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Sunset Meadows

Transportation Impact Study

Sisters, Oregon

Date:

June 3, 2022

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Executive Summary

1. The proposed Sunset Meadows subdivision will include the construction of 22 single-family detached dwellings, 48 single-family attached dwellings, and up to 124 units of low-rise multifamily housing in Sisters, Oregon.
2. The initial trip generation calculations show that the proposed development is expected to generate an increase of 88 trips during the morning peak hour, 111 trips during the evening peak hour, and 1,390 trips during the weekday.
3. Based on an analysis of the available crash data, no significant trends or crash patterns were identified at any of the study intersections that are indicative of safety concerns. Accordingly, no safety mitigation is recommended per the crash data analysis.
4. Adequate sight distances are available at the proposed site access intersections to ensure safe operation along OR-242 and Brooks Camp Road. No sight distance mitigation is necessary or recommended.
5. Left-turn lane warrants are not projected to be met under the year 2025 buildout conditions scenario for any of the study intersections.
6. Due to insufficient traffic volumes, traffic signal warrants are not projected to be met at the unsignalized study intersections under any of the analysis scenarios.
7. The intersection of W Hood Avenue at OR-242 is projected to operate with a v/c ratio in excess of minimum ODOT performance targets during the morning peak hour. City of Sisters staff has indicated that appropriate mitigation for this intersection includes re-striping the northbound and southbound lanes to eliminate the dedicated left-turn lanes on both approaches.
8. All other study intersections are currently operating acceptably per City of Sisters standards and ODOT targets and are projected to continue operating acceptably through the 2030 buildout year. No operational mitigation is necessary or recommended at these intersections to accommodate the proposed development.

Introduction

The proposed Sunset Meadows subdivision will include the construction of 22 single-family detached dwellings, 48 single-family attached dwellings, and up to 124 units of low-rise multifamily housing in Sisters, Oregon. Based on comments from City of Sisters and ODOT staff, this report conducts safety and capacity/level of service analyses at the following intersections:

1. US Highway 20 at McKinney Butte Road/W Barclay Drive
2. US Highway 20 at W Hood Avenue
3. US Highway 20 at OR-242
4. US Highway 20 at N Pine Street
5. W Hood Avenue at Felicity Lane site access (proposed)
6. W Hood Avenue at OR-242
7. OR-242 at site access (proposed)
8. Brooks Camp Road at site access (proposed)
9. Brooks Camp Road at OR-242

This report examines the impacts of the proposed development on the transportation system in the vicinity of the project site. The purpose of this report is to analyze potential traffic impacts and recommend any required transportation mitigation measures to ensure safe and efficient performance of the transportation facilities that will be impacted by the proposed development. All supporting data and calculations are provided in the appendices to this report.

Location Description

The project site is located north of OR-242, south of N Wheeler Loop, west of W Hood Avenue, and east of Brooks Camp Road in Sisters, Oregon, and consists of tax lot 7300 (map number 151005DC000). The site is currently undeveloped. The project consists of the construction of a mixed-use housing development with single-family detached, single-family attached, and multifamily housing units.

The project site is shown in Figure 1. A site plan is included in Appendix A.

Figure 1: Project Location (image from Google Earth)

Vicinity Roadways

The proposed development is expected to impact eight roadways near the site. Table 1 provides a description of each of the vicinity roadways.

Table 1: Vicinity Roadway Descriptions

Street Name	Jurisdiction	Functional Classification[1]	Cross-Section	Speed (MPH)	Curbs & Sidewalks	On-Street Parking	Bicycle Facilities
US-20	ODOT	Statewide Highway/ Arterial	2-3 Lanes	20-35 Posted	Yes	Downtown Core	Partial
W Barclay Drive	City of Sisters	Collector	2 Lanes	30 Posted	Partial	No	Partial
McKinney Butte Road	City of Sisters	Local Road	2 Lanes	25 Posted	Partial	No	Partial
OR-242 (McKenzie Highway)	ODOT	District Highway/Arterial /Collector	2-3 Lanes	40-50 Posted	Partial	No	Both Sides
W Hood Avenue (between US-20 and OR-242)	ODOT	Arterial	3 Lanes	30 Posted	Partial	No	Both Sides
N Pine Street	City of Sisters	Collector	2-3 Lanes	25 Posted	Partial	Yes	No
Brooks Camp Road	City of Sisters	Local Road	2 Lanes	25 Statutory	No	No	Both Sides
Felicity Lane[1]	City of Sisters	Local Road	2 Lanes	25 Statutory	Partial	No	No

Table Notes:
1. Felicity Lane currently under construction as part of the Threewinds Master Plan development

[1] Transight Consulting LLC & City of Sisters Public Works Department, *City of Sisters Transportation System Plan (TSP)*, December 2021

Study Intersections

Based on coordination with the City of Sisters and the Oregon Department of Transportation (ODOT), nine intersections were identified for analysis. A summarized description of the study intersections is provided in Table 2.

Table 2: Study Intersection Descriptions

Intersection		Geometry	Traffic Control	Phasing/Stopped Approaches
1	US-20 at McKinney Butte Road/W Barclay Drive	Four-Legged	Yield-Controlled	Roundabout
2	US-20 at W Hood Avenue	Three-Legged*	Stop-Controlled	EB Stop-Controlled
3	US-20 at OR-242	Three-Legged	Stop-Controlled	EB Stop-Controlled
4	US-20 at N Pine Street	Four-Legged	Stop-Controlled	NB/SB Stop-Controlled
5	W Hood Avenue at Felicity Lane (under construction)	Three-Legged	Stop-Controlled	EB Stop-Controlled
6	W Hood Avenue at OR-242	Four-Legged	Stop-Controlled	All Approaches
7	OR-242 at Site Access (future intersection)	Three-Legged	Stop-Controlled	SB Stop-Controlled
8	Brooks Camp Road at Site Access (future intersection)	Three-Legged	Stop-Controlled	WB Stop-Controlled
9	Brooks Camp Road at OR-242	Three-Legged	Stop-Controlled	SB Stop-Controlled

**Intersection will be converted to a four-legged intersection to allow for site access (Woodlands Master Plan development)*

A vicinity map showing the project site, vicinity streets, and study intersection configurations is shown in Figure 2.

Multi-Modal Access

Pedestrian System

An inventory of the existing pedestrian system near the vicinity of the site shows:

- OR-242: A shared use pathway is located along the north side of OR-242 from W Hood Avenue to McKinney Butte Road . This shared use pathway connects directly to the Sisters Middle School parking lot and will also provide a direct connection to the future Sisters Elementary School.
- W Hood Avenue: A sidewalk is located along the west side of W Hood Avenue from OR-242 to the Bi-Mart parking lot entrance .

- The proposed development features an 8-foot wide bark mulch path along the east and south edges of the property.

Bicycle System

An inventory of the existing bicycle system near the vicinity of the site shows:

- OR-242: Striped bicycle lanes are available along both sides of the roadway from US-20 to McKinney Butte Road. In addition, a paved multi-use path is located along the north side of the roadway from W Hood Avenue to Sisters Middle School.
- W Hood Avenue: Striped bicycle lanes are available along both sides of the roadway from US-20 to OR-242.
- US-20: Striped bicycle lanes are available along both sides of the roadway from north of Rail Way to N Pine Street.
- Brooks Camp Road: Striped bicycle lanes are available along both sides of the roadway from McKinney Butte Road to OR-242.

Transit Facilities

The site has two Cascades East Transit bus routes located within approximately ½ mile of the proposed development:

- Route #28 (*Redmond-Sisters*) runs between Sisters (Ray's Food Place) and the Redmond Transit Hub via OR-126. Weekday service runs from about 6:15 AM to 8:30 AM with headways of approximately 70 minutes and a single run from 2:40 PM to 3:45 PM. There is no service on Saturday or Sunday.
- Route #29 (*Bend-Sisters*) runs between Sisters (Ray's Food Place) and the Bend Hawthorne Station via US-20. Weekday service runs from about 6:40 AM to 7:45 AM (single run) and again from 3:45 PM to 6:15 PM with headways of approximately 85 minutes. Saturday service runs from approximately 8:30 AM to 9:40 AM (single run) and again from about 1:00 PM to 3:40 PM with headways of approximately 90 minutes. There is no service on Sunday.

Both bus routes share stops located in the parking lot of Ray's Food Place and at the intersection of W Main Avenue at N Oak Street.

Figure 2
Sunset Meadows Subdivision
6/3/2022

VICINITY MAP

LEGEND

- STUDY INTERSECTION (EXISTING)
- STUDY INTERSECTION (PROPOSED)
- STOP SIGN
- YIELD SIGN
- ROUNDABOUT
- BIKE LANE
- PROJECT SITE
- ARTERIAL ROADWAY
- COLLECTOR ROADWAY
- LOCAL ROADWAY

No Scale

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Site Trips

Trip Generation

The proposed development will include the construction of 22 single-family detached dwellings, 48 single-family attached dwellings, and up to 124 units of low-rise multifamily housing.

To estimate the number of trips that will be generated by the proposed development, trip rates from the *Trip Generation Manual* [2] were used. Data for land use codes 210 (*Single-Family Detached Housing*), 215 (*Single-Family Attached Housing*), and 220 (*Multifamily Housing, Low-Rise)* were used to estimate the proposed trip generation based on the number of dwelling units.

The initial trip generation calculations show that the proposed development is expected to generate 88 trips during the morning peak hour, 111 trips during the evening peak hour, and 1,390 trips during the weekday. The trip generation calculations are summarized in Table 3. Detailed trip generation calculations are attached to this memorandum.

Table 3: Trip Generation Summary

Land Use	ITE Code	Size/Rate	Morning Peak Hour			Evening Peak Hour			Weekday Total
			In	Out	Total	In	Out	Total	
Single-Family Detached Housing	210	22 units	4	11	15	13	8	21	208
Single-Family Attached Housing	215	48 units	7	16	23	15	12	27	346
Multifamily Housing (Low-Rise)	220	124 units	12	38	50	40	23	63	836
TOTAL		**194 units**	**23**	**65**	**88**	**68**	**43**	**111**	**1,390**

Trip Distribution

A preliminary directional distribution of the site trips to and from the proposed development was estimated based on locations of likely destinations and locations of major transportation facilities in the site vicinity, as well as coordination with ODOT staff. The proposed site is located in northwest Sisters and can be accessed via Brooks Camp Road, OR-242, and Felicity Lane.

The following trip distribution was estimated and used for analysis:

- Approximately 40 percent of site trips will travel to/from the east along US-20
- Approximately 20 percent of site trips will travel to//from the east along W Hood Avenue
- Approximately 15 percent of site trips will travel to/from the west along OR-242

[2] Institute of Transportation Engineers, *Trip Generation Manual*, 11th Edition, 2021.

- Approximately 10 percent of site trips will travel to/from the north along US-20
- Approximately 10 percent of site trips will travel to/from the east along W Barclay Drive
- Approximately 5 percent of site trips will travel to/from the north along Brooks Camp Road

Trip distribution was estimated based on the most current site plan, which shows three accesses to the development along Brooks Camp Road, OR-242, and W Hood Avenue (via Felicity Lane). In general, it is expected that a majority of trips to and from the site will be traveling to and from the north and the east along the previously mentioned roadways.

The trip distribution and assignment for the total site trips generated during the morning and evening peak hours is shown in Figure 3.

LEGEND

XX% PERCENT OF PROJECT TRIPS

TRIP GENERATION			
	IN	OUT	TOTAL
AM	23	65	88
PM	68	43	111

AM PEAK HOUR

PM PEAK HOUR

No Scale

SITE TRIP DISTRIBUTION & ASSIGNMENT

Proposed Development Plan - Site Trips

AM & PM Peak Hours

Figure 3

Sunset Meadows Subdivision

6/3/2022

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Traffic Volumes

Existing Conditions

Traffic counts were collected on Tuesday, November 9th, 2021, at the following study intersections:

- US Highway 20 at McKinney Butte Road/W Barclay Drive
- US Highway 20 at W Hood Avenue
- US Highway 20 at OR-242

In addition, traffic counts were collected on Thursday, December 9th, 2021, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM at the following study intersections:

- W Hood Avenue at OR-242
- US Highway 20 at N Pine Street

These previously collected counts had one year of growth added to bring them to year 2022 conditions (growth rates are discussed in the *Background Conditions* section).

Traffic counts were collected at the study intersection of Brooks Camp Road at OR-242 on Tuesday, May 3rd, 2022, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. Volumes at the proposed site access locations (including W Hood Avenue at Felicity Lane) were derived from balancing volumes at nearby intersections where recent counts have been collected. Data was used from each intersection's respective morning and evening peak hours. Raw count data is included in Appendix B.

Since US-20 and OR-242 are under the jurisdiction of the Oregon Department of Transportation (ODOT), procedures described in ODOT's *Analysis Procedures Manual*[3] were used to seasonally adjust existing traffic volumes to reflect the 30th highest hour in a typical year. Using a map of seasonal trends, these portions of US-20 and OR-242 were determined to show a summer trend, and a seasonal adjustment factor (SAF) of 1.1644, 1.3343, or 1.3928 was applied to through volumes along US-20 and OR-242, depending on the date that counts were collected.

ODOT began COVID-19 traffic monitoring and reporting in mid-March 2020 when statewide closures were mandated by providing a weekly comparison of 2020 and 2021 traffic volumes versus those of the same period in 2019. Overall, statewide traffic volumes are close to pre-COVID-19 traffic volumes. ODOT provided summaries of data by corridor, and the data for the Sisters US-20 corridor showed that the July 2021 weekday traffic volumes were greater than the volumes recorded in July 2019[4]. As a result, a COVID-19 adjustment factor was not applied to the existing counts.

Figure 4 shows the existing traffic volumes at the study intersections during the morning and evening peak hours.

[3] ODOT, Analysis Procedures Manual Version 2, October 2020.
[4] ODOT, Observed Statewide Traffic Volume Patterns: Related to COVID-19 Monitoring Final Report, July 9, 2021, page 4.

Background Conditions

To provide analysis of the impact of the proposed land use, an estimate of future traffic volumes is required. A growth rate must be applied to recorded traffic volumes to calculate future volumes.

The proposed development is anticipated to be completed in 2025. Growth rates for through traffic on US-20 and OR-242 were derived using ODOT's 2040 Future Volume Table. Areas with R-squared values of less than 0.75 were discarded. Site ID 1444 was used for all intersections along US-20 and OR-242. A growth rate of 0.3 percent was applied to US-20 and OR-242 through volumes over a three-year period to determine year 2025 background volumes.

For non-ODOT facilities, a compounded growth rate of two percent per year was applied to the existing traffic volumes over a three-year period to determine year 2025 background volumes. This two percent per year compounded growth rate is a common and conservative growth rate used for roadways that are not under the jurisdiction of ODOT.

In addition to the expected background traffic growth in the site vicinity, the nearby Threewind Master Plan development will impact future volumes at the study intersections. This development is proposed at a location southeast of W McKinney Butte Road and west of W Hood Avenue and will include 50 units of multi-family housing and 28,000 square feet of commercial space. Since this development will likely be contributing trips to the transportation system by 2025, the in-process trips it is projected to generate were included in the 2025 background traffic volumes. A figure showing the in-process trips generated by this development that are expected to impact the study intersections is provided in Appendix B.

The Sisters Elementary School development will also impact future volumes at the study intersections. This development is proposed at a location east of the intersection of McKinney Butte Road at OR-242 and will consist of an elementary school to accommodate 550 students. Since this development will likely be contributing trips to the transportation system by 2025, the in-process trips it is projected to generate were included in the 2025 background traffic volumes. A figure showing the in-process trips generated by this development that are expected to impact the study intersections is provided in Appendix B.

Figure 5 shows the projected year 2025 background traffic volumes at the study intersections during the morning and evening peak hours.

Buildout Conditions

Peak hour trips calculated to be generated by the proposed development, as described earlier within the *Site Trips* section, were added to the projected year 2025 background traffic volumes to obtain the expected 2025 site buildout volumes.

In addition, ODOT's *Development Review Guidelines*[5] recommends a future five-year forecast analysis beyond the buildout year for developments that generate 1,000-2,999 average daily trips.

Figure 6 and Figure 7 show year 2025 and year 2030 buildout traffic volumes, respectively, at the study intersections during the morning and evening peak hours.

[5] https://www.oregon.gov/ODOT/Planning/Documents/Development-Review-Guidelines.pdf, Table 3.3

AM PEAK HOUR

PM PEAK HOUR

Figure 4

Sunset Meadows Subdivision

6/3/2022

TRAFFIC VOLUMES

Existing Conditions

AM & PM Peak Hours

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AM PEAK HOUR

PM PEAK HOUR

No Scale

Figure 5

Sunset Meadows Subdivision

6/3/2022

TRAFFIC VOLUMES

Year 2025 Background Conditions

AM & PM Peak Hours

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AM PEAK HOUR

PM PEAK HOUR

No Scale

Figure 6

Sunset Meadows Subdivision

6/3/2022

TRAFFIC VOLUMES

Year 2025 Buildout Conditions

AM & PM Peak Hours

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AM PEAK HOUR

PM PEAK HOUR

No Scale

Figure 7

Sunset Meadows Subdivision

6/3/2022

TRAFFIC VOLUMES

Year 2030 Buildout Conditions

AM & PM Peak Hours

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Safety Analysis

Crash History Review

Using data obtained from ODOT's Crash Data System, a review of approximately five years of the most recent available crash history (January 2016 through December 2020) was performed at the study intersections. The crash data was evaluated based on the number of crashes, the type of collisions, and the severity of the collisions. Crash severity is based on injuries sustained by people involved in the crash, and includes five categories:

- *PDO* – Property Damage Only;
- *Injury C* – Possible Injury;
- *Injury B* – Suspected Minor Injury;
- *Injury A* – Suspected Serious Injury; and
- *Fatality*

Crash rates provide the ability to compare safety risks at different intersections by accounting for both the number of crashes that have occurred during the study period and the number of vehicles that typically travel through the intersection. Crash rates were calculated using the common assumption that traffic counted during the evening peak hour represents approximately 10 percent of the annual average daily traffic (AADT) at the intersection. Crash rates in excess of 1.0 crashes per million entering vehicles (CMEV) may be indicitave of design deficiencies and therefore require a need for further investigation and possible mitigation.

The intersections along US-20 and OR-242 are ODOT facilities, which adhere to the crash analysis methodologies within ODOT's *Analysis Procedures Manual* (APM). According to the APM, intersections which experience crash rates in excess of their respective 90th percentile crash rates should be "flagged for further analysis". *Exhibit 4-1: Intersection Crash Rates per MEV by Land Type and Traffic Control* of the APM indicates the 90th percentile crash rate for a three-legged unsignalized intersection within an urban setting is 0.293, while the crash rate for a four-legged unsignalized intersection within an urban setting is 0.408. Crash rates in excess of the 90th percentile may be indicative of design deficiencies and therefore require a need for further investigation and possible mitigation.

Table 4 provides a summary of crash types while Table 5 summarizes crash severities and rates for each of the study intersections. Detailed crash data is provided in Appendix C.

Table 4: Crash Type Summary

Intersection		Crash Type								Total Crashes
		Turn	Rear End	Angle	Fixed Object	Side swipe	Ped/ Bike	Backing	Other	
1	US-20 at McKinney Butte Road/W Barclay Drive	3	3	2	2	0	0	0	0	10
2	US-20 at W Hood Avenue	0	0	0	1	0	0	0	0	1
3	US-20 at OR-242	0	0	0	0	0	0	0	0	0
4	US-20 at N Pine Street	0	0	1	0	0	1	0	0	2
6	W Hood Avenue at OR-242	0	0	0	0	0	0	0	0	0
9	Brooks Camp Road at OR-242	0	0	0	0	0	0	0	0	0

Table 5: Crash Severity and Rate Summary

Intersection		Severity					Total Crashes	AADT	Crash Rate	Threshold
		PDO	C	B	A	Fatal				
1	US-20 at McKinney Butte Road/W Barclay Drive	7	2	1	0	0	10	12,330	**0.44**	0.408
2	US-20 at W Hood Avenue	1	0	0	0	0	1	10,410	0.05	0.293
3	US-20 at OR-242	0	0	0	0	0	0	-	0.00	0.293
4	US-20 at N Pine Street	1	1	0	0	0	2	13,540	0.08	0.408
6	W Hood Avenue at OR-242	0	0	0	0	0	0	-	0.00	0.408
9	Brooks Camp Road at OR-242	0	0	0	0	0	0	-	0.00	0.408

*Table Notes: **BOLDED** text indicates a crash rate in excess of 1.00 CMEV or ODOT's 90th percentile crash rate*

Based on a review of the crash data, there was one crash that involved a pedestrian and occurred at the intersection of US-20 at N Pine Street. The crash occurred when the driver of a westbound vehicle failed to yield right-of-way to a northbound pedestrian crossing in a marked crosswalk. The pedestrian sustained injuries consistant with *Injury C* classification, while the driver of the vehicle was uninjured.

Crash Rates

The intersection of US-20 at McKinney Butte Road/W Barclay Avenue had a crash rate that exceeded the 90th percentile rate. There were 10 reported crashes during the analysis period. The intersection was reconfigured to a roundabout in June 2017, and three of the reported crashes occurred prior to the roundabout installation. In reviewing crash data from June 2017 to December 2020 when the roundabout was installed and operational, the crash rate was calculated to be 0.31 CMEV, which is below the ODOT 90th percentile rate.

All other intersections had crash rates below the 90th percentile rates (ODOT facilities) or below 1.00 CMEV (non-ODOT facilities).

Conclusion

No significant trends or crash patterns were identified at any of the study intersections that are indicative of safety concerns. Accordingly, no safety mitigation is recommended per the crash data analysis.

Access Spacing

The City of Sisters Development Code 3.1.300(I)(1) identifies access spacing standards for various roadway classifications. Brooks Camp Road and Felicity Lane are classified by the City of Sisters as local roads and the minimum driveway-to-driveway spacing along a local roadway is 10 feet. In addition, the minimum roadway-to-driveway spacing along a local roadway is 50 feet.

OR-242 is a district highway with a posted speed of 40 mph. The *Oregon Highway Plan*[6] lists a minimum access spacing standard of 360 feet for this type of roadway in rural and urban areas.

The most recent site plan shows three site access locations. The first access is a new intersection along Brooks Camp Road, approximately 350 feet north from the intersection of OR-242 at Brooks Camp Road. The second access is a new intersection along OR-242, approximately 493 feet west from the intersection of W Hood Avenue at OR-242. The third access is a new intersection along Felicity Lane, approximately 410 feet west from the intersection of W Hood Avenue at Felicity Lane.

The most recent site plan shows that proposed new site access locations along Brooks Camp Road, OR-242, and Felicity Lane are in compliance with the access spacing standards shown in Development Code 3.1.300(I)(1) and the Oregon Highway Plan.

Sight Distance Evaluation

Intersection sight distance was measured for the two new proposed site access intersections on OR-242 and Brooks Camp Road. Sight distance was measured and evaluated in accordance with standards established in *A Policy on Geometric Design of Highways and Streets*[7]. According to AASHTO, the driver's eye is assumed to be 14.5 feet from the near edge of the nearest travel lane of the intersecting street and at a height of 3.5 feet

[6] Oregon Department of Transportation, 1999 Oregon Highway Plan (Including Amendments November 1999 Through May 2015), May 2015, Table 13

[7] American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Streets*, 6th Edition, 2011.

above the minor-street approach pavement. The vehicle driver's eye-height along the major-street approach is assumed to be 3.5 feet above the cross-street pavement.

Based on a posted speed of 40 mph along OR-242, the minimum recommended intersection sight distance is 445 feet. At the proposed access location, sight distances to the east and west were measured to exceed 450 feet.

Based on a statutory speed of 25 mph along Brooks Camp Road, the minimum recommended intersection sight distance is 280 feet. At the proposed access location, sight distances to the north and south were measured to exceed 300 feet.

Adequate sight distances are available at the proposed site access intersections to ensure safe operation along OR-242 and Brooks Camp Road. No sight distance mitigation is necessary or recommended.

Warrant Analysis

Left-turn lane warrants and preliminary traffic signal warrants were examined for the study intersections where such treatments would be applicable.

Left-Turn Lane Warrants

A left-turn refuge lane is primarily a safety consideration for the major street, removing left-turning vehicles from the through traffic stream. The left-turn lane warrants along Brooks Camp Road were examined using methodologies provided in the National Cooperative Highway Research Program's (NCHRP) *Report 457*. Left-turn lane warrants along OR-242 (an ODOT roadway) were evaluated using methodologies provided in ODOT's *Analysis Procedures Manual*. In both methodologies, left-turn lane warrants were evaluated based on the number of advancing and opposing vehicles, number of turning vehicles, travel speed, and the number of through lanes.

Left-turn lane warrants were examined for the study intersections where such treatments would be applicable:

- W Hood Avenue at OR-242 – Eastbound approach
- OR-242 at Site Access – Eastbound approach
- Brooks Camp Road at Site Access – Southbound approach
- Brooks Camp Road at OR-242 – Eastbound approach

Left-turn lane warrants are not projected to be met under the year 2025 buildout conditions scenario for any of the study intersections.

Preliminary Traffic Signal Warrants

Preliminary traffic signal warrants were examined for the following unsignalized study intersections to determine whether the installation of a new traffic signal will be warranted at the intersection upon completion of the proposed development:US-20 at W Hood Avenue

- US-20 at OR-242
- US-20 at N Pine Street
- W Hood Avenue at Felicity Lane

- W Hood Avenue at OR-242
- OR-242 at Site Access
- Brooks Camp Road at Site Access
- Brooks Camp Road at OR-242

Due to insufficient traffic volumes, traffic signal warrants are not projected to be met at any of the unsignalized study intersections under any of the analysis scenarios.

Operational Analysis

A capacity and delay analysis were conducted for each of the study intersections per the unsignalized intersection analysis methodologies in the *Highway Capacity Manual* (HCM)[8]. Intersections are generally evaluated based on the average control delay experienced by vehicles and are assigned a grade according to their operation. The level of service (LOS) of an intersection can range from LOS A, which indicates very little, or no delay experienced by vehicles, to LOS F, which indicates a high degree of congestion and delay. The volume-to-capacity (v/c) ratio is a measure that compares the traffic volumes (demand) against the available capacity of an intersection.

Performance Standards

Seven study intersections are located on state highways and are under the jurisdiction of ODOT. The applicable minimum operation standard for this facility is established under the *Oregon Highway Plan*[9] and is based on the v/c ratio of the intersection. According to the *Oregon Highway Plan*, US-20 is a freight route on a statewide highway with a posted speed of 20-35 mph, and has a target maximum allowable v/c ratio of 0.85. OR-242 is a district highway with a posted speed of 40-55 mph, and has a target maximum allowage v/c ratio of 0.90. The above mentioned intersections along US-20 and OR-242 were analyzed according to these standards.

The site access intersections at Brooks Camp Road and Felicty Lane are two-way stop-controlled intersections under the jurisdiction of the City of Sisters. The City's TSP Refinement states that two-way stop-controlled intersections should have a v/c ratio no greater than 0.90.

Delay & Capacity Analysis

The LOS, delay, and v/c results of the capacity analysis are shown in Table 6 for the morning, afternoon, and evening peak hours. Detailed calculations as well as tables showing the relationship between delay and LOS are included in Appendix D.

[8] Transportation Research Board, *Highway Capacity Manual 6th Edition*, 2016.
[9] Oregon Department of Transportation, *1999 Oregon Highway Plan: Including amendments November 1999 through May 2015*, 1999

Table 6: Capacity Analysis Summary

Intersection & Condition	AM Peak Hour			PM Peak Hour		
	LOS	Delay (s)	V/C	LOS	Delay (s)	V/C
1. US-20 at McKinney Butte Road/W Barclay Drive						
2022 Existing Conditions	B	10	0.51	A	8	0.44
2025 Background Conditions	B	12	0.55	A	8	0.46
2025 Buildout Conditions	B	12	0.57	A	8	0.47
2030 Buildout Conditions	B	13	0.63	A	9	0.49
2. US-20 at W Hood Avenue						
2022 Existing Conditions	D	30	0.10	C	23	0.13
2025 Background Conditions	E	35	0.14	D	26	0.16
2025 Buildout Conditions	E	42	0.22	D	31	0.24
2030 Buildout Conditions	E	46	0.25	D	33	0.26
3. US-20 at OR-242						
2022 Existing Conditions	B	14	0.32	B	13	0.10
2025 Background Conditions	C	16	0.42	B	14	0.13
2025 Buildout Conditions	C	17	0.46	B	14	0.15
2030 Buildout Conditions	C	18	0.48	B	14	0.16
4. US-20 at N Pine Street						
2022 Existing Conditions	E	47	0.29	F	57	0.33
2025 Background Conditions	F	75	0.42	F	73	0.41
2025 Buildout Conditions	F	83	0.45	F	84	0.45
2030 Buildout Conditions	F	>100	0.56	F	100	0.53
5. W Hood Avenue at Felicity Lane (future intersection)						
2022 Existing Conditions	-	-	-	-	-	-
2025 Background Conditions	A	9	0.01	A	9	0.03
2025 Buildout Conditions	A	10	0.05	A	10	0.06
2030 Buildout Conditions	A	10	0.05	A	10	0.06
6. W Hood Avenue at OR-242						
2022 Existing Conditions	B	13	0.56	A	8	0.18
2025 Background Conditions	F	64	**1.09**	A	9	0.24
2025 Buildout Conditions	F	79	**1.16**	A	9	0.26
2030 Buildout Conditions	F	90	**1.20**	A	9	0.28

Table 7: Capacity Analysis Summary (continued)

Intersection & Condition	AM Peak Hour			PM Peak Hour		
	LOS	Delay (s)	V/C	LOS	Delay (s)	V/C
7. OR-242 at Site Access (future intersection)						
2022 Existing Conditions	-	-	-	-	-	-
2025 Background Conditions	-	-	-	-	-	-
2025 Buildout Conditions	C	15	0.07	B	11	0.03
2030 Buildout Conditions	C	16	0.07	B	11	0.03
8. Brooks Camp Road at Site Access (future intersection)						
2022 Existing Conditions	-	-	-	-	-	-
2025 Background Conditions	-	-	-	-	-	-
2025 Buildout Conditions	A	9	0.01	A	9	0.01
2030 Buildout Conditions	A	9	0.01	A	9	0.01
9. Brooks Camp Road at OR-242						
2022 Existing Conditions	B	15	0.26	B	12	0.11
2025 Background Conditions	D	28	0.48	B	13	0.12
2025 Buildout Conditions	D	30	0.51	B	13	0.13
2030 Buildout Conditions	D	34	0.58	B	13	0.15

Table Notes: LOS, Delay, v/c: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection. ***BOLDED*** *results indicate operation above acceptable jurisdictional standards*

The operational analysis shows the intersection of W Hood Avenue at OR-242 is projected to operate with a v/c ratio in excess of minimum ODOT performance targets during the morning peak hour. Further inspection and potential mitigations at this intersection is discussed within the following *Mitigation Analysis* section.

All other study intersections are currently operating acceptably per City of Sisters standards and ODOT targets and are projected to continue operating acceptably through the 2030 buildout year. No operational mitigation is necessary or recommended at these intersections to accommodate the proposed development.

Mitigation Analysis

As determined within the *Operational Analysis* section, the intersection of W Hood Avenue at OR-242 is projected to exceed acceptable levels of operation per ODOT performance targets. The following narrative discusses potential mitigative measures which may improve operation of the study intersection to acceptable levels. The City of Sisters TSP Refinement, Deschutes County TSP, and ODOT's Statewide Transportation Improvement Plan (STIP) were reviewed to determine any planned projects at these intersections.

W Hood Avenue at OR-242

The intersection of W Hood Avenue at OR-242 is projected to exceed ODOT's maximum v/c ratio target of 0.90 under year 2025 background conditions for the morning peak hour. This is due largely to the trips expected at the intersection traveling to/from the new Sisters Elementary School located west of the proposed development. Two movements at this all-way stop-controlled intersection are anticipated to exceed the standard: the eastbound shared lane has an estimated v/c ratio of 1.09 and the northbound left-turn lane has an estimated v/c ratio of 0.99. As explained below, the operational analysis made a number of overly conservative worst-case assumptions in order to comply with ODOT's Analysis Procedures Manual. Of particular relevance is the intersection's peak hour factor (PHF).

The intersection currently has a PHF of 0.52 during the morning peak hour, which reflects a short, concentrated peak period within the peak hour. This is due to the influence of the schools located to the west along OR-242. While the peak 15-minute period will experience congestion, the remainder of the hour will experience minimal congestion and delay. In addition, the school district has indicated that with the new elementary school in place, all three schools (elementary, middle, and high schools) will have offset morning start times. This will spread the peaking characteristic of the school traffic across a wider portion of the peak hour. The operational analysis in this TIS is overly worst-case and assumes that all three schools peak at exactly the same time. The offset morning start times and spreading of the demand will cause the PHF to increase. An increase in the PHF from 0.52 to 0.65 (a 25% increase) would bring the intersection into compliance with ODOT's maximum v/c ratio of 0.90 even during the most congested portion of the peak hour.

The City's TSP Refinement does not identify this intersection as a concern and the Motor Vehicle Master Plan Projects table (Table 7-5) does not include any projects to address future operations. City of Sisters staff has indicated that appropriate mitigation for this intersection includes re-striping the northbound and southbound lanes to eliminate the dedicated left-turn lanes on both approaches. These turn lanes typically have low volumes of traffic but create a wide pedestrian crossing.

The intersection would continue to comply with ODOT's maximum v/c ratio of 0.90 if the northbound and southbound approaches were re-striped to allow one lane for all turning movements, provided that the PHF was increased to 0.65 as explained above.

Conclusions

The following key findings relate to transportation:

- No significant trends or crash patterns were identified at any of the study intersections that are indicative of safety concerns. Accordingly, no safety mitigation is recommended per the crash data analysis.
- Adequate sight distances are available at the proposed site access intersections to ensure safe operation along OR-242 and Brooks Camp Road. No sight distance mitigation is necessary or recommended.
- Left-turn lane warrants are not projected to be met under the year 2025 buildout conditions scenario for any of the study intersections.

- Due to insufficient traffic volumes, traffic signal warrants are not projected to be met at the unsignalized study intersections under any of the analysis scenarios.
- The intersection of W Hood Avenue at OR-242 is projected to operate with a v/c ratio in excess of minimum ODOT performance targets during the morning peak hour. City of Sisters staff has indicated that appropriate mitigation for this intersection includes re-striping the northbound and southbound lanes to eliminate the dedicated left-turn lanes on both approaches.
- All other study intersections are currently operating acceptably per City of Sisters standards and ODOT targets and are projected to continue operating acceptably through the 2030 buildout year. No operational mitigation is necessary or recommended at these intersections to accommodate the proposed development.

Appendix A – Site Information

Site Plan

Trip Generation Calculations

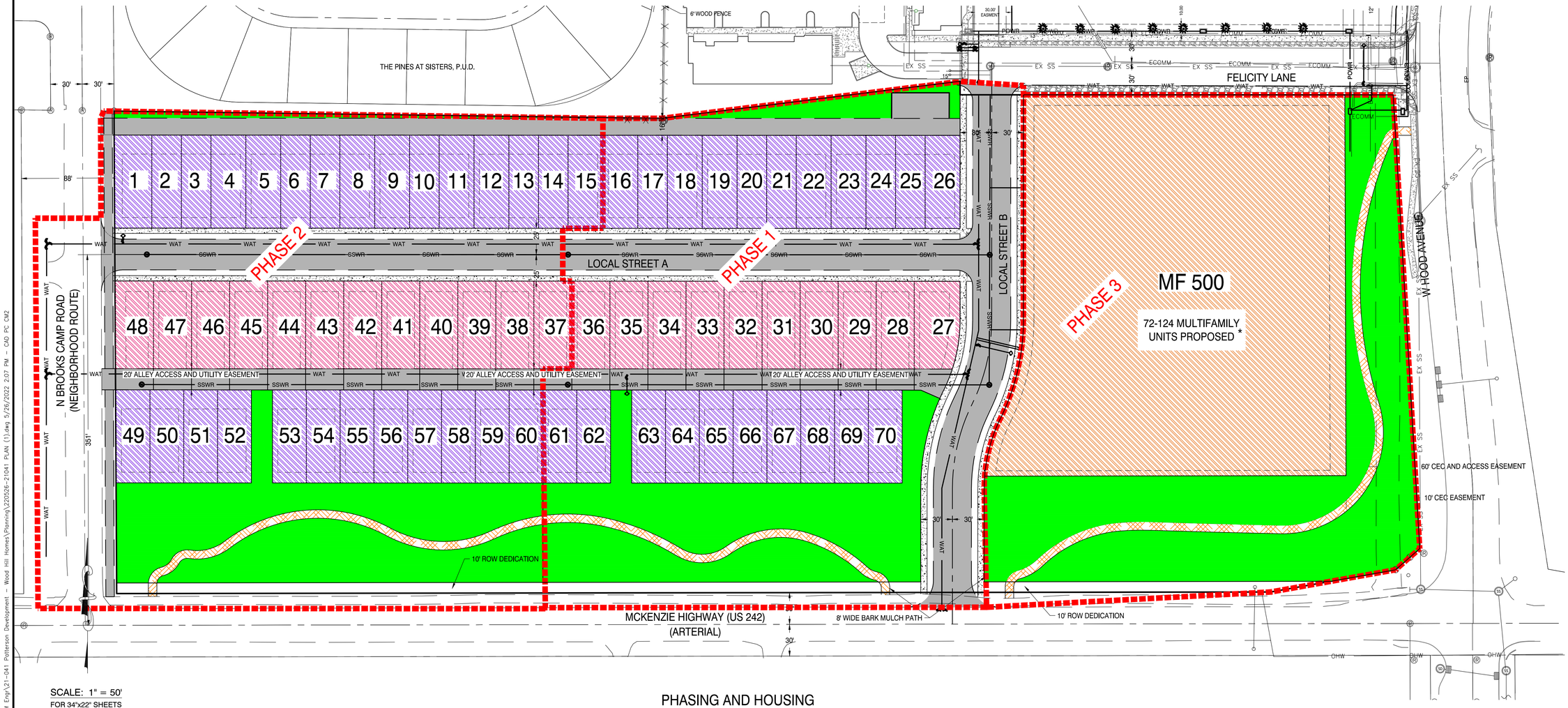
PRELIMINARY DEVELOPMENT SCHEDULE

YEAR	MONTH	ITEM
2022	OCTOBER	MASTERPLAN APPROVAL
2023	JANUARY	PHASE 1 STREET & UTILITY CONSTRUCTION
2023	MAY	PHASE 1 HOUSING CONSTRUCTION
2023	MAY	PHASE 2 STREET & UTILITY CONSTRUCTION
2023	SEPTEMBER	PHASE 2 HOUSING CONSTRUCTION
2023	SEPTEMBER	PHASE 3 STREET & UTILITY CONSTRUCTION
2024	JANUARY	PHASE 3 HOUSING CONSTRUCTION

LEGEND

- DETACHED SINGLE FAMILY LOT (22)
- TOWNHOME LOT (48)
- MULTIFAMILY LOT(1)
- OPEN SPACE (3.17 ACRES, 31% OF NET AREA)

* FUTURE SITE PLAN APPLICATION REQUIRED PRIOR TO CONSTRUCTION OF MULTIFAMILY UNITS. DETAILS TO BE EVALUATED DURING SITE PLAN REVIEW PROCESS. DENSITY IS SUMMARIZED ON SHEET P2.4.



PHASING AND HOUSING DEVELOPMENT PLAN

REGISTERED PROFESSIONAL ENGINEER
86686PE
OREGON
JULY 12, 2005
HAYES A. McCOY
PRELIMINARY
RENEWAL DATE: 12/31/22

DRAWING STATUS:	No.	REVISION:	DATE:
☒ MASTER PLAN			
DATE: 05/26/22			

H.A. McCOY
ENGINEERING & SURVEYING, LLC
1180 SW Lake Road, Suite 201 Redmond, OR 97756
Hayes McCoy
PE, PLS, CWRE
541-923-7554
hayes@ham-engr.com

PROJECT: MASTER PLAN AND SUBDIVISION
PROJECT LOCATION: SISTERS, OR
CLIENT: WOODHILL HOMES

SHEET TITLE: PHASING AND HOUSING DEVELOPMENT PLAN

JOB NO. 21-041
DRAWN BY: EDN
DRAWING: P1.4

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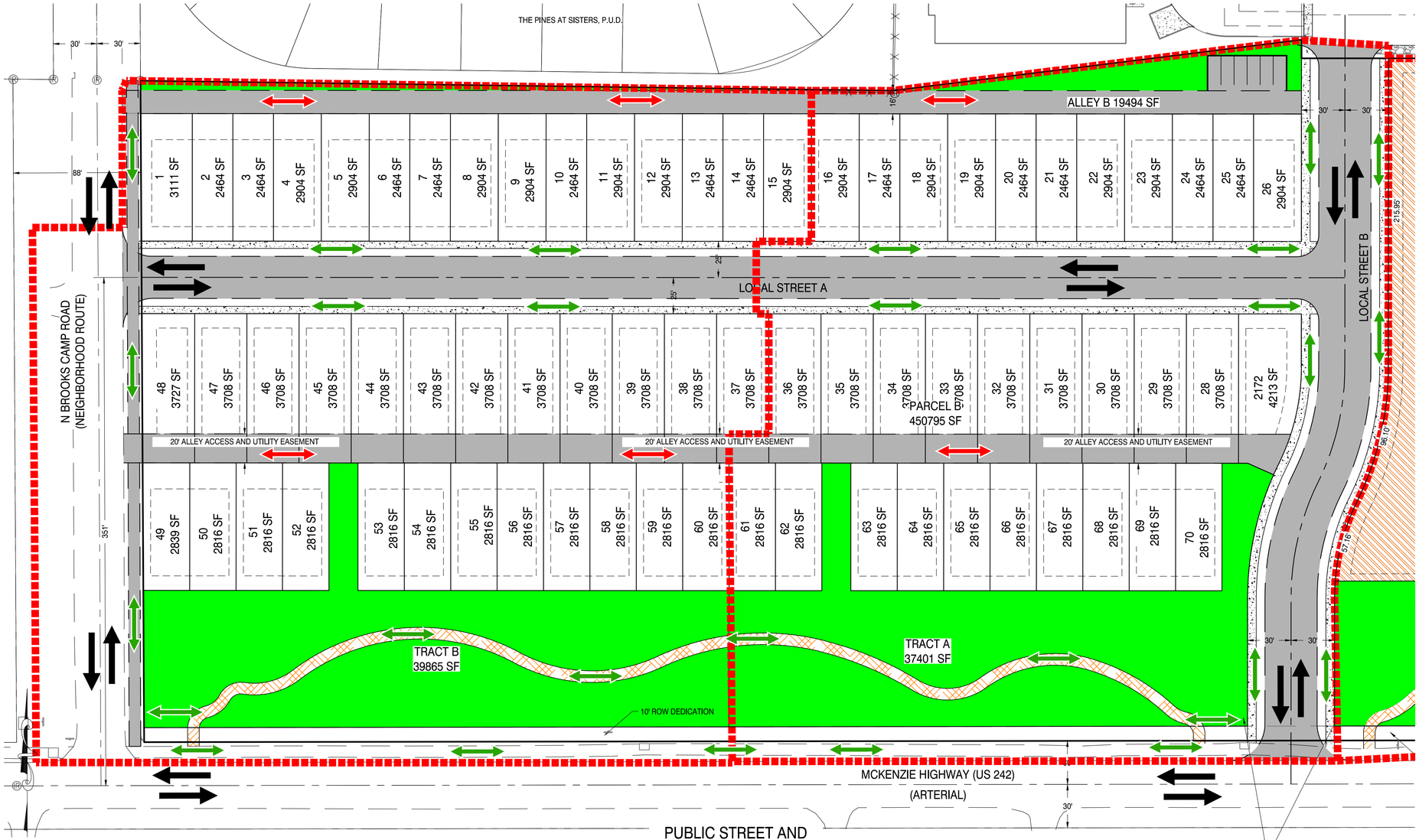

LEGEND

- VEHICULAR TRAFFIC FLOW DIRECTION
- MULT-USE TRAFFIC FLOW DIRECTION
- PEDESTRIAN TRAFFIC FLOW DIRECTION

PUBLIC STREET AND PEDESTRIAN & BIKE FACILITY PLAN

SCALE: 1" = 40'
FOR 34"x22" SHEETS

0 20' 40' 80'

FILE: Z:\HAM Engr\21-041 Patterson Development - Wood Hill Homes\Planning\220526-21041 PLAN (1).dwg 5/26/2022 2:07 PM - CAD PC CM2

REGISTERED PROFESSIONAL ENGINEER
86686PE
OREGON
JULY 12, 2005
HAYES A. McCOY
PRELIMINARY
RENEWAL DATE: 12/31/22

DRAWING STATUS:	DATE:	No.	REVISION:	DATE:
☒ MASTER PLAN	05/26/22			

H.A. McCOY
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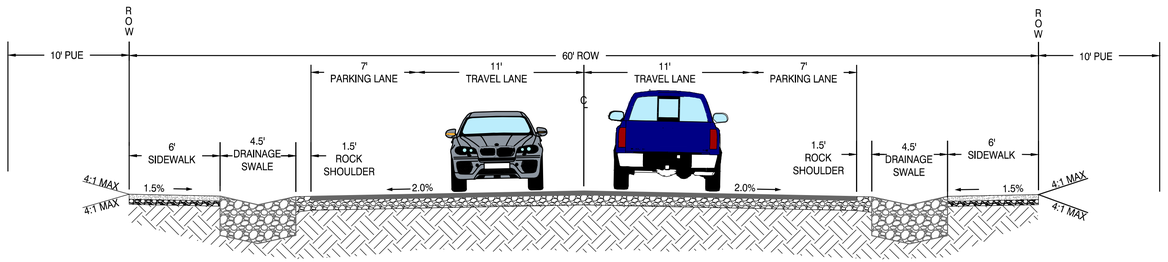
PROJECT: MASTER PLAN AND SUBDIVISION

PROJECT LOCATION: SISTERS, OR

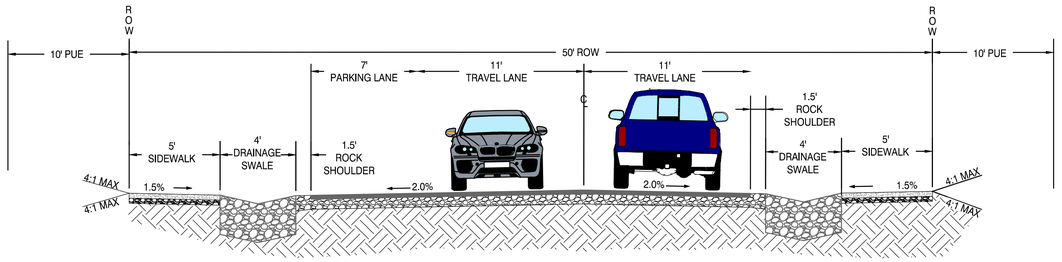
CLIENT: WOODHILL HOMES

SHEET TITLE: PUBLIC STREET AND PEDESTRIAN & BIKE FACILITY PLAN

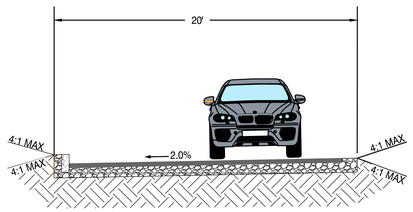
JOB NO. 21-041
DRAWN BY: EDN
DRAWING: P2.1



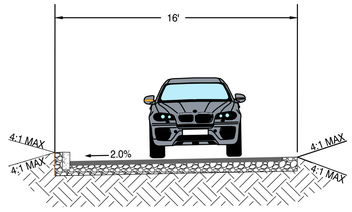
1 M1.4 RESIDENTIAL LOCAL STREET SECTION WITH PARKING ON BOTH SIDES
LOCAL STREET B



2 M1.4 MODIFIED RESIDENTIAL LOCAL STREET SECTION WITH PARKING ON ONE SIDE PER SDC 4.5.400(B) EXCEPTION
LOCAL STREET A



3 M1.4 ALLEY SECTION
ALLEY A



4 M1.4 MODIFIED ALLEY SECTION PER SDC 4.5.400(B) EXCEPTION
ALLEY B

PHASING, AREA, AND DENSITY SUMMARY							
PHASE	UNITS PROVIDED	GROSS AREA (ACRES)	ROW AREA (ACRES)	NET AREA (ACRES)	OS REQUIRED (ACRES)	OS PROVIDED (ACRES)	OS PERCENTAGE
1	31	4.46	1.59	2.87	0.43	0.86	30%
2	39	4.43	0.97	3.46	0.52	0.92	27%
3*	72 - 124*	4.03	0.07	3.96	0.59	1.39	35%
TOTAL:	142 - 194*	12.92	2.63	10.29	1.54	3.17	31%

*FUTURE SITE PLAN APPLICATION REQUIRED PRIOR TO CONSTRUCTION OF MULTIFAMILY UNITS. DETAILS TO BE EVALUATED DURING SITE PLAN REVIEW PROCESS.

MFR STANDARDS

MINIMUM DENSITY: 7 UNITS PER GROSS ACRE
MAXIMUM DENSITY: 15 UNITS PER GROSS ACRE
DENSITY PROVIDED: 11-15* UNITS PER GROSS ACRE
MINIMUM OS: 15% OF NET AREA

HOUSING SUMMARY		
HOUSING TYPE	PHASE	UNITS PROVIDED
TOWNHOMES	1	21
	2	27
SUBTOTAL:		48
SINGLE FAMILY	1	10
	2	12
SUBTOTAL:		22
MULTIFAMILY*	3	20-124
SUBTOTAL:		20-124
TOTAL:		90-194

OPEN SPACE SUMMARY		
PHASE	TRACT NAME	AREA (ACRES)
1	A	0.86
2	B	0.92
3	C	1.39
	TOTAL:	3.17
	REQUIRED:	1.54

ACCESS SPACING			
MAIN ROAD	INTERSECTING ROAD 1	INTERSECTION ROAD 2	DISTANCE (FT)
LOCAL STREET A	N. BROOKS CAMP RD.	LOCAL STREET B	830
LOCAL STREET B	McKENZIE HWY	LOCAL STREET A	315
	LOCAL STREET A	FELICITY LANE	185

MFR STANDARDS

MINIMUM DENSITY: 7 UNITS PER GROSS ACRE
MAXIMUM DENSITY: 15 UNITS PER GROSS ACRE
MAXIMUM DENSITY WITH MINOR CONDITIONAL USE: 20 UNITS PER ACRE
MINIMUM OS: 15% OF NET AREA

AMENITIES

MASTERPLANS PROPOSING MORE THAN 100 UNITS ARE REQUIRED TO PROVIDE 4 AMENITIES. THE MASTER PLAN CURRENTLY PROPOSES A WOODED OPEN SPACE (1) AND A BARK MULCH PATH (1). THE MULTIFAMILY SITE PLAN WILL BE REQUIRED TO PROPOSE A PARK WITH PLAYGROUND EQUIPMENT (1) AND A DOG PARK (1).

REGISTERED PROFESSIONAL ENGINEER
PRELIMINARY
86686PE
OREGON
JULY 12, 2005
HAYES A. McCOY
RENEWAL DATE: 12/31/22

DRAWING STATUS: ☒ MASTER PLAN ☐ ☐ ☐ ☐ ☐ ☐
DATE: 05/26/22
No. REVISION: △ △ △ △ △ △ △ △
DATE:

H.A. McCOY
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PROJECT: MASTER PLAN AND SUBDIVISION
PROJECT LOCATION: SISTERS, OR
CLIENT: WOODHILL HOMES

SHEET TITLE: STREET SECTIONS AND TABULATIONS

JOB NO. 21-041
DRAWN BY: EDN
DRAWING: P2.4

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition

Land Use:	Single-Family Detached Housing
Land Use Code:	210
Land Use Subcategory:	All Sites
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Variable Quantity:	22

AM PEAK HOUR

Trip Rate: 0.7

	Enter	Exit	Total
Directional Split	26%	74%	
Trip Ends	4	11	15

PM PEAK HOUR

Trip Rate: 0.94

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	13	8	21

WEEKDAY

Trip Rate: 9.43

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	104	104	208

SATURDAY

Trip Rate: 9.48

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	104	104	208

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition

Land Use:	Single-Family Attached Housing
Land Use Code:	215
Land Use Subcategory:	All Sites
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Variable Quantity:	48

AM PEAK HOUR

Trip Rate: 0.48

	Enter	Exit	Total
Directional Split	31%	69%	
Trip Ends	7	16	23

PM PEAK HOUR

Trip Rate: 0.57

	Enter	Exit	Total
Directional Split	57%	43%	
Trip Ends	15	12	27

WEEKDAY

Trip Rate: 7.2

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	173	173	346

SATURDAY

Trip Rate: 8.76

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	210	210	420

TRIP GENERATION CALCULATIONS
Source: Trip Generation Manual, 11th Edition

Land Use:	Multifamily Housing (Low-Rise)
Land Use Code:	220
Land Use Subcategory:	Not Close to Rail Transit
Setting/Location	General Urban/Suburban
Variable:	Dwelling Units
Trip Type:	Vehicle
Variable Quantity:	124

AM PEAK HOUR

Trip Rate: 0.4

	Enter	Exit	Total
Directional Split	24%	76%	
Trip Ends	12	38	50

PM PEAK HOUR

Trip Rate: 0.51

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	40	23	63

WEEKDAY

Trip Rate: 6.74

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	418	418	836

SATURDAY

Trip Rate: 4.55

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	282	282	564

Appendix B – Traffic Counts

Traffic Counts

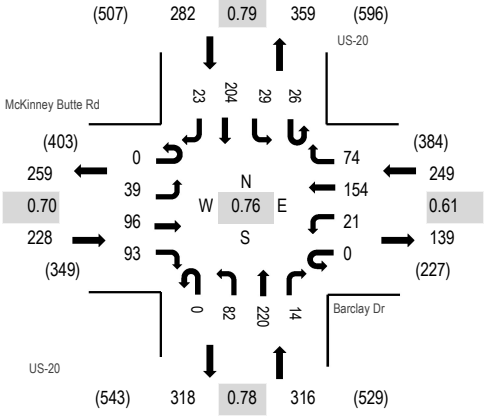
In-Process Traffic

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

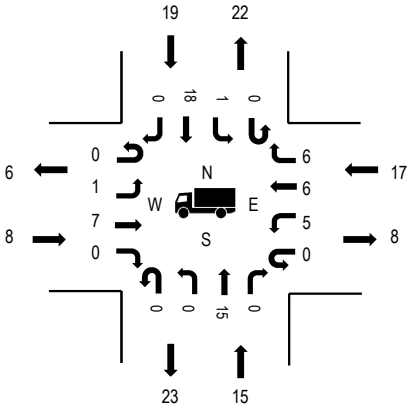
Location: 1 US-20 & Barclay Dr AM
Date: Tuesday, November 9, 2021
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:10 AM - 08:25 AM

Peak Hour

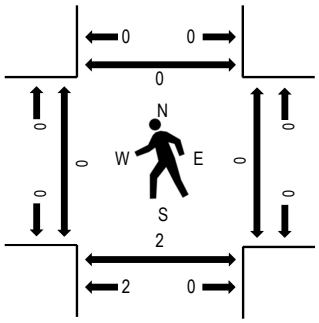
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	3.5%	0.70
WB	6.8%	0.61
NB	4.7%	0.78
SB	6.7%	0.79
All	5.5%	0.76

Traffic Counts - Motorized Vehicles

Interval Start Time	McKinney Butte Rd Eastbound				Barclay Dr Westbound				US-20 Northbound				US-20 Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	4	0	3	0	0	3	3	0	3	11	0	1	3	11	0	42	694
7:05 AM	0	0	0	1	0	1	2	3	0	2	9	0	0	2	10	0	30	727
7:10 AM	0	2	2	8	0	1	4	4	0	5	16	2	0	4	15	2	65	789
7:15 AM	0	2	6	7	0	0	5	7	0	5	12	0	0	6	15	2	67	832
7:20 AM	0	2	3	2	0	1	13	7	0	1	11	2	1	4	12	2	61	894
7:25 AM	1	2	5	6	0	1	6	3	0	4	14	0	1	4	12	0	59	949
7:30 AM	0	2	7	4	0	1	3	1	0	6	9	0	3	4	11	0	51	980
7:35 AM	0	1	2	7	0	0	7	0	0	4	16	0	1	4	17	0	59	1,047
7:40 AM	0	6	2	5	0	0	10	6	0	3	11	0	3	0	18	1	65	1,064
7:45 AM	0	0	3	6	0	0	8	5	0	4	16	1	2	7	9	0	61	1,050
7:50 AM	0	2	3	3	0	3	12	3	0	5	14	1	0	3	23	2	74	1,059
7:55 AM	0	1	5	6	0	1	8	3	0	9	16	1	1	2	5	2	60	1,051
8:00 AM	0	1	2	3	0	2	12	7	0	4	17	0	2	2	18	5	75	1,075
8:05 AM	0	5	11	4	0	3	19	6	0	8	17	0	0	3	13	3	92	
8:10 AM	0	0	12	13	0	4	24	5	0	9	14	1	1	6	16	3	108	
8:15 AM	0	3	9	8	0	6	32	7	0	10	19	3	4	3	24	1	129	
8:20 AM	0	4	11	16	0	1	16	7	0	13	15	1	3	4	21	4	116	
8:25 AM	0	5	12	9	0	0	7	3	0	9	21	2	3	2	14	3	90	
8:30 AM	0	4	12	8	0	1	12	13	0	11	27	2	2	4	21	1	118	
8:35 AM	0	8	5	9	0	0	8	6	0	4	21	1	2	1	11	0	76	
8:40 AM	0	2	6	5	0	1	6	4	0	1	11	0	2	1	12	0	51	
8:45 AM	0	3	3	5	0	0	7	6	0	3	19	2	3	1	18	0	70	
8:50 AM	0	0	5	6	0	1	7	8	0	3	13	0	1	1	18	3	66	
8:55 AM	0	4	8	7	0	2	4	2	0	7	26	2	3	1	18	0	84	
Count Total	1	63	134	151	0	30	235	119	0	133	375	21	39	72	362	34	1,769	
Peak Hour	0	39	96	93	0	21	154	74	0	82	220	14	26	29	204	23	1,075	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	2	1	3	7:00 AM	0	0	0	0	0	7:00 AM	0	1	0	0	1
7:05 AM	0	0	0	1	1	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	1	0	1	2	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	2	0	2	4	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	0	0	1	1	2	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	2	1	2	5	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	0	0	0	2	2	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	1	0	4	5	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	1	1	0	0	2	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	0	3	3	6	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	2	0	1	3	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	3	4	4	11	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	5	0	0	1	6	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	1	2	4	2	9	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	1	2	0	2	5	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	3	2	1	6	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	1	1	1	3	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	0	1	0	0	1	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	1	1	2	2	6	8:40 AM	0	0	0	0	0	8:40 AM	0	1	0	0	1
8:45 AM	0	0	1	3	4	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	1	3	2	6	8:50 AM	0	0	0	0	0	8:50 AM	0	1	0	0	1
8:55 AM	0	1	0	1	2	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	9	24	24	37	94	Count Total	0	0	0	0	0	Count Total	0	3	0	0	3
Peak Hour	8	15	17	19	59	Peak Hour	0	0	0	0	0	Peak Hour	0	2	0	0	2

ALL TRAFFIC DATA SERVICES
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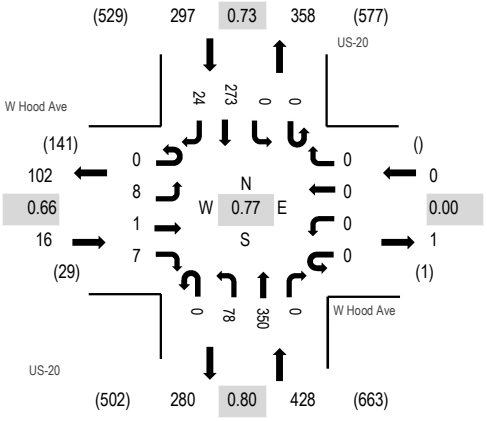
www.alltrafficdata.net

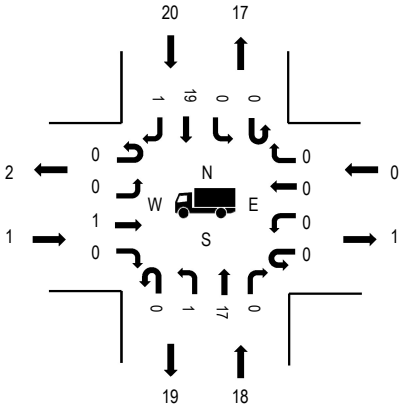
Location: 2 US-20 & W Hood Ave AM
Date: Tuesday, November 9, 2021
Peak Hour: 07:40 AM - 08:40 AM
Peak 15-Minutes: 08:10 AM - 08:25 AM

Peak Hour

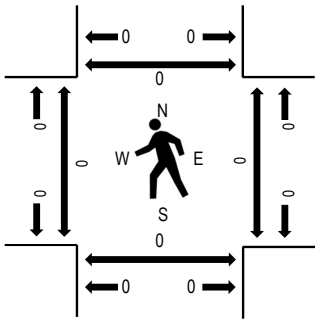
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	6.3%	0.66
WB	0.0%	0.00
NB	4.2%	0.80
SB	6.7%	0.73
All	5.3%	0.77

Traffic Counts - Motorized Vehicles

Interval Start Time	W Hood Ave Eastbound				W Hood Ave Westbound				US-20 Northbound				US-20 Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	2	0	1	0	0	0	0	0	0	13	0	0	0	12	0	28	486
7:05 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	14	0	24	505
7:10 AM	0	0	0	0	0	0	0	0	0	0	20	0	0	0	18	1	39	543
7:15 AM	0	1	0	0	0	0	0	0	0	5	21	0	0	0	21	0	48	575
7:20 AM	0	0	0	0	0	0	0	0	0	1	14	0	0	0	17	1	33	609
7:25 AM	0	1	0	0	0	0	0	0	0	0	17	0	0	0	21	3	42	665
7:30 AM	0	0	0	1	0	0	0	0	0	5	15	0	0	0	16	1	38	684
7:35 AM	0	1	0	0	0	0	0	0	0	4	16	0	0	0	19	1	41	724
7:40 AM	0	0	0	1	0	0	0	0	0	3	19	0	0	0	22	1	46	741
7:45 AM	0	0	0	0	0	0	0	0	0	3	20	0	0	0	19	0	42	728
7:50 AM	0	0	0	0	0	0	0	0	0	2	25	0	0	0	21	0	48	731
7:55 AM	0	0	0	0	0	0	0	0	0	5	35	0	0	0	15	2	57	734
8:00 AM	0	1	0	1	0	0	0	0	0	7	21	0	0	0	14	3	47	735
8:05 AM	0	3	0	0	0	0	0	0	0	12	28	0	0	0	15	4	62	
8:10 AM	0	1	0	0	0	0	0	0	0	16	29	0	0	0	21	4	71	
8:15 AM	0	0	0	0	0	0	0	0	0	11	32	0	0	0	32	7	82	
8:20 AM	0	2	1	0	0	0	0	0	0	10	36	0	0	0	39	1	89	
8:25 AM	0	0	0	2	0	0	0	0	0	5	29	0	0	0	25	0	61	
8:30 AM	0	1	0	2	0	0	0	0	0	2	47	0	0	0	26	0	78	
8:35 AM	0	0	0	1	0	0	0	0	0	2	29	0	0	0	24	2	58	
8:40 AM	0	0	0	1	0	0	0	0	0	5	14	0	0	0	10	3	33	
8:45 AM	0	1	0	0	0	0	0	0	0	1	18	0	0	0	24	1	45	
8:50 AM	0	1	0	1	0	0	0	0	0	3	21	0	0	0	24	1	51	
8:55 AM	0	1	0	1	0	0	0	0	0	0	32	0	0	0	21	3	58	
Count Total	0	16	1	12	0	0	0	0	0	102	561	0	0	0	490	39	1,221	
Peak Hour	0	8	1	7	0	0	0	0	0	78	350	0	0	0	273	24	741	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	1	1	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	0	0	1	1	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	1	0	1	2	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	2	0	1	3	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	2	0	2	4	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	0	1	0	2	3	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	1	0	2	3	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	0	2	0	2	4	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	1	0	3	4	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	2	0	0	2	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	3	0	4	7	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	0	0	1	1	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	0	2	0	4	6	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	1	2	0	2	5	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	2	0	2	4	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	2	0	0	2	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	0	1	0	0	1	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	0	1	0	0	1	8:40 AM	0	0	0	0	0	8:40 AM	1	0	0	0	1
8:45 AM	0	0	0	6	6	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	1	0	3	4	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	1	0	2	3	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	1	27	0	39	67	Count Total	0	0	0	0	0	Count Total	1	0	0	0	1
Peak Hour	1	18	0	20	39	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

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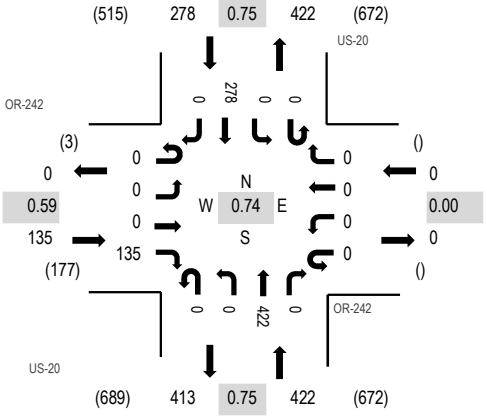
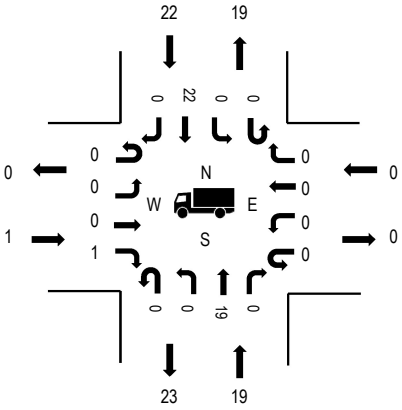
Location: 3 US-20 & OR-242 AM
Date: Tuesday, November 9, 2021
Peak Hour: 07:40 AM - 08:40 AM
Peak 15-Minutes: 08:10 AM - 08:25 AM

Peak Hour

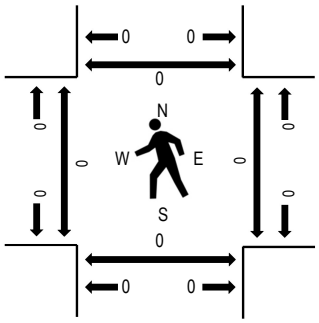
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.7%	0.59
WB	0.0%	0.00
NB	4.5%	0.75
SB	7.9%	0.75
All	5.0%	0.74

Traffic Counts - Motorized Vehicles

Interval Start Time	OR-242 Eastbound				OR-242 Westbound				US-20 Northbound				US-20 Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	0	2	0	0	0	0	0	0	13	0	0	0	18	1	34	532
7:05 AM	0	0	0	3	0	0	0	0	0	0	12	0	0	0	16	1	32	544
7:10 AM	0	0	0	3	0	0	0	0	0	0	24	0	0	0	20	0	47	582
7:15 AM	0	0	0	5	0	0	0	0	0	0	25	0	0	0	21	0	51	626
7:20 AM	0	0	0	2	0	0	0	0	0	0	12	0	0	0	14	0	28	675
7:25 AM	0	0	0	4	0	0	0	0	0	0	20	0	0	0	21	0	45	739
7:30 AM	0	0	0	4	0	0	0	0	0	0	21	0	0	0	17	0	42	782
7:35 AM	0	0	0	2	0	0	0	0	0	0	20	0	0	0	23	0	45	823
7:40 AM	0	0	0	6	0	0	0	0	0	0	21	0	0	0	19	0	46	835
7:45 AM	0	0	0	5	0	0	0	0	0	0	23	0	0	0	19	0	47	827
7:50 AM	0	0	0	3	0	0	0	0	0	0	32	0	0	0	24	0	59	828
7:55 AM	0	0	0	5	0	0	0	0	0	0	40	0	0	0	11	0	56	828
8:00 AM	0	0	0	12	0	0	0	0	0	0	18	0	0	0	16	0	46	832
8:05 AM	0	0	0	13	0	0	0	0	0	0	43	0	0	0	14	0	70	
8:10 AM	0	0	0	19	0	0	0	0	0	0	49	0	0	0	23	0	91	
8:15 AM	0	0	0	18	0	0	0	0	0	0	50	0	0	0	32	0	100	
8:20 AM	0	0	0	20	0	0	0	0	0	0	34	0	0	0	38	0	92	
8:25 AM	0	0	0	18	0	0	0	0	0	0	43	0	0	0	27	0	88	
8:30 AM	0	0	0	8	0	0	0	0	0	0	45	0	0	0	30	0	83	
8:35 AM	0	0	0	8	0	0	0	0	0	0	24	0	0	0	25	0	57	
8:40 AM	0	0	0	4	0	0	0	0	0	0	23	0	0	0	11	0	38	
8:45 AM	0	0	0	3	0	0	0	0	0	0	21	0	0	0	24	0	48	
8:50 AM	0	0	0	7	0	0	0	0	0	0	24	0	0	0	27	1	59	
8:55 AM	0	0	0	3	0	0	0	0	0	0	35	0	0	0	22	0	60	
Count Total	0	0	0	177	0	0	0	0	0	0	672	0	0	0	512	3	1,364	
Peak Hour	0	0	0	135	0	0	0	0	0	0	422	0	0	0	278	0	835	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	1	1	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	0	0	1	1	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	1	0	1	2	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	2	0	1	3	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	2	0	3	5	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	0	1	0	4	5	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	1	0	1	2	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	0	2	0	2	4	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	2	0	3	5	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	3	0	0	3	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	1	0	5	6	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	1	0	0	1	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	0	3	0	4	7	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	1	1	0	3	5	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	0	3	0	4	7	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	1	0	0	1	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	0	1	0	0	1	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	0	1	0	1	2	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	0	0	5	5	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	1	0	5	6	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	1	0	1	2	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	1	28	0	45	74	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	1	19	0	22	42	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
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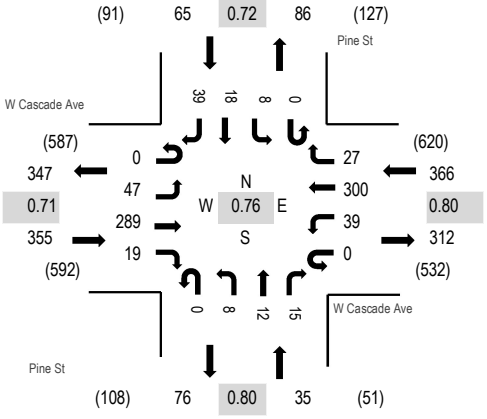
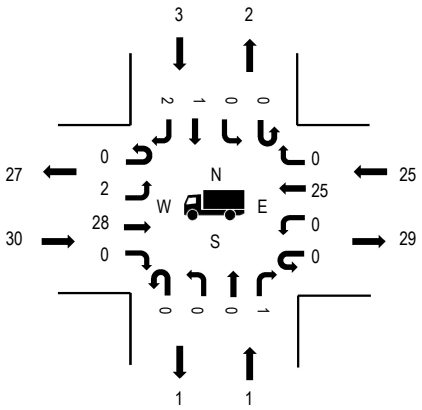
Location: 2 Pine St & W Cascade Ave AM
Date: Thursday, December 9, 2021
Peak Hour: 07:50 AM - 08:50 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour

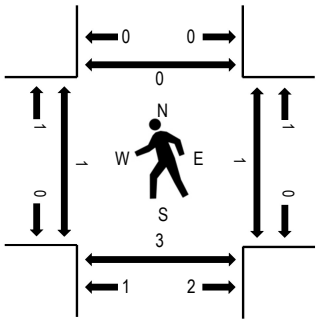
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	8.5%	0.71
WB	6.8%	0.80
NB	2.9%	0.80
SB	4.6%	0.72
All	7.2%	0.76

Traffic Counts - Motorized Vehicles

Interval Start Time	W Cascade Ave Eastbound				W Cascade Ave Westbound				Pine St Northbound				Pine St Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	0	9	0	0	1	19	1	0	1	0	0	0	1	1	1	34	538
7:05 AM	0	0	10	0	0	0	12	0	0	0	0	0	0	0	0	0	22	561
7:10 AM	0	1	11	1	0	1	20	1	0	1	1	1	0	0	0	0	38	599
7:15 AM	0	1	17	0	0	2	15	2	0	0	0	1	0	0	1	1	40	637
7:20 AM	0	1	23	2	0	2	22	0	0	1	0	1	0	1	0	1	54	690
7:25 AM	0	2	27	0	0	2	15	0	0	1	0	0	0	0	1	1	49	731
7:30 AM	0	4	19	1	0	2	17	1	0	1	0	0	0	1	0	0	46	763
7:35 AM	0	0	17	1	0	1	17	2	0	0	1	0	0	0	0	1	40	786
7:40 AM	0	3	14	1	0	0	19	2	0	2	0	0	0	0	0	4	45	801
7:45 AM	0	3	21	0	0	0	24	1	0	0	0	0	0	0	1	0	50	807
7:50 AM	0	2	13	3	0	2	24	3	0	1	3	1	0	1	0	1	54	821
7:55 AM	0	7	22	0	0	2	24	6	0	0	0	1	0	2	1	1	66	821
8:00 AM	0	3	16	3	0	3	18	6	0	0	1	1	0	0	2	4	57	816
8:05 AM	0	5	19	0	0	4	25	0	0	1	0	1	0	0	2	3	60	
8:10 AM	0	5	27	5	0	3	26	1	0	0	0	0	0	0	5	4	76	
8:15 AM	0	5	33	1	0	7	35	0	0	1	2	1	0	1	1	6	93	
8:20 AM	0	6	39	0	0	2	36	2	0	0	0	3	0	0	1	6	95	
8:25 AM	0	6	34	2	0	4	26	3	0	1	0	2	0	1	0	2	81	
8:30 AM	0	2	30	2	0	2	19	2	0	2	1	2	0	2	1	4	69	
8:35 AM	0	3	16	0	0	3	20	0	0	1	0	2	0	1	3	6	55	
8:40 AM	0	2	21	2	0	3	17	3	0	0	1	0	0	0	0	2	51	
8:45 AM	0	1	19	1	0	4	30	1	0	1	4	1	0	0	2	0	64	
8:50 AM	0	2	16	1	0	3	24	4	0	1	1	0	0	1	1	0	54	
8:55 AM	0	2	26	1	0	1	18	3	0	0	2	0	0	3	4	1	61	
Count Total	0	66	499	27	0	54	522	44	0	16	17	18	0	15	27	49	1,354	
Peak Hour	0	47	289	19	0	39	300	27	0	8	12	15	0	8	18	39	821	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

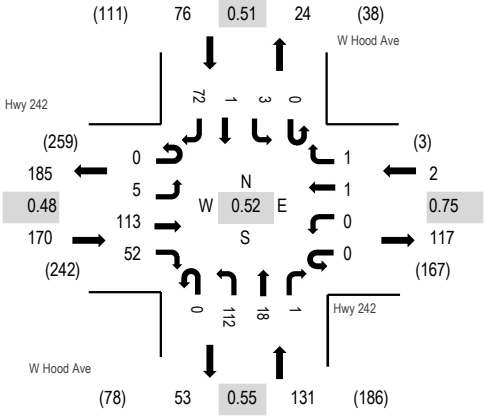
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	1	0	0	0	1	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	0	1	0	1	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	0	3	0	3	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	0	1	1	2	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	5	0	2	0	7	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	2	0	2	0	4	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	2	1	1	0	4	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	3	0	3	0	6	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	1	0	1	0	2	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	1	0	7	0	8	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	1	0	2	1	4	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	3	0	1	0	4	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	3	0	2	0	5	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	1	0	0	0	1	8:05 AM	0	0	0	0	0	8:05 AM	1	2	0	0	3
8:10 AM	3	0	1	2	6	8:10 AM	0	0	0	1	1	8:10 AM	0	0	0	0	0
8:15 AM	1	0	4	0	5	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	3	0	4	0	7	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	2	0	3	0	5	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	3	0	0	0	3	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	1	1
8:35 AM	6	0	1	0	7	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	1	0	3	0	4	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	3	1	4	0	8	8:45 AM	0	0	0	0	0	8:45 AM	0	1	1	0	2
8:50 AM	0	0	2	0	2	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	3	0	4	0	7	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	48	2	52	4	106	Count Total	0	0	0	1	1	Count Total	1	3	1	1	6
Peak Hour	30	1	25	3	59	Peak Hour	0	0	0	1	1	Peak Hour	1	3	1	1	6

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

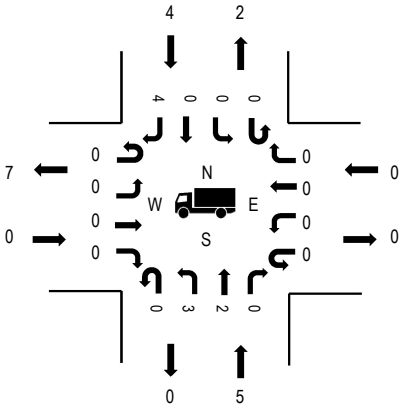
Location: 1 W Hood Ave & Hwy 242 AM
Date: Thursday, December 9, 2021
Peak Hour: 07:40 AM - 08:40 AM
Peak 15-Minutes: 08:10 AM - 08:25 AM

Peak Hour

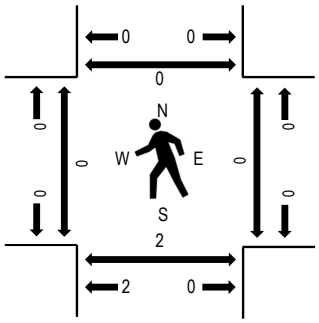
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.48
WB	0.0%	0.75
NB	3.8%	0.55
SB	5.3%	0.51
All	2.4%	0.52

Traffic Counts - Motorized Vehicles

Interval Start Time	Hwy 242 Eastbound				Hwy 242 Westbound				W Hood Ave Northbound				W Hood Ave Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
7:00 AM	0	1	2	0	0	0	0	0	0	1	2	0	0	0	0	1	7	170
7:05 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3	5	192
7:10 AM	0	0	7	1	0	0	0	0	0	2	0	0	0	0	0	2	12	218
7:15 AM	0	1	4	2	0	0	0	0	0	5	0	0	0	0	0	2	14	258
7:20 AM	0	0	4	0	0	0	0	0	0	3	0	0	0	0	0	2	9	305
7:25 AM	0	0	7	3	0	0	0	0	0	10	0	0	0	0	1	8	29	366
7:30 AM	0	0	8	2	0	0	0	0	0	4	0	0	0	0	0	4	18	371
7:35 AM	0	0	1	1	0	0	0	0	0	5	0	0	0	1	0	3	11	375
7:40 AM	0	1	4	3	0	0	0	0	0	4	1	0	0	1	0	3	17	379
7:45 AM	0	0	6	1	0	0	0	0	0	3	1	0	0	0	0	1	12	375
7:50 AM	0	1	3	2	0	0	0	0	0	6	1	0	0	1	0	3	17	379
7:55 AM	0	0	5	1	0	0	1	0	0	7	1	0	0	0	0	4	19	376
8:00 AM	0	0	5	4	0	0	0	0	0	13	2	0	0	0	0	5	29	372
8:05 AM	0	1	9	2	0	0	0	0	0	9	2	0	0	1	0	7	31	
8:10 AM	0	2	13	4	0	0	0	1	0	17	1	0	0	0	0	14	52	
8:15 AM	0	0	21	6	0	0	0	0	0	15	1	0	0	0	0	18	61	
8:20 AM	0	0	25	10	0	0	0	0	0	24	2	0	0	0	0	9	70	
8:25 AM	0	0	17	12	0	0	0	0	0	1	1	0	0	0	0	3	34	
8:30 AM	0	0	3	4	0	0	0	0	0	6	4	0	0	0	1	4	22	
8:35 AM	0	0	2	3	0	0	0	0	0	7	1	1	0	0	0	1	15	
8:40 AM	0	0	3	5	0	0	0	0	0	2	1	0	0	0	1	1	13	
8:45 AM	0	0	4	6	0	0	0	0	0	2	3	0	0	0	0	1	16	
8:50 AM	0	0	2	1	0	0	0	1	0	4	3	0	0	1	0	2	14	
8:55 AM	0	0	5	2	0	0	0	0	0	4	2	0	0	1	0	1	15	
Count Total	0	7	160	75	0	0	1	2	0	156	29	1	0	6	3	102	542	
Peak Hour	0	5	113	52	0	0	1	1	0	112	18	1	0	3	1	72	379	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0	7:30 AM	0	0	1	0	1
7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	3	0	1	4	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	1	0	0	1	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	0	0	0	2	2	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	0	1	0	1	2	8:20 AM	0	0	0	0	0	8:20 AM	0	1	0	0	1
8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0	8:35 AM	0	2	0	0	2
8:40 AM	0	0	0	1	1	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	0	0	1	1	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	0	5	0	6	11	Count Total	0	0	0	0	0	Count Total	0	3	1	0	4
Peak Hour	0	5	0	4	9	Peak Hour	0	0	0	0	0	Peak Hour	0	3	0	0	3

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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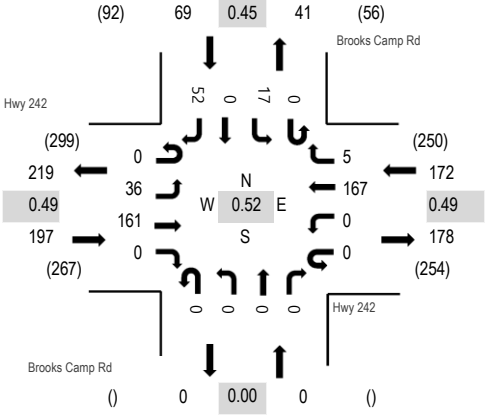
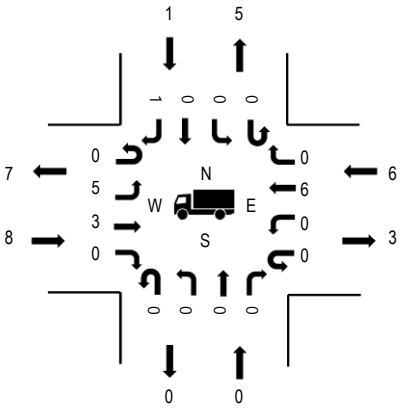
Location: 1 Brooks Camp Rd & Hwy 242 AM
Date: Tuesday, May 3, 2022
Study Peak Hour: 07:35 AM - 08:35 AM
Peak 15-Minutes in Study Peak Hour: 08:10 AM - 08:25 AM

Study Peak Hour (for all study intersections)

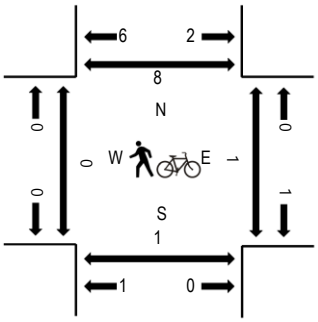
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	4.1%	0.49
WB	3.5%	0.49
NB	0.0%	0.00
SB	1.4%	0.45
All	3.4%	0.52

Traffic Counts - Motorized Vehicles

Interval Start Time	Hwy 242 Eastbound				Hwy 242 Westbound				Brooks Camp Rd Northbound				Brooks Camp Rd Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	0	3	0	0	0	2	1	0	0	0	0	0	2	0	1	9	192
7:05 AM	0	1	3	0	0	0	5	0	0	0	0	0	0	0	0	1	10	205
7:10 AM	0	0	5	0	0	0	7	0	0	0	0	0	0	0	0	0	12	236
7:15 AM	0	1	5	0	0	0	4	2	0	0	0	0	0	0	0	1	13	285
7:20 AM	0	2	2	0	0	0	9	1	0	0	0	0	0	1	0	2	17	344
7:25 AM	0	1	9	0	0	0	9	2	0	0	0	0	0	2	0	4	27	404
7:30 AM	0	1	7	0	0	0	14	0	0	0	0	0	0	3	0	1	26	431
7:35 AM	0	0	8	0	0	0	9	0	0	0	0	0	0	1	0	0	18	438
7:40 AM	0	1	7	0	0	0	3	0	0	0	0	0	0	0	0	2	13	435
7:45 AM	0	2	7	0	0	0	5	1	0	0	0	0	0	0	0	0	15	435
7:50 AM	0	0	2	0	0	0	10	0	0	0	0	0	0	4	0	0	16	429
7:55 AM	0	0	7	0	0	0	7	0	0	0	0	0	0	1	0	1	16	425
8:00 AM	0	2	6	0	0	0	11	1	0	0	0	0	0	0	0	2	22	417
8:05 AM	0	5	9	0	0	0	16	1	0	0	0	0	0	1	0	9	41	
8:10 AM	0	4	16	0	0	0	27	0	0	0	0	0	0	3	0	11	61	
8:15 AM	0	8	24	0	0	0	31	1	0	0	0	0	0	1	0	7	72	
8:20 AM	0	8	25	0	0	0	28	0	0	0	0	0	0	4	0	12	77	
8:25 AM	0	5	31	0	0	0	13	0	0	0	0	0	0	1	0	4	54	
8:30 AM	0	1	19	0	0	0	7	1	0	0	0	0	0	1	0	4	33	
8:35 AM	0	0	10	0	0	0	3	1	0	0	0	0	0	1	0	0	15	
8:40 AM	0	0	5	0	0	0	7	1	0	0	0	0	0	0	0	0	13	
8:45 AM	0	0	4	0	0	0	2	0	0	0	0	0	0	2	0	1	9	
8:50 AM	0	0	8	0	0	0	4	0	0	0	0	0	0	0	0	0	12	
8:55 AM	0	0	3	0	0	0	3	1	0	0	0	0	0	1	0	0	8	
Count Total	0	42	225	0	0	0	236	14	0	0	0	0	0	29	0	63	609	
Peak Hour	0	36	161	0	0	0	167	5	0	0	0	0	0	17	0	52	438	

Location: 1 Brooks Camp Rd & Hwy 242 AM

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

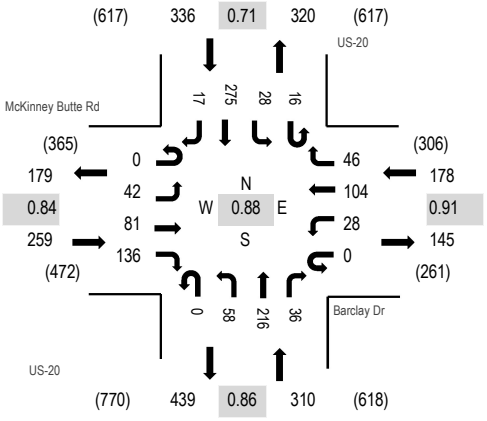
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	1	1
7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	1	0	1	0	2	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0	7:25 AM	0	1	0	0	1
7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	0	0	1	0	1	7:35 AM	0	0	0	0	0	7:35 AM	0	1	1	0	2
7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	1	1
7:45 AM	0	0	1	0	1	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	2	2
7:55 AM	0	0	1	0	1	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	2	2
8:00 AM	3	0	1	0	4	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	4	0	1	0	5	8:05 AM	1	0	0	0	1	8:05 AM	0	0	0	0	0
8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	0	0	1	0	1	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	2	2
8:25 AM	1	0	0	0	1	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	0	0	0	1	1	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	1	1
8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	1	1
8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	1	1
8:45 AM	0	0	1	0	1	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	1	1	8:55 AM	0	0	0	0	0
Count Total	9	0	8	1	18	Count Total	1	0	0	1	2	Count Total	0	2	1	11	14
Peak Hour	8	0	6	1	15	Peak Hour	1	0	0	0	1	Peak Hour	0	1	1	8	10

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

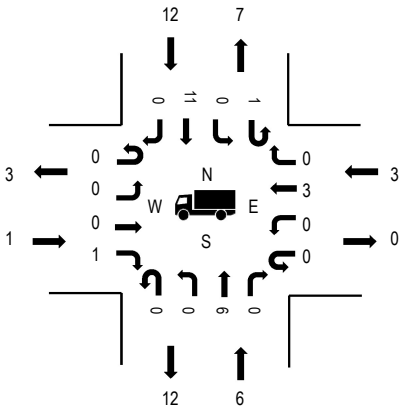
Location: 1 US-20 & Barclay Dr PM
Date: Tuesday, November 9, 2021
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

Peak Hour

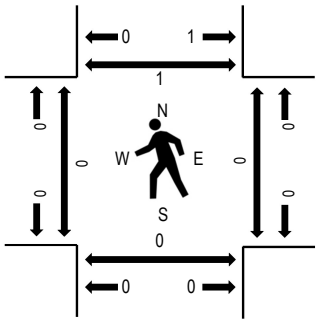
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.4%	0.84
WB	1.7%	0.91
NB	1.9%	0.86
SB	3.6%	0.71
All	2.0%	0.88

Traffic Counts - Motorized Vehicles

Interval Start Time	McKinney Butte Rd Eastbound				Barclay Dr Westbound				US-20 Northbound				US-20 Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	3	6	5	0	2	13	2	0	4	27	6	3	5	28	1	105	1,083
4:05 PM	0	4	10	11	0	4	13	3	0	3	24	4	3	2	22	1	104	1,067
4:10 PM	0	7	5	9	0	1	8	3	0	6	17	2	2	4	30	4	98	1,067
4:15 PM	0	4	5	9	0	1	10	5	0	2	14	4	2	2	46	1	105	1,061
4:20 PM	0	1	11	10	0	1	7	8	0	5	16	5	2	1	19	3	89	1,022
4:25 PM	0	0	4	14	0	4	6	1	0	5	15	3	0	1	26	0	79	1,000
4:30 PM	0	2	6	10	0	3	11	6	0	8	15	1	0	3	13	0	78	996
4:35 PM	0	3	11	9	0	3	3	2	0	10	20	3	0	2	20	2	88	995
4:40 PM	0	4	4	15	0	0	10	2	0	9	14	2	0	1	8	1	70	989
4:45 PM	0	5	10	12	0	2	7	2	0	3	17	2	2	3	23	1	89	987
4:50 PM	0	4	6	19	0	5	7	8	0	2	22	3	1	2	18	3	100	978
4:55 PM	0	5	3	13	0	2	9	4	0	1	15	1	1	2	22	0	78	956
5:00 PM	0	3	9	9	0	1	9	0	0	6	19	4	5	4	19	1	89	930
5:05 PM	0	4	6	12	0	3	12	6	0	10	26	3	2	3	17	0	104	
5:10 PM	0	9	4	7	0	4	6	1	0	8	14	2	1	5	29	2	92	
5:15 PM	0	4	6	7	0	1	6	0	0	6	13	2	2	5	14	0	66	
5:20 PM	0	1	6	11	0	0	9	1	0	9	13	0	2	1	12	2	67	
5:25 PM	0	3	5	4	0	0	4	0	0	7	20	4	1	0	25	2	75	
5:30 PM	0	5	3	11	0	0	6	8	0	6	12	2	3	3	15	3	77	
5:35 PM	0	6	5	7	0	0	7	3	0	7	19	4	3	0	19	2	82	
5:40 PM	0	2	8	6	0	1	11	1	0	7	17	5	1	1	7	1	68	
5:45 PM	0	2	5	10	0	0	6	3	0	7	19	1	1	1	23	2	80	
5:50 PM	0	3	4	13	0	1	8	2	0	3	19	1	1	1	21	1	78	
5:55 PM	0	4	2	7	0	1	5	2	0	3	10	0	1	1	14	2	52	
Count Total	0	88	144	240	0	40	193	73	0	137	417	64	39	53	490	35	2,013	
Peak Hour	0	42	81	136	0	28	104	46	0	58	216	36	16	28	275	17	1,083	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

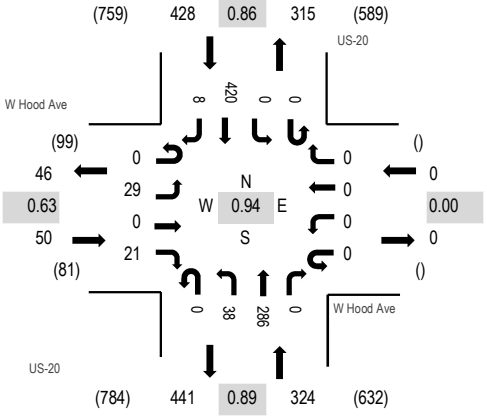
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	1	1	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	1	0	2	3	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	1	1	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	1	1
4:15 PM	0	1	2	1	4	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	1	0	1	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	1	0	1	2	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	1	0	1	2	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	1	0	0	1	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	1	0	0	3	4	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	1	0	2	3	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	1	0	1	2	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	1	0	0	1	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	0	1	2	3	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	1	0	2	3	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	3	0	3	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	1	0	2	3	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	1	0	0	1	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	1	0	0	1	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	1	1	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	1	0	0	0	1
Count Total	1	12	7	20	40	Count Total	0	0	0	0	0	Count Total	1	0	0	1	2
Peak Hour	1	6	3	12	22	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	1	1

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

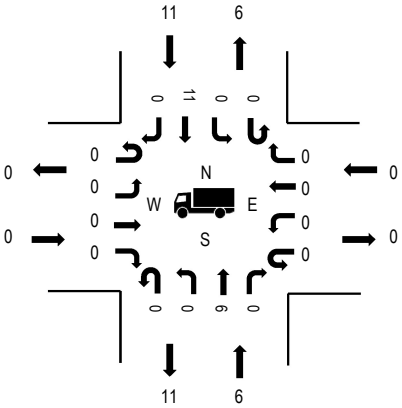
Location: 2 US-20 & W Hood Ave PM
Date: Tuesday, November 9, 2021
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:00 PM - 04:15 PM

Peak Hour

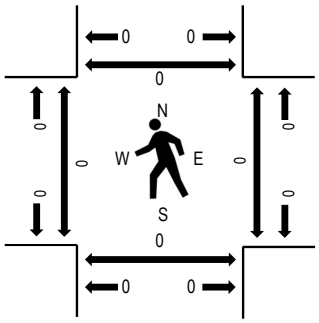
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.63
WB	0.0%	0.00
NB	1.9%	0.89
SB	2.6%	0.86
All	2.1%	0.94

Traffic Counts - Motorized Vehicles

Interval Start Time	W Hood Ave Eastbound				W Hood Ave Westbound				US-20 Northbound				US-20 Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	5	0	1	0	0	0	0	0	0	34	0	0	0	35	1	76	802
4:05 PM	0	2	0	1	0	0	0	0	0	3	23	0	0	0	40	1	70	783
4:10 PM	0	2	0	1	0	0	0	0	0	2	26	0	0	0	36	0	67	778
4:15 PM	0	4	0	1	0	0	0	0	0	2	14	0	0	0	48	0	69	771
4:20 PM	0	3	0	0	0	0	0	0	0	3	25	0	0	0	31	0	62	756
4:25 PM	0	1	0	0	0	0	0	0	0	1	21	0	0	0	35	1	59	748
4:30 PM	0	3	0	0	0	0	0	0	0	5	24	0	0	0	36	1	69	755
4:35 PM	0	0	0	1	0	0	0	0	0	8	31	0	0	0	31	0	71	746
4:40 PM	0	2	0	4	0	0	0	0	0	3	23	0	0	0	25	0	57	726
4:45 PM	0	1	0	5	0	0	0	0	0	4	23	0	0	0	26	4	63	719
4:50 PM	0	4	0	4	0	0	0	0	0	3	24	0	0	0	40	0	75	715
4:55 PM	0	2	0	3	0	0	0	0	0	4	18	0	0	0	37	0	64	698
5:00 PM	0	1	0	1	0	0	0	0	0	5	19	0	0	0	30	1	57	670
5:05 PM	0	1	0	4	0	0	0	0	0	5	32	0	0	0	22	1	65	
5:10 PM	0	1	0	2	0	0	0	0	0	5	22	0	0	0	30	0	60	
5:15 PM	0	1	0	0	0	0	0	0	0	3	18	0	0	0	29	3	54	
5:20 PM	0	1	0	4	0	0	0	0	0	6	20	0	0	0	21	2	54	
5:25 PM	0	3	0	2	0	0	0	0	0	3	27	0	0	0	31	0	66	
5:30 PM	0	0	0	0	0	0	0	0	0	6	16	0	0	0	38	0	60	
5:35 PM	0	0	0	0	0	0	0	0	0	2	29	0	0	0	20	0	51	
5:40 PM	0	1	0	1	0	0	0	0	0	5	22	0	0	0	21	0	50	
5:45 PM	0	2	0	2	0	0	0	0	0	1	27	0	0	0	27	0	59	
5:50 PM	0	1	0	2	0	0	0	0	0	5	18	0	0	0	32	0	58	
5:55 PM	0	0	0	1	0	0	0	0	0	0	12	0	0	0	23	0	36	
Count Total	0	41	0	40	0	0	0	0	0	84	548	0	0	0	744	15	1,472	
Peak Hour	0	29	0	21	0	0	0	0	0	38	286	0	0	0	420	8	802	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

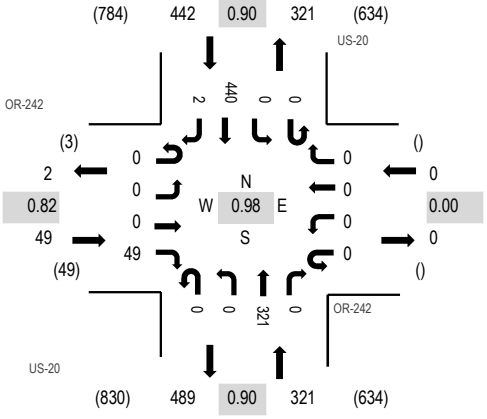
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	1	0	2	3	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	1	1	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	1	0	1	2	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	1	0	1	2	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	1	0	0	1	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	1	0	1	2	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	2	2	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	0	0	2	2	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	1	0	1	2	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	1	0	2	3	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	1	0	2	3	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	1	0	0	1	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	2	2	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	2	0	1	3	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	2	2	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	3	0	0	3	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	1	1	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	0	1	1	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	0	14	0	22	36	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	0	6	0	11	17	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

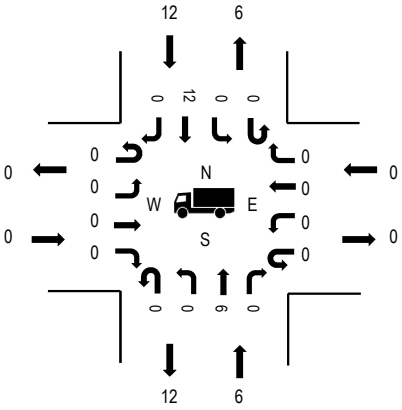
Location: 3 US-20 & OR-242 PM
Date: Tuesday, November 9, 2021
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

Peak Hour

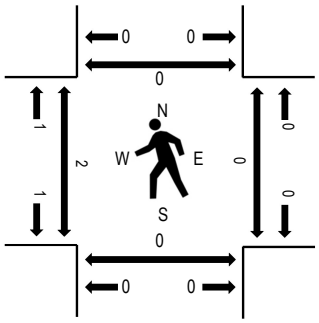
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.82
WB	0.0%	0.00
NB	1.9%	0.90
SB	2.7%	0.90
All	2.2%	0.98

Traffic Counts - Motorized Vehicles

Interval Start Time	OR-242 Eastbound				OR-242 Westbound				US-20 Northbound				US-20 Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	0	0	7	0	0	0	0	0	0	32	0	0	0	42	0	81	812
4:05 PM	0	0	0	3	0	0	0	0	0	0	25	0	0	0	31	0	59	790
4:10 PM	0	0	0	3	0	0	0	0	0	0	25	0	0	0	37	0	65	798
4:15 PM	0	0	0	6	0	0	0	0	0	0	22	0	0	0	53	0	81	790
4:20 PM	0	0	0	4	0	0	0	0	0	0	28	0	0	0	29	0	61	754
4:25 PM	0	0	0	5	0	0	0	0	0	0	20	0	0	0	41	0	66	744
4:30 PM	0	0	0	4	0	0	0	0	0	0	30	0	0	0	30	0	64	738
4:35 PM	0	0	0	2	0	0	0	0	0	0	40	0	0	0	34	1	77	736
4:40 PM	0	0	0	3	0	0	0	0	0	0	23	0	0	0	28	0	54	711
4:45 PM	0	0	0	3	0	0	0	0	0	0	30	0	0	0	31	1	65	708
4:50 PM	0	0	0	5	0	0	0	0	0	0	28	0	0	0	43	0	76	702
4:55 PM	0	0	0	4	0	0	0	0	0	0	18	0	0	0	41	0	63	679
5:00 PM	0	0	0	0	0	0	0	0	0	0	28	0	0	0	31	0	59	655
5:05 PM	0	0	0	0	0	0	0	0	0	0	40	0	0	0	26	1	67	
5:10 PM	0	0	0	0	0	0	0	0	0	0	25	0	0	0	32	0	57	
5:15 PM	0	0	0	0	0	0	0	0	0	0	18	0	0	0	27	0	45	
5:20 PM	0	0	0	0	0	0	0	0	0	0	28	0	0	0	23	0	51	
5:25 PM	0	0	0	0	0	0	0	0	0	0	26	0	0	0	34	0	60	
5:30 PM	0	0	0	0	0	0	0	0	0	0	24	0	0	0	38	0	62	
5:35 PM	0	0	0	0	0	0	0	0	0	0	33	0	0	0	19	0	52	
5:40 PM	0	0	0	0	0	0	0	0	0	0	29	0	0	0	22	0	51	
5:45 PM	0	0	0	0	0	0	0	0	0	0	27	0	0	0	32	0	59	
5:50 PM	0	0	0	0	0	0	0	0	0	0	21	0	0	0	32	0	53	
5:55 PM	0	0	0	0	0	0	0	0	0	0	14	0	0	0	25	0	39	
Count Total	0	0	0	49	0	0	0	0	0	0	634	0	0	0	781	3	1,467	
Peak Hour	0	0	0	49	0	0	0	0	0	0	321	0	0	0	440	2	812	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

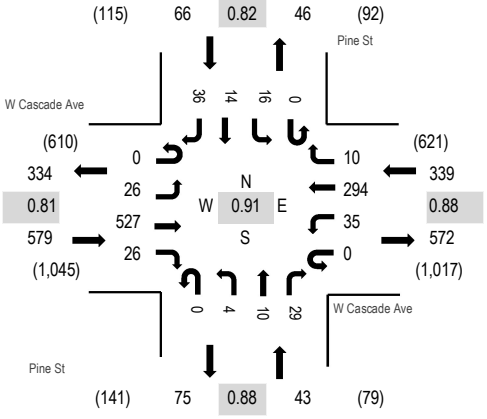
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	1	1	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	1	0	1	2	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	1	1	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	1	0	0	1	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	1	0	1	2	4:20 PM	0	0	0	0	0	4:20 PM	1	0	0	0	1
4:25 PM	0	0	0	2	2	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	1	0	0	1	4:30 PM	0	0	0	0	0	4:30 PM	1	0	0	0	1
4:35 PM	0	0	0	1	1	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	0	1	0	0	1	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	4	4	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	1	0	1	2	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	1	0	2	3	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	1	0	0	1	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	0	0	2	2	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	0	1	0	0	1	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	3	3	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	1	0	1	2	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	1	0	2	3	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	3	0	0	3	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	1	1	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	0	1	1	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	0	14	0	24	38	Count Total	0	0	0	0	0	Count Total	2	0	0	0	2
Peak Hour	0	6	0	12	18	Peak Hour	0	0	0	0	0	Peak Hour	2	0	0	0	2

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

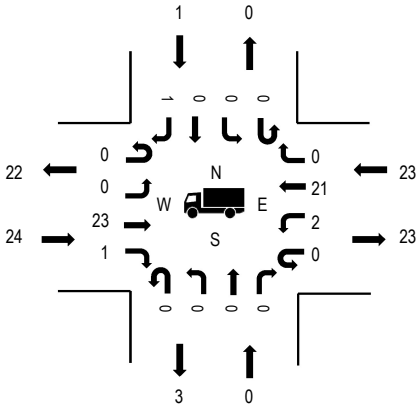
Location: 2 Pine St & W Cascade Ave PM
Date: Thursday, December 9, 2021
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

Peak Hour

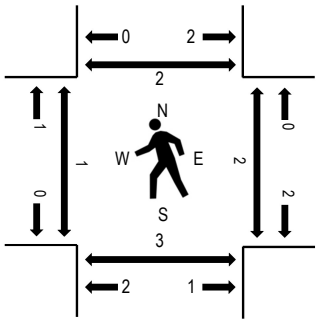
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	4.1%	0.81
WB	6.8%	0.88
NB	0.0%	0.88
SB	1.5%	0.82
All	4.7%	0.91

Traffic Counts - Motorized Vehicles

Interval Start Time	W Cascade Ave Eastbound				W Cascade Ave Westbound				Pine St Northbound				Pine St Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	3	36	1	0	7	21	4	0	1	2	5	0	1	1	7	89	1,023
4:05 PM	0	6	49	3	0	3	24	1	0	1	1	1	0	1	1	4	95	1,018
4:10 PM	0	1	44	4	0	1	23	0	0	1	1	2	0	5	2	0	84	1,012
4:15 PM	0	3	58	2	0	8	24	1	0	1	0	6	0	1	2	3	109	1,027
4:20 PM	0	4	55	2	0	1	23	2	0	1	1	1	0	0	0	2	92	1,000
4:25 PM	0	1	32	1	0	0	36	0	0	0	2	0	0	3	4	2	81	969
4:30 PM	0	4	22	1	0	3	16	1	0	0	3	4	0	3	1	5	63	952
4:35 PM	0	1	24	3	0	3	29	2	0	0	1	2	0	1	1	4	71	939
4:40 PM	0	2	44	3	0	1	24	0	0	0	0	5	0	0	2	2	83	935
4:45 PM	0	1	26	2	0	2	18	1	0	0	0	1	0	1	1	5	58	913
4:50 PM	0	0	60	2	0	3	19	1	0	0	1	3	0	1	1	5	96	903
4:55 PM	0	1	53	2	0	2	31	0	0	1	1	4	0	4	0	3	102	884
5:00 PM	0	4	56	1	0	4	17	0	0	0	0	0	0	1	1	0	84	837
5:05 PM	0	2	44	3	0	3	30	2	0	1	0	3	0	0	0	1	89	
5:10 PM	0	3	53	4	0	5	27	0	0	0	1	0	0	1	1	4	99	
5:15 PM	0	5	38	1	0	8	20	1	0	2	3	0	0	2	1	1	82	
5:20 PM	0	0	34	2	0	1	17	1	0	0	1	1	0	1	2	1	61	
5:25 PM	0	1	32	0	0	3	20	0	0	1	1	1	0	0	1	4	64	
5:30 PM	0	1	28	2	0	2	16	0	0	0	0	0	0	1	0	0	50	
5:35 PM	0	0	39	3	0	2	17	1	0	0	1	2	0	0	1	1	67	
5:40 PM	0	1	25	4	0	0	27	0	0	1	0	2	0	1	0	0	61	
5:45 PM	0	1	17	1	0	1	19	1	0	1	1	1	0	2	0	3	48	
5:50 PM	0	1	47	4	0	0	22	0	0	0	0	0	0	0	1	2	77	
5:55 PM	0	5	25	2	0	1	17	1	0	0	0	2	0	0	0	2	55	
Count Total	0	51	941	53	0	64	537	20	0	12	21	46	0	30	24	61	1,860	
Peak Hour	0	26	527	26	0	35	294	10	0	4	10	29	0	16	14	36	1,027	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

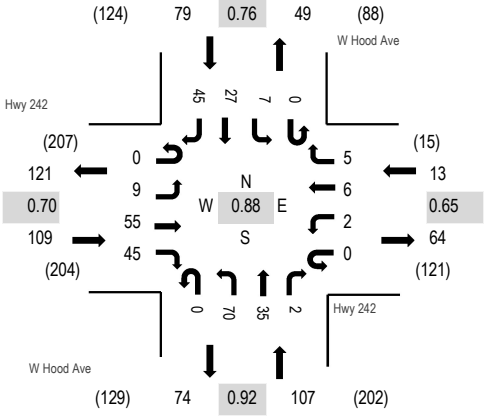
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	2	0	2	0	4	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	4	0	1	0	5	4:05 PM	1	0	0	0	1	4:05 PM	0	0	0	0	0
4:10 PM	2	0	0	0	2	4:10 PM	0	0	0	0	0	4:10 PM	0	3	0	0	3
4:15 PM	1	0	3	1	5	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	3	0	1	0	4	4:20 PM	0	0	0	0	0	4:20 PM	0	1	1	0	2
4:25 PM	0	0	4	0	4	4:25 PM	0	0	0	0	0	4:25 PM	1	1	0	1	3
4:30 PM	4	0	1	0	5	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	2	0	3	0	5	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	2	0	0	0	2	4:40 PM	0	0	0	0	0	4:40 PM	0	1	1	0	2
4:45 PM	0	0	1	0	1	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	1	0	0	0	1	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	1	1
4:55 PM	2	0	3	0	5	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	1	0	1	0	2	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	3	0	4	0	7	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	5	0	2	0	7	5:10 PM	0	0	0	0	0	5:10 PM	0	1	0	0	1
5:15 PM	4	0	1	0	5	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	1	0	0	1	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	1	0	0	0	1	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	5	0	0	0	5	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	1	0	0	0	1	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	2	0	1	1	4	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	1	0	1	5:50 PM	0	0	0	0	0	5:50 PM	1	0	0	0	1
5:55 PM	1	0	1	0	2	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	46	1	30	2	79	Count Total	1	0	0	0	1	Count Total	2	7	2	2	13
Peak Hour	24	0	23	1	48	Peak Hour	0	0	0	0	0	Peak Hour	1	4	2	2	9

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

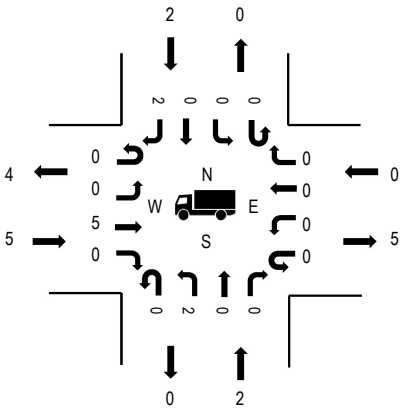
Location: 1 W Hood Ave & Hwy 242 PM
Date: Thursday, December 9, 2021
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour

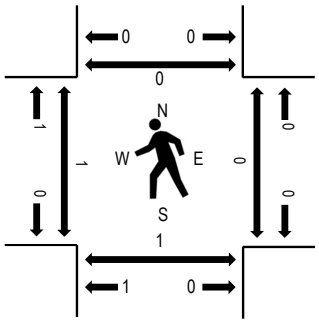
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	4.6%	0.70
WB	0.0%	0.65
NB	1.9%	0.92
SB	2.5%	0.76
All	2.9%	0.88

Traffic Counts - Motorized Vehicles

Interval Start Time	Hwy 242 Eastbound				Hwy 242 Westbound				W Hood Ave Northbound				W Hood Ave Southbound					Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	
4:00 PM	0	1	3	3	0	0	0	1	0	8	1	0	0	0	2	4	23	292
4:05 PM	0	0	7	2	0	0	0	0	0	4	5	1	0	2	1	2	24	296
4:10 PM	0	0	1	3	0	0	1	0	0	6	7	0	0	2	2	3	25	304
4:15 PM	0	0	7	1	0	1	0	0	0	4	3	0	0	3	2	4	25	308
4:20 PM	0	0	5	2	0	0	1	2	0	5	4	0	0	1	3	2	25	303
4:25 PM	0	0	1	6	0	0	0	0	0	9	5	0	0	0	1	9	31	298
4:30 PM	0	0	4	2	0	1	0	0	0	4	5	0	0	1	5	5	27	282
4:35 PM	0	0	6	2	0	0	1	1	0	5	2	0	0	1	1	3	22	277
4:40 PM	0	0	3	4	0	0	1	1	0	10	1	0	0	0	3	4	27	284
4:45 PM	0	0	2	3	0	0	1	0	0	7	4	0	0	0	1	4	22	270
4:50 PM	0	1	2	6	0	0	0	0	0	8	1	0	0	0	2	0	20	259
4:55 PM	0	1	2	3	0	0	0	0	0	3	3	0	0	0	6	3	21	261
5:00 PM	0	1	6	3	0	0	1	0	0	6	4	2	0	0	0	4	27	253
5:05 PM	0	2	14	4	0	0	0	1	0	5	2	0	0	1	0	3	32	
5:10 PM	0	4	3	9	0	0	1	0	0	4	1	0	0	0	3	4	29	
5:15 PM	0	0	4	4	0	0	0	0	0	6	2	1	0	0	3	0	20	
5:20 PM	0	1	4	4	0	0	0	0	0	5	2	0	0	0	1	3	20	
5:25 PM	0	0	4	4	0	0	0	0	0	4	2	0	0	0	0	1	15	
5:30 PM	0	0	6	7	0	0	0	0	0	5	3	0	0	0	1	0	22	
5:35 PM	0	2	10	6	0	0	0	0	0	3	3	0	0	1	2	2	29	
5:40 PM	0	0	4	2	0	0	0	0	0	2	3	0	0	0	1	1	13	
5:45 PM	0	0	1	1	0	0	0	0	0	5	2	0	0	0	0	2	11	
5:50 PM	0	2	3	3	0	0	0	0	0	6	1	0	0	0	2	5	22	
5:55 PM	0	0	3	0	0	0	0	0	0	7	1	0	0	0	1	1	13	
Count Total	0	15	105	84	0	2	7	6	0	131	67	4	0	12	43	69	545	
Peak Hour	0	9	55	45	0	2	6	5	0	70	35	2	0	7	27	45	308	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

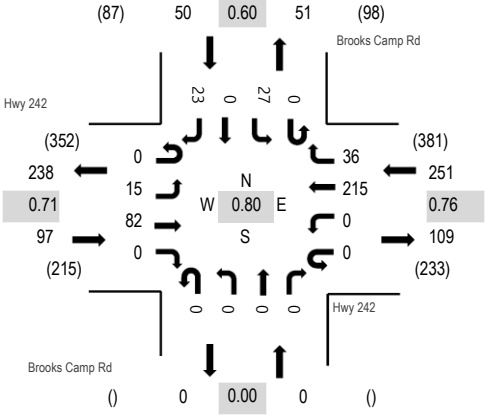
Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	1	0	0	0	1	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	1	0	0	1	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	1	0	0	1	4:25 PM	0	0	0	0	0	4:25 PM	1	1	0	0	2
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	1	0	0	0	1	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	1	0	0	1	2	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	2	0	0	0	2	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	0	0	1	1	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	0	0	0	0	0	5:20 PM	0	0	1	0	1	5:20 PM	0	0	0	0	0
5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0
5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	1	1	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	5	2	0	3	10	Count Total	0	0	1	0	1	Count Total	1	1	0	0	2
Peak Hour	5	2	0	2	9	Peak Hour	0	0	0	0	0	Peak Hour	1	1	0	0	2

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

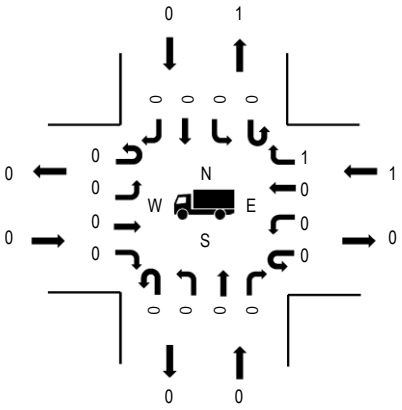
Location: 1 Brooks Camp Rd & Hwy 242 PM
Date: Tuesday, May 3, 2022
Study Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes in Study Peak Hour: 04:00 PM - 04:15 PM

Study Peak Hour (for all study intersections)

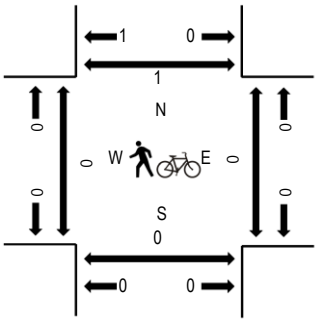
Motorized Vehicles



Heavy Vehicles



Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.71
WB	0.4%	0.76
NB	0.0%	0.00
SB	0.0%	0.60
All	0.3%	0.80

Traffic Counts - Motorized Vehicles

Interval Start Time	Hwy 242 Eastbound				Hwy 242 Westbound				Brooks Camp Rd Northbound				Brooks Camp Rd Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	1	8	0	0	0	27	4	0	0	0	0	0	4	0	3	47	398
4:05 PM	0	2	5	0	0	0	23	2	0	0	0	0	0	5	0	5	42	379
4:10 PM	0	0	4	0	0	0	24	3	0	0	0	0	0	0	0	4	35	366
4:15 PM	0	1	11	0	0	0	23	3	0	0	0	0	0	5	0	0	43	370
4:20 PM	0	0	10	0	0	0	23	3	0	0	0	0	0	0	0	3	39	346
4:25 PM	0	0	6	0	0	0	12	3	0	0	0	0	0	0	0	4	25	336
4:30 PM	0	0	2	0	0	0	17	0	0	0	0	0	0	4	0	0	23	335
4:35 PM	0	2	5	0	0	0	12	5	0	0	0	0	0	2	0	1	27	332
4:40 PM	0	1	5	0	0	0	16	5	0	0	0	0	0	1	0	1	29	322
4:45 PM	0	2	14	0	0	0	14	0	0	0	0	0	0	2	0	0	32	313
4:50 PM	0	3	4	0	0	0	13	4	0	0	0	0	0	1	0	0	25	307
4:55 PM	0	3	8	0	0	0	11	4	0	0	0	0	0	3	0	2	31	295
5:00 PM	0	1	8	0	0	0	15	3	0	0	0	0	0	1	0	0	28	285
5:05 PM	0	2	13	0	0	0	6	2	0	0	0	0	0	4	0	2	29	
5:10 PM	0	3	12	0	0	0	10	10	0	0	0	0	0	3	0	1	39	
5:15 PM	0	2	5	0	0	0	7	3	0	0	0	0	0	0	0	2	19	
5:20 PM	0	0	13	0	0	0	9	4	0	0	0	0	0	2	0	1	29	
5:25 PM	0	2	8	0	0	0	10	1	0	0	0	0	0	2	0	1	24	
5:30 PM	0	1	8	0	0	0	7	2	0	0	0	0	0	1	0	1	20	
5:35 PM	0	1	5	0	0	0	7	2	0	0	0	0	0	2	0	0	17	
5:40 PM	0	1	9	0	0	0	2	2	0	0	0	0	0	2	0	4	20	
5:45 PM	0	0	10	0	0	0	10	2	0	0	0	0	0	2	0	2	26	
5:50 PM	0	0	6	0	0	0	4	1	0	0	0	0	0	0	0	2	13	
5:55 PM	0	1	7	0	0	0	10	1	0	0	0	0	0	1	0	1	21	
Count Total	0	29	186	0	0	0	312	69	0	0	0	0	0	47	0	40	683	
Peak Hour	0	15	82	0	0	0	215	36	0	0	0	0	0	27	0	23	398	

Location: 1 Brooks Camp Rd & Hwy 242 PM

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles on Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	0	0	0	0	0	4:20 PM	0	0	1	0	1	4:20 PM	0	0	0	1	1
4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:35 PM	0	0	0	0	0	4:35 PM	0	0	1	0	1	4:35 PM	0	0	0	0	0
4:40 PM	0	0	0	0	0	4:40 PM	1	0	0	0	1	4:40 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	1	1
4:50 PM	0	0	1	0	1	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	2	0	2	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	1	1
5:10 PM	0	0	1	0	1	5:10 PM	1	0	0	0	1	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0	5:15 PM	0	0	1	0	1	5:15 PM	0	0	0	0	0
5:20 PM	0	0	1	0	1	5:20 PM	0	0	1	0	1	5:20 PM	0	0	0	2	2
5:25 PM	0	0	2	0	2	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	1	1
5:40 PM	1	0	0	0	1	5:40 PM	0	0	0	0	0	5:40 PM	0	0	0	2	2
5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	1	0	0	0	1	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	1	1
Count Total	2	0	7	0	9	Count Total	2	0	4	0	6	Count Total	0	0	0	9	9
Peak Hour	0	0	1	0	1	Peak Hour	1	0	2	0	3	Peak Hour	0	0	0	2	2

Appendix C - Safety

Crash History Data

Left-Turn Lane Warrant Analysis

Preliminary Signal Warrant Analysis

CITY OF SISTERS, DESCHUTES COUNTY

BARCLAY DR at SANTIAM HY, City of Sisters, Deschutes County, 01/01/2016 to 12/31/2020

1 - 3 of 3 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G S	J I N V	S C H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
02337	N	N	N		N	N	12/26/2016	02	BARCLAY WAY	INTER	CROSS	N	Y	CLR	FIX OBJ	01	NONE 9	STRGHT										058,092	26
COUNTY							MO		SANTIAM HY	NW		STOP SIGN	N	ICE	FIX		N/A	SE-NW									007		00
N							4P			05	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N							44 17 44.72	-121 33 34.75	001600100S00															UNK					
00078	Y	Y	N		N	N	01/11/2018	02	W BARCLAY DR	INTER	CROSS	N	Y	CLD	FIX OBJ	01	NONE 0	STRGHT										044,040	30
COUNTY							TH		SANTIAM HY	NW		YIELD	Y	WET	FIX		PRVTE	SE-NW									029	044,040	00
N							11P			06	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	INJB	30	M	OR-Y		050,079,081	000		30
N							44 17 44.45	-121 33 33.58	001600200S00															OR>25					
00658	N	N	N		N	N	05/23/2020	02	W BARCLAY DR	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE 9	STRGHT										004	07
COUNTY							SA		SANTIAM HY	CN		CHANNEL	Y	DRY	REAR		N/A	SW-NE									088		00
N							11A			02	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N							44 17 44.47	-121 33 33.6	001600200S00															UNK					
																02	NONE 9	STOP											
																	N/A	SW-NE									011		00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																								UNK					

CITY OF SISTERS, DESCHUTES COUNTY

MCKINNEY BUTTE RD at SANTIAM HY, City of Sisters, Deschutes County, 01/01/2016 to 12/31/2020

1 - 5 of 7 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G N S V	J I H L	S C O R K	W	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01624	N	N	N				09/15/2019	02	MCKINNEY BUTTE RD	INTER	CROSS	N	N	CLR	S-1STOP	01	NONE	STRGHT											29,07
NONE							SU		SANTIAM HY	N		CHANNEL	Y	DRY	REAR		PRVTE	S -N									006		00
N							4P			05	6		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	69	F	OR-Y		026	000		29,07
N							44 17 46.02	-121 33 35.25	001600200S00															OR<25					
																02	NONE	STOP											
																	PRVTE	S -N									011		00
																	PSNGR CAR		01	DRVR	INJC	66	F	OR-Y		000	000		00
																								OR>25					
00144	Y	N	N	N	N		01/16/2017	02	MCKINNEY BUTTE RD	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 9	TURN-R										124	01,08
COUNTY							MO		SANTIAM HY	SW		STOP SIGN	N	SNO	TURN		N/A	NW-SW									000		00
N							12P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N							44 17 44.05	-121 33 34.86	001600100S00															UNK					
																02	NONE 9	STRGHT											
																	N/A	SW-NE									006		00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																								UNK					
00542	N	N	N	N	N		03/28/2018	02	MCKINNEY BUTTE RD	INTER	CROSS	N	N	CLD	S-1STOP	01	NONE 9	STRGHT											07
COUNTY							WE		SANTIAM HY	NW		YIELD	Y	DRY	REAR		N/A	NW-SE									000		00
N							1P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N							44 17 44.79	-121 33 35.37	001600100S00															UNK					
																02	NONE 9	STOP											
																	N/A	NW-SE									011		00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																								UNK					
01797	N	N	N				09/22/2017	02	MCKINNEY BUTTE RD	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 9	STRGHT											02
NONE							FR		SANTIAM HY	CN		YIELD	Y	DRY	ANGL		N/A	SW-NE									000		00
N							11P			04	0		N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N							44 17 44.05	-121 33 34.86	001600100S00															UNK					
																02	NONE 9	STRGHT											
																	N/A	NW-SE									000		00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																								UNK					
01807	N	N	N	N	N		09/25/2017	02	MCKINNEY BUTTE RD	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 9	STRGHT											02
COUNTY							MO		SANTIAM HY	CN		YIELD	Y	DRY	ANGL		N/A	NW-SE									000		00
N							4P			03	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N							44 17 44.79	-121 33 35.37	001600100S00															UNK					
																02	NONE 9	STRGHT											
																	N/A	NE-SW									000		00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																								UNK					

CITY OF SISTERS, DESCHUTES COUNTY

MCKINNEY BUTTE RD at SANTIAM HY, City of Sisters, Deschutes County, 01/01/2016 to 12/31/2020

6 - 7 of 7 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G S	J I N V	S C H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	SPCL USE / TRLR QTY / OWNER / V# / TYPE	MOVE / FROM / TO	P# / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT EVENT	CAUSE
00222	N	N	N		N	N	02/08/2018	02	MCKINNEY BUTTE RD	INTER	CROSS	N	N	CLD	ANGL-OTH												02
COUNTY							TH		SANTIAM HY	CN		YIELD	Y	DRY	TURN		UNKN	NW-SW								00
N							12P			03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		028	000	02
N							44 17 44.79	-121 33 35.37	001600100S00															UNK				
																02	NONE 0	STRGHT									
																	PRVTE	NE-SW								00	00
																	PSNGR CAR		01	DRVR	INJC	37	F	OR-Y		000	000	00
																								OR<25				
02361	N	N	N				12/31/2019	07	MCKINNEY BUTTE RD	INTER	CROSS	N	N	CLR	S-1TURN												02
COUNTY							TU		SANTIAM HY	CN		CHANNEL	Y	DRY	TURN		N/A	NW-SW								052	00
N							2P			03	4		N	DAY	PDO		SEMI TOW		01	DRVR	NONE	00	Unk	UNK		000	000	00
N							44 17 44.82	-121 33 35.37	0016AJ100S00															UNK				
																02	NONE 9	TURN-R									
																	N/A	NW-SW								000	00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	00
																								UNK				

CITY OF SISTERS, DESCHUTES COUNTY

HOOD AVE at SANTIAM HY, City of Sisters, Deschutes County, 01/01/2016 to 12/31/2020

1 - 1 of 1 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D R U G S	M J I N V	S C H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY / FIX OBJ	SPCL USE / TRLR QTY / OWNER / V# / TYPE	MOVE / FROM / TO	P# / TYPE	PRTC / INJ / SVRTY	A G E	S E X	LICNS / RES /	PED LOC	ERROR	ACT	EVENT	CAUSE
00418	N	Y	N		N	Y	02/22/2019	07	W HOOD AVE	INTER	3-LEG	N	Y	CLR	FIX OBJ	01 NONE	9 STRGHT									058	27,10
COUNTY							FR		SANTIAM HY	W		STOP SIGN	N	DRY	FIX	N/A	W -E								000		00
N							5P			06	0		N	DAY	PDO	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N							44 17 36.62	-121 33 29.51	0015001Z2S00														UNK					

URBAN NON-SYSTEM CRASH LISTING

CITY OF SISTERS, DESCHUTES COUNTY

MCKENZIE HY at CASCADE AVE, City of Sisters, Deschutes County, 01/01/2016 to 12/31/2020

SER# / INVEST / RD DPT / UNLOC?	S P E D / A L C / D R U G S / J I N V / S C H L / M W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE / (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED / LOC	ERROR	ACT	EVENT	CAUSE

CITY OF SISTERS, DESCHUTES COUNTY

PINE ST at CASCADE AVE, City of Sisters, Deschutes County, 01/01/2016 to 12/31/2020

1 - 2 of 2 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G S	J I N V	S C H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / TYPE / OWNER	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01855	N	N	N		N	N	09/20/2017	02	CASCADE AVE	INTER	CROSS	N	N	CLD	PED	01	NONE 0	STRGHT											02,29
COUNTY							WE		PINE ST	E		STOP SIGN	N	DRY	PED		PRVTE	W -E									006		00
N							11A			05	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	70	M	OR-Y		029	000		02
N							44 17 28.86	-121 33 13.82	001500100S00															OR>25					
																		- STRGHT	01	PED	INJC	34	M		I XWLK	000	034		00
																02	NONE 0	S N STRGHT										
																	PRVTE	W -E									022		00
																	PSNGR CAR		01	DRVR	NONE	70	F	OR-Y		026	000		29
																								OR<25					
01655	N	N	N		N	N	09/17/2019	02	CASCADE AVE	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 9	STRGHT											02,27
COUNTY							TU		PINE ST	CN		STOP SIGN	N	WET	ANGL		N/A	N -S									015		00
N							11A			03	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N							44 17 28.87	-121 33 13.85	001500100S00															UNK					
																02	NONE 9	STRGHT										
																	N/A	W -E									000		00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																								UNK					

CITY OF SISTERS, DESCHUTES COUNTY

HOOD AVE at MCKENZIE HY, City of Sisters, Deschutes County, 01/01/2016 to 12/31/2020

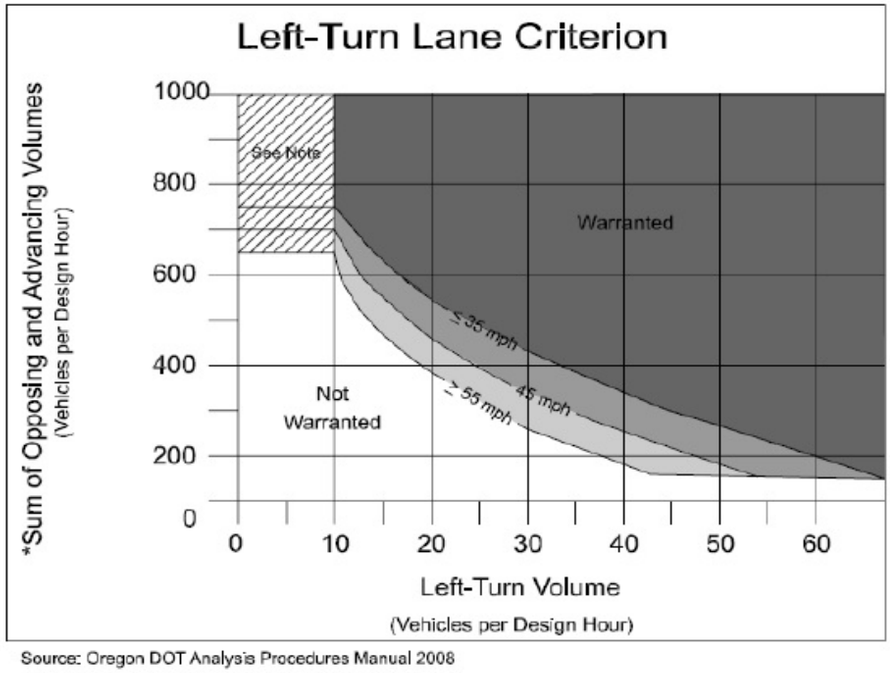
1 - 3 of 3 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G S	J N S	I H V	C L	S W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00916	N	N	N					07/15/2020	07	E HOOD AVE	INTER	3-LEG	N	N	CLR	S-STRGHT	01	NONE 9	STRGHT									08
NONE								WE	0	MCKENZIE HY	E		STOP SIGN	N	DRY	SS-O		N/A	E -W								088		00
N								4P			06	0		N	DAY	PDO		MOTRHOME		01	DRVR	NONE	00	Unk	UNK		000	000		00
N								44 17 26.12	-121 32 41.67																UNK					
																	02	NONE 9	STOP											
																		N/A	E -W								011		00
																		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																									UNK					
02258	Y	N	N					12/15/2016	07	E HOOD AVE	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE 9	STRGHT									124	29,01
NONE								TH	0	MCKENZIE HY	W		STOP SIGN	N	ICE	REAR		N/A	W -E								006		00
N								2P			06	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N								44 17 26.47	-121 32 41.35																UNK					
																	02	NONE 9	STOP											
																		N/A	W -E								011		00
																		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																									UNK					
01236	N	N	N					07/18/2019	07	E HOOD AVE	INTER	3-LEG	N	N	CLR	S-1STOP	01	NONE	STRGHT										29,27
CITY								TH	0	MCKENZIE HY	W		STOP SIGN	N	DRY	REAR		PRVTE	W -E								000		00
N								5P			06	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	40	F	OR-Y	026	000	000		29,27
N								44 17 26.1	-121 32 41.71																OR<25					
																	02	NONE	STOP											
																		PRVTE	W -E								011		00
																		PSNGR CAR		01	DRVR	INJC	42	M	OR-Y	000	000	000		00
																									OR<25					

Project: 22062 Patterson Property Subdivision
Intersection: OR-242 at Brooks Camp Road
Date: 6/2/2022
Scenario: 2025 Buildout Conditions - PM Peak Hour (EB)

Speed? 40 mph

	AM Peak Hour
Left-Turn Volume	20
Approaching DHV	156
# of Advancing Through Lanes	1
Opposing DHV	322
# of Opposing Through Lanes	1
O+A DHV	**478**
Lane Needed?	**No**



Source: Oregon DOT Analysis Procedures Manual 2008

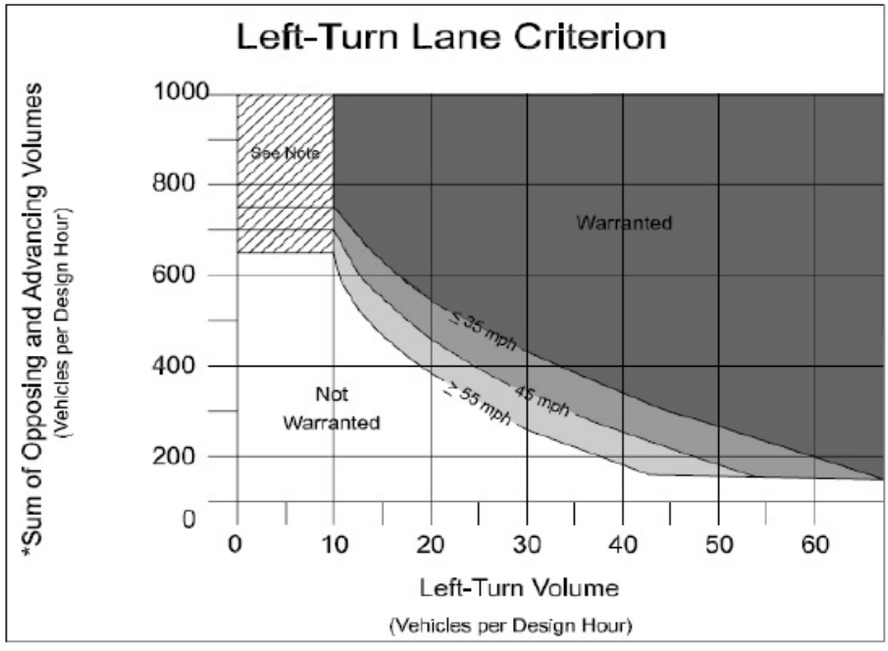
*(Advancing Vol/ # of Advancing Through Lanes)+
(Opposing Vol/ # of Opposing Through Lanes)

Note: The criterion is not met from zero to ten left turn vehicles per hour, but careful consideration should be given to installing a left turn lane due to the increased potential for accidents in the through lanes. While the turn volumes are low, the adverse safety and operational impacts may require installation of a left turn. The final determination will be based on a field study.

Project: 22062 Patterson Property Subdivision
Intersection: OR-242 at W Hood Avenue
Date: 6/2/2022
Scenario: 2025 Buildout Conditions - PM Peak Hour (EB)

Speed? 40 mph

	AM Peak Hour
Left-Turn Volume	12
Approaching DHV	184
# of Advancing Through Lanes	1
Opposing DHV	13
# of Opposing Through Lanes	1
O+A DHV	**197**
Lane Needed?	**No**



Source: Oregon DOT Analysis Procedures Manual 2008

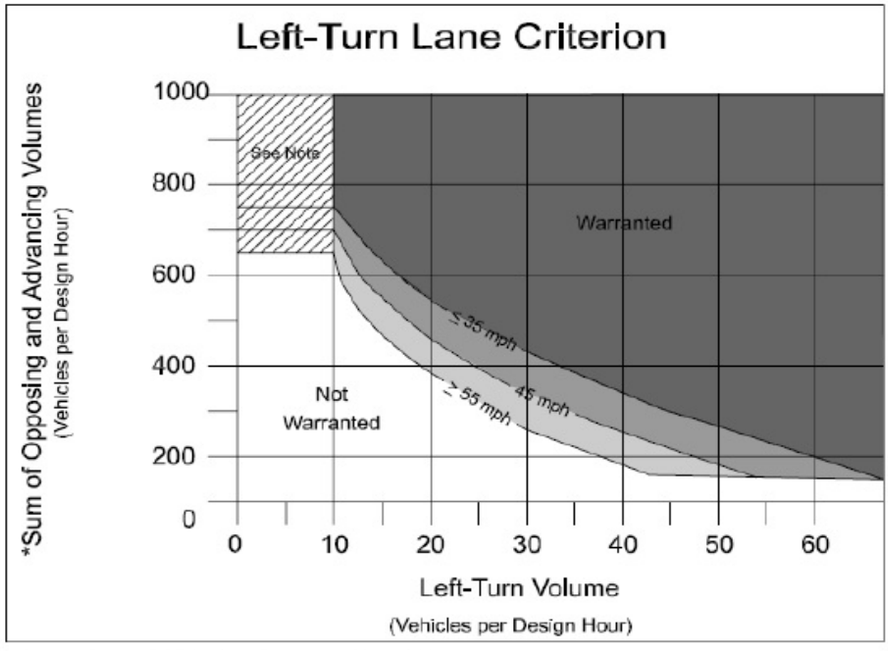
*(Advancing Vol/ # of Advancing Through Lanes)+
(Opposing Vol/ # of Opposing Through Lanes)

Note: The criterion is not met from zero to ten left turn vehicles per hour, but careful consideration should be given to installing a left turn lane due to the increased potential for accidents in the through lanes. While the turn volumes are low, the adverse safety and operational impacts may require installation of a left turn. The final determination will be based on a field study.

Project: 22062 Patterson Property Subdivision
Intersection: OR-242 at Site Access
Date: 6/2/2022
Scenario: 2025 Buildout Conditions - PM Peak Hour (EB)

Speed? 40 mph

	AM Peak Hour
Left-Turn Volume	4
Approaching DHV	193
# of Advancing Through Lanes	1
Opposing DHV	206
# of Opposing Through Lanes	1
O+A DHV	**399**
Lane Needed?	**No**



Source: Oregon DOT Analysis Procedures Manual 2008

*(Advancing Vol/ # of Advancing Through Lanes)+
(Opposing Vol/ # of Opposing Through Lanes)

Note: The criterion is not met from zero to ten left turn vehicles per hour, but careful consideration should be given to installing a left turn lane due to the increased potential for accidents in the through lanes. While the turn volumes are low, the adverse safety and operational impacts may require installation of a left turn. The final determination will be based on a field study.

Left-Turn Lane Warrant Analysis

Project: 22062 Patterson Property Subdivision
Intersection: Brooks Camp Road at Site Access
Date: 6/2/2022
Scenario: 2030 Buildout - PM Peak Hour (SB)

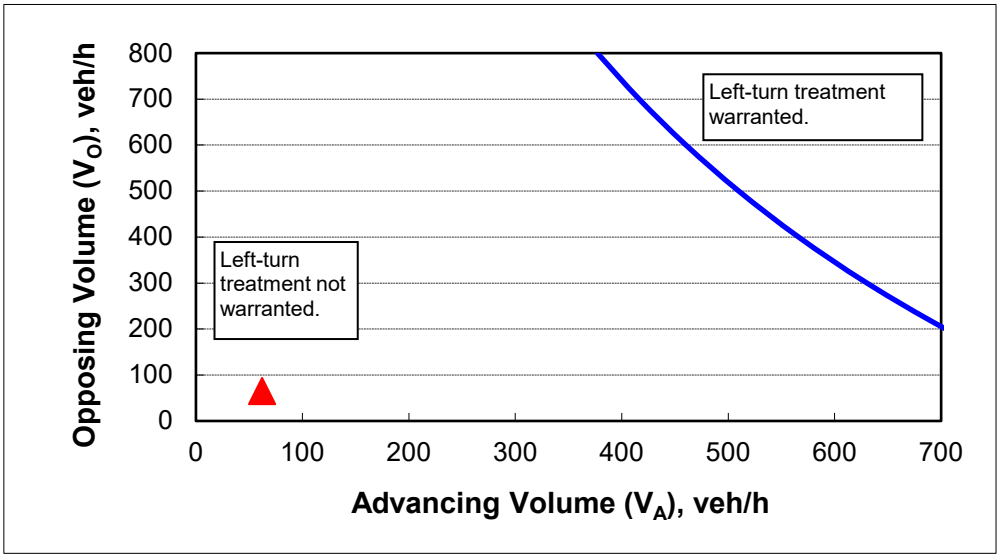
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	5%
Advancing volume (V_A), veh/h:	62
Opposing volume (V_O), veh/h:	65

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	825
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Left-Turn Lane Warrant Analysis

Project: 22062 Patterson Property Subdivision
Intersection: Brooks Camp Road at Site Access
Date: 6/2/2022
Scenario: 2025 Buildout - PM Peak Hour (SB)

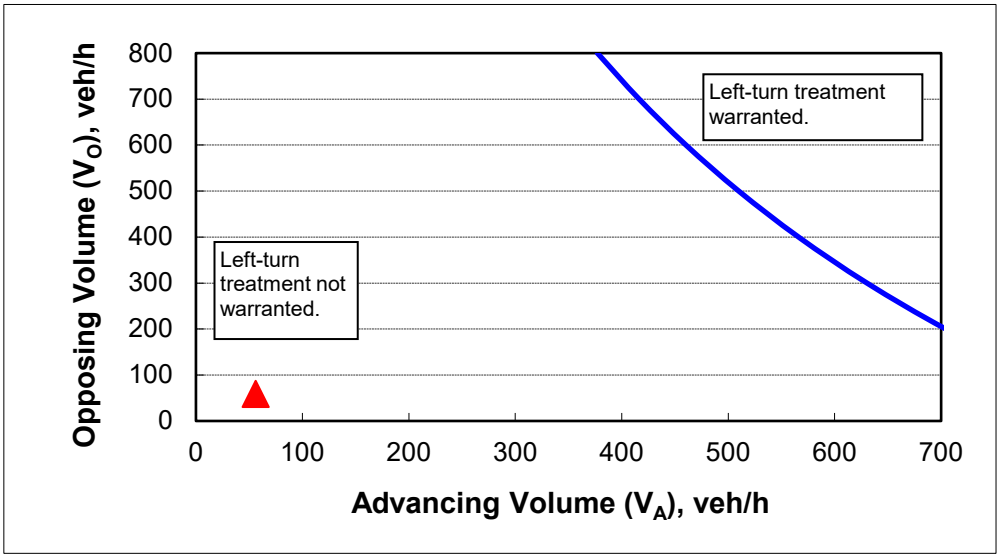
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	5%
Advancing volume (V_A), veh/h:	56
Opposing volume (V_O), veh/h:	59

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	831
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Traffic Signal Warrant Analysis

Project: 22062 Patterson Property Subdivision
Date: 5/16/2022
Scenario: 2030 Buildout Volumes

Major Street:	US Highway 20	Minor Street:	W Hood Avenue
Number of Lanes:	1	Number of Lanes:	2
PM Peak Hour Volumes:	1,094	PM Peak Hour Volumes:	82

Warrant Used:

	100 percent of standard warrants used
X	70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
WARRANT 1, CONDITION A		100%	70%	100%	70%
Major St.	Minor St.	Warrants	Warrants	Warrants	Warrants
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1			
Condition A: Minimum Vehicular Volume			
Major Street	10,940	6,200	
Minor Street*	820	2,500	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	10,940	9,300	
Minor Street*	820	1,250	**No**
Combination Warrant			
Major Street	10,940	7,440	
Minor Street*	820	2,000	**No**

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis

Project: 22062 Patterson Property Subdivision
Date: 5/16/2022
Scenario: 2030 Buildout Volumes

Major Street:	US Highway 20	Minor Street:	OR-242
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	1,125	PM Peak Hour Volumes:	57

Warrant Used:

	100 percent of standard warrants used
X	70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
WARRANT 1, CONDITION A		100%	70%	100%	70%
Major St.	Minor St.	Warrants	Warrants	Warrants	Warrants
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1			
Condition A: Minimum Vehicular Volume			
Major Street	11,250	6,200	
Minor Street*	570	1,850	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	11,250	9,300	
Minor Street*	570	950	**No**
Combination Warrant			
Major Street	11,250	7,440	
Minor Street*	570	1,480	**No**

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis

Project: 22062 Patterson Property Subdivision
Date: 5/16/2022
Scenario: 2030 Buildout Volumes

Major Street:	US Highway 20	Minor Street:	N Pine Street
Number of Lanes:	2	Number of Lanes:	2
PM Peak Hour Volumes:	1,391	PM Peak Hour Volumes:	67

Warrant Used:

	100 percent of standard warrants used
X	70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
WARRANT 1, CONDITION A		100%	70%	100%	70%
Major St.	Minor St.	Warrants	Warrants	Warrants	Warrants
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1			
Condition A: Minimum Vehicular Volume			
Major Street	13,910	7,400	
Minor Street*	670	2,500	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	13,910	11,100	
Minor Street*	670	1,250	**No**
Combination Warrant			
Major Street	13,910	8,880	
Minor Street*	670	2,000	**No**

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis

Project: 22062 Patterson Property Subdivision
Date: 5/16/2022
Scenario: 2030 Buildout Volumes

Major Street:	W Hood Avenue	Minor Street:	Felicity Street
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	234	PM Peak Hour Volumes:	38

Warrant Used:

	100 percent of standard warrants used
X	70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
WARRANT 1, CONDITION A		100%	70%	100%	70%
Major St.	Minor St.	Warrants	Warrants	Warrants	Warrants
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1			
Condition A: Minimum Vehicular Volume			
Major Street	2,340	6,200	
Minor Street*	380	1,850	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	2,340	9,300	
Minor Street*	380	950	**No**
Combination Warrant			
Major Street	2,340	7,440	
Minor Street*	380	1,480	**No**

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis

Project: 22062 Patterson Property Subdivision
Date: 5/16/2022
Scenario: 2030 Buildout Volumes

Major Street:	OR-242	Minor Street:	W Hood Avenue
Number of Lanes:	1	Number of Lanes:	2
PM Peak Hour Volumes:	207	PM Peak Hour Volumes:	169

Warrant Used:

	100 percent of standard warrants used
X	70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
WARRANT 1, CONDITION A		100%	70%	100%	70%
Major St.	Minor St.	Warrants	Warrants	Warrants	Warrants
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1			
Condition A: Minimum Vehicular Volume			
Major Street	2,070	6,200	
Minor Street*	1,690	2,500	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	2,070	9,300	
Minor Street*	1,690	1,250	**No**
Combination Warrant			
Major Street	2,070	7,440	
Minor Street*	1,690	2,000	**No**

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis

Project: 22062 Patterson Property Subdivision
Date: 5/16/2022
Scenario: 2030 Buildout Volumes

Major Street:	OR-242	Minor Street:	Site Access
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	404	PM Peak Hour Volumes:	14

Warrant Used:

	100 percent of standard warrants used
X	70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
WARRANT 1, CONDITION A		100%	70%	100%	70%
Major St.	Minor St.	Warrants	Warrants	Warrants	Warrants
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1			
Condition A: Minimum Vehicular Volume			
Major Street	4,040	6,200	
Minor Street*	140	1,850	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	4,040	9,300	
Minor Street*	140	950	**No**
Combination Warrant			
Major Street	4,040	7,440	
Minor Street*	140	1,480	**No**

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis

Project: 22062 Patterson Property Subdivision
Date: 5/16/2022
Scenario: 2030 Buildout Volumes

Major Street:	Brooks Camp Road	Minor Street:	Site Access
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	127	PM Peak Hour Volumes:	3

Warrant Used:

	100 percent of standard warrants used
X	70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
WARRANT 1, CONDITION A		100%	70%	100%	70%
Major St.	Minor St.	Warrants	Warrants	Warrants	Warrants
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1			
Condition A: Minimum Vehicular Volume			
Major Street	1,270	6,200	
Minor Street*	30	1,850	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	1,270	9,300	
Minor Street*	30	950	**No**
Combination Warrant			
Major Street	1,270	7,440	
Minor Street*	30	1,480	**No**

* Minor street right-turning traffic volumes reduced by 25%

Traffic Signal Warrant Analysis

Project: 22062 Patterson Property Subdivision
Date: 5/16/2022
Scenario: 2030 Buildout Volumes

Major Street:	OR-242	Minor Street:	Brooks Camp Road
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	490	PM Peak Hour Volumes:	55

Warrant Used:

	100 percent of standard warrants used
X	70 percent of standard warrants used due to 85th percentile speed in excess of 40 mph or isolated community with population less than 10,000.

Number of Lanes for Moving Traffic on Each Approach:		ADT on Major St. (total of both approaches)		ADT on Minor St. (higher-volume approach)	
WARRANT 1, CONDITION A		100%	70%	100%	70%
Major St.	Minor St.	Warrants	Warrants	Warrants	Warrants
1	1	8,850	6,200	2,650	1,850
2 or more	1	10,600	7,400	2,650	1,850
2 or more	2 or more	10,600	7,400	3,550	2,500
1	2 or more	8,850	6,200	3,550	2,500
WARRANT 1, CONDITION B					
1	1	13,300	9,300	1,350	950
2 or more	1	15,900	11,100	1,350	950
2 or more	2 or more	15,900	11,100	1,750	1,250
1	2 or more	13,300	9,300	1,750	1,250

Note: ADT volumes assume 8th highest hour is 5.6% of the daily volume

	Approach Volumes	Minimum Volumes	Is Signal Warrant Met?
Warrant 1			
Condition A: Minimum Vehicular Volume			
Major Street	4,900	6,200	
Minor Street*	550	1,850	**No**
Condition B: Interruption of Continuous Traffic			
Major Street	4,900	9,300	
Minor Street*	550	950	**No**
Combination Warrant			
Major Street	4,900	7,440	
Minor Street*	550	1,480	**No**

* Minor street right-turning traffic volumes reduced by 25%

Appendix D - Analysis

Synchro Reports

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	347	366	526	489
Demand Flow Rate, veh/h	361	391	553	524
Vehicles Circulating, veh/h	509	642	306	400
Vehicles Exiting, veh/h	415	217	564	633
Ped Vol Crossing Leg, #/h	0	0	2	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.3	14.3	10.9	10.9
Approach LOS	B	B	B	B

Lane	Left	Left	Left	Right
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.535
Critical Headway, s	4.976	4.976	4.976	4.544
Entry Flow, veh/h	361	391	553	524
Cap Entry Lane, veh/h	821	717	1010	987
Entry HV Adj Factor	0.962	0.936	0.952	0.935
Flow Entry, veh/h	347	366	526	490
Cap Entry, veh/h	790	671	961	922
V/C Ratio	0.440	0.545	0.548	0.531
Control Delay, s/veh	10.3	14.3	10.9	10.9
LOS	B	B	B	B
95th %tile Queue, veh	2	3	3	3

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	16	112	474	370	29
Future Vol, veh/h	8	16	112	474	370	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	290	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	6	6	4	4	7	7
Mvmt Flow	10	21	145	616	481	38

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1406	500	519	0	-	0
Stage 1	500	-	-	-	-	-
Stage 2	906	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.14	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.236	-	-	-
Pot Cap-1 Maneuver	150	563	1037	-	-	-
Stage 1	601	-	-	-	-	-
Stage 2	388	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	129	563	1037	-	-	-
Mov Cap-2 Maneuver	129	-	-	-	-	-
Stage 1	517	-	-	-	-	-
Stage 2	388	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.5	1.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1037	-	129	563	-	-
HCM Lane V/C Ratio	0.14	-	0.081	0.037	-	-
HCM Control Delay (s)	9	-	35.3	11.6	-	-
HCM Lane LOS	A	-	E	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	384	1	0	600	0	174
Future Vol, veh/h	384	1	0	600	0	174
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	8	8	5	5	1	1
Mvmt Flow	519	1	0	811	0	235

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	520
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.309
Pot Cap-1 Maneuver	-	-	0	-	0	558
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	558
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	558	-	-	-
HCM Lane V/C Ratio	0.421	-	-	-
HCM Control Delay (s)	16.1	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	2.1	-	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	453	20	63	452	29	8	13	16	8	19	41
Future Vol, veh/h	50	453	20	63	452	29	8	13	16	8	19	41
Conflicting Peds, #/hr	0	0	3	3	0	0	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	85	-	-	85	-	-	-	-	-	-	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	9	9	9	7	7	7	3	3	3	5	5	5
Mvmt Flow	66	596	26	83	595	38	11	17	21	11	25	54

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	633	0	0	625	0	0	1565	1543	613	1541	1537	615
Stage 1	-	-	-	-	-	-	744	744	-	780	780	-
Stage 2	-	-	-	-	-	-	821	799	-	761	757	-
Critical Hdwy	4.19	-	-	4.17	-	-	7.13	6.53	6.23	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.15	5.55	-
Follow-up Hdwy	2.281	-	-	2.263	-	-	3.527	4.027	3.327	3.545	4.045	3.345
Pot Cap-1 Maneuver	917	-	-	933	-	-	90	114	491	92	114	486
Stage 1	-	-	-	-	-	-	405	420	-	384	401	-
Stage 2	-	-	-	-	-	-	367	396	-	393	411	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	917	-	-	930	-	-	56	96	489	67	96	486
Mov Cap-2 Maneuver	-	-	-	-	-	-	56	96	-	67	96	-
Stage 1	-	-	-	-	-	-	375	389	-	356	365	-
Stage 2	-	-	-	-	-	-	277	361	-	333	380	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	1.1	54.8	37.8
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	119	917	-	-	930	-	-	85	486
HCM Lane V/C Ratio	0.409	0.072	-	-	0.089	-	-	0.418	0.111
HCM Control Delay (s)	54.8	9.2	-	-	9.2	-	-	74.9	13.3
HCM Lane LOS	F	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	1.7	0.2	-	-	0.3	-	-	1.7	0.4

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	3	2	27	107	6
Future Vol, veh/h	4	3	2	27	107	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	3	2	29	116	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	153	120	123	0	-	0
Stage 1	120	-	-	-	-	-
Stage 2	33	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	843	937	1477	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	995	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	842	937	1477	-	-	-
Mov Cap-2 Maneuver	842	-	-	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	995	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1477	-	880	-	-
HCM Lane V/C Ratio	0.001	-	0.009	-	-
HCM Control Delay (s)	7.4	-	9.1	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	63.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	198	139	1	1	1	240	23	1	3	6	98
Future Vol, veh/h	5	198	139	1	1	1	240	23	1	3	6	98
Peak Hour Factor	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Heavy Vehicles, %	0	0	0	0	0	0	4	4	4	5	5	5
Mvmt Flow	10	381	267	2	2	2	462	44	2	6	12	188
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	87.3	11.2	54.3	14.6
HCM LOS	F	B	F	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	1%	33%	100%	0%
Vol Thru, %	0%	96%	58%	33%	0%	6%
Vol Right, %	0%	4%	41%	33%	0%	94%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	240	24	342	3	3	104
LT Vol	240	0	5	1	3	0
Through Vol	0	23	198	1	0	6
RT Vol	0	1	139	1	0	98
Lane Flow Rate	462	46	658	6	6	200
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.953	0.088	1.09	0.012	0.013	0.387
Departure Headway (Hd)	7.802	7.258	5.964	8.095	8.6	7.395
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	466	497	605	445	419	490
Service Time	5.502	4.958	4.03	6.095	6.3	5.095
HCM Lane V/C Ratio	0.991	0.093	1.088	0.013	0.014	0.408
HCM Control Delay	58.7	10.7	87.3	11.2	11.4	14.7
HCM Lane LOS	F	B	F	B	B	B
HCM 95th-tile Q	11.6	0.3	19.3	0	0	1.8

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	311	339	5	18	55
Future Vol, veh/h	38	311	339	5	18	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	52	52	52	52	52	52
Heavy Vehicles, %	4	4	4	4	1	1
Mvmt Flow	73	598	652	10	35	106

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	662	0	-	0	1401	657
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	744	-
Critical Hdwy	4.14	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.236	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	917	-	-	-	155	467
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	472	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	917	-	-	-	137	467
Mov Cap-2 Maneuver	-	-	-	-	137	-
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	472	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	28.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	917	-	-	-	293
HCM Lane V/C Ratio	0.08	-	-	-	0.479
HCM Control Delay (s)	9.3	0	-	-	28.1
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	-	2.4

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	347	370	543	491
Demand Flow Rate, veh/h	361	396	570	526
Vehicles Circulating, veh/h	516	650	306	405
Vehicles Exiting, veh/h	415	226	571	641
Ped Vol Crossing Leg, #/h	0	0	2	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.4	14.8	11.3	11.0
Approach LOS	B	B	B	B

Lane	Left	Left	Left	Right
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.535
Critical Headway, s	4.976	4.976	4.976	4.544
Entry Flow, veh/h	361	396	570	526
Cap Entry Lane, veh/h	815	711	1010	982
Entry HV Adj Factor	0.962	0.934	0.953	0.935
Flow Entry, veh/h	347	370	543	492
Cap Entry, veh/h	784	664	962	918
V/C Ratio	0.443	0.557	0.565	0.535
Control Delay, s/veh	10.4	14.8	11.3	11.0
LOS	B	B	B	B
95th %tile Queue, veh	2	3	4	3

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	29	121	474	370	34
Future Vol, veh/h	21	29	121	474	370	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	290	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	6	6	4	4	7	7
Mvmt Flow	27	38	157	616	481	44

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1433	503	525	0	-	0
Stage 1	503	-	-	-	-	-
Stage 2	930	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.14	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.236	-	-	-
Pot Cap-1 Maneuver	145	561	1032	-	-	-
Stage 1	599	-	-	-	-	-
Stage 2	378	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	123	561	1032	-	-	-
Mov Cap-2 Maneuver	123	-	-	-	-	-
Stage 1	508	-	-	-	-	-
Stage 2	378	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.7	1.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1032	-	123	561	-	-
HCM Lane V/C Ratio	0.152	-	0.222	0.067	-	-
HCM Control Delay (s)	9.1	-	42.4	11.9	-	-
HCM Lane LOS	A	-	E	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.8	0.2	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	397	1	0	609	0	187
Future Vol, veh/h	397	1	0	609	0	187
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	8	8	5	5	1	1
Mvmt Flow	536	1	0	823	0	253

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	537
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.309
Pot Cap-1 Maneuver	-	-	0	-	0	546
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	546
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	546	-	-	-
HCM Lane V/C Ratio	0.463	-	-	-
HCM Control Delay (s)	17.1	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	2.4	-	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	479	20	63	461	29	8	13	16	8	19	41
Future Vol, veh/h	50	479	20	63	461	29	8	13	16	8	19	41
Conflicting Peds, #/hr	0	0	3	3	0	0	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	85	-	-	85	-	-	-	-	-	-	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	9	9	9	7	7	7	3	3	3	5	5	5
Mvmt Flow	66	630	26	83	607	38	11	17	21	11	25	54

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	645	0	0	659	0	0	1611	1589	647	1587	1583	627
Stage 1	-	-	-	-	-	-	778	778	-	792	792	-
Stage 2	-	-	-	-	-	-	833	811	-	795	791	-
Critical Hdwy	4.19	-	-	4.17	-	-	7.13	6.53	6.23	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.15	5.55	-
Follow-up Hdwy	2.281	-	-	2.263	-	-	3.527	4.027	3.327	3.545	4.045	3.345
Pot Cap-1 Maneuver	908	-	-	906	-	-	84	107	469	86	107	478
Stage 1	-	-	-	-	-	-	388	405	-	378	396	-
Stage 2	-	-	-	-	-	-	362	391	-	377	397	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	908	-	-	903	-	-	52	90	467	62	90	478
Mov Cap-2 Maneuver	-	-	-	-	-	-	52	90	-	62	90	-
Stage 1	-	-	-	-	-	-	359	374	-	350	360	-
Stage 2	-	-	-	-	-	-	271	355	-	318	367	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	1.1	60.6	41.3
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	111	908	-	-	903	-	-	79	478
HCM Lane V/C Ratio	0.439	0.072	-	-	0.092	-	-	0.45	0.113
HCM Control Delay (s)	60.6	9.3	-	-	9.4	-	-	83.4	13.5
HCM Lane LOS	F	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	1.9	0.2	-	-	0.3	-	-	1.8	0.4

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	9	5	27	107	20
Future Vol, veh/h	30	9	5	27	107	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	33	10	5	29	116	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	166	127	138	0	-	0
Stage 1	127	-	-	-	-	-
Stage 2	39	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	829	929	1458	-	-	-
Stage 1	904	-	-	-	-	-
Stage 2	989	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	827	929	1458	-	-	-
Mov Cap-2 Maneuver	827	-	-	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	989	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1458	-	848	-	-
HCM Lane V/C Ratio	0.004	-	0.05	-	-
HCM Control Delay (s)	7.5	-	9.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	79.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	211	146	1	1	1	242	26	1	3	12	98
Future Vol, veh/h	5	211	146	1	1	1	242	26	1	3	12	98
Peak Hour Factor	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Heavy Vehicles, %	0	0	0	0	0	0	4	4	4	5	5	5
Mvmt Flow	10	406	281	2	2	2	465	50	2	6	23	188
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	116	11.5	57.4	15.6
HCM LOS	F	B	F	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	1%	33%	100%	0%
Vol Thru, %	0%	96%	58%	33%	0%	11%
Vol Right, %	0%	4%	40%	33%	0%	89%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	242	27	362	3	3	110
LT Vol	242	0	5	1	3	0
Through Vol	0	26	211	1	0	12
RT Vol	0	1	146	1	0	98
Lane Flow Rate	465	52	696	6	6	212
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.966	0.1	1.171	0.013	0.013	0.414
Departure Headway (Hd)	8.027	7.485	6.054	8.352	8.834	7.663
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	456	482	599	431	408	474
Service Time	5.727	5.185	4.089	6.352	6.534	5.363
HCM Lane V/C Ratio	1.02	0.108	1.162	0.014	0.015	0.447
HCM Control Delay	62.6	11	116	11.5	11.7	15.7
HCM Lane LOS	F	B	F	B	B	C
HCM 95th-tile Q	11.8	0.3	23.6	0	0	2

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	2	362	405	2	20	5
Future Vol, veh/h	2	362	405	2	20	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	2	393	440	2	22	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	442	0	-	0	838	441
Stage 1	-	-	-	-	441	-
Stage 2	-	-	-	-	397	-
Critical Hdwy	4.12	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1118	-	-	-	339	621
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	683	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1118	-	-	-	338	621
Mov Cap-2 Maneuver	-	-	-	-	338	-
Stage 1	-	-	-	-	652	-
Stage 2	-	-	-	-	683	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1118	-	-	-	372
HCM Lane V/C Ratio	0.002	-	-	-	0.073
HCM Control Delay (s)	8.2	-	-	-	15.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	3	44	1	1	73
Future Vol, veh/h	5	3	44	1	1	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	12	12	1	1
Mvmt Flow	5	3	48	1	1	79

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	130	49	0	0	49	0
Stage 1	49	-	-	-	-	-
Stage 2	81	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	869	1025	-	-	1564	-
Stage 1	979	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	868	1025	-	-	1564	-
Mov Cap-2 Maneuver	868	-	-	-	-	-
Stage 1	979	-	-	-	-	-
Stage 2	946	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	921	1564	-
HCM Lane V/C Ratio	-	-	0.009	0.001	-
HCM Control Delay (s)	-	-	8.9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	313	344	5	18	60
Future Vol, veh/h	39	313	344	5	18	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	52	52	52	52	52	52
Heavy Vehicles, %	4	4	4	4	1	1
Mvmt Flow	75	602	662	10	35	115

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	672	0	-	0	1419	667
Stage 1	-	-	-	-	667	-
Stage 2	-	-	-	-	752	-
Critical Hdwy	4.14	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.236	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	909	-	-	-	151	461
Stage 1	-	-	-	-	512	-
Stage 2	-	-	-	-	468	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	909	-	-	-	132	461
Mov Cap-2 Maneuver	-	-	-	-	132	-
Stage 1	-	-	-	-	449	-
Stage 2	-	-	-	-	468	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	29.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	909	-	-	-	293
HCM Lane V/C Ratio	0.083	-	-	-	0.512
HCM Control Delay (s)	9.3	0	-	-	29.5
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	-	2.7

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	380	407	563	505
Demand Flow Rate, veh/h	395	436	591	541
Vehicles Circulating, veh/h	529	676	330	446
Vehicles Exiting, veh/h	458	244	594	666
Ped Vol Crossing Leg, #/h	0	0	2	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.5	17.7	12.4	12.2
Approach LOS	B	C	B	B

Lane	Left	Left	Left	Right
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.535
Critical Headway, s	4.976	4.976	4.976	4.544
Entry Flow, veh/h	395	436	591	541
Cap Entry Lane, veh/h	804	692	986	946
Entry HV Adj Factor	0.961	0.934	0.952	0.934
Flow Entry, veh/h	380	407	563	505
Cap Entry, veh/h	773	647	938	884
V/C Ratio	0.491	0.630	0.600	0.572
Control Delay, s/veh	11.5	17.7	12.4	12.2
LOS	B	C	B	B
95th %tile Queue, veh	3	4	4	4

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	30	129	482	376	37
Future Vol, veh/h	22	30	129	482	376	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	290	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	6	6	4	4	7	7
Mvmt Flow	29	39	168	626	488	48

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1474	512	536	0	-	0
Stage 1	512	-	-	-	-	-
Stage 2	962	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.14	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.236	-	-	-
Pot Cap-1 Maneuver	137	554	1022	-	-	-
Stage 1	594	-	-	-	-	-
Stage 2	365	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	115	554	1022	-	-	-
Mov Cap-2 Maneuver	115	-	-	-	-	-
Stage 1	497	-	-	-	-	-
Stage 2	365	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.6	1.9	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1022	-	115	554	-	-
HCM Lane V/C Ratio	0.164	-	0.248	0.07	-	-
HCM Control Delay (s)	9.2	-	46.4	12	-	-
HCM Lane LOS	A	-	E	B	-	-
HCM 95th %tile Q(veh)	0.6	-	0.9	0.2	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	403	1	0	618	0	190
Future Vol, veh/h	403	1	0	618	0	190
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	8	8	5	5	1	1
Mvmt Flow	545	1	0	835	0	257

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	546
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.309
Pot Cap-1 Maneuver	-	-	0	-	0	540
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	540
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	540	-	-	-
HCM Lane V/C Ratio	0.475	-	-	-
HCM Control Delay (s)	17.6	-	-	-
HCM Lane LOS	C	-	-	-
HCM 95th %tile Q(veh)	2.5	-	-	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	486	22	68	468	32	9	14	18	9	21	46
Future Vol, veh/h	55	486	22	68	468	32	9	14	18	9	21	46
Conflicting Peds, #/hr	0	0	3	3	0	0	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	85	-	-	85	-	-	-	-	-	-	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	9	9	9	7	7	7	3	3	3	5	5	5
Mvmt Flow	72	639	29	89	616	42	12	18	24	12	28	61

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	658	0	0	671	0	0	1662	1637	658	1635	1630	638
Stage 1	-	-	-	-	-	-	801	801	-	815	815	-
Stage 2	-	-	-	-	-	-	861	836	-	820	815	-
Critical Hdwy	4.19	-	-	4.17	-	-	7.13	6.53	6.23	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.15	5.55	-
Follow-up Hdwy	2.281	-	-	2.263	-	-	3.527	4.027	3.327	3.545	4.045	3.345
Pot Cap-1 Maneuver	897	-	-	896	-	-	77	100	462	79	100	471
Stage 1	-	-	-	-	-	-	377	395	-	367	387	-
Stage 2	-	-	-	-	-	-	349	381	-	365	387	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	897	-	-	893	-	-	43	83	460	54	83	471
Mov Cap-2 Maneuver	-	-	-	-	-	-	43	83	-	54	83	-
Stage 1	-	-	-	-	-	-	346	362	-	338	348	-
Stage 2	-	-	-	-	-	-	252	343	-	302	355	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	1.1	79.6	50.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	98	897	-	-	893	-	-	71	471
HCM Lane V/C Ratio	0.55	0.081	-	-	0.1	-	-	0.556	0.129
HCM Control Delay (s)	79.6	9.4	-	-	9.5	-	-	106.4	13.8
HCM Lane LOS	F	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	2.5	0.3	-	-	0.3	-	-	2.4	0.4

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	9	5	30	115	20
Future Vol, veh/h	30	9	5	30	115	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	33	10	5	33	125	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	179	136	147	0	-	0
Stage 1	136	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	815	918	1447	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	813	918	1447	-	-	-
Mov Cap-2 Maneuver	813	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	985	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	1.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1447	-	835	-	-
HCM Lane V/C Ratio	0.004	-	0.051	-	-
HCM Control Delay (s)	7.5	-	9.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	90.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	213	152	1	1	1	254	28	1	4	12	106
Future Vol, veh/h	6	213	152	1	1	1	254	28	1	4	12	106
Peak Hour Factor	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Heavy Vehicles, %	0	0	0	0	0	0	4	4	4	5	5	5
Mvmt Flow	12	410	292	2	2	2	488	54	2	8	23	204
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	131.3	11.8	69.1	16.4
HCM LOS	F	B	F	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	2%	33%	100%	0%
Vol Thru, %	0%	97%	57%	33%	0%	10%
Vol Right, %	0%	3%	41%	33%	0%	90%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	254	29	371	3	4	118
LT Vol	254	0	6	1	4	0
Through Vol	0	28	213	1	0	12
RT Vol	0	1	152	1	0	106
Lane Flow Rate	488	56	713	6	8	227
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	1.016	0.108	1.21	0.013	0.018	0.443
Departure Headway (Hd)	8.163	7.622	6.104	8.639	9.003	7.824
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	449	473	592	417	400	463
Service Time	5.863	5.322	4.201	6.639	6.703	5.524
HCM Lane V/C Ratio	1.087	0.118	1.204	0.014	0.02	0.49
HCM Control Delay	75.7	11.2	131.3	11.8	11.9	16.6
HCM Lane LOS	F	B	F	B	B	C
HCM 95th-tile Q	13.4	0.4	25.5	0	0.1	2.2

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	2	366	409	2	20	5
Future Vol, veh/h	2	366	409	2	20	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	2	398	445	2	22	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	447	0	-	0	848	446
Stage 1	-	-	-	-	446	-
Stage 2	-	-	-	-	402	-
Critical Hdwy	4.12	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1113	-	-	-	334	617
Stage 1	-	-	-	-	649	-
Stage 2	-	-	-	-	680	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1113	-	-	-	333	617
Mov Cap-2 Maneuver	-	-	-	-	333	-
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	680	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1113	-	-	-	367
HCM Lane V/C Ratio	0.002	-	-	-	0.074
HCM Control Delay (s)	8.2	-	-	-	15.6
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	3	48	1	1	81
Future Vol, veh/h	5	3	48	1	1	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	12	12	1	1
Mvmt Flow	5	3	52	1	1	88

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	143	53	0	0	53	0
Stage 1	53	-	-	-	-	-
Stage 2	90	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	854	1020	-	-	1559	-
Stage 1	975	-	-	-	-	-
Stage 2	939	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	853	1020	-	-	1559	-
Mov Cap-2 Maneuver	853	-	-	-	-	-
Stage 1	975	-	-	-	-	-
Stage 2	938	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	909	1559	-
HCM Lane V/C Ratio	-	-	0.01	0.001	-
HCM Control Delay (s)	-	-	9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	43	316	347	6	20	66
Future Vol, veh/h	43	316	347	6	20	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	52	52	52	52	52	52
Heavy Vehicles, %	4	4	4	4	1	1
Mvmt Flow	83	608	667	12	38	127

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	679	0	-	0	1447	673
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	774	-
Critical Hdwy	4.14	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.236	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	904	-	-	-	146	457
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	457	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	904	-	-	-	126	457
Mov Cap-2 Maneuver	-	-	-	-	126	-
Stage 1	-	-	-	-	438	-
Stage 2	-	-	-	-	457	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	33.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	904	-	-	-	284
HCM Lane V/C Ratio	0.091	-	-	-	0.582
HCM Control Delay (s)	9.4	0	-	-	33.9
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	-	3.4

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	299	329	514	461
Demand Flow Rate, veh/h	311	352	539	493
Vehicles Circulating, veh/h	491	609	261	361
Vehicles Exiting, veh/h	363	191	541	600
Ped Vol Crossing Leg, #/h	0	0	2	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.0	12.2	9.8	9.6
Approach LOS	A	B	A	A

Lane	Left	Left	Left	Right
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.535
Critical Headway, s	4.976	4.976	4.976	4.544
Entry Flow, veh/h	311	352	539	493
Cap Entry Lane, veh/h	836	741	1057	1022
Entry HV Adj Factor	0.961	0.934	0.953	0.934
Flow Entry, veh/h	299	329	514	461
Cap Entry, veh/h	804	692	1007	955
V/C Ratio	0.372	0.475	0.510	0.482
Control Delay, s/veh	9.0	12.2	9.8	9.6
LOS	A	B	A	A
95th %tile Queue, veh	2	3	3	3

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	8	78	469	366	24
Future Vol, veh/h	8	8	78	469	366	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	290	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	6	6	4	4	7	7
Mvmt Flow	10	10	101	609	475	31

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1302	491	506	0	-	0
Stage 1	491	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.14	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.236	-	-	-
Pot Cap-1 Maneuver	174	570	1049	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	430	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	157	570	1049	-	-	-
Mov Cap-2 Maneuver	157	-	-	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	430	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.5	1.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1049	-	157	570	-	-
HCM Lane V/C Ratio	0.097	-	0.066	0.018	-	-
HCM Control Delay (s)	8.8	-	29.5	11.4	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	372	1	0	565	0	135
Future Vol, veh/h	372	1	0	565	0	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	74	74	74	74
Heavy Vehicles, %	8	8	5	5	1	1
Mvmt Flow	503	1	0	764	0	182

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	504
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.309
Pot Cap-1 Maneuver	-	-	0	-	0	570
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	570
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	570	-	-	-
HCM Lane V/C Ratio	0.32	-	-	-
HCM Control Delay (s)	14.3	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	1.4	-	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	404	19	39	419	27	8	12	15	8	18	39
Future Vol, veh/h	47	404	19	39	419	27	8	12	15	8	18	39
Conflicting Peds, #/hr	0	0	3	3	0	0	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	85	-	-	85	-	-	-	-	-	-	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	9	9	9	7	7	7	3	3	3	5	5	5
Mvmt Flow	62	532	25	51	551	36	11	16	20	11	24	51

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	587	0	0	560	0	0	1382	1361	549	1359	1355	570
Stage 1	-	-	-	-	-	-	672	672	-	671	671	-
Stage 2	-	-	-	-	-	-	710	689	-	688	684	-
Critical Hdwy	4.19	-	-	4.17	-	-	7.13	6.53	6.23	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.15	5.55	-
Follow-up Hdwy	2.281	-	-	2.263	-	-	3.527	4.027	3.327	3.545	4.045	3.345
Pot Cap-1 Maneuver	954	-	-	987	-	-	121	147	534	124	147	515
Stage 1	-	-	-	-	-	-	444	453	-	441	450	-
Stage 2	-	-	-	-	-	-	423	445	-	432	444	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	954	-	-	984	-	-	85	130	532	99	130	515
Mov Cap-2 Maneuver	-	-	-	-	-	-	85	130	-	99	130	-
Stage 1	-	-	-	-	-	-	414	422	-	412	427	-
Stage 2	-	-	-	-	-	-	341	422	-	374	414	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.7	35.6	26.5
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	163	954	-	-	984	-	-	119	515
HCM Lane V/C Ratio	0.283	0.065	-	-	0.052	-	-	0.287	0.1
HCM Control Delay (s)	35.6	9	-	-	8.9	-	-	47	12.8
HCM Lane LOS	E	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	1.1	0.2	-	-	0.2	-	-	1.1	0.3

Intersection	
Intersection Delay, s/veh	12.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	158	52	1	1	1	112	18	1	3	1	72
Future Vol, veh/h	5	158	52	1	1	1	112	18	1	3	1	72
Peak Hour Factor	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Heavy Vehicles, %	0	0	0	0	0	0	4	4	4	5	5	5
Mvmt Flow	10	304	100	2	2	2	215	35	2	6	2	138
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	13.9	8.7	12.4	9.6
HCM LOS	B	A	B	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	2%	33%	100%	0%
Vol Thru, %	0%	95%	73%	33%	0%	1%
Vol Right, %	0%	5%	24%	33%	0%	99%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	112	19	215	3	3	73
LT Vol	112	0	5	1	3	0
Through Vol	0	18	158	1	0	1
RT Vol	0	1	52	1	0	72
Lane Flow Rate	215	37	413	6	6	140
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.383	0.059	0.556	0.009	0.011	0.211
Departure Headway (Hd)	6.399	5.855	4.839	5.577	6.619	5.409
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	564	615	736	642	543	667
Service Time	4.105	3.561	2.934	3.606	4.327	3.117
HCM Lane V/C Ratio	0.381	0.06	0.561	0.009	0.011	0.21
HCM Control Delay	13	8.9	13.9	8.7	9.4	9.6
HCM Lane LOS	B	A	B	A	A	A
HCM 95th-tile Q	1.8	0.2	3.5	0	0	0.8

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	187	194	5	17	52
Future Vol, veh/h	36	187	194	5	17	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	52	52	52	52	52	52
Heavy Vehicles, %	4	4	4	4	1	1
Mvmt Flow	69	360	373	10	33	100

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	383	0	-	0	876	378
Stage 1	-	-	-	-	378	-
Stage 2	-	-	-	-	498	-
Critical Hdwy	4.14	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.236	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1165	-	-	-	321	671
Stage 1	-	-	-	-	695	-
Stage 2	-	-	-	-	613	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1165	-	-	-	297	671
Mov Cap-2 Maneuver	-	-	-	-	297	-
Stage 1	-	-	-	-	644	-
Stage 2	-	-	-	-	613	-

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1165	-	-	-	512
HCM Lane V/C Ratio	0.059	-	-	-	0.259
HCM Control Delay (s)	8.3	0	-	-	14.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	326	222	445	502
Demand Flow Rate, veh/h	326	227	454	522
Vehicles Circulating, veh/h	538	487	217	241
Vehicles Exiting, veh/h	225	184	647	473
Ped Vol Crossing Leg, #/h	0	0	0	1
Ped Cap Adj	1.000	1.000	1.000	0.999
Approach Delay, s/veh	9.6	7.3	7.7	8.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Right
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.535
Critical Headway, s	4.976	4.976	4.976	4.544
Entry Flow, veh/h	326	227	454	522
Cap Entry Lane, veh/h	797	840	1106	1140
Entry HV Adj Factor	1.000	0.980	0.981	0.962
Flow Entry, veh/h	326	222	445	502
Cap Entry, veh/h	797	823	1085	1096
V/C Ratio	0.409	0.270	0.411	0.458
Control Delay, s/veh	9.6	7.3	7.7	8.3
LOS	A	A	A	A
95th %tile Queue, veh	2	1	2	2

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	31	41	62	387	568	15
Future Vol, veh/h	31	41	62	387	568	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	290	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	33	44	66	412	604	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1156	612	620	0	-	0
Stage 1	612	-	-	-	-	-
Stage 2	544	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.218	-	-	-
Pot Cap-1 Maneuver	219	497	960	-	-	-
Stage 1	545	-	-	-	-	-
Stage 2	586	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	204	497	960	-	-	-
Mov Cap-2 Maneuver	204	-	-	-	-	-
Stage 1	507	-	-	-	-	-
Stage 2	586	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.5	1.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	960	-	204	497	-	-
HCM Lane V/C Ratio	0.069	-	0.162	0.088	-	-
HCM Control Delay (s)	9	-	26	12.9	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	0.3	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	614	2	0	456	0	62
Future Vol, veh/h	614	2	0	456	0	62
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	3	3	2	2	0	0
Mvmt Flow	627	2	0	465	0	63

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	630
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	485
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	484
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	484	-	-	-
HCM Lane V/C Ratio	0.131	-	-	-
HCM Control Delay (s)	13.6	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	774	28	41	437	11	4	11	31	17	15	38
Future Vol, veh/h	28	774	28	41	437	11	4	11	31	17	15	38
Conflicting Peds, #/hr	2	0	3	3	0	2	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	85	-	-	85	-	-	-	-	-	-	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	4	4	4	7	7	7	0	0	0	2	2	2
Mvmt Flow	31	851	31	45	480	12	4	12	34	19	16	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	494	0	0	885	0	0	1538	1516	872	1532	1525	489
Stage 1	-	-	-	-	-	-	932	932	-	578	578	-
Stage 2	-	-	-	-	-	-	606	584	-	954	947	-
Critical Hdwy	4.14	-	-	4.17	-	-	7.1	6.5	6.2	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.52	-
Follow-up Hdwy	2.236	-	-	2.263	-	-	3.5	4	3.3	3.518	4.018	3.318
Pot Cap-1 Maneuver	1059	-	-	744	-	-	95	121	353	95	118	579
Stage 1	-	-	-	-	-	-	322	348	-	501	501	-
Stage 2	-	-	-	-	-	-	487	501	-	311	340	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1057	-	-	742	-	-	72	110	351	73	107	577
Mov Cap-2 Maneuver	-	-	-	-	-	-	72	110	-	73	107	-
Stage 1	-	-	-	-	-	-	312	337	-	485	469	-
Stage 2	-	-	-	-	-	-	409	469	-	262	329	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.9	30.9	39.8
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	189	1057	-	-	742	-	-	86	577
HCM Lane V/C Ratio	0.267	0.029	-	-	0.061	-	-	0.409	0.072
HCM Control Delay (s)	30.9	8.5	-	-	10.2	-	-	73.2	11.7
HCM Lane LOS	D	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	1	0.1	-	-	0.2	-	-	1.6	0.2

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	9	8	56	92	16
Future Vol, veh/h	11	9	8	56	92	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	3	3
Mvmt Flow	12	10	9	61	100	17

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	188	109	117	0	-	0
Stage 1	109	-	-	-	-	-
Stage 2	79	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	806	950	1484	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	949	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	801	950	1484	-	-	-
Mov Cap-2 Maneuver	801	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	949	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1484	-	862	-	-
HCM Lane V/C Ratio	0.006	-	0.025	-	-
HCM Control Delay (s)	7.4	-	9.3	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	88	70	2	8	5	96	47	2	7	40	54
Future Vol, veh/h	12	88	70	2	8	5	96	47	2	7	40	54
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	5	5	5	0	0	0	2	2	2	3	3	3
Mvmt Flow	14	100	80	2	9	6	109	53	2	8	45	61
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.9	7.8	9.1	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	7%	13%	100%	0%
Vol Thru, %	0%	96%	52%	53%	0%	43%
Vol Right, %	0%	4%	41%	33%	0%	57%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	49	170	15	7	94
LT Vol	96	0	12	2	7	0
Through Vol	0	47	88	8	0	40
RT Vol	0	2	70	5	0	54
Lane Flow Rate	109	56	193	17	8	107
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.171	0.079	0.24	0.022	0.013	0.143
Departure Headway (Hd)	5.633	5.101	4.472	4.661	5.719	4.811
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	637	702	804	766	626	745
Service Time	3.367	2.835	2.499	2.701	3.455	2.546
HCM Lane V/C Ratio	0.171	0.08	0.24	0.022	0.013	0.144
HCM Control Delay	9.5	8.3	8.9	7.8	8.5	8.4
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.6	0.3	0.9	0.1	0	0.5

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	130	281	38	29	24
Future Vol, veh/h	16	130	281	38	29	24
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	20	163	351	48	36	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	400	0	-	0	579	376
Stage 1	-	-	-	-	376	-
Stage 2	-	-	-	-	203	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1170	-	-	-	481	675
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	836	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1169	-	-	-	471	674
Mov Cap-2 Maneuver	-	-	-	-	471	-
Stage 1	-	-	-	-	685	-
Stage 2	-	-	-	-	835	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1169	-	-	-	545
HCM Lane V/C Ratio	0.017	-	-	-	0.122
HCM Control Delay (s)	8.1	0	-	-	12.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	326	230	455	510
Demand Flow Rate, veh/h	326	235	464	530
Vehicles Circulating, veh/h	554	491	217	249
Vehicles Exiting, veh/h	225	190	663	477
Ped Vol Crossing Leg, #/h	0	0	0	1
Ped Cap Adj	1.000	1.000	1.000	0.999
Approach Delay, s/veh	9.9	7.5	7.8	8.5
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Right
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.535
Critical Headway, s	4.976	4.976	4.976	4.544
Entry Flow, veh/h	326	235	464	530
Cap Entry Lane, veh/h	784	836	1106	1132
Entry HV Adj Factor	1.000	0.981	0.981	0.962
Flow Entry, veh/h	326	230	455	510
Cap Entry, veh/h	784	820	1085	1088
V/C Ratio	0.416	0.281	0.420	0.469
Control Delay, s/veh	9.9	7.5	7.8	8.5
LOS	A	A	A	A
95th %tile Queue, veh	2	1	2	3

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	49	89	387	568	29
Future Vol, veh/h	40	49	89	387	568	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	290	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	43	52	95	412	604	31

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1222	620	635	0	-	0
Stage 1	620	-	-	-	-	-
Stage 2	602	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.218	-	-	-
Pot Cap-1 Maneuver	200	492	948	-	-	-
Stage 1	540	-	-	-	-	-
Stage 2	551	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	180	492	948	-	-	-
Mov Cap-2 Maneuver	180	-	-	-	-	-
Stage 1	486	-	-	-	-	-
Stage 2	551	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.2	1.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	948	-	180	492	-	-
HCM Lane V/C Ratio	0.1	-	0.236	0.106	-	-
HCM Control Delay (s)	9.2	-	31.1	13.2	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.9	0.4	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	622	2	0	483	0	71
Future Vol, veh/h	622	2	0	483	0	71
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	3	3	2	2	0	0
Mvmt Flow	635	2	0	493	0	72

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	638
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	480
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	479
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	479	-	-	-
HCM Lane V/C Ratio	0.151	-	-	-
HCM Control Delay (s)	13.9	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	791	28	41	464	11	4	11	31	17	15	38
Future Vol, veh/h	28	791	28	41	464	11	4	11	31	17	15	38
Conflicting Peds, #/hr	2	0	3	3	0	2	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	85	-	-	85	-	-	-	-	-	-	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	4	4	4	7	7	7	0	0	0	2	2	2
Mvmt Flow	31	869	31	45	510	12	4	12	34	19	16	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	524	0	0	903	0	0	1586	1564	890	1580	1573	519
Stage 1	-	-	-	-	-	-	950	950	-	608	608	-
Stage 2	-	-	-	-	-	-	636	614	-	972	965	-
Critical Hdwy	4.14	-	-	4.17	-	-	7.1	6.5	6.2	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.52	-
Follow-up Hdwy	2.236	-	-	2.263	-	-	3.5	4	3.3	3.518	4.018	3.318
Pot Cap-1 Maneuver	1032	-	-	732	-	-	88	113	345	88	110	557
Stage 1	-	-	-	-	-	-	315	341	-	483	486	-
Stage 2	-	-	-	-	-	-	469	486	-	304	333	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1030	-	-	730	-	-	66	102	343	67	100	555
Mov Cap-2 Maneuver	-	-	-	-	-	-	66	102	-	67	100	-
Stage 1	-	-	-	-	-	-	305	330	-	468	455	-
Stage 2	-	-	-	-	-	-	392	455	-	255	322	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.8	33.1	44.4
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	178	1030	-	-	730	-	-	79	555
HCM Lane V/C Ratio	0.284	0.03	-	-	0.062	-	-	0.445	0.075
HCM Control Delay (s)	33.1	8.6	-	-	10.3	-	-	82.9	12
HCM Lane LOS	D	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.2	-	-	1.8	0.2

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	28	13	15	56	92	57
Future Vol, veh/h	28	13	15	56	92	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	3	3
Mvmt Flow	30	14	16	61	100	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	224	131	162	0	-	0
Stage 1	131	-	-	-	-	-
Stage 2	93	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	769	924	1429	-	-	-
Stage 1	900	-	-	-	-	-
Stage 2	936	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	761	924	1429	-	-	-
Mov Cap-2 Maneuver	761	-	-	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	936	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	1.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1429	-	806	-	-
HCM Lane V/C Ratio	0.011	-	0.055	-	-
HCM Control Delay (s)	7.5	-	9.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	97	75	2	8	5	103	54	2	7	44	54
Future Vol, veh/h	12	97	75	2	8	5	103	54	2	7	44	54
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	5	5	5	0	0	0	2	2	2	3	3	3
Mvmt Flow	14	110	85	2	9	6	117	61	2	8	50	61
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	9.2	7.9	9.2	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	7%	13%	100%	0%
Vol Thru, %	0%	96%	53%	53%	0%	45%
Vol Right, %	0%	4%	41%	33%	0%	55%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	103	56	184	15	7	98
LT Vol	103	0	12	2	7	0
Through Vol	0	54	97	8	0	44
RT Vol	0	2	75	5	0	54
Lane Flow Rate	117	64	209	17	8	111
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.185	0.091	0.263	0.022	0.013	0.151
Departure Headway (Hd)	5.68	5.151	4.526	4.738	5.781	4.889
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	631	694	792	753	618	732
Service Time	3.421	2.893	2.555	2.785	3.524	2.632
HCM Lane V/C Ratio	0.185	0.092	0.264	0.023	0.013	0.152
HCM Control Delay	9.7	8.4	9.2	7.9	8.6	8.5
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.7	0.3	1.1	0.1	0	0.5

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		Y	
Traffic Vol, veh/h	5	188	199	7	14	3
Future Vol, veh/h	5	188	199	7	14	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	5	204	216	8	15	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	224	0	-	0	434	220
Stage 1	-	-	-	-	220	-
Stage 2	-	-	-	-	214	-
Critical Hdwy	4.12	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1345	-	-	-	583	825
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	826	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1345	-	-	-	581	825
Mov Cap-2 Maneuver	-	-	-	-	581	-
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	826	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1345	-	-	-	613
HCM Lane V/C Ratio	0.004	-	-	-	0.03
HCM Control Delay (s)	7.7	-	-	-	11.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	2	54	5	3	53
Future Vol, veh/h	3	2	54	5	3	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	0	0
Mvmt Flow	3	2	59	5	3	58

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	126	62	0	0	64	0
Stage 1	62	-	-	-	-	-
Stage 2	64	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	874	1009	-	-	1551	-
Stage 1	966	-	-	-	-	-
Stage 2	964	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	872	1009	-	-	1551	-
Mov Cap-2 Maneuver	872	-	-	-	-	-
Stage 1	966	-	-	-	-	-
Stage 2	962	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	922	1551	-
HCM Lane V/C Ratio	-	-	0.006	0.002	-
HCM Control Delay (s)	-	-	8.9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	135	284	38	29	27
Future Vol, veh/h	21	135	284	38	29	27
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	26	169	355	48	36	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	404	0	-	0	601	380
Stage 1	-	-	-	-	380	-
Stage 2	-	-	-	-	221	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1166	-	-	-	467	671
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	821	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1165	-	-	-	454	670
Mov Cap-2 Maneuver	-	-	-	-	454	-
Stage 1	-	-	-	-	678	-
Stage 2	-	-	-	-	820	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1165	-	-	-	538
HCM Lane V/C Ratio	0.023	-	-	-	0.13
HCM Control Delay (s)	8.2	0	-	-	12.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	357	252	472	523
Demand Flow Rate, veh/h	357	257	482	545
Vehicles Circulating, veh/h	570	509	236	274
Vehicles Exiting, veh/h	249	209	691	492
Ped Vol Crossing Leg, #/h	0	0	0	1
Ped Cap Adj	1.000	1.000	1.000	0.999
Approach Delay, s/veh	10.9	8.1	8.3	9.1
Approach LOS	B	A	A	A

Lane	Left	Left	Left	Right
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.535
Critical Headway, s	4.976	4.976	4.976	4.544
Entry Flow, veh/h	357	257	482	545
Cap Entry Lane, veh/h	772	821	1085	1107
Entry HV Adj Factor	1.000	0.981	0.980	0.961
Flow Entry, veh/h	357	252	472	524
Cap Entry, veh/h	772	806	1063	1062
V/C Ratio	0.463	0.313	0.444	0.493
Control Delay, s/veh	10.9	8.1	8.3	9.1
LOS	B	A	A	A
95th %tile Queue, veh	2	1	2	3

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	52	94	393	577	30
Future Vol, veh/h	43	52	94	393	577	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	290	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	46	55	100	418	614	32

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1248	630	646	0	-	0
Stage 1	630	-	-	-	-	-
Stage 2	618	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.218	-	-	-
Pot Cap-1 Maneuver	193	485	939	-	-	-
Stage 1	535	-	-	-	-	-
Stage 2	542	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	173	485	939	-	-	-
Mov Cap-2 Maneuver	173	-	-	-	-	-
Stage 1	478	-	-	-	-	-
Stage 2	542	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.3	1.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	939	-	173	485	-	-
HCM Lane V/C Ratio	0.106	-	0.264	0.114	-	-
HCM Control Delay (s)	9.3	-	33.1	13.4	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.4	-	1	0.4	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	632	2	0	491	0	76
Future Vol, veh/h	632	2	0	491	0	76
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	3	3	2	2	0	0
Mvmt Flow	645	2	0	501	0	78

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	648
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	474
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	473
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	473	-	-	-
HCM Lane V/C Ratio	0.164	-	-	-
HCM Control Delay (s)	14.1	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	803	30	45	471	12	5	12	34	19	16	42
Future Vol, veh/h	30	803	30	45	471	12	5	12	34	19	16	42
Conflicting Peds, #/hr	2	0	3	3	0	2	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	85	-	-	85	-	-	-	-	-	-	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	4	4	4	7	7	7	0	0	0	2	2	2
Mvmt Flow	33	882	33	49	518	13	5	13	37	21	18	46

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	533	0	0	918	0	0	1624	1599	904	1617	1609	528
Stage 1	-	-	-	-	-	-	968	968	-	625	625	-
Stage 2	-	-	-	-	-	-	656	631	-	992	984	-
Critical Hdwy	4.14	-	-	4.17	-	-	7.1	6.5	6.2	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.52	-
Follow-up Hdwy	2.236	-	-	2.263	-	-	3.5	4	3.3	3.518	4.018	3.318
Pot Cap-1 Maneuver	1025	-	-	723	-	-	83	107	338	83	105	550
Stage 1	-	-	-	-	-	-	308	335	-	473	477	-
Stage 2	-	-	-	-	-	-	458	477	-	296	327	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1023	-	-	721	-	-	60	96	336	61	94	548
Mov Cap-2 Maneuver	-	-	-	-	-	-	60	96	-	61	94	-
Stage 1	-	-	-	-	-	-	297	323	-	457	444	-
Stage 2	-	-	-	-	-	-	375	444	-	244	316	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.9	37.6	51.9
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	165	1023	-	-	721	-	-	73	548
HCM Lane V/C Ratio	0.34	0.032	-	-	0.069	-	-	0.527	0.084
HCM Control Delay (s)	37.6	8.6	-	-	10.4	-	-	99.6	12.2
HCM Lane LOS	E	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	1.4	0.1	-	-	0.2	-	-	2.2	0.3

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	28	13	15	61	101	57
Future Vol, veh/h	28	13	15	61	101	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	3	3
Mvmt Flow	30	14	16	66	110	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	239	141	172	0	-	0
Stage 1	141	-	-	-	-	-
Stage 2	98	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	754	912	1417	-	-	-
Stage 1	891	-	-	-	-	-
Stage 2	931	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	746	912	1417	-	-	-
Mov Cap-2 Maneuver	746	-	-	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	931	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	1.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1417	-	792	-	-
HCM Lane V/C Ratio	0.012	-	0.056	-	-
HCM Control Delay (s)	7.6	-	9.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	98	80	2	8	6	111	58	2	8	47	59
Future Vol, veh/h	13	98	80	2	8	6	111	58	2	8	47	59
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	5	5	5	0	0	0	2	2	2	3	3	3
Mvmt Flow	15	111	91	2	9	7	126	66	2	9	53	67
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	9.4	8	9.4	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	7%	12%	100%	0%
Vol Thru, %	0%	97%	51%	50%	0%	44%
Vol Right, %	0%	3%	42%	38%	0%	56%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	60	191	16	8	106
LT Vol	111	0	13	2	8	0
Through Vol	0	58	98	8	0	47
RT Vol	0	2	80	6	0	59
Lane Flow Rate	126	68	217	18	9	120
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.2	0.098	0.276	0.024	0.015	0.165
Departure Headway (Hd)	5.716	5.189	4.582	4.789	5.824	4.927
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	627	689	784	744	613	725
Service Time	3.465	2.937	2.614	2.841	3.574	2.676
HCM Lane V/C Ratio	0.201	0.099	0.277	0.024	0.015	0.166
HCM Control Delay	9.9	8.5	9.4	8	8.7	8.7
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.7	0.3	1.1	0.1	0	0.6

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	5	190	202	7	14	3
Future Vol, veh/h	5	190	202	7	14	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	5	207	220	8	15	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	228	0	-	0	441	224
Stage 1	-	-	-	-	224	-
Stage 2	-	-	-	-	217	-
Critical Hdwy	4.12	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1340	-	-	-	577	820
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	824	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1340	-	-	-	575	820
Mov Cap-2 Maneuver	-	-	-	-	575	-
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	824	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1340	-	-	-	607
HCM Lane V/C Ratio	0.004	-	-	-	0.03
HCM Control Delay (s)	7.7	-	-	-	11.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	2	60	5	3	59
Future Vol, veh/h	3	2	60	5	3	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	0	0
Mvmt Flow	3	2	65	5	3	64

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	138	68	0	0	70	0
Stage 1	68	-	-	-	-	-
Stage 2	70	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	860	1001	-	-	1544	-
Stage 1	960	-	-	-	-	-
Stage 2	958	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	858	1001	-	-	1544	-
Mov Cap-2 Maneuver	858	-	-	-	-	-
Stage 1	960	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	910	1544	-
HCM Lane V/C Ratio	-	-	0.006	0.002	-
HCM Control Delay (s)	-	-	9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	137	288	42	32	30
Future Vol, veh/h	23	137	288	42	32	30
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	29	171	360	53	40	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	414	0	-	0	617	388
Stage 1	-	-	-	-	388	-
Stage 2	-	-	-	-	229	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1156	-	-	-	457	665
Stage 1	-	-	-	-	690	-
Stage 2	-	-	-	-	814	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1155	-	-	-	443	664
Mov Cap-2 Maneuver	-	-	-	-	443	-
Stage 1	-	-	-	-	670	-
Stage 2	-	-	-	-	813	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1155	-	-	-	528
HCM Lane V/C Ratio	0.025	-	-	-	0.147
HCM Control Delay (s)	8.2	0	-	-	13
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	2
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	295	202	435	487
Demand Flow Rate, veh/h	295	206	444	507
Vehicles Circulating, veh/h	520	469	192	220
Vehicles Exiting, veh/h	207	167	623	455
Ped Vol Crossing Leg, #/h	0	0	0	1
Ped Cap Adj	1.000	1.000	1.000	0.999
Approach Delay, s/veh	8.8	6.9	7.3	7.9
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Right
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.535
Critical Headway, s	4.976	4.976	4.976	4.544
Entry Flow, veh/h	295	206	444	507
Cap Entry Lane, veh/h	812	855	1134	1162
Entry HV Adj Factor	1.000	0.979	0.981	0.962
Flow Entry, veh/h	295	202	435	488
Cap Entry, veh/h	812	837	1113	1117
V/C Ratio	0.363	0.241	0.391	0.437
Control Delay, s/veh	8.8	6.9	7.3	7.9
LOS	A	A	A	A
95th %tile Queue, veh	2	1	2	2

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	21	38	383	562	8
Future Vol, veh/h	29	21	38	383	562	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	75	0	290	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	31	22	40	407	598	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1090	603	607	0	-	0
Stage 1	603	-	-	-	-	-
Stage 2	487	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.218	-	-	-
Pot Cap-1 Maneuver	240	503	971	-	-	-
Stage 1	550	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	230	503	971	-	-	-
Mov Cap-2 Maneuver	230	-	-	-	-	-
Stage 1	527	-	-	-	-	-
Stage 2	622	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.6	0.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	971	-	230	503	-	-
HCM Lane V/C Ratio	0.042	-	0.134	0.044	-	-
HCM Control Delay (s)	8.9	-	23.1	12.5	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	589	2	0	430	0	49
Future Vol, veh/h	589	2	0	430	0	49
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	3	3	2	2	0	0
Mvmt Flow	601	2	0	439	0	50

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	604
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	502
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	501
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	501	-	-	-
HCM Lane V/C Ratio	0.1	-	-	-
HCM Control Delay (s)	13	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	737	26	35	411	10	4	10	29	16	14	36
Future Vol, veh/h	26	737	26	35	411	10	4	10	29	16	14	36
Conflicting Peds, #/hr	2	0	3	3	0	2	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	85	-	-	85	-	-	-	-	-	-	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	4	4	4	7	7	7	0	0	0	2	2	2
Mvmt Flow	29	810	29	38	452	11	4	11	32	18	15	40

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	465	0	0	842	0	0	1448	1427	830	1442	1436	461
Stage 1	-	-	-	-	-	-	886	886	-	536	536	-
Stage 2	-	-	-	-	-	-	562	541	-	906	900	-
Critical Hdwy	4.14	-	-	4.17	-	-	7.1	6.5	6.2	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.52	-
Follow-up Hdwy	2.236	-	-	2.263	-	-	3.5	4	3.3	3.518	4.018	3.318
Pot Cap-1 Maneuver	1086	-	-	773	-	-	110	136	373	110	133	600
Stage 1	-	-	-	-	-	-	342	365	-	529	523	-
Stage 2	-	-	-	-	-	-	515	524	-	331	357	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1084	-	-	771	-	-	87	125	371	88	122	598
Mov Cap-2 Maneuver	-	-	-	-	-	-	87	125	-	88	122	-
Stage 1	-	-	-	-	-	-	332	354	-	514	496	-
Stage 2	-	-	-	-	-	-	443	497	-	285	346	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.8	26.9	32.1
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	211	1084	-	-	771	-	-	101	598
HCM Lane V/C Ratio	0.224	0.026	-	-	0.05	-	-	0.326	0.066
HCM Control Delay (s)	26.9	8.4	-	-	9.9	-	-	57	11.4
HCM Lane LOS	D	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0.2	-	-	1.3	0.2

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	77	45	2	8	5	70	35	2	7	27	45
Future Vol, veh/h	9	77	45	2	8	5	70	35	2	7	27	45
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	5	5	5	0	0	0	2	2	2	3	3	3
Mvmt Flow	10	88	51	2	9	6	80	40	2	8	31	51
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	8.3	7.5	8.7	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	7%	13%	100%	0%
Vol Thru, %	0%	95%	59%	53%	0%	38%
Vol Right, %	0%	5%	34%	33%	0%	62%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	37	131	15	7	72
LT Vol	70	0	9	2	7	0
Through Vol	0	35	77	8	0	27
RT Vol	0	2	45	5	0	45
Lane Flow Rate	80	42	149	17	8	82
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.121	0.058	0.179	0.021	0.012	0.105
Departure Headway (Hd)	5.492	4.952	4.339	4.422	5.553	4.61
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	655	725	829	811	646	779
Service Time	3.21	2.67	2.351	2.44	3.272	2.329
HCM Lane V/C Ratio	0.122	0.058	0.18	0.021	0.012	0.105
HCM Control Delay	9	8	8.3	7.5	8.3	7.9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.6	0.1	0	0.4

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	95	250	36	27	23
Future Vol, veh/h	15	95	250	36	27	23
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	19	119	313	45	34	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	359	0	-	0	494	337
Stage 1	-	-	-	-	337	-
Stage 2	-	-	-	-	157	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1211	-	-	-	538	710
Stage 1	-	-	-	-	728	-
Stage 2	-	-	-	-	876	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1210	-	-	-	528	709
Mov Cap-2 Maneuver	-	-	-	-	528	-
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	875	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1210	-	-	-	598
HCM Lane V/C Ratio	0.015	-	-	-	0.105
HCM Control Delay (s)	8	0	-	-	11.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Intersection Delay, s/veh	27.2
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	213	152	1	1	1	254	28	1	4	12	106
Future Vol, veh/h	6	213	152	1	1	1	254	28	1	4	12	106
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Heavy Vehicles, %	0	0	0	0	0	0	4	4	4	5	5	5
Mvmt Flow	5	328	234	2	2	2	391	43	2	6	18	163
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	33.9	10.1	25.2	11.9
HCM LOS	D	B	D	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	90%	2%	33%	3%
Vol Thru, %	10%	57%	33%	10%
Vol Right, %	0%	41%	33%	87%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	283	371	3	122
LT Vol	254	6	1	4
Through Vol	28	213	1	12
RT Vol	1	152	1	106
Lane Flow Rate	435	566	5	188
Geometry Grp	1	1	1	1
Degree of Util (X)	0.744	0.865	0.009	0.317
Departure Headway (Hd)	6.155	5.499	6.981	6.076
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	583	651	515	595
Service Time	4.245	3.584	4.996	4.076
HCM Lane V/C Ratio	0.746	0.869	0.01	0.316
HCM Control Delay	25.2	33.9	10.1	11.9
HCM Lane LOS	D	D	B	B
HCM 95th-tile Q	6.5	10	0	1.4