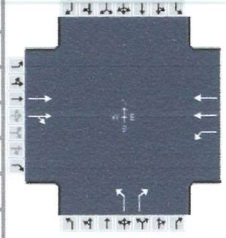
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|-----|------|-----|------|-----|------|-----|-----|
| Assigned Phase | | 2 | | 6 | | 8 | | |
| Case Number | | 8.0 | | 6.0 | | 9.0 | | |
| Phase Duration, s | | 31.5 | | 31.5 | | 11.7 | | |
| Change Period, (Y+R _c), s | | 5.0 | | 5.0 | | 5.0 | | |
| Max Allow Headway (MAH), s | | 3.3 | | 3.3 | | 3.2 | | |
| Queue Clearance Time (g _s), s | | 17.9 | | 24.1 | | 6.5 | | |
| Green Extension Time (g _e), s | | 3.5 | | 2.4 | | 0.5 | | |
| Phase Call Probability | | 1.00 | | 1.00 | | 0.96 | | |
| Max Out Probability | | 0.19 | | 0.62 | | 0.00 | | |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-----|-------|-------|-------|-------|---|-------|---|-------|-----|---|---|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | | 2 | 12 | 1 | 6 | | 3 | | 18 | | | |
| Adjusted Flow Rate (v), veh/h | | 548 | 502 | 88 | 372 | | 199 | | 62 | | | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | | 1900 | 1740 | 546 | 1809 | | 1810 | | 1610 | | | |
| Queue Service Time (g _s), s | | 15.9 | 6.8 | 6.2 | 1.9 | | 4.5 | | 1.5 | | | |
| Cycle Queue Clearance Time (g _c), s | | 15.9 | 6.8 | 22.1 | 1.9 | | 4.5 | | 1.5 | | | |
| Green Ratio (g/C) | | 0.61 | 0.61 | 0.61 | 0.61 | | 0.15 | | 0.15 | | | |
| Capacity (c), veh/h | | 1166 | 1068 | 301 | 2220 | | 280 | | 249 | | | |
| Volume-to-Capacity Ratio (X) | | 0.470 | 0.470 | 0.292 | 0.168 | | 0.711 | | 0.250 | | | |
| Available Capacity (c _a), veh/h | | 1320 | 1208 | 345 | 2512 | | 1257 | | 1118 | | | |
| Back of Queue (Q), veh/ln (50th percentile) | | 1.2 | 1.1 | 0.6 | 0.3 | | 1.7 | | 0.5 | | | |
| Queue Storage Ratio (RQ) (50th percentile) | | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 | | | |
| Uniform Delay (d ₁), s/veh | | 4.5 | 4.5 | 14.6 | 3.6 | | 17.3 | | 16.1 | | | |
| Incremental Delay (d ₂), s/veh | | 0.1 | 0.1 | 0.2 | 0.0 | | 1.3 | | 0.2 | | | |
| Initial Queue Delay (d ₃), s/veh | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | | | |
| Control Delay (d), s/veh | | 4.6 | 4.6 | 14.8 | 3.6 | | 18.6 | | 16.2 | | | |
| Level of Service (LOS) | | A | A | B | A | | B | | B | | | |
| Approach Delay, s/veh / LOS | 4.6 | A | | 5.7 | A | | 18.0 | B | | 0.0 | | |
| Intersection Delay, s/veh / LOS | 6.9 | | | | | | A | | | | | |

| Multimodal Results | EB | | | WB | | | NB | | | SB | | |
|----------------------------|-----|---|--|-----|---|--|-----|---|--|-----|---|--|
| Pedestrian LOS Score / LOS | 2.3 | B | | 0.6 | A | | 2.9 | C | | 2.8 | C | |
| Bicycle LOS Score / LOS | 1.4 | A | | 0.9 | A | | | F | | | | |

HCS 2010 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | |
|---------------------|---------------------------|---------------|--------------|--------------------------|-----------------|----------|
| Agency | | Duration, h | 0.25 | | | |
| Analyst | | Analysis Date | 7/21/2019 | | Area Type | Other |
| Jurisdiction | City of Woodland | Time Period | PM Peak Hour | | PHF | 0.98 |
| Intersection | E CC St. & Lewis River Rd | Analysis Year | 2024 | | Analysis Period | 1 > 7:00 |
| File Name | Streets1.xus | | | | | |
| Project Description | Year 2024 w/o Project | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|----|-----|-----|----|-----|---|-----|---|-----|----|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | | 856 | 340 | 89 | 402 | | 203 | | 105 | | | |

| Signal Information | | | | Signal Phases | | | | | | | | | |
|--------------------|-------|-----------------|-----|---------------|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Cycle, s | 46.3 | Reference Phase | 2 | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | | | | | | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | | |
| Green | 29.0 | 7.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Yellow | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Red | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |

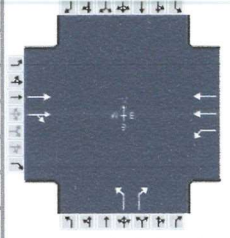
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|-----|------|-----|------|-----|------|-----|-----|
| Assigned Phase | | 2 | | 6 | | 8 | | |
| Case Number | | 8.0 | | 6.0 | | 9.0 | | |
| Phase Duration, s | | 34.0 | | 34.0 | | 12.3 | | |
| Change Period, (Y+R _c), s | | 5.0 | | 5.0 | | 5.0 | | |
| Max Allow Headway (MAH), s | | 3.3 | | 3.3 | | 3.2 | | |
| Queue Clearance Time (g _s), s | | 19.9 | | 27.8 | | 7.0 | | |
| Green Extension Time (g _e), s | | 3.6 | | 1.2 | | 0.5 | | |
| Phase Call Probability | | 1.00 | | 1.00 | | 0.97 | | |
| Max Out Probability | | 0.33 | | 1.00 | | 0.00 | | |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-----|-------|-------|-------|-------|---|-------|---|-------|-----|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | | 2 | 12 | 1 | 6 | | 3 | | 18 | | | |
| Adjusted Flow Rate (v), veh/h | | 596 | 548 | 91 | 410 | | 207 | | 66 | | | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | | 1900 | 1745 | 499 | 1809 | | 1810 | | 1610 | | | |
| Queue Service Time (g _s), s | | 17.9 | 7.9 | 7.8 | 2.2 | | 5.0 | | 1.7 | | | |
| Cycle Queue Clearance Time (g _c), s | | 17.9 | 7.9 | 25.8 | 2.2 | | 5.0 | | 1.7 | | | |
| Green Ratio (g/C) | | 0.63 | 0.63 | 0.63 | 0.63 | | 0.16 | | 0.16 | | | |
| Capacity (c), veh/h | | 1190 | 1093 | 275 | 2265 | | 286 | | 254 | | | |
| Volume-to-Capacity Ratio (X) | | 0.501 | 0.502 | 0.330 | 0.181 | | 0.724 | | 0.261 | | | |
| Available Capacity (c _a), veh/h | | 1231 | 1130 | 286 | 2343 | | 1172 | | 1043 | | | |
| Back of Queue (Q), veh/ln (50th percentile) | | 1.5 | 1.4 | 0.8 | 0.4 | | 1.9 | | 0.5 | | | |
| Queue Storage Ratio (RQ) (50th percentile) | | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 | | | |
| Uniform Delay (d ₁), s/veh | | 4.7 | 4.7 | 16.4 | 3.7 | | 18.5 | | 17.1 | | | |
| Incremental Delay (d ₂), s/veh | | 0.1 | 0.1 | 0.3 | 0.0 | | 1.3 | | 0.2 | | | |
| Initial Queue Delay (d ₃), s/veh | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | | | |
| Control Delay (d), s/veh | | 4.8 | 4.9 | 16.6 | 3.7 | | 19.9 | | 17.3 | | | |
| Level of Service (LOS) | | A | A | B | A | | B | | B | | | |
| Approach Delay, s/veh / LOS | 4.8 | A | | 6.0 | A | | 19.2 | B | | 0.0 | | |
| Intersection Delay, s/veh / LOS | 7.2 | | | | | | A | | | | | |

| Multimodal Results | EB | | | WB | | | NB | | | SB | | |
|----------------------------|-----|---|--|-----|---|--|-----|---|--|-----|---|--|
| Pedestrian LOS Score / LOS | 2.3 | B | | 0.6 | A | | 2.9 | C | | 2.8 | C | |
| Bicycle LOS Score / LOS | 1.4 | A | | 0.9 | A | | | F | | | | |

HCS 2010 Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | |
|---------------------|---------------------------|---------------|--------------|--------------------------|-----------------|----------|
| Agency | | Duration, h | 0.25 | | | |
| Analyst | | Analysis Date | 7/21/2019 | | Area Type | Other |
| Jurisdiction | City of Woodland | Time Period | PM Peak Hour | | PHF | 0.98 |
| Intersection | E CC St. & Lewis River Rd | Analysis Year | 2024 | | Analysis Period | 1 > 7:00 |
| File Name | Streets1.xus | | | | | |
| Project Description | Year 2024 with Project | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|--------------------|----|-----|-----|----|-----|---|-----|---|-----|----|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | | 856 | 350 | 90 | 402 | | 209 | | 106 | | | |

| Signal Information | | | | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|--------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cycle, s | 46.9 | Reference Phase | 2 | | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | | |
| Uncoordinated | Yes | Simult. Gap E/W | On | Green | 29.3 | 7.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Force Mode | Fixed | Simult. Gap N/S | On | Yellow | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | Red | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|-----|------|-----|------|-----|------|-----|-----|
| Assigned Phase | | 2 | | 6 | | 8 | | |
| Case Number | | 8.0 | | 6.0 | | 9.0 | | |
| Phase Duration, s | | 34.3 | | 34.3 | | 12.6 | | |
| Change Period, (Y+R _c), s | | 5.0 | | 5.0 | | 5.0 | | |
| Max Allow Headway (MAH), s | | 3.3 | | 3.3 | | 3.2 | | |
| Queue Clearance Time (g _s), s | | 20.2 | | 28.3 | | 7.2 | | |
| Green Extension Time (g _e), s | | 3.6 | | 1.0 | | 0.5 | | |
| Phase Call Probability | | 1.00 | | 1.00 | | 0.97 | | |
| Max Out Probability | | 0.35 | | 1.00 | | 0.00 | | |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-----|-------|-------|-------|-------|---|-------|---|-------|-----|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | | 2 | 12 | 1 | 6 | | 3 | | 18 | | | |
| Adjusted Flow Rate (v), veh/h | | 601 | 553 | 92 | 410 | | 213 | | 67 | | | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | | 1900 | 1741 | 495 | 1809 | | 1810 | | 1610 | | | |
| Queue Service Time (g _s), s | | 18.2 | 8.2 | 8.1 | 2.2 | | 5.2 | | 1.7 | | | |
| Cycle Queue Clearance Time (g _c), s | | 18.2 | 8.2 | 26.3 | 2.2 | | 5.2 | | 1.7 | | | |
| Green Ratio (g/C) | | 0.63 | 0.63 | 0.63 | 0.63 | | 0.16 | | 0.16 | | | |
| Capacity (c), veh/h | | 1188 | 1088 | 271 | 2261 | | 292 | | 260 | | | |
| Volume-to-Capacity Ratio (X) | | 0.506 | 0.508 | 0.339 | 0.181 | | 0.730 | | 0.259 | | | |
| Available Capacity (c _a), veh/h | | 1217 | 1115 | 279 | 2316 | | 1159 | | 1031 | | | |
| Back of Queue (Q), veh/ln (50th percentile) | | 1.6 | 1.5 | 0.8 | 0.4 | | 2.0 | | 0.6 | | | |
| Queue Storage Ratio (RQ) (50th percentile) | | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 | | | |
| Uniform Delay (d ₁), s/veh | | 4.8 | 4.8 | 16.7 | 3.7 | | 18.7 | | 17.2 | | | |
| Incremental Delay (d ₂), s/veh | | 0.1 | 0.1 | 0.3 | 0.0 | | 1.3 | | 0.2 | | | |
| Initial Queue Delay (d ₃), s/veh | | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | | 0.0 | | | |
| Control Delay (d), s/veh | | 4.9 | 5.0 | 17.0 | 3.7 | | 20.0 | | 17.4 | | | |
| Level of Service (LOS) | | A | A | B | A | | B | | B | | | |
| Approach Delay, s/veh / LOS | 5.0 | | A | 6.2 | | A | 19.4 | | B | 0.0 | | |
| Intersection Delay, s/veh / LOS | 7.4 | | | | | | A | | | | | |

| Multimodal Results | EB | | | WB | | | NB | | | SB | | |
|----------------------------|-----|--|---|-----|--|---|-----|--|---|-----|--|---|
| Pedestrian LOS Score / LOS | 2.3 | | B | 0.6 | | A | 2.9 | | C | 2.8 | | C |
| Bicycle LOS Score / LOS | 1.4 | | A | 0.9 | | A | | | F | | | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|-------------------|-----------|------------|--------------------------------|-----------------------|------------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | DSK | | | Intersection | E CC St. & Sandalwood | | | |
| Agency/Co. | Kelly Engineering | | | Jurisdiction | City of Woodland | | | |
| Date Performed | 10/31/2022 | | | Analysis Year | 2022 | | | |
| Analysis Time Period | AM Peak Hour | | | | | | | |
| Project Description Existing | | | | | | | | |
| East/West Street: E CC St. | | | | North/South Street: Sandalwood | | | | |
| Intersection Orientation: East-West | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Eastbound | | | Westbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | 0 | 139 | 1 | 0 | 296 | 13 | | |
| Peak-Hour Factor, PHF | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | | |
| Hourly Flow Rate, HFR (veh/h) | 0 | 167 | 1 | 0 | 356 | 15 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Undivided | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | LTR | | | LTR | | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Northbound | | | Southbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | 0 | 0 | 0 | 9 | 0 | 12 | | |
| Peak-Hour Factor, PHF | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | | |
| Hourly Flow Rate, HFR (veh/h) | 0 | 0 | 0 | 10 | 0 | 14 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | | LTR | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LTR | LTR | | LTR | | | LTR | |
| v (veh/h) | 0 | 0 | | 0 | | | 24 | |
| C (m) (veh/h) | 1199 | 1422 | | | | | 570 | |
| v/c | 0.00 | 0.00 | | | | | 0.04 | |
| 95% queue length | 0.00 | 0.00 | | | | | 0.13 | |
| Control Delay (s/veh) | 8.0 | 7.5 | | | | | 11.6 | |
| LOS | A | A | | | | | B | |
| Approach Delay (s/veh) | -- | -- | | | | | 11.6 | |
| Approach LOS | -- | -- | | | | | B | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|---|-------------------|-----------|--------------------------------|-----------------------|------|------------|------|----|
| General Information | | | Site Information | | | | | |
| Analyst | DSK | | Intersection | E CC St. & Sandalwood | | | | |
| Agency/Co. | Kelly Engineering | | Jurisdiction | City of Woodland | | | | |
| Date Performed | 10/31/2022 | | Analysis Year | 2024 | | | | |
| Analysis Time Period | AM Peak Hour | | | | | | | |
| Project Description Year 2024 w/o Project | | | | | | | | |
| East/West Street: E CC St. | | | North/South Street: Sandalwood | | | | | |
| Intersection Orientation: East-West | | | Study Period (hrs): 0.25 | | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Eastbound | | | Westbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | 0 | 146 | 1 | 0 | 308 | 14 | | |
| Peak-Hour Factor, PHF | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | | |
| Hourly Flow Rate, HFR (veh/h) | 0 | 175 | 1 | 0 | 371 | 16 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Undivided | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | LTR | | | LTR | | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Northbound | | | Southbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | 0 | 0 | 0 | 9 | 0 | 12 | | |
| Peak-Hour Factor, PHF | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | | |
| Hourly Flow Rate, HFR (veh/h) | 0 | 0 | 0 | 10 | 0 | 14 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | | LTR | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LTR | | LTR | | | LTR | | |
| v (veh/h) | 0 | 0 | | 0 | | | 24 | |
| C (m) (veh/h) | 1183 | 1412 | | | | | 554 | |
| v/c | 0.00 | 0.00 | | | | | 0.04 | |
| 95% queue length | 0.00 | 0.00 | | | | | 0.14 | |
| Control Delay (s/veh) | 8.0 | 7.5 | | | | | 11.8 | |
| LOS | A | A | | | | | B | |
| Approach Delay (s/veh) | -- | -- | | | | | 11.8 | |
| Approach LOS | -- | -- | | | | | B | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|-------------------|-----------|------------|--------------------------------|-----------------------|------------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | DSK | | | Intersection | E CC St. & Sandalwood | | | |
| Agency/Co. | Kelly Engineering | | | Jurisdiction | City of Woodland | | | |
| Date Performed | 10/31/2022 | | | Analysis Year | 2024 | | | |
| Analysis Time Period | AM Peak Hour | | | | | | | |
| Project Description Year 2024 with Project | | | | | | | | |
| East/West Street: E CC St. | | | | North/South Street: Sandalwood | | | | |
| Intersection Orientation: East-West | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Eastbound | | | Westbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | 0 | 150 | | | 320 | 14 | | |
| Peak-Hour Factor, PHF | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | | |
| Hourly Flow Rate, HFR (veh/h) | 0 | 180 | 0 | 0 | 385 | 16 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Undivided | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | LT | | | TR | | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Northbound | | | Southbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | | | | 9 | | 12 | | |
| Peak-Hour Factor, PHF | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | | |
| Hourly Flow Rate, HFR (veh/h) | 0 | 0 | 0 | 10 | 0 | 14 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Configuration | | | | LR | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LT | | | | | | LR | |
| v (veh/h) | 0 | | | | | | 24 | |
| C (m) (veh/h) | 1169 | | | | | | 573 | |
| v/c | 0.00 | | | | | | 0.04 | |
| 95% queue length | 0.00 | | | | | | 0.13 | |
| Control Delay (s/veh) | 8.1 | | | | | | 11.6 | |
| LOS | A | | | | | | B | |
| Approach Delay (s/veh) | -- | -- | | | | | 11.6 | |
| Approach LOS | -- | -- | | | | | B | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|---|-------------------|-----------|------------|--------------------------------|-----------------------|------------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | DSK | | | Intersection | E CC St. & Sandalwood | | | |
| Agency/Co. | Kelly Engineering | | | Jurisdiction | City of Woodland | | | |
| Date Performed | 10/31/2022 | | | Analysis Year | 2022 | | | |
| Analysis Time Period | PM Peak Hour | | | | | | | |
| Project Description Existing | | | | | | | | |
| East/West Street: E CC St. | | | | North/South Street: Sandalwood | | | | |
| Intersection Orientation: East-West | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Eastbound | | | Westbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | 7 | 413 | 7 | 0 | 285 | 9 | | |
| Peak-Hour Factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | | |
| Hourly Flow Rate, HFR (veh/h) | 7 | 430 | 7 | 0 | 296 | 9 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Undivided | | | | | | | |
| RT Channelized | | | 0 | | | | 0 | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | LTR | | | LTR | | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Northbound | | | Southbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | 1 | 0 | 3 | 19 | 0 | 21 | | |
| Peak-Hour Factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | | |
| Hourly Flow Rate, HFR (veh/h) | 1 | 0 | 3 | 19 | 0 | 21 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | | LTR | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LTR | LTR | | LTR | | | LTR | |
| v (veh/h) | 7 | 0 | | 4 | | | 40 | |
| C (m) (veh/h) | 1267 | 1134 | | 502 | | | 464 | |
| v/c | 0.01 | 0.00 | | 0.01 | | | 0.09 | |
| 95% queue length | 0.02 | 0.00 | | 0.02 | | | 0.28 | |
| Control Delay (s/veh) | 7.9 | 8.2 | | 12.2 | | | 13.5 | |
| LOS | A | A | | B | | | B | |
| Approach Delay (s/veh) | -- | -- | 12.2 | | | 13.5 | | |
| Approach LOS | -- | -- | B | | | B | | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|---|-------------------|-----------|------------|--------------------------------|-----------------------|------------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | DSK | | | Intersection | E CC St. & Sandalwood | | | |
| Agency/Co. | Kelly Engineering | | | Jurisdiction | City of Woodland | | | |
| Date Performed | 10/31/2022 | | | Analysis Year | 2024 | | | |
| Analysis Time Period | PM Peak Hour | | | | | | | |
| Project Description Year 2024 w/o Project | | | | | | | | |
| East/West Street: E CC St. | | | | North/South Street: Sandalwood | | | | |
| Intersection Orientation: East-West | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Eastbound | | | Westbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | 7 | 430 | 7 | 0 | 296 | 9 | | |
| Peak-Hour Factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | | |
| Hourly Flow Rate, HFR (veh/h) | 7 | 447 | 7 | 0 | 308 | 9 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Undivided | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | LTR | | | LTR | | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Northbound | | | Southbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | 1 | 0 | 3 | 20 | 0 | 22 | | |
| Peak-Hour Factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | | |
| Hourly Flow Rate, HFR (veh/h) | 1 | 0 | 3 | 20 | 0 | 22 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | | LTR | | | LTR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LTR | LTR | | LTR | | | LTR | |
| v (veh/h) | 7 | 0 | | 4 | | | 42 | |
| C (m) (veh/h) | 1255 | 1117 | | 486 | | | 447 | |
| v/c | 0.01 | 0.00 | | 0.01 | | | 0.09 | |
| 95% queue length | 0.02 | 0.00 | | 0.02 | | | 0.31 | |
| Control Delay (s/veh) | 7.9 | 8.2 | | 12.5 | | | 13.9 | |
| LOS | A | A | | B | | | B | |
| Approach Delay (s/veh) | -- | -- | | 12.5 | | | 13.9 | |
| Approach LOS | -- | -- | | B | | | B | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|-------------------|-----------|------------|--------------------------------|-----------------------|------------|------|----|
| General Information | | | | Site Information | | | | |
| Analyst | DSK | | | Intersection | E CC St. & Sandalwood | | | |
| Agency/Co. | Kelly Engineering | | | Jurisdiction | City of Woodland | | | |
| Date Performed | 10/31/2022 | | | Analysis Year | 2024 | | | |
| Analysis Time Period | PM Peak Hour | | | | | | | |
| Project Description Year 2024 with Project | | | | | | | | |
| East/West Street: E CC St. | | | | North/South Street: Sandalwood | | | | |
| Intersection Orientation: East-West | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Eastbound | | | Westbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | 7 | 448 | | | 304 | 9 | | |
| Peak-Hour Factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | | |
| Hourly Flow Rate, HFR (veh/h) | 7 | 466 | 0 | 0 | 316 | 9 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Undivided | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | LT | | | | | TR | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Northbound | | | Southbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | | | | 20 | | 22 | | |
| Peak-Hour Factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | | |
| Hourly Flow Rate, HFR (veh/h) | 0 | 0 | 0 | 20 | 0 | 22 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Configuration | | | | | LR | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LT | | | | | | LR | |
| v (veh/h) | 7 | | | | | | 42 | |
| C (m) (veh/h) | 1246 | | | | | | 485 | |
| v/c | 0.01 | | | | | | 0.09 | |
| 95% queue length | 0.02 | | | | | | 0.28 | |
| Control Delay (s/veh) | 7.9 | | | | | | 13.1 | |
| LOS | A | | | | | | B | |
| Approach Delay (s/veh) | -- | -- | | | | 13.1 | | |
| Approach LOS | -- | -- | | | | B | | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|-------------------|-----------|------------|--------------------------------|------------------------|------------|----|----|
| General Information | | | | Site Information | | | | |
| Analyst | DSK | | | Intersection | E CC St. & site access | | | |
| Agency/Co. | Kelly Engineering | | | Jurisdiction | City of Woodland | | | |
| Date Performed | 10/31/2022 | | | Analysis Year | 2024 | | | |
| Analysis Time Period | AM Peak Hour | | | | | | | |
| Project Description Year 2024 with Project | | | | | | | | |
| East/West Street: E CC St. | | | | North/South Street: Sandalwood | | | | |
| Intersection Orientation: East-West | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Eastbound | | | Westbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | | 155 | 4 | 1 | 322 | | | |
| Peak-Hour Factor, PHF | 0.96 | 0.80 | 0.80 | 0.80 | 0.80 | 0.96 | | |
| Hourly Flow Rate, HFR (veh/h) | 0 | 193 | 4 | 1 | 402 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Undivided | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | | | TR | LT | | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Northbound | | | Southbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | 12 | | 3 | | | | | |
| Peak-Hour Factor, PHF | 0.80 | 0.96 | 0.80 | 0.96 | 0.96 | 0.96 | | |
| Hourly Flow Rate, HFR (veh/h) | 14 | 0 | 3 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | 0 | | | 0 | | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Configuration | | LR | | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | LT | | LR | | | | |
| v (veh/h) | | 1 | | 17 | | | | |
| C (m) (veh/h) | | 1388 | | 508 | | | | |
| v/c | | 0.00 | | 0.03 | | | | |
| 95% queue length | | 0.00 | | 0.10 | | | | |
| Control Delay (s/veh) | | 7.6 | | 12.3 | | | | |
| LOS | | A | | B | | | | |
| Approach Delay (s/veh) | -- | -- | 12.3 | | | | | |
| Approach LOS | -- | -- | B | | | | | |

| TWO-WAY STOP CONTROL SUMMARY | | | | | | | | |
|--|-------------------|-----------|------------|--------------------------------|------------------------|------------|----|----|
| General Information | | | | Site Information | | | | |
| Analyst | DSK | | | Intersection | E CC St. & site access | | | |
| Agency/Co. | Kelly Engineering | | | Jurisdiction | City of Woodland | | | |
| Date Performed | 10/31/2022 | | | Analysis Year | 2024 | | | |
| Analysis Time Period | PM Peak Hour | | | | | | | |
| Project Description Year 2024 with Project | | | | | | | | |
| East/West Street: E CC St. | | | | North/South Street: Sandalwood | | | | |
| Intersection Orientation: East-West | | | | Study Period (hrs): 0.25 | | | | |
| Vehicle Volumes and Adjustments | | | | | | | | |
| Major Street | Eastbound | | | Westbound | | | | |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | | 450 | 18 | 3 | 305 | | | |
| Peak-Hour Factor, PHF | 0.96 | 0.80 | 0.80 | 0.80 | 0.80 | 0.96 | | |
| Hourly Flow Rate, HFR (veh/h) | 0 | 562 | 22 | 3 | 381 | 0 | | |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- | | |
| Median Type | Undivided | | | | | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 | | |
| Configuration | | | TR | LT | | | | |
| Upstream Signal | | 0 | | | 0 | | | |
| Minor Street | Northbound | | | Southbound | | | | |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 | | |
| | L | T | R | L | T | R | | |
| Volume (veh/h) | 8 | | 5 | | | | | |
| Peak-Hour Factor, PHF | 0.80 | 0.96 | 0.80 | 0.96 | 0.96 | 0.96 | | |
| Hourly Flow Rate, HFR (veh/h) | 9 | 0 | 6 | 0 | 0 | 0 | | |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Percent Grade (%) | | 0 | | | 0 | | | |
| Flared Approach | | N | | | N | | | |
| Storage | | 0 | | | 0 | | | |
| RT Channelized | | | 0 | | | 0 | | |
| Lanes | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Configuration | | LR | | | | | | |
| Delay, Queue Length, and Level of Service | | | | | | | | |
| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | LT | | LR | | | | |
| v (veh/h) | | 3 | | 15 | | | | |
| C (m) (veh/h) | | 1001 | | 349 | | | | |
| v/c | | 0.00 | | 0.04 | | | | |
| 95% queue length | | 0.01 | | 0.13 | | | | |
| Control Delay (s/veh) | | 8.6 | | 15.8 | | | | |
| LOS | | A | | C | | | | |
| Approach Delay (s/veh) | -- | -- | 15.8 | | | | | |
| Approach LOS | -- | -- | C | | | | | |

APPENDIX F
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