WHITE SALMON CHERRY HILL SUBDIVISION

TRANSPORTATION IMPACT STUDY

JULY 2024

PREPARED FOR:

Curtis Homes, LLC

CURTIS HOMES LLC
BUILDING A LEGACY YOU CAN LIVE IN

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INTRODUCTION

This study evaluates the transportation impacts associated with the proposed Cherry Hill housing development located in White Salmon, Washington. The project sponsor desires to build a subdivision of 36 single-family homes on a vacant 7.93-acre parcel north of Spring Street and west of Main Avenue. The development will have access onto Spring Street as well as N Main Avenue through the recently approved adjacent development, Four Oaks. The Four Oaks subdivision will construct a new public street east-west through their site that will intersect N Main Ave and continue west into the Cherry Hill Subdivision.

The purpose of this transportation impact analysis is to identify potential mitigation measures needed to offset transportation impacts that the proposed development may have on the nearby transportation network. The impact analysis is focused on the study intersections, which were selected for evaluation in coordination with City staff.[1] The intersections are listed below and shown in Figure 1.

1. Main Avenue/Loop Road (Two-Way Stop-Controlled)
2. Main Avenue/New Public Street/Business Driveway (Two-Way Stop-Controlled)
3. Main Avenue/Spring Street (Two-Way Stop-Controlled)

Table 1 on the following page lists important characteristics of the study area and proposed project.

FIGURE 1. PROJECT LOCATION AND STUDY INTERSECTIONS

[1] Phone conversation between Lacy Brown (DKS) and Pat Munyan (White Salmon Public Works Director) on March 3, 2021.

TABLE 1: STUDY AREA AND PROPOSED PROJECT CHARACTERISTICS

STUDY AREA	
NUMBER OF STUDY INTERSECTIONS	Three
ANALYSIS PERIODS	Weekday AM peak hour (7:00 am – 9:00 am) and PM peak hour (4:00 pm – 6:00 pm)
PROPOSED DEVELOPMENT	
SIZE AND LAND USE	Single-family subdivision on 7.93-acre parcel containing 36 units
PROJECT TRIPS	29 AM peak hour trips, 38 PM peak hour trips, and 394 daily trips
VEHICLE ACCESS POINTS	One new, full-access driveway to the site will be provided on Spring Street. A new street connection will also provide access to N Main Ave.
OTHER TRANSPORTATION FACILITIES	
PEDESTRIAN AND BICYCLE FACILITIES	There are no sidewalks or marked bicycle facilities along Spring Street near the project site. Sidewalks are provided on the west side of Main Avenue from Loop Road to past Spring Street.
TRANSIT FACILITIES	There are two bus stops approximately 0.8 miles from the project site in downtown White Salmon which is served by Mount Adams Transportation Services.

EXISTING CONDITIONS

This chapter provides documentation of existing study area conditions including the roadway network, pedestrian and bicycle facilities, and existing traffic volumes and operations.

STUDY AREA ROADWAY NETWORK

Key roadways in the study area are summarized in Table 2 along with their existing roadway characteristics. The functional classifications for the County streets are provided in the Klickitat County Regional Transportation Plan (RTP).[2] The functional classification for the City streets is provided in the City's Urbanization Study.[3]

TABLE 2: STUDY AREA ROADWAY CHARACTERISTICS

ROADWAY	JURISDICTION	FUNCTIONAL CLASSIFICATION	LANES	POSTED SPEED	SIDE-WALKS	BIKE FACILITIES
SPRING STREET	City of White Salmon	Major Collector	2	20 mph	None	None
MAIN AVENUE	City of White Salmon [a]	Major Collector	2	25 mph	Partial [c]	None
	Klickitat County [b]	Rural Major Collector				
LOOP ROAD	Klickitat County	Rural Major Collector	2	25 mph	Both Sides	None

[a] City jurisdiction south of Spring Street
[b] County jurisdiction north of Spring Street
[c] Sidewalks on west side only of Main Avenue north of Spring Street and both sides of Main Avenue south of Spring Street.

BICYCLE AND PEDESTRIAN FACILITIES

There are no marked bicycle lanes or sidewalks that currently exist on either side of Spring Street fronting the project site. Sidewalks (5 feet wide) are provided on the west side of Main Avenue from Loop Road to past Spring Street. There are no marked bicycle facilities on Main Avenue in the study area.

PUBLIC TRANSIT SERVICE

Mount Adams Transportation Service (MATS) provides public transportation services within White Salmon and Bingen. There are four bus stops located in downtown White Salmon, the closest stops are approximately 0.8 miles from the project site. Service is provided Monday through Friday with six daily loops provided between 9am and 4pm.

[2] Klickitat County Regional Transportation Plan, Adopted November 2018.

[3] White Salmon Urbanization Study, Columbia Planning + Design, June 2009.

PLANNED TRANSPORTATION PROJECTS

The City of White Salmon has a Transportation Improvement Program (TIP)[4] and an Urbanization Study (2009) which list the City's desired transportation projects. Klickitat County Regional Transportation Plan (RTP) also provides a list of future planned transportation projects. A list of projects located near the proposed project site from these three documents are described below.

City of White Salmon Transportation Improvement Program (TIP)

- Spring Street (from Estes Avenue to east City Limits) – Reconstruction and sidewalk on one side, approximately 0.27 miles.

White Salmon Urbanization Study (2009)

- Main Avenue/Loop Road: Either remove the stop sign from eastbound Loop Road or install stop signs at all three approaches.

Klickitat County Regional Transportation Plan (RTP)

- No projects in the study area

The City of White Salmon is currently in the process of developing a Transportation Plan Lite, which will identify key transportation projects that will improve the access and walkability through town for residents and visitors.

EXISTING TRAFFIC VOLUMES

Intersection traffic counts were collected in March 2021 that include pedestrian volumes, bicycle volumes, and heavy truck percentages for the AM peak period (7:00-9:00 a.m.) and PM peak period (4:00-6:00 p.m.) at the following study intersections:

1. Main Avenue/Loop Road (Two-Way Stop-Controlled)
2. Main Avenue/Innovative Composite Engineering Driveway (Two-Way Stop-Controlled)
3. Main Avenue/Spring Street (Two-Way Stop-Controlled)

The unadjusted 2-hour traffic counts are provided in the appendix.

Due to COVID-19 restrictions, the collected traffic count data was adjusted to account for the current atypical travel patterns. Although no traffic count data on City or County streets in the study area prior to COVID-19 were available, historic traffic data on WSDOT facilities (i.e., State Route 14) were available and utilized to estimate the adjustment factor needed.

Using the traffic count data from Permanent Traffic Recorder (R076W: SR 14 at MP 100), the difference between 2019 and 2020 traffic volumes was an average decrease of 12% for the months

[4] Six Year Transportation Improvement Program 2020 - 2025

of August to November (most recent months of data available in 2020). Therefore, a factor of 1.12 was applied to the study intersection traffic counts to account for COVID-19 impacts.

For comparison, the traffic volume difference between 2019 and 2021 was a decrease of 6% in late March for all of Washington and SR 14 (near Vancouver).[5] As another comparison, the traffic volume difference between 2019 and 2021 was a decrease of 1% for weekdays on I-84 in Oregon. In general, the difference in pre-COVID-19 volumes and current volumes seem to be decreasing in 2021. It should be noted that both of these percentages represent more urban areas of SR 14 and I-84 and are not as representative of rural areas like White Salmon. But these numbers still help provide context to the impacts of COVID-19 restrictions on 2021 conditions across the region as a whole.

Figure 2 shows the adjusted 2021 AM and PM peak hour traffic volumes for the study intersections, along with the lane configurations and traffic control.

[5] https://www.wsdot.wa.gov/about/covid-19-transportation-report

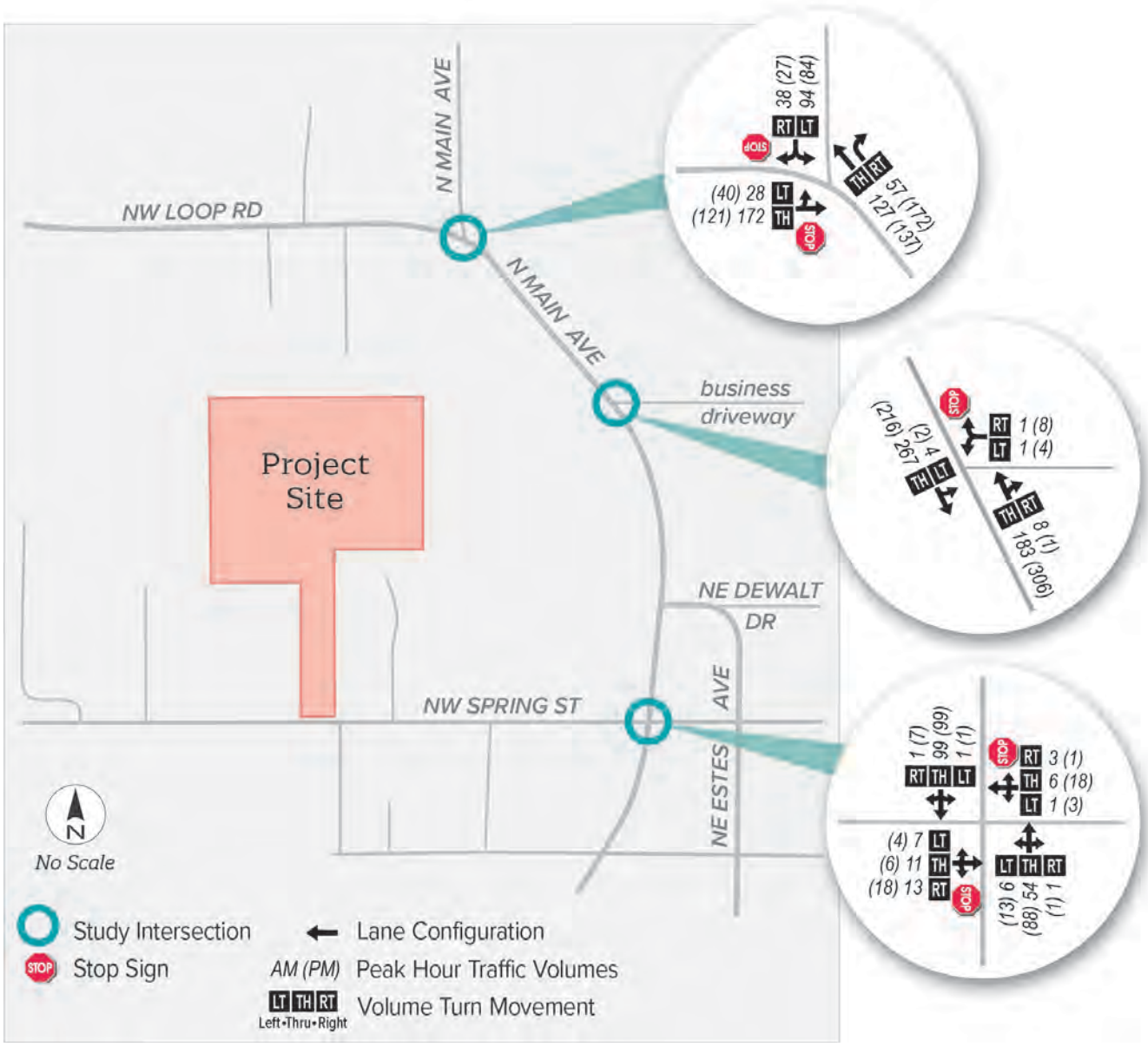

FIGURE 2: 2021 EXISTING TRAFFIC VOLUMES, LANE GEOMETRIES, AND TRAFFIC CONTROL

INTERSECTION PERFORMANCE MEASURES

Agency operating standards often require intersections to meet level of service (LOS) or volume-to-capacity (V/C) intersection operation thresholds. Additional details about LOS and delay are provided in the Appendix.

- The intersection LOS is similar to a "report card" rating based upon average vehicle delay. Level of service A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. Level of service D and E are progressively worse operating conditions. Level of service F represents conditions where average vehicle

delay has become excessive and demand has exceeded capacity. This condition is typically evident in long queues and delays.

- The volume-to-capacity (v/c) ratio represents the level of saturation of the intersection or individual movement. It is determined by dividing the peak hour traffic volume by the maximum hourly capacity of an intersection or turn movement. When the V/C ratio approaches 0.95, operations become unstable and small disruptions can cause the traffic flow to break down, resulting in the formation of excessive queues.

City of White Salmon: The City of White Salmon does not have any specified transportation operating standards. Therefore, any City intersections will be compared to Klickitat County operations standards.

Klickitat County: The Klickitat RTP does not provide any v/c ratio or LOS standards for non-state facilities. Therefore, the LOS standard for state facilities in Klickitat County shall apply to the study intersections for the project, which is LOS C.

EXISTING INTERSECTION OPERATIONS

An analysis of the 2021 existing intersection operations was performed at the three study intersections to determine the current operating conditions of the study area. Intersection operations were analyzed for the AM and PM peak hours using Highway Capacity Manual (HCM) 6th Edition methodology.[6] The volume to capacity (v/c) ratio, delay, and level of service (LOS) of each study intersection are presented in Table 3.

It should be noted that the Main Avenue/Loop Road intersection has three approaches with stop signs on two of the approaches (southbound Main Avenue and eastbound Loop Road). This configuration cannot be analyzed using typical HCM analysis software. Therefore, the intersection was evaluated assuming only the southbound Main Avenue approach is stop-controlled and the westbound Main Avenue and eastbound Loop Road approaches are free. This traffic control configuration is the most conservative estimate of operations using HCM analysis software.

[6] Highway Capacity Manual, 6th Edition, Transportation Research Board, 2017.

TABLE 3: EXISTING 2021 STUDY INTERSECTION OPERATIONS

GINTERSECTION	JURISDICTION	OPERATING STANDARD	AM PEAK HOUR			PM PEAK HOUR		
			V/C	DELAY	LOS	V/C	DELAY	LOS
UNSIGNALIZED								
MAIN AVE/ LOOP RD	Klickitat County	LOS C	0.34	14.6	A/B	0.20	12.0	A/B
MAIN AVE/ ENGINEERING SITE	Klickitat County	LOS C	0.01	11.4	A/B	0.02	10.9	A/B
MAIN AVE/ SPRING ST	City of White Salmon	LOS C	0.07	10.4	A/B	0.04	10.6	A/B

Two-Way Stop (TWSC) Intersections:
Delay = Average Stopped Delay per Vehicle (sec) of Worst Movement
LOS = Level of Service (Major Street/Minor Street)
v/c = Volume-to-Capacity Ratio of Worst Movement

As shown, all study intersections meet the operating standard for the existing conditions. The HCM reports are provided in the Appendix.

CRASH ANALYSIS

The most recent five years (2018 - 2022) of available crash data for the study area was obtained from the WSDOT crash database[7]. A total of 4 collisions occurred along the study area roadways in the vicinity of the project site. There were no fatalities or serious injury crashes in the study area. A list of the four collisions is provided below:

- **2018:** One crash at Loop Street/Main Street intersection, no apparent injury
- **2020:** Three crashes at Main Street/Spring Street intersection, two with no apparent injury and one with possible injury

Based on the crash history, there are no safety concerns in the vicinity of this project.

[7] https://remoteapps.wsdot.wa.gov/highwaysafety/collision/data/portal/public/

PROJECT IMPACTS

This chapter reviews the impacts that the proposed development may have on the study area transportation system. This analysis includes site plan evaluation, trip generation, trip distribution, and future year traffic volumes and operating conditions for the four study intersections.

PROPOSED DEVELOPMENT

The proposed Cherry Hill subdivision will include up to 36 single family homes on a vacant 7.93-acre parcel north of Spring Street and west of Main Avenue. The development will access onto Spring Street, and onto Main Ave through the adjacent Four Oaks development. It is assumed that the development will be completed and occupied by 2027.

FUTURE ANALYSIS SCENARIOS

Operating conditions were analyzed at the study intersections for the following future traffic scenarios. The future year 2027 was selected as it is the estimated year of project completion. The comparison of the following scenarios enables the assessment of project impacts:

- 2027 No Build Conditions
- 2027 Build Conditions

The future 2027 No Build and Build Conditions include the vehicle trips generated by the adjacent Four Oaks Subdivision, which will include 31 single-family homes on the property just east of the Cherry Hill Subdivision.

TRIP GENERATION

Trip generation is the method used to estimate the number of vehicles added to site driveways and the adjacent roadway network by a development during a specified period (e.g., the PM peak hour). For this study, the number of trips generated by the proposed development was based on the fitted curve equation for Land Use 210 from the ITE Trip Generation Manual, 11th Edition. The total trip generation for the proposed development is shown in Table 4. The project trips at the study intersections are shown in Figure 3 in the following section.

TABLE 4: VEHICLE TRIP GENERATION

TRIP GENERATOR CATEGORIES	DAILY TRIPS			AM PEAK HOUR TRIPS			PM PEAK HOUR TRIPS		
	IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
LAND USE 210: SINGLE-FAMILY HOUSING	197	197	394	7	22	29	24	14	38

As shown, the proposed development (at the highest anticipated density of 36 units) is expected to generate a total of 394 daily trips, 29 AM peak hour trips, and 38 PM peak hour trips on a typical weekday day.

VEHICLE TRIP DISTRIBUTION

Vehicle trip distribution provides an estimation of where vehicles would be coming from and going to. It is given as a percentage at key gateways to the study area and is used to route project trips through the study intersections. Figure 3 shows the trip distribution for the proposed site. The trip distribution was based on the existing traffic counts at Spring Street and Main Avenue. Based on the counts, it is assumed that approximately 5% of site-generated trips will travel west on Spring Street, 15% will travel north of the project site, 45% will travel south to Downtown and SR 14, and 35% will travel east on Spring Street.

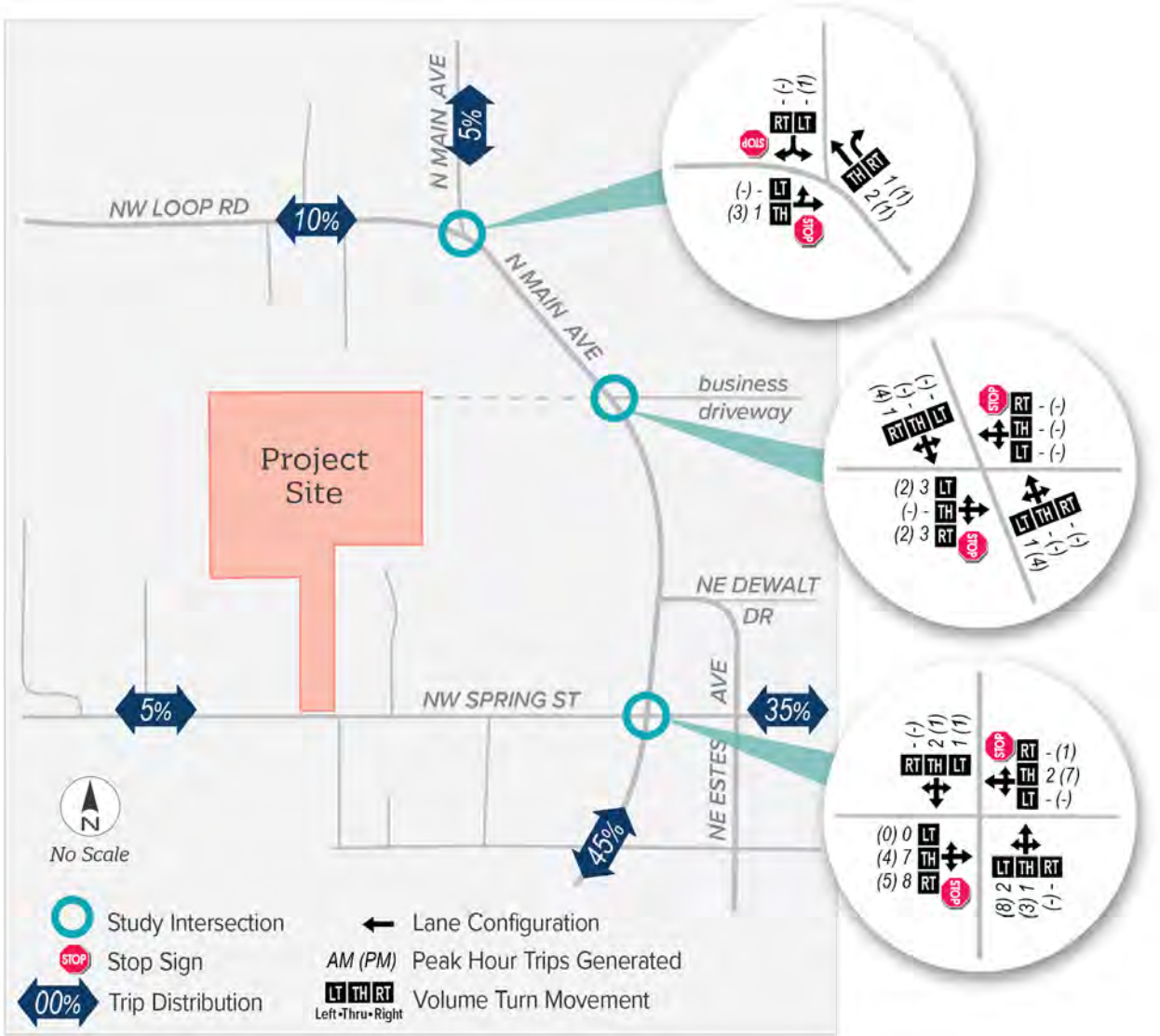

FIGURE 3: TRIP DISTRIBUTION AND PROJECT TRIPS

FUTURE TRAFFIC VOLUMES

A traffic study for the adjacent Four Oaks subdivision development, conducted in April 2024, determined a growth rate of 2%. In keeping consistent with this finding for the adjacent area, this study also assumed a projected growth rate of 2%. This growth rate was applied to all of the 2021 traffic counts to estimate the 2027 No Build volumes. The vehicle trips generated by the Four Oak subdivision was included in the 2027 No Build volumes. The 2027 Build volumes are the sum of the 2027 No Build volumes and the Cherry Hill subdivision estimated trip generation (Table 4). Figure 4 and Figure 5 show the peak hour traffic volumes for the No Build and Build scenarios, respectively.

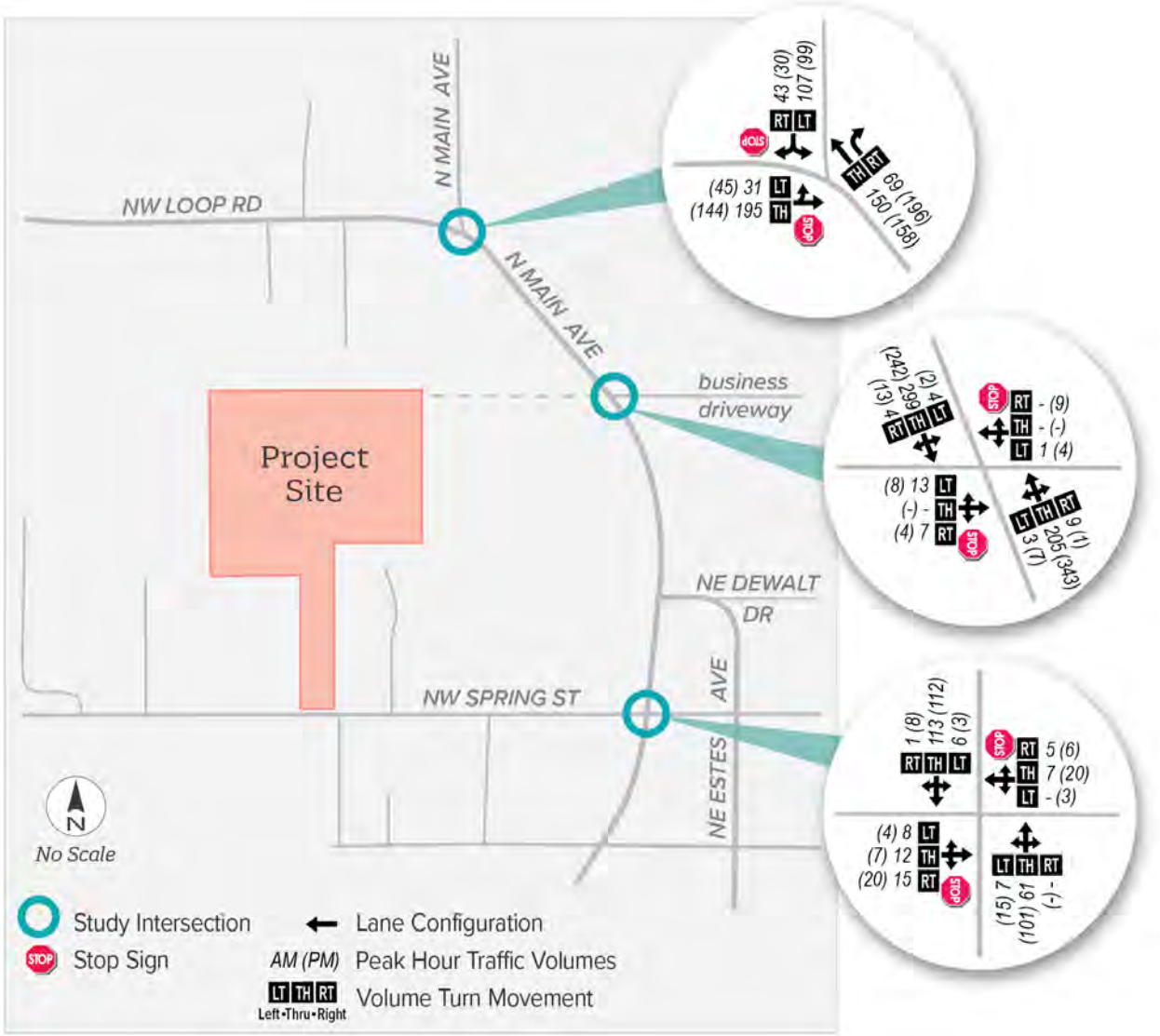

FIGURE 4: FUTURE 2027 NO BUILD AM & PM PEAK HOUR TRAFFIC VOLUMES

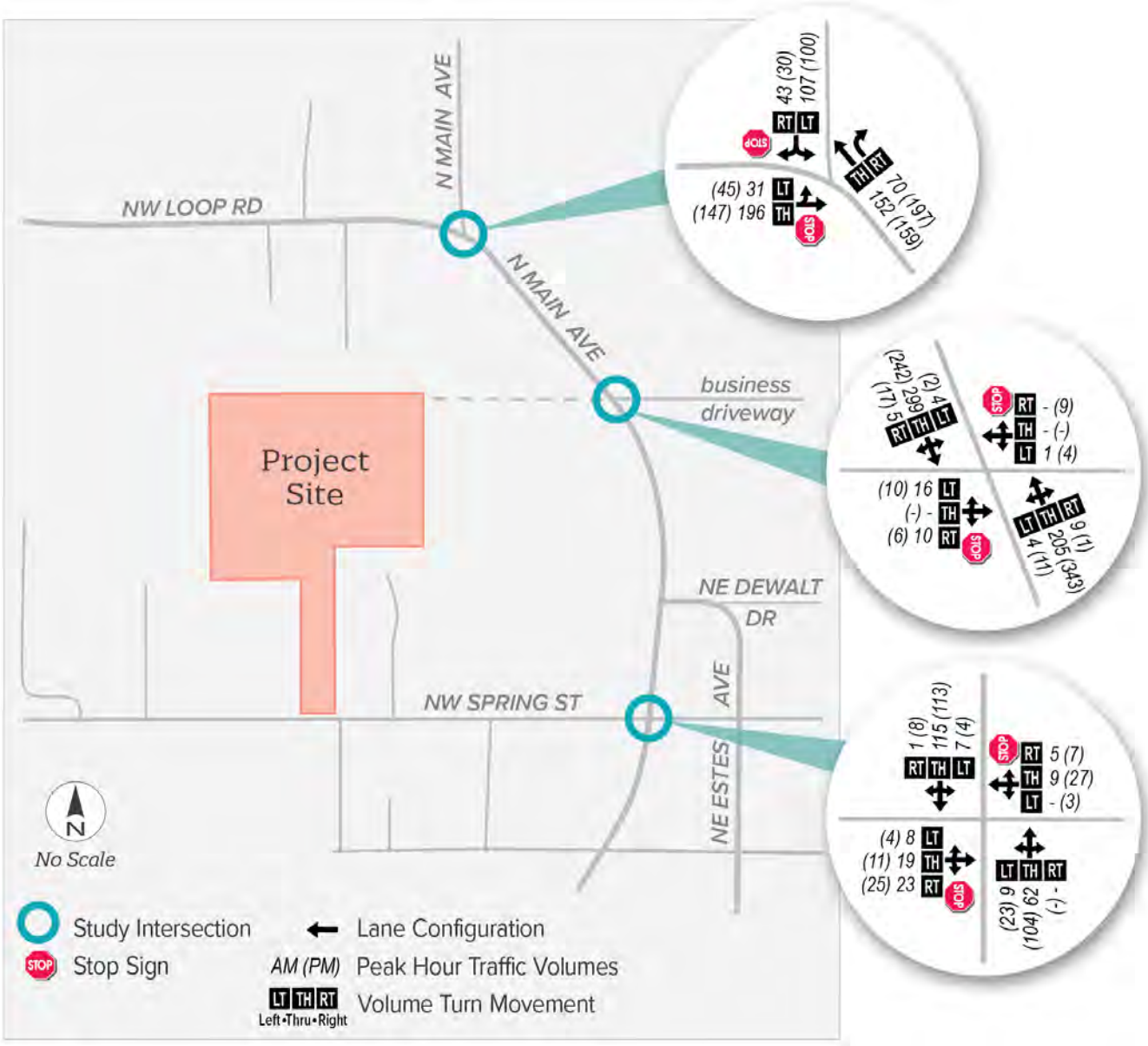

FIGURE 5: FUTURE 2027 BUILD AM & PM PEAK HOUR TRAFFIC VOLUMES

FUTURE INTERSECTION OPERATIONS

All future analysis scenarios assume the same traffic control as 2021 existing conditions. Future operating conditions were analyzed based on the traffic volumes shown in Figure 4 and Figure 5. The intersection operations for the future scenarios are shown in

Table 5. The HCM reports can be found in the Appendix. As shown, the study intersections are expected to meet the operating standard under the future analysis scenarios.

It should be noted that the Main Avenue/Loop Road intersection has three approaches with stop signs on two of the approaches (southbound Main Avenue and eastbound Loop Road). This configuration cannot be analyzed using typical HCM analysis software. Therefore, the intersection

was evaluated assuming only the southbound Main Avenue approach is stop-controlled and the westbound Main Avenue and eastbound Loop Road approaches are free. This traffic control configuration is the most conservative estimate of operations using HCM analysis software.

TABLE 5: FUTURE 2027 NO BUILD AND BUILD STUDY INTERSECTION OPERATIONS

INTERSECTION	JURISDICTION	OPERATING STANDARD	AM PEAK HOUR			PM PEAK HOUR		
			V/C	DELAY	LOS	V/C	DELAY	LOS
FUTURE 2027 NO BUILD								
MAIN AVE/ LOOP RD	Klickitat County	LOS C	0.42	17.2	C	0.26	13.2	B
MAIN AVE/ ENGINEERING SITE	Klickitat County	LOS C	0.01	15.8	C	0.29	13.2	B
MAIN AVE/ SPRING ST	City of White Salmon	LOS C	0.08	10.8	B	0.05	10.7	B
FUTURE 2027 BUILD								
MAIN AVE/ LOOP RD	Klickitat County	LOS C	0.43	17.3	C	0.26	13.3	B
MAIN AVE/ ENGINEERING SITE	Klickitat County	LOS C	0.01	16	C	0.03	11.8	B
MAIN AVE/ SPRING ST	City of White Salmon	LOS C	0.12	11.1	B	0.06	11	B
SPRING ST/ SITE DRIVEWAY	City of White Salmon	LOS C	0.04	9.0	A	0.02	9.0	A

Two-Way Stop (TWSC) Intersections:
Delay = Average Stopped Delay per Vehicle (sec) of Worst Movement
LOS = Level of Service (Major Street/Minor Street)
v/c = Volume-to-Capacity Ratio of Worst Movement

SITE REVIEW

The following sections discuss the access spacing, sight distance, frontage improvements, on-site pedestrian and bicycle facilities, and the parking for the proposed development.

Access to N Main Avenue will be provided through the adjacent Four Oaks property, which will be responsible for constructing a new east-west street that will connect the Cherry Hill Subdivision to N Main Avenue. The site plan is provided in the Appendix.

SITE ACCESS REQUIREMENTS

Based on the site plan, there is a direct access to the site on Spring Street. According to the City's Development Code[8], the site access location and design shall comply with the requirements of the city official. The code also states that the driveway grades shall be compatible with the adjoining roadway profile and shall be designed to prevent access conflicts, spacing problems, or any similar safety problems relative to the right-of-way. Based on a field visit, there are no concerns for access conflicts with nearby accesses or any other safety problems.

SIGHT DISTANCE

With a posted speed of 20 miles per hour, the design speed of the roadway is assumed to be 25 mph. Based on this and the AASHTO standards,[9] the sight distance required for vehicles to safely turn left out of the proposed driveway along Spring Street is 280 feet. A preliminary sight distance evaluation was completed at the proposed driveway location on Spring Street. The sight distance was found to be sufficient to meet the stated requirement, exceeding 550 feet in both directions, despite some steep grades to the west and east of the proposed driveway. Prior to occupancy, sight distance at any new or modified access points will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Washington.

FRONTAGE IMPROVEMENTS

The project parcel is adjacent to Spring Street, which is under the jurisdiction of White Salmon and is classified as a Major Collector. Based on City Development Code[10], the developer is responsible for providing appropriate accommodation for bicyclists, pedestrians, transit users and persons of all abilities in a comprehensive and connected network.

The developer should coordinate with the City Public Works department to determine the appropriate right-of-way dedication or frontage improvements necessary along the project frontage on Spring Street. Because the project frontage along Spring Street is very limited (approximately 100 feet in total, including a driveway and apron) and no bicycle or pedestrian facilities are currently present on Spring Street, it may be impractical to construct frontage improvements. However, the developer should ensure that the design of the access onto Spring Street will accommodate any future bicycle and pedestrian facilities.

[8] White Salmon Code of Ordinances, 13.01.070, Updated September 11, 2023.

[9] American Association of State Highway and Transportation Officials (AASHTO), 2018, Table 9-7.

[10] White Salmon Code of Ordinances, 12.26.030, Updated September 11, 2023.

SUMMARY OF PROJECT IMPACTS

The key findings of the transportation impact study for proposed Cherry Hill subdivision in White Salmon, WA are discussed below.

- The proposed Cherry Hill subdivision will include up to 36 single family homes on a vacant 7.93-acre parcel north of Spring Street and west of Main Avenue. The development will have access to Spring Street and N Main Avenue.
- The proposed development is expected to generate a total of 394 daily trips, 29 AM peak hour trips, and 38 PM peak hour trips on a typical weekday day.
- The traffic operations at the three study intersections and project driveway are expected to operate within operating standards under all analysis scenarios.
- There are no concerns for access conflicts with nearby accesses nor any other safety concerns at the proposed driveway on Spring Street.
- A preliminary sight distance evaluation was completed at the proposed driveway location on Spring Street and was found to be sufficient to meet AASHTO requirements. Prior to occupancy, sight distance at any new or modified project access points will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Washington.
- The developer should coordinate with the City Public Works department to determine the appropriate right-of-way dedication or frontage improvements necessary along the (approximately) 100 feet of project frontage on Spring Street.

APPENDIX

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DKS

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APPENDIX A.

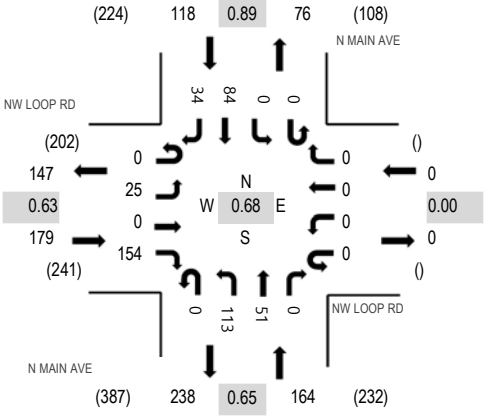
TRAFFIC COUNT DATA

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

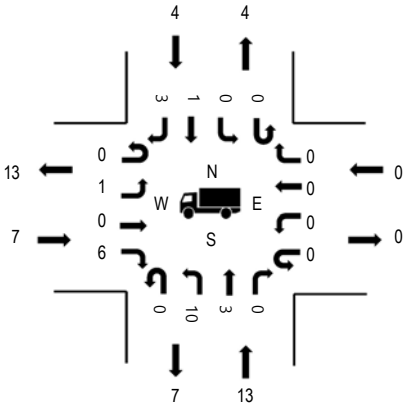
Location: 1 N MAIN AVE & NW LOOP RD AM
Date: Tuesday, March 23, 2021
Peak Hour: 07:35 AM - 08:35 AM
Peak 15-Minutes: 07:55 AM - 08:10 AM

Peak Hour

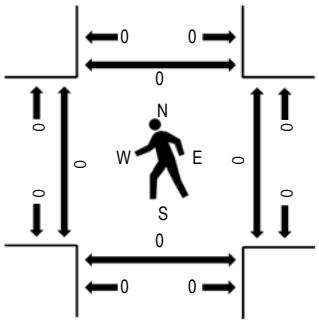
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	3.9%	0.63
WB	0.0%	0.00
NB	7.9%	0.65
SB	3.4%	0.89
All	5.2%	0.68

Traffic Counts - Motorized Vehicles

Interval Start Time	NW LOOP RD Eastbound				NW LOOP RD Westbound				N MAIN AVE Northbound				N MAIN 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	0	4	0	0	0	0	0	5	1	0	0	0	7	1	19	323
7:05 AM	0	1	0	1	0	0	0	0	0	2	0	0	0	0	7	0	11	363
7:10 AM	0	0	0	4	0	0	0	0	0	5	3	0	0	0	4	0	16	406
7:15 AM	0	1	0	1	0	0	0	0	0	1	2	0	0	0	6	4	15	428
7:20 AM	0	0	0	7	0	0	0	0	0	4	1	0	0	0	9	0	21	454
7:25 AM	0	0	0	7	0	0	0	0	0	3	2	0	0	0	11	2	25	455
7:30 AM	0	1	0	6	0	0	0	0	0	5	3	0	0	0	9	1	25	458
7:35 AM	0	0	0	7	0	0	0	0	0	1	4	0	0	0	12	1	25	461
7:40 AM	0	2	0	7	0	0	0	0	0	10	5	0	0	0	7	2	33	455
7:45 AM	0	0	0	13	0	0	0	0	0	11	4	0	0	0	5	5	38	448
7:50 AM	0	1	0	14	0	0	0	0	0	13	2	0	0	0	5	4	39	433
7:55 AM	0	4	0	18	0	0	0	0	0	19	8	0	0	0	5	2	56	411
8:00 AM	0	3	0	23	0	0	0	0	0	17	3	0	0	0	8	5	59	374
8:05 AM	0	6	0	17	0	0	0	0	0	11	6	0	0	0	9	5	54	
8:10 AM	0	1	0	15	0	0	0	0	0	6	10	0	0	0	2	4	38	
8:15 AM	0	3	0	18	0	0	0	0	0	3	3	0	0	0	11	3	41	
8:20 AM	0	1	0	5	0	0	0	0	0	5	1	0	0	0	7	3	22	
8:25 AM	0	2	0	7	0	0	0	0	0	7	3	0	0	0	9	0	28	
8:30 AM	0	2	0	10	0	0	0	0	0	10	2	0	0	0	4	0	28	
8:35 AM	0	0	0	3	0	0	0	0	0	5	2	0	0	0	9	0	19	
8:40 AM	0	1	0	6	0	0	0	0	0	3	2	0	0	0	12	2	26	
8:45 AM	0	1	0	6	0	0	0	0	0	2	1	0	0	0	11	2	23	
8:50 AM	0	0	0	5	0	0	0	0	0	3	4	0	0	0	5	0	17	
8:55 AM	0	0	0	6	0	0	0	0	0	4	5	0	0	0	3	1	19	
Count Total	0	31	0	210	0	0	0	0	0	155	77	0	0	0	177	47	697	
Peak Hour	0	25	0	154	0	0	0	0	0	113	51	0	0	0	84	34	461	

Location: 1 N MAIN AVE & NW LOOP RD 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	1	0	0	0	1	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	1	0	0	0	1	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	2	0	0	0	2	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	1	0	0	1	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	1	0	0	1	7:30 AM	0	1	0	0	1	7:30 AM	0	0	0	0	0
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	1	1	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	3	0	0	1	4	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	1	3	0	0	4	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	2	3	0	0	5	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	2	0	0	2	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	1	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	0	0
8:25 AM	0	1	0	0	1	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	1	3	0	1	5	8:30 AM	0	1	0	0	1	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	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	1	0	0	1	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	1	0	0	1	8:50 AM	0	0	0	1	1	8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	1	1	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	11	18	0	6	35	Count Total	0	2	0	1	3	Count Total	0	0	0	0	0
Peak Hour	7	13	0	4	24	Peak Hour	0	1	0	0	1	Peak Hour	0	0	0	0	0

Location: 2 N MAIN AVE & DRIVEWAY ACCESS AM

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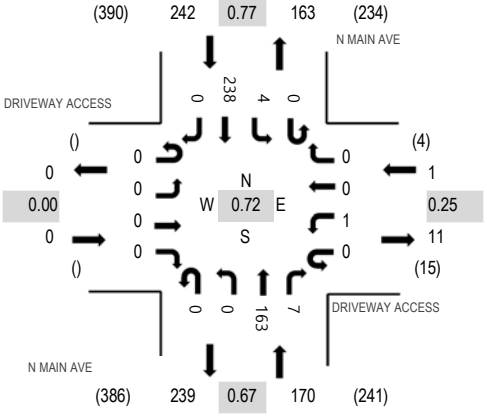
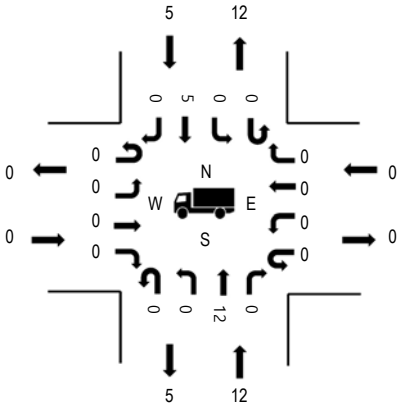
Location: 2 N MAIN AVE & DRIVEWAY ACCESS AM
Date: Tuesday, March 23, 2021
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:55 AM - 08:10 AM

Peak Hour

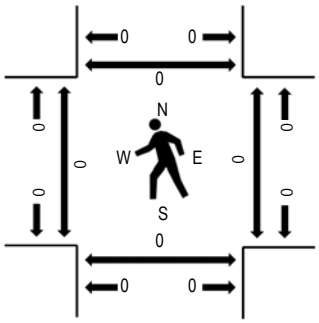
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	0.0%	0.25
NB	7.1%	0.67
SB	2.1%	0.77
All	4.1%	0.72

Traffic Counts - Motorized Vehicles

Interval Start Time	DRIVEWAY ACCESS Eastbound				DRIVEWAY ACCESS Westbound				N MAIN AVE Northbound				N MAIN 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	0	0	0	0	0	0	0	0	0	5	0	0	0	11	0	16	296
7:05 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	8	0	9	328
7:10 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8	0	16	365
7:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	6	0	10	385
7:20 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	16	0	22	409
7:25 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	1	15	0	22	409
7:30 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	17	0	24	413
7:35 AM	0	0	0	0	0	0	0	0	0	0	5	1	0	2	17	0	25	412
7:40 AM	0	0	0	0	0	1	0	0	0	0	15	0	0	0	14	0	30	403
7:45 AM	0	0	0	0	0	0	0	0	0	0	21	2	0	0	15	0	38	397
7:50 AM	0	0	0	0	0	0	0	0	0	0	14	0	0	0	20	0	34	381
7:55 AM	0	0	0	0	0	0	0	0	0	0	25	1	0	1	23	0	50	372
8:00 AM	0	0	0	0	0	0	0	0	0	0	20	0	0	0	28	0	48	339
8:05 AM	0	0	0	0	0	0	0	0	0	0	17	2	0	0	27	0	46	
8:10 AM	0	0	0	0	0	0	0	0	0	0	15	0	0	0	21	0	36	
8:15 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	27	0	34	
8:20 AM	0	0	0	0	0	0	0	0	0	0	5	1	0	0	16	0	22	
8:25 AM	0	0	0	0	0	0	0	0	0	0	12	0	0	1	13	0	26	
8:30 AM	0	0	0	0	0	0	0	0	0	0	10	1	0	0	12	0	23	
8:35 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	10	0	16	
8:40 AM	0	0	0	0	0	1	0	0	0	0	5	0	0	0	18	0	24	
8:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	18	0	22	
8:50 AM	0	0	0	0	0	1	0	1	0	0	8	0	0	1	14	0	25	
8:55 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	9	0	17	
Count Total	0	0	0	0	0	3	0	1	0	0	233	8	0	7	383	0	635	
Peak Hour	0	0	0	0	0	1	0	0	0	0	163	7	0	4	238	0	413	

Location: 2 N MAIN AVE & DRIVEWAY ACCESS 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	1	0	0	1	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	1	0	2	3	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	1	0	0	1	7:25 AM	0	0	0	0	0
7:30 AM	0	1	0	0	1	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
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	1	1	7:40 AM	0	0	0	0	0
7:45 AM	0	0	0	3	3	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	3	0	1	4	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	3	0	1	4	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	0	2	0	0	2	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	0	0	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	0	0
8:25 AM	0	2	0	0	2	8:25 AM	0	1	0	0	1	8:25 AM	0	0	0	0	0
8:30 AM	0	3	0	2	5	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	0	0	0	0
8:40 AM	0	0	1	0	1	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	1	0	1	2	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	1	0	0	1	8:50 AM	0	0	0	0	0	8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	1	1	8:55 AM	0	0	0	0	0	8:55 AM	0	0	0	0	0
Count Total	0	19	1	11	31	Count Total	0	2	0	1	3	Count Total	0	0	0	0	0
Peak Hour	0	12	0	5	17	Peak Hour	0	1	0	1	2	Peak Hour	0	0	0	0	0

Location: 3 N MAIN AVE & NE SPRING ST AM

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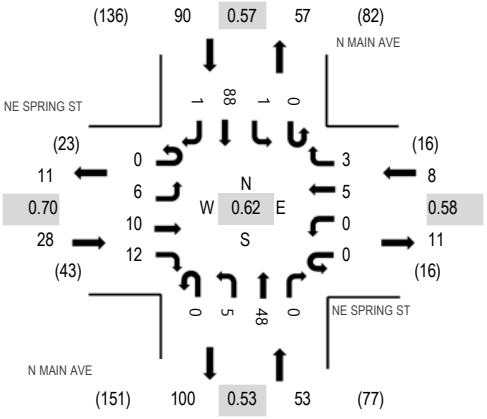
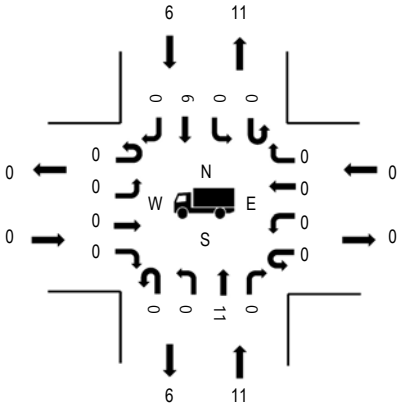
Location: 3 N MAIN AVE & NE SPRING ST AM
Date: Tuesday, March 23, 2021
Peak Hour: 07:35 AM - 08:35 AM
Peak 15-Minutes: 07:55 AM - 08:10 AM

Peak Hour

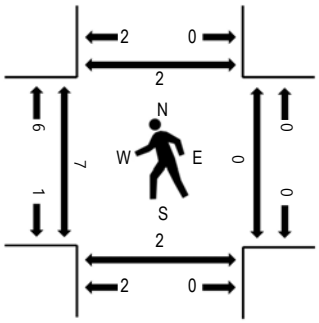
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.70
WB	0.0%	0.58
NB	20.8%	0.53
SB	6.7%	0.57
All	9.5%	0.62

Traffic Counts - Motorized Vehicles

Interval Start Time	NE SPRING ST Eastbound				NE SPRING ST Westbound				N MAIN AVE Northbound				N MAIN 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	0	1	0	0	0	0	0	0	1	4	0	0	0	4	0	10	109
7:05 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	3	122
7:10 AM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	3	0	5	146
7:15 AM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	1	0	4	155
7:20 AM	0	0	1	0	0	0	0	0	0	0	2	0	0	1	7	0	11	166
7:25 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3	162
7:30 AM	0	1	0	1	0	0	0	0	0	0	1	0	0	0	4	0	7	175
7:35 AM	0	0	0	1	0	0	0	1	0	0	2	0	0	0	6	0	10	179
7:40 AM	0	1	1	2	0	0	0	0	0	0	1	0	0	0	3	0	8	175
7:45 AM	0	1	0	0	0	0	0	0	0	0	4	0	0	0	6	0	11	176
7:50 AM	0	0	1	1	0	0	0	0	0	0	8	0	0	0	5	0	15	172
7:55 AM	0	0	0	1	0	0	0	0	0	1	6	0	0	0	14	0	22	177
8:00 AM	0	1	2	1	0	0	0	0	0	0	10	0	0	0	9	0	23	163
8:05 AM	0	0	0	3	0	0	1	0	0	0	6	0	0	0	17	0	27	
8:10 AM	0	0	2	1	0	0	0	0	0	1	2	0	0	0	8	0	14	
8:15 AM	0	0	1	0	0	0	2	0	0	2	2	0	0	0	8	0	15	
8:20 AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	5	0	7	
8:25 AM	0	2	2	1	0	0	1	1	0	1	2	0	0	0	5	1	16	
8:30 AM	0	1	1	1	0	0	0	1	0	0	4	0	0	1	2	0	11	
8:35 AM	0	0	0	1	0	0	1	0	0	0	1	0	0	0	3	0	6	
8:40 AM	0	0	0	0	0	0	1	0	0	0	2	0	0	0	6	0	9	
8:45 AM	0	1	0	0	0	0	1	0	0	0	0	1	0	0	3	1	7	
8:50 AM	0	0	0	3	0	0	4	0	0	0	7	0	0	0	5	1	20	
8:55 AM	0	1	1	1	0	0	0	0	0	0	1	0	0	0	4	0	8	
Count Total	0	10	13	20	0	0	13	3	0	7	69	1	0	2	131	3	272	
Peak Hour	0	6	10	12	0	0	5	3	0	5	48	0	0	1	88	1	179	

Location: 3 N MAIN AVE & NE SPRING ST 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	1	0	0	1	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	1	0	0	1
7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0	7:10 AM	1	0	0	0	1
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	2	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	1	0	1	7:25 AM	0	0	1	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	1	0	0	1	7:35 AM	0	0	0	0	0	7:35 AM	2	0	0	0	2
7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0	7:40 AM	0	2	0	2	4
7:45 AM	0	0	0	3	3	7:45 AM	0	0	0	0	0	7:45 AM	1	0	0	0	1
7:50 AM	0	3	0	0	3	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	0	3	0	2	5	7:55 AM	0	0	0	0	0	7:55 AM	1	0	0	0	1
8:00 AM	0	2	0	0	2	8:00 AM	0	0	0	0	0	8:00 AM	2	0	0	0	2
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	0	0	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	1	0	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	1	0	1	2	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	0	0	0	0
8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	0	1	0	0	1	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	13	0	8	21	Count Total	0	0	1	0	1	Count Total	8	3	1	2	14
Peak Hour	0	11	0	6	17	Peak Hour	0	0	0	0	0	Peak Hour	7	2	0	2	11

ALL TRAFFIC DATA SERVICES
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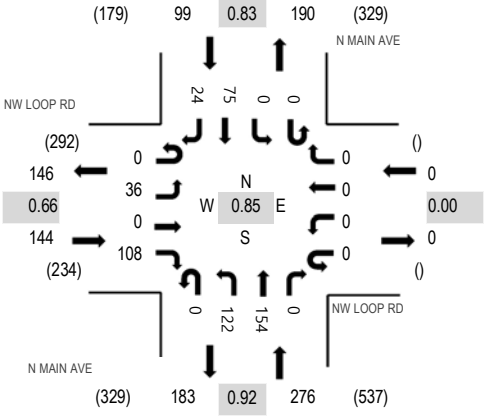
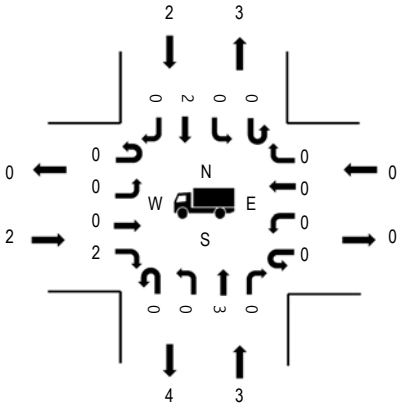
Location: 1 N MAIN AVE & NW LOOP RD PM
Date: Tuesday, March 23, 2021
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:20 PM - 05:35 PM

Peak Hour

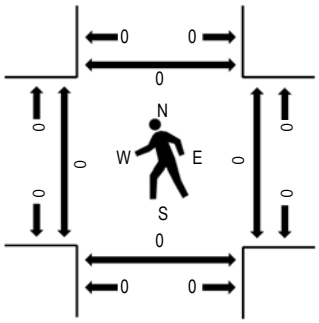
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.4%	0.66
WB	0.0%	0.00
NB	1.1%	0.92
SB	2.0%	0.83
All	1.3%	0.85

Traffic Counts - Motorized Vehicles

Interval Start Time	NW LOOP RD Eastbound				NW LOOP RD Westbound				N MAIN AVE Northbound				N MAIN 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	2	0	7	0	0	0	0	0	13	8	0	0	0	4	0	34	442
4:05 PM	0	1	0	4	0	0	0	0	0	11	9	0	0	0	3	2	30	453
4:10 PM	0	0	0	2	0	0	0	0	0	18	16	0	0	0	6	0	42	471
4:15 PM	0	0	0	10	0	0	0	0	0	11	9	0	0	0	7	3	40	466
4:20 PM	0	1	0	9	0	0	0	0	0	11	12	0	0	0	3	1	37	468
4:25 PM	1	1	0	4	0	0	0	0	0	12	14	0	0	0	3	1	36	493
4:30 PM	0	2	0	5	0	0	0	0	0	9	11	0	0	0	7	0	34	494
4:35 PM	0	1	0	5	0	0	0	0	0	12	12	0	0	0	7	0	37	513
4:40 PM	0	0	0	8	0	0	0	0	0	8	13	0	0	0	6	2	37	516
4:45 PM	0	2	0	6	0	0	0	0	0	7	14	0	0	0	8	0	37	519
4:50 PM	0	0	0	6	0	0	0	0	0	7	14	0	0	0	11	1	39	519
4:55 PM	0	3	0	5	0	0	0	0	0	12	15	0	0	0	3	1	39	514
5:00 PM	0	2	0	8	0	0	0	0	0	9	16	0	0	0	8	2	45	508
5:05 PM	0	4	0	14	0	0	0	0	0	14	12	0	0	0	2	2	48	
5:10 PM	0	2	0	7	0	0	0	0	0	11	10	0	0	0	5	2	37	
5:15 PM	0	4	0	10	0	0	0	0	0	10	10	0	0	0	6	2	42	
5:20 PM	0	4	0	20	0	0	0	0	0	16	8	0	0	0	9	5	62	
5:25 PM	0	5	0	6	0	0	0	0	0	8	10	0	0	0	3	5	37	
5:30 PM	0	5	0	17	0	0	0	0	0	8	15	0	0	0	6	2	53	
5:35 PM	0	3	0	7	0	0	0	0	0	12	12	0	0	0	6	0	40	
5:40 PM	0	2	0	2	0	0	0	0	0	8	18	0	0	0	8	2	40	
5:45 PM	0	2	0	11	0	0	0	0	0	10	7	0	0	0	6	1	37	
5:50 PM	0	2	0	6	0	0	0	0	0	8	11	0	0	0	6	1	34	
5:55 PM	0	0	0	6	0	0	0	0	0	11	5	0	0	0	11	0	33	
Count Total	1	48	0	185	0	0	0	0	0	256	281	0	0	0	144	35	950	
Peak Hour	0	36	0	108	0	0	0	0	0	122	154	0	0	0	75	24	519	

Location: 1 N MAIN AVE & NW LOOP RD 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	1	0	0	0	1	4:00 PM	0	0	0	0	0	4:00 PM	1	0	0	0	1
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	1	0	0	1	4:10 PM	0	1	0	0	1	4:10 PM	0	0	0	0	0
4:15 PM	0	3	0	0	3	4:15 PM	0	0	0	1	1	4:15 PM	0	0	0	0	0
4:20 PM	0	2	0	0	2	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0	4:25 PM	1	0	0	0	1
4:30 PM	0	0	0	1	1	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	0	0	0	0	0	4:40 PM	0	0	0	0	0	4:40 PM	2	0	0	0	2
4:45 PM	0	0	0	0	0	4:45 PM	0	1	0	0	1	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	0	1	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	1	1	5:00 PM	0	0	0	0	0	5:00 PM	1	0	0	0	1
5:05 PM	0	2	0	0	2	5:05 PM	0	1	0	0	1	5:05 PM	0	0	0	0	0
5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	1	1	5:15 PM	0	2	0	0	2	5:15 PM	0	0	0	0	0
5:20 PM	1	0	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	1	0	0	0	1	5:25 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0	5:30 PM	2	0	0	0	2	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	1	0	0	1	5:45 PM	1	0	0	0	1
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	1	1	5:50 PM	1	0	0	0	1
5:55 PM	0	0	0	0	0	5:55 PM	1	0	0	1	2	5:55 PM	0	0	0	0	0
Count Total	3	9	0	3	15	Count Total	4	6	0	3	13	Count Total	7	0	0	0	7
Peak Hour	2	3	0	2	7	Peak Hour	3	4	0	0	7	Peak Hour	1	0	0	0	1

Location: 2 N MAIN AVE & DRIVEWAY ACCESS PM

(303) 216-2439
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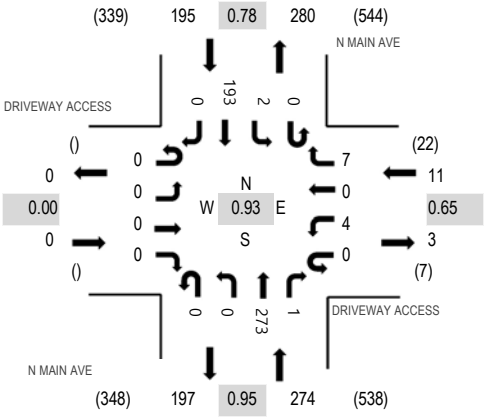
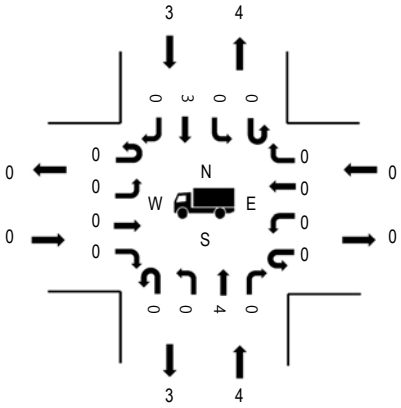
Location: 2 N MAIN AVE & DRIVEWAY ACCESS PM
Date: Tuesday, March 23, 2021
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:20 PM - 05:35 PM

Peak Hour

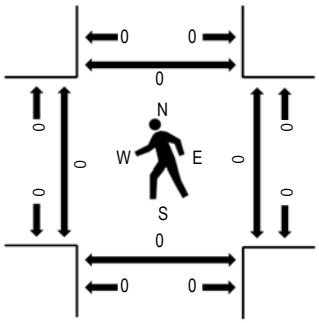
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.00
WB	0.0%	0.65
NB	1.5%	0.95
SB	1.5%	0.78
All	1.5%	0.93

Traffic Counts - Motorized Vehicles

Interval Start Time	DRIVEWAY ACCESS Eastbound				DRIVEWAY ACCESS Westbound				N MAIN AVE Northbound				N MAIN 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	0	0	0	0	1	0	0	0	0	23	0	0	0	9	0	33	438
4:05 PM	0	0	0	0	0	1	0	1	0	0	19	0	0	0	8	0	29	448
4:10 PM	0	0	0	0	0	0	0	0	0	0	33	2	0	0	8	0	43	464
4:15 PM	0	0	0	0	0	0	0	0	0	0	22	0	0	0	17	0	39	452
4:20 PM	0	0	0	0	0	0	0	0	0	0	20	0	0	0	14	0	34	447
4:25 PM	0	0	0	0	0	0	0	0	0	0	28	0	0	0	7	0	35	469
4:30 PM	0	0	0	0	0	2	0	0	0	0	19	0	0	0	12	0	33	460
4:35 PM	0	0	0	0	0	1	0	1	0	0	23	1	0	0	10	0	36	474
4:40 PM	0	0	0	0	0	1	0	0	0	0	22	1	0	0	14	0	38	479
4:45 PM	0	0	0	0	0	1	0	0	0	0	21	1	0	2	14	0	39	480
4:50 PM	0	0	0	0	0	0	0	0	0	0	24	0	0	0	20	0	44	476
4:55 PM	0	0	0	0	0	0	0	0	0	0	28	0	0	0	7	0	35	461
5:00 PM	0	0	0	0	0	2	0	0	0	0	24	0	0	0	17	0	43	461
5:05 PM	0	0	0	0	0	0	0	1	0	0	26	0	0	0	18	0	45	
5:10 PM	0	0	0	0	0	0	0	1	0	0	18	0	0	0	12	0	31	
5:15 PM	0	0	0	0	0	0	0	1	0	0	19	0	0	0	14	0	34	
5:20 PM	0	0	0	0	0	0	0	2	0	0	23	0	0	0	31	0	56	
5:25 PM	0	0	0	0	0	0	0	0	0	0	17	0	0	0	9	0	26	
5:30 PM	0	0	0	0	0	0	0	1	0	0	23	0	0	0	23	0	47	
5:35 PM	0	0	0	0	0	0	0	0	0	0	25	0	0	0	16	0	41	
5:40 PM	0	0	0	0	0	1	0	1	0	0	25	0	0	0	12	0	39	
5:45 PM	0	0	0	0	0	1	0	1	0	0	16	0	0	0	17	0	35	
5:50 PM	0	0	0	0	0	0	0	1	0	0	17	0	0	0	11	0	29	
5:55 PM	0	0	0	0	0	0	0	0	0	0	18	0	0	0	17	0	35	
Count Total	0	0	0	0	0	11	0	11	0	0	533	5	0	2	337	0	899	
Peak Hour	0	0	0	0	0	4	0	7	0	0	273	1	0	2	193	0	480	

Location: 2 N MAIN AVE & DRIVEWAY ACCESS 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	1	1	4:05 PM	0	1	0	0	1	4:05 PM	0	0	0	0	0
4:10 PM	0	1	0	0	1	4:10 PM	0	1	0	0	1	4:10 PM	0	0	0	0	0
4:15 PM	0	3	0	0	3	4:15 PM	0	0	0	1	1	4:15 PM	0	0	0	0	0
4:20 PM	0	2	0	0	2	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
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	1	1	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	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	0	0	4:45 PM	0	1	0	0	1	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	0	1	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	0	1	1	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	0	2	0	0	2	5:05 PM	0	1	0	0	1	5:05 PM	0	0	0	0	0
5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	0	0	0	1	1	5:15 PM	0	2	0	0	2	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	0	0	1	1	5:25 PM	0	0	0	1	1	5:25 PM	0	0	0	0	0
5:30 PM	0	1	0	0	1	5:30 PM	0	0	0	2	2	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	1	0	1	5:45 PM	0	0	0	0	0
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	1	1	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	0	10	0	5	15	Count Total	0	6	1	5	12	Count Total	0	0	0	0	0
Peak Hour	0	4	0	3	7	Peak Hour	0	4	0	3	7	Peak Hour	0	0	0	0	0

Location: 3 N MAIN AVE & NE SPRING ST PM

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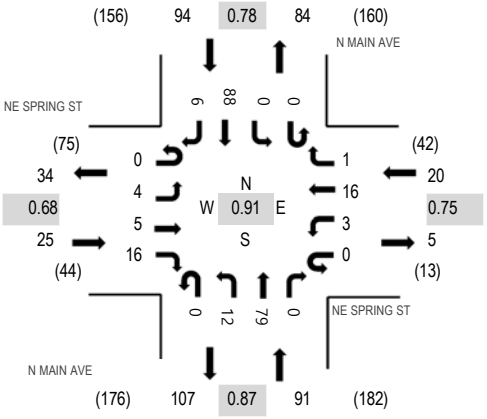
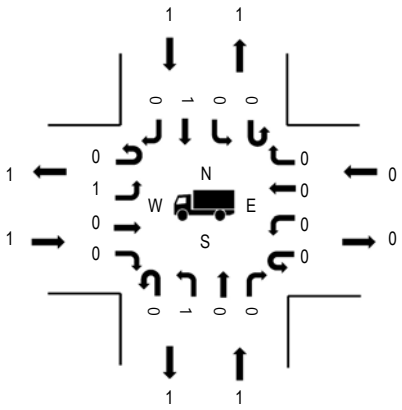
Location: 3 N MAIN AVE & NE SPRING ST PM
Date: Tuesday, March 23, 2021
Peak Hour: 04:35 PM - 05:35 PM
Peak 15-Minutes: 05:10 PM - 05:25 PM

Peak Hour

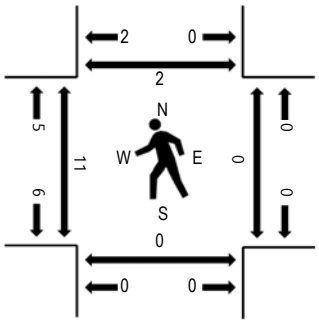
Motorized Vehicles



Heavy Vehicles



Pedestrians



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	4.0%	0.68
WB	0.0%	0.75
NB	1.1%	0.87
SB	1.1%	0.78
All	1.3%	0.91

Traffic Counts - Motorized Vehicles

Interval Start Time	NE SPRING ST Eastbound				NE SPRING ST Westbound				N MAIN AVE Northbound				N MAIN 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	0	0	2	0	1	0	0	0	2	6	0	0	0	2	0	13	214
4:05 PM	0	0	0	2	0	0	2	0	0	0	5	0	0	0	2	1	12	220
4:10 PM	0	1	2	1	0	0	2	1	0	2	8	0	0	0	3	0	20	222
4:15 PM	0	0	1	1	0	0	0	0	0	0	5	1	0	0	7	1	16	222
4:20 PM	0	1	1	1	0	0	3	0	0	0	9	0	0	0	6	1	22	225
4:25 PM	0	0	0	0	0	0	1	0	0	0	12	0	0	0	4	0	17	227
4:30 PM	0	0	0	0	0	1	2	0	0	2	5	0	0	0	8	0	18	225
4:35 PM	0	0	0	1	0	0	3	0	0	1	5	0	0	0	6	0	16	230
4:40 PM	0	0	0	2	0	1	0	1	0	0	5	0	0	0	9	1	19	225
4:45 PM	0	1	0	2	0	0	2	0	0	2	7	0	0	0	6	0	20	223
4:50 PM	0	1	0	0	0	0	2	0	0	3	8	0	0	0	5	2	21	221
4:55 PM	0	1	1	3	0	1	1	0	0	2	6	0	0	0	4	1	20	212
5:00 PM	0	0	2	1	0	0	0	0	0	1	8	0	0	0	6	1	19	210
5:05 PM	0	1	1	0	0	0	0	0	0	0	4	0	0	0	8	0	14	
5:10 PM	0	0	1	4	0	0	0	0	0	2	6	0	0	0	7	0	20	
5:15 PM	0	0	0	0	0	0	2	0	0	0	7	0	0	0	10	0	19	
5:20 PM	0	0	0	0	0	0	3	0	0	0	8	0	0	0	13	0	24	
5:25 PM	0	0	0	2	0	0	1	0	0	0	6	0	0	0	6	0	15	
5:30 PM	0	0	0	1	0	1	2	0	0	1	9	0	0	0	8	1	23	
5:35 PM	0	0	0	0	0	0	1	0	0	3	4	0	0	0	3	0	11	
5:40 PM	0	0	0	2	0	0	4	0	0	1	6	0	0	0	4	0	17	
5:45 PM	0	0	2	2	0	0	1	0	0	3	4	0	0	0	5	1	18	
5:50 PM	0	0	0	0	0	0	2	0	0	2	4	0	0	0	4	0	12	
5:55 PM	0	0	0	0	0	0	1	0	0	2	5	0	0	1	8	1	18	
Count Total	0	6	11	27	0	5	35	2	0	29	152	1	0	1	144	11	424	
Peak Hour	0	4	5	16	0	3	16	1	0	12	79	0	0	0	88	6	230	

Location: 3 N MAIN AVE & NE SPRING ST 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	1	0	0	2	3
4:05 PM	0	0	0	0	0	4:05 PM	1	0	0	0	1	4:05 PM	0	0	2	2	4
4:10 PM	0	0	1	0	1	4:10 PM	0	0	0	0	0	4:10 PM	2	2	0	0	4
4:15 PM	0	1	0	0	1	4:15 PM	0	0	0	1	1	4:15 PM	0	0	0	0	0
4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0	4:20 PM	1	0	0	0	1
4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	0	0	4:25 PM	0	0	1	0	1
4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0	4:30 PM	1	0	0	0	1
4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0	4:35 PM	4	0	0	0	4
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	0	0	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	1	0	0	1	5:00 PM	0	0	0	0	0	5:00 PM	2	0	0	0	2
5:05 PM	1	0	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	0	0	5:10 PM	0	0	0	0	0	5:10 PM	4	0	0	0	4
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	1	0	0	0	1
5:25 PM	0	0	0	1	1	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	1	1	5:30 PM	0	0	2	2	4
5:35 PM	0	0	0	0	0	5:35 PM	0	0	0	0	0	5:35 PM	2	0	1	0	3
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	2	1	0	3
5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0	5:50 PM	2	0	0	0	2
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	1	2	1	1	5	Count Total	1	0	0	2	3	Count Total	20	4	7	6	37
Peak Hour	1	1	0	1	3	Peak Hour	0	0	0	1	1	Peak Hour	11	0	2	2	15

APPENDIX B

LOS DESCRIPTION

TRAFFIC LEVELS OF SERVICE

Analysis of traffic volumes is useful in understanding the general nature of traffic in an area, but by itself indicates neither the ability of the street network to carry additional traffic nor the quality of service afforded by the street facilities. For this, the concept of level of service has been developed to subjectively describe traffic performance. Level of service can be measured at intersections and along key roadway segments.

Levels of service categories are similar to report card ratings for traffic performance. Intersections are typically the controlling bottlenecks of traffic flow and the ability of a roadway system to carry traffic efficiently is generally diminished in their vicinities. Levels of Service A, B and C indicate conditions where traffic moves without significant delays over periods of peak travel demand. Level of service D and E are progressively worse peak hour operating conditions and F conditions represent where demand exceeds the capacity of an intersection. Most urban communities set level of service D as the minimum acceptable level of service for peak hour operation and plan for level of service C or better for all other times of the day. The Highway Capacity Manual provides level of service calculation methodology for both intersections and arterials[1]. The following two sections provide interpretations of the analysis approaches.

[1] *2000 Highway Capacity Manual*, Transportation Research Board, Washington D.C., 2000, Chapter 16 and 17.

UNSIGNALIZED INTERSECTIONS (Two-Way Stop Controlled)

Unsignalized intersection level of service is reported for the major street and minor street (generally, left turn movements). The method assesses available and critical gaps in the traffic stream which make it possible for side street traffic to enter the main street flow. The 2010 Highway Capacity Manual describes the detailed methodology. It is not unusual for an intersection to experience level of service E or F conditions for the minor street left turn movement. It should be understood that, often, a poor level of service is experienced by only a few vehicles and the intersection as a whole operates acceptably.

Unsignalized intersection levels of service are described in the following table.

Level-of-Service Criteria: Automobile Mode

Control Delay (s/vehicle)	**LOS by Volume-to-Capacity Ratio**	
	***v/c* ≤ 1.0**	***v/c* > 1.0**
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

Note: The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole

SIGNALIZED INTERSECTIONS

For signalized intersections, level of service is evaluated based upon average vehicle delay experienced by vehicles entering an intersection. Control delay (or signal delay) includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. In previous versions of this chapter of the HCM (1994 and earlier), delay included only stopped delay. As delay increases, the level of service decreases. Calculations for signalized and unsignalized intersections are different due to the variation in traffic control. The 2000 Highway Capacity Manual provides the basis for these calculations.

Level of Service	Delay (secs.)	Description
A	<10.00	**Free Flow/Insignificant Delays:** No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Most vehicles do not stop at all. Progression is extremely favorable and most vehicles arrive during the green phase.
B	10.1-20.0	**Stable Operation/Minimal Delays:** An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles. This level generally occurs with good progression, short cycle lengths, or both.
C	20.1-35.0	**Stable Operation/Acceptable Delays:** Major approach phases fully utilized. Most drivers feel somewhat restricted. Higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level, and the number of vehicles stopping is significant.
D	35.1-55.0	**Approaching Unstable/Tolerable Delays:** The influence of congestion becomes more noticeable. Drivers may have to wait through more than one red signal indication. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. The proportion of vehicles not stopping declines, and individual cycle failures are noticeable.
E	55.1-80.0	**Unstable Operation/Significant Delays:** Volumes at or near capacity. Vehicles may wait though several signal cycles. Long queues form upstream from intersection. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are a frequent occurrence.
F	>80.0	**Forced Flow/Excessive Delays:** Represents jammed conditions. Queues may block upstream intersections. This level occurs when arrival flow rates exceed intersection capacity, and is considered to be unacceptable to most drivers. Poor progression, long cycle lengths, and v/c ratios approaching 1.0 may contribute to these high delay levels.

Source: *2000 Highway Capacity Manual*, Transportation Research Board, Washington D.C.

APPENDIX C

HCM REPORT – EXISTING CONDITIONS

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	28	172	127	57	94	38
Future Vol, veh/h	28	172	127	57	94	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	125	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	4	0	0	0	0	9
Mvmt Flow	41	253	187	84	138	56

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	187	0	-	0	522	187
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	335	-
Critical Hdwy	4.14	-	-	-	6.4	6.29
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.236	-	-	-	3.5	3.381
Pot Cap-1 Maneuver	1375	-	-	0	519	837
Stage 1	-	-	-	0	850	-
Stage 2	-	-	-	0	729	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	1375	-	-	-	501	837
Mov Cap-2 Maneuver	-	-	-	-	501	-
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	729	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	14.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	1375	-	-	566
HCM Lane V/C Ratio	0.03	-	-	0.343
HCM Control Delay (s)	7.7	0	-	14.6
HCM Lane LOS	A	A	-	B
HCM 95th %tile Q(veh)	0.1	-	-	1.5

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	183	8	4	267
Future Vol, veh/h	1	1	183	8	4	267
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	0	0	7	0	0	2
Mvmt Flow	1	1	254	11	6	371

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	643	260	0	0	265	0
Stage 1	260	-	-	-	-	-
Stage 2	383	-	-	-	-	-
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	441	784	-	-	1311	-
Stage 1	788	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	438	784	-	-	1311	-
Mov Cap-2 Maneuver	438	-	-	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	690	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	562	1311	-
HCM Lane V/C Ratio	-	-	0.005	0.004	-
HCM Control Delay (s)	-	-	11.4	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	11	13	1	6	3	6	54	1	1	99	1
Future Vol, veh/h	7	11	13	1	6	3	6	54	1	1	99	1
Conflicting Peds, #/hr	3	0	4	4	0	3	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	62	62	62	62	62	62	62	62	62	62	62	62
Heavy Vehicles, %	0	0	0	0	0	0	0	23	0	0	7	0
Mvmt Flow	11	18	21	2	10	5	10	87	2	2	160	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	288	278	169	297	278	91	166	0	0	89	0	0
Stage 1	169	169	-	108	108	-	-	-	-	-	-	-
Stage 2	119	109	-	189	170	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	668	633	880	659	633	972	1424	-	-	1519	-	-
Stage 1	838	763	-	902	810	-	-	-	-	-	-	-
Stage 2	890	809	-	817	762	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	649	626	874	623	626	970	1419	-	-	1519	-	-
Mov Cap-2 Maneuver	649	626	-	623	626	-	-	-	-	-	-	-
Stage 1	830	760	-	896	804	-	-	-	-	-	-	-
Stage 2	867	803	-	775	759	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	10.3	0.7	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1419	-	-	717	700	1519	-	-
HCM Lane V/C Ratio	0.007	-	-	0.07	0.023	0.001	-	-
HCM Control Delay (s)	7.6	0	-	10.4	10.3	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	40	121	137	172	84	27
Future Vol, veh/h	40	121	137	172	84	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	125	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	47	142	161	202	99	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	161	0	-	0	397	161
Stage 1	-	-	-	-	161	-
Stage 2	-	-	-	-	236	-
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	1430	-	-	0	612	889
Stage 1	-	-	-	0	873	-
Stage 2	-	-	-	0	808	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	1430	-	-	-	590	889
Mov Cap-2 Maneuver	-	-	-	-	590	-
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	808	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	1430	-	-	643
HCM Lane V/C Ratio	0.033	-	-	0.203
HCM Control Delay (s)	7.6	0	-	12
HCM Lane LOS	A	A	-	B
HCM 95th %tile Q(veh)	0.1	-	-	0.8

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	8	306	1	2	216
Future Vol, veh/h	4	8	306	1	2	216
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	4	9	329	1	2	232

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	566	330	0	0	330	0
Stage 1	330	-	-	-	-	-
Stage 2	236	-	-	-	-	-
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	489	716	-	-	1241	-
Stage 1	733	-	-	-	-	-
Stage 2	808	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	488	716	-	-	1241	-
Mov Cap-2 Maneuver	488	-	-	-	-	-
Stage 1	733	-	-	-	-	-
Stage 2	806	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	620	1241	-
HCM Lane V/C Ratio	-	-	0.021	0.002	-
HCM Control Delay (s)	-	-	10.9	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	6	18	3	18	1	13	88	1	1	99	7
Future Vol, veh/h	4	6	18	3	18	1	13	88	1	1	99	7
Conflicting Peds, #/hr	5	0	6	6	0	5	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	25	0	0	0	0	0	8	0	0	0	1	0
Mvmt Flow	4	7	20	3	20	1	14	97	1	1	109	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	258	243	121	261	247	103	119	0	0	98	0	0
Stage 1	117	117	-	126	126	-	-	-	-	-	-	-
Stage 2	141	126	-	135	121	-	-	-	-	-	-	-
Critical Hdwy	7.35	6.5	6.2	7.1	6.5	6.2	4.18	-	-	4.1	-	-
Critical Hdwy Stg 1	6.35	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.35	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.725	4	3.3	3.5	4	3.3	2.272	-	-	2.2	-	-
Pot Cap-1 Maneuver	650	662	936	696	659	957	1432	-	-	1508	-	-
Stage 1	835	803	-	883	796	-	-	-	-	-	-	-
Stage 2	810	796	-	873	800	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	625	653	930	667	650	953	1430	-	-	1508	-	-
Mov Cap-2 Maneuver	625	653	-	667	650	-	-	-	-	-	-	-
Stage 1	825	801	-	874	788	-	-	-	-	-	-	-
Stage 2	778	788	-	842	798	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	10.6	1	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1430	-	-	801	662	1508	-	-
HCM Lane V/C Ratio	0.01	-	-	0.038	0.037	0.001	-	-
HCM Control Delay (s)	7.5	0	-	9.7	10.6	7.4	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

APPENDIX D

HCM REPORT – FUTURE 2027 NO BUILD

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	195	150	69	107	43
Future Vol, veh/h	31	195	150	69	107	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	125	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	4	0	0	0	0	9
Mvmt Flow	46	287	221	101	157	63

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	221	0	-	0	599	221
Stage 1	-	-	-	-	221	-
Stage 2	-	-	-	-	378	-
Critical Hdwy	4.14	-	-	-	6.4	6.29
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.236	-	-	-	3.5	3.381
Pot Cap-1 Maneuver	1337	-	-	0	468	802
Stage 1	-	-	-	0	821	-
Stage 2	-	-	-	0	697	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	1337	-	-	-	449	802
Mov Cap-2 Maneuver	-	-	-	-	449	-
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	697	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.07	0	17.17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	247	-	-	514
HCM Lane V/C Ratio	0.034	-	-	0.429
HCM Control Delay (s/veh)	7.8	0	-	17.2
HCM Lane LOS	A	A	-	C
HCM 95th %tile Q(veh)	0.1	-	-	2.1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	0	7	1	0	0	3	205	9	4	299	4
Future Vol, veh/h	13	0	7	1	0	0	3	205	9	4	299	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0	0	7	0	0	2	0
Mvmt Flow	18	0	10	1	0	0	4	285	13	6	415	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	722	735	418	726	731	291	421	0	0	297	0	0
Stage 1	429	429	-	299	299	-	-	-	-	-	-	-
Stage 2	293	306	-	426	432	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	345	349	639	343	351	753	1149	-	-	1276	-	-
Stage 1	608	587	-	714	670	-	-	-	-	-	-	-
Stage 2	719	665	-	610	586	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	341	346	639	334	348	753	1149	-	-	1276	-	-
Mov Cap-2 Maneuver	341	346	-	334	348	-	-	-	-	-	-	-
Stage 1	604	584	-	711	667	-	-	-	-	-	-	-
Stage 2	716	663	-	597	582	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	14.48	15.82	0.11	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	25	-	-	408	334	23	-	-
HCM Lane V/C Ratio	0.004	-	-	0.068	0.004	0.004	-	-
HCM Control Delay (s/veh)	8.1	0	-	14.5	15.8	7.8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	12	15	0	7	5	7	61	0	6	113	1
Future Vol, veh/h	8	12	15	0	7	5	7	61	0	6	113	1
Conflicting Peds, #/hr	3	0	4	4	0	3	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	62	62	62	62	62	62	62	62	62	62	62	62
Heavy Vehicles, %	0	0	0	0	0	0	0	23	0	0	7	0
Mvmt Flow	13	19	24	0	11	8	11	98	0	10	182	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	336	327	191	336	328	101	188	0	0	98	0	0
Stage 1	206	206	-	121	121	-	-	-	-	-	-	-
Stage 2	130	121	-	215	207	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	621	594	856	621	594	959	1398	-	-	1507	-	-
Stage 1	800	735	-	888	800	-	-	-	-	-	-	-
Stage 2	879	800	-	792	734	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	592	583	850	573	583	957	1394	-	-	1507	-	-
Mov Cap-2 Maneuver	592	583	-	573	583	-	-	-	-	-	-	-
Stage 1	792	727	-	881	793	-	-	-	-	-	-	-
Stage 2	850	793	-	741	726	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.81	10.32	0.78	0.37
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	185	-	-	676	696	90	-	-
HCM Lane V/C Ratio	0.008	-	-	0.083	0.028	0.006	-	-
HCM Control Delay (s/veh)	7.6	0	-	10.8	10.3	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	144	158	196	99	30
Future Vol, veh/h	45	144	158	196	99	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	125	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	53	169	186	231	116	35

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	186	0	-	0	461	186
Stage 1	-	-	-	-	186	-
Stage 2	-	-	-	-	275	-
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	1401	-	-	0	562	861
Stage 1	-	-	-	0	851	-
Stage 2	-	-	-	0	776	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	1401	-	-	-	539	861
Mov Cap-2 Maneuver	-	-	-	-	539	-
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	776	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.83	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	429	-	-	590
HCM Lane V/C Ratio	0.038	-	-	0.257
HCM Control Delay (s/veh)	7.7	0	-	13.2
HCM Lane LOS	A	A	-	B
HCM 95th %tile Q(veh)	0.1	-	-	1

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	0	4	4	0	9	7	343	1	2	242	13
Future Vol, veh/h	8	0	4	4	0	9	7	343	1	2	242	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	9	0	4	4	0	10	8	369	1	2	260	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	655	656	267	649	663	369	274	0	0	370	0	0
Stage 1	272	272	-	384	384	-	-	-	-	-	-	-
Stage 2	384	385	-	265	278	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	382	388	776	386	384	681	1301	-	-	1200	-	-
Stage 1	739	689	-	643	615	-	-	-	-	-	-	-
Stage 2	643	614	-	745	684	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	373	384	776	380	381	681	1301	-	-	1200	-	-
Mov Cap-2 Maneuver	373	384	-	380	381	-	-	-	-	-	-	-
Stage 1	737	687	-	638	610	-	-	-	-	-	-	-
Stage 2	629	610	-	739	682	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	13.22	11.75	0.16	0.06
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	36	-	-	451	547	14	-	-
HCM Lane V/C Ratio	0.006	-	-	0.029	0.026	0.002	-	-
HCM Control Delay (s/veh)	7.8	0	-	13.2	11.7	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	7	20	3	20	6	15	101	0	3	112	8
Future Vol, veh/h	4	7	20	3	20	6	15	101	0	3	112	8
Conflicting Peds, #/hr	5	0	6	6	0	5	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	25	0	0	0	0	0	8	0	0	0	1	0
Mvmt Flow	4	8	22	3	22	7	16	111	0	3	123	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	296	280	135	283	284	116	134	0	0	111	0	0
Stage 1	136	136	-	144	144	-	-	-	-	-	-	-
Stage 2	160	144	-	140	140	-	-	-	-	-	-	-
Critical Hdwy	7.35	6.5	6.2	7.1	6.5	6.2	4.18	-	-	4.1	-	-
Critical Hdwy Stg 1	6.35	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.35	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.725	4	3.3	3.5	4	3.3	2.272	-	-	2.2	-	-
Pot Cap-1 Maneuver	613	632	919	673	628	942	1415	-	-	1492	-	-
Stage 1	815	788	-	864	782	-	-	-	-	-	-	-
Stage 2	791	782	-	868	784	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	575	621	913	636	618	938	1412	-	-	1492	-	-
Mov Cap-2 Maneuver	575	621	-	636	618	-	-	-	-	-	-	-
Stage 1	812	785	-	853	772	-	-	-	-	-	-	-
Stage 2	750	772	-	833	781	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.88	10.67	0.98	0.18
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	233	-	-	772	667	43	-	-
HCM Lane V/C Ratio	0.012	-	-	0.044	0.048	0.002	-	-
HCM Control Delay (s/veh)	7.6	0	-	9.9	10.7	7.4	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0	-	-

APPENDIX E

HCM REPORT – FUTURE 2027 BUILD

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	196	152	70	107	43
Future Vol, veh/h	31	196	152	70	107	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	125	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	4	0	0	0	0	9
Mvmt Flow	46	288	224	103	157	63

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	224	0	-	0	603	224
Stage 1	-	-	-	-	224	-
Stage 2	-	-	-	-	379	-
Critical Hdwy	4.14	-	-	-	6.4	6.29
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.236	-	-	-	3.5	3.381
Pot Cap-1 Maneuver	1333	-	-	0	465	799
Stage 1	-	-	-	0	818	-
Stage 2	-	-	-	0	696	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	1333	-	-	-	446	799
Mov Cap-2 Maneuver	-	-	-	-	446	-
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	696	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.06	0	17.29
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	246	-	-	511
HCM Lane V/C Ratio	0.034	-	-	0.432
HCM Control Delay (s/veh)	7.8	0	-	17.3
HCM Lane LOS	A	A	-	C
HCM 95th %tile Q(veh)	0.1	-	-	2.2

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	0	10	1	0	0	4	205	9	4	299	5
Future Vol, veh/h	16	0	10	1	0	0	4	205	9	4	299	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0	0	7	0	0	2	0
Mvmt Flow	22	0	14	1	0	0	6	285	13	6	415	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	726	738	419	728	735	291	422	0	0	297	0	0
Stage 1	430	430	-	302	302	-	-	-	-	-	-	-
Stage 2	296	308	-	426	433	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	343	348	639	341	349	753	1148	-	-	1276	-	-
Stage 1	607	587	-	711	668	-	-	-	-	-	-	-
Stage 2	717	664	-	610	585	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	339	344	639	330	345	753	1148	-	-	1276	-	-
Mov Cap-2 Maneuver	339	344	-	330	345	-	-	-	-	-	-	-
Stage 1	604	584	-	707	664	-	-	-	-	-	-	-
Stage 2	713	660	-	593	582	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	14.54	15.96	0.15	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1148	-	-	413	330	23	-	-
HCM Lane V/C Ratio	0.005	-	-	0.087	0.004	0.004	-	-
HCM Control Delay (s/veh)	8.2	-	-	14.5	16	7.8	0	-
HCM Lane LOS	A	-	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0	0	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	19	23	0	9	5	9	62	0	7	115	1
Future Vol, veh/h	8	19	23	0	9	5	9	62	0	7	115	1
Conflicting Peds, #/hr	3	0	4	4	0	3	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	62	62	62	62	62	62	62	62	62	62	62	62
Heavy Vehicles, %	0	0	0	0	0	0	0	23	0	0	7	0
Mvmt Flow	13	31	37	0	15	8	15	100	0	11	185	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	352	342	194	356	343	103	191	0	0	100	0	0
Stage 1	213	213	-	129	129	-	-	-	-	-	-	-
Stage 2	139	129	-	227	214	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	606	583	852	603	583	957	1395	-	-	1505	-	-
Stage 1	794	730	-	880	793	-	-	-	-	-	-	-
Stage 2	869	793	-	780	729	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	572	570	847	533	570	955	1390	-	-	1505	-	-
Mov Cap-2 Maneuver	572	570	-	533	570	-	-	-	-	-	-	-
Stage 1	785	722	-	870	784	-	-	-	-	-	-	-
Stage 2	834	784	-	706	721	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	11.09	10.6	0.97	0.42
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	228	-	-	671	666	102	-	-
HCM Lane V/C Ratio	0.01	-	-	0.12	0.034	0.008	-	-
HCM Control Delay (s/veh)	7.6	0	-	11.1	10.6	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	36	15	7	22	1
Future Vol, veh/h	1	36	15	7	22	1
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	70	70	70	70	70	70
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	1	51	21	10	31	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	31	0	-	0	81	26
Stage 1	-	-	-	-	26	-
Stage 2	-	-	-	-	54	-
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	1594	-	-	-	926	1055
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	973	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1594	-	-	-	926	1055
Mov Cap-2 Maneuver	-	-	-	-	926	-
Stage 1	-	-	-	-	1000	-
Stage 2	-	-	-	-	973	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.2	0	9.01
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	49	-	-	-	931
HCM Lane V/C Ratio	0.001	-	-	-	0.035
HCM Control Delay (s/veh)	7.3	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	147	159	197	100	30
Future Vol, veh/h	45	147	159	197	100	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	125	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	53	173	187	232	118	35

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	187	0	-	0	466	187
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	279	-
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	1399	-	-	0	559	860
Stage 1	-	-	-	0	850	-
Stage 2	-	-	-	0	773	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	1399	-	-	-	535	860
Mov Cap-2 Maneuver	-	-	-	-	535	-
Stage 1	-	-	-	-	814	-
Stage 2	-	-	-	-	773	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.8	0	13.29
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	422	-	-	586
HCM Lane V/C Ratio	0.038	-	-	0.261
HCM Control Delay (s/veh)	7.7	0	-	13.3
HCM Lane LOS	A	A	-	B
HCM 95th %tile Q(veh)	0.1	-	-	1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	6	4	0	9	11	343	1	2	242	17
Future Vol, veh/h	10	0	6	4	0	9	11	343	1	2	242	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	11	0	6	4	0	10	12	369	1	2	260	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	666	667	269	658	676	369	278	0	0	370	0	0
Stage 1	274	274	-	393	393	-	-	-	-	-	-	-
Stage 2	392	394	-	265	283	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	376	382	774	381	378	681	1296	-	-	1200	-	-
Stage 1	737	687	-	636	609	-	-	-	-	-	-	-
Stage 2	636	609	-	745	681	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	365	377	774	372	373	681	1296	-	-	1200	-	-
Mov Cap-2 Maneuver	365	377	-	372	373	-	-	-	-	-	-	-
Stage 1	735	686	-	629	602	-	-	-	-	-	-	-
Stage 2	620	602	-	737	679	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	13.21	11.81	0.24	0.06
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	56	-	-	455	542	14	-	-
HCM Lane V/C Ratio	0.009	-	-	0.038	0.026	0.002	-	-
HCM Control Delay (s/veh)	7.8	0	-	13.2	11.8	8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	11	25	3	27	7	23	104	0	4	113	8
Future Vol, veh/h	4	11	25	3	27	7	23	104	0	4	113	8
Conflicting Peds, #/hr	5	0	6	6	0	5	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	25	0	0	0	0	0	8	0	0	0	1	0
Mvmt Flow	4	12	27	3	30	8	25	114	0	4	124	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	324	304	137	310	309	119	135	0	0	114	0	0
Stage 1	139	139	-	165	165	-	-	-	-	-	-	-
Stage 2	185	165	-	145	144	-	-	-	-	-	-	-
Critical Hdwy	7.35	6.5	6.2	7.1	6.5	6.2	4.18	-	-	4.1	-	-
Critical Hdwy Stg 1	6.35	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.35	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.725	4	3.3	3.5	4	3.3	2.272	-	-	2.2	-	-
Pot Cap-1 Maneuver	587	612	917	647	609	938	1413	-	-	1487	-	-
Stage 1	812	785	-	842	766	-	-	-	-	-	-	-
Stage 2	767	766	-	863	782	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	538	598	911	598	594	934	1411	-	-	1487	-	-
Mov Cap-2 Maneuver	538	598	-	598	594	-	-	-	-	-	-	-
Stage 1	808	781	-	826	751	-	-	-	-	-	-	-
Stage 2	713	751	-	817	778	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	10.09	11.02	1.38	0.24
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	326	-	-	751	639	57	-	-
HCM Lane V/C Ratio	0.018	-	-	0.059	0.064	0.003	-	-
HCM Control Delay (s/veh)	7.6	0	-	10.1	11	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.2	0	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	33	44	23	13	1
Future Vol, veh/h	1	33	44	23	13	1
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	90	90	90	90	90	90
Heavy Vehicles, %	0	2	2	0	0	0
Mvmt Flow	1	37	49	26	14	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	74	0	-	0	101	62
Stage 1	-	-	-	-	62	-
Stage 2	-	-	-	-	39	-
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	1538	-	-	-	903	1009
Stage 1	-	-	-	-	966	-
Stage 2	-	-	-	-	989	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1538	-	-	-	902	1009
Mov Cap-2 Maneuver	-	-	-	-	902	-
Stage 1	-	-	-	-	965	-
Stage 2	-	-	-	-	989	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.22	0	9.03
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	53	-	-	-	909
HCM Lane V/C Ratio	0.001	-	-	-	0.017
HCM Control Delay (s/veh)	7.3	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

APPENDIX F

HCM REPORT – SITE PLAN

N

0' 50' 100'

1" = 50' (22"x34")
1" = 100' (11"x17")

EXISTING GAS LINE EASEMENT
33,891 SF - 0.77 AC

PROPOSED RELOCATION OF 14"Ø STEEL WATERLINE

PROPOSED 30' CITY OF W.S. WATERLINE EASEMENT

9 — 17,716 SF
10 — 6,878 SF
11 — 6,072 SF
12 — 6,072 SF
13 — 6,072 SF
14 — 6,072 SF
15 — 6,072 SF
16 — 6,072 SF
17 — 6,072 SF
18 — 6,191 SF

13.5"OAK
13.5"OAK

PROPOSED POND AREA

NORTH ROAD

PROPOSED SANITARY SEWER CONNECTION

8 — 13,509 SF

EXISTING FORCEMAIN GAS LINE

7 — 7,662 SF

19.5"OAK
25.3"OAK

PROPOSED 2,752 SF HERITAGE TREE PROTECTION EASEMENT (HTPE)

16.9"OAK

6 — 7,605 SF

WEST ROAD

27 — 5,464 SF
26 — 5,367 SF
25 — 5,365 SF
24 — 5,364 SF
23 — 5,362 SF
22 — 5,360 SF
21 — 5,358 SF
20 — 5,356 SF
19 — 5,414 SF

NANCY WHITE
FOUR OAKS SUBDIVISION
(31 LOTS)

N. MAIN AVE

5 — 7,605 SF

28 — 5,431 SF
29 — 5,366 SF
30 — 5,364 SF
31 — 5,362 SF
32 — 5,361 SF
33 — 5,359 SF
34 — 5,357 SF
35 — 5,355 SF
36 — 5,454 SF

PROPOSED SANITARY SEWER CONNECTION

4 — 11,765 SF

SOUTH ROAD

PROPOSED WATER LINE CONNECTION

PROPOSED RELOCATION OF 14"Ø STEEL WATERLINE

3 — 15,436 SF
2 — 5,922 SF
1 — 5,245 SF

PROPOSED SWALE

PROPOSED CURB DRAIN

PROPOSED 15' CITY OF W.S. WATERLINE EASEMENT

PROPOSED NO-BUILD EASEMENT
33,891 SF - 0.77 AC

PROPOSED ROW

ACCESS ROAD

PROPOSED ROW

PROPOSED 2.5-FOOT RETAINING WALL
(2.5'W x 2.5'H x 81.0'L)

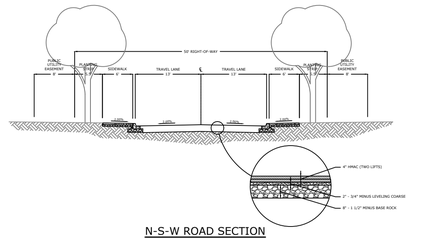
13.4"OAK
22.2"OAK
15.8"OAK

PROPOSED 3,443 SF HERITAGE TREE PROTECTION EASEMENT (HTPE)

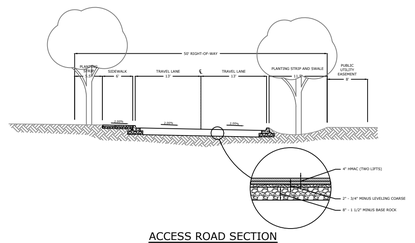
NW SPRING ST

NOTE:

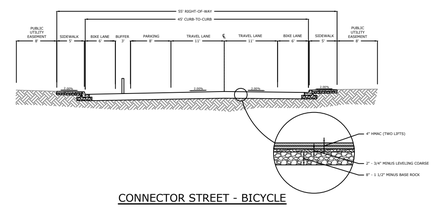
DEDICATION OF A HERITAGE TREE PROTECTION EASEMENT (HTPE) CONVEYS TO THE PUBLIC A BENEFICIAL INTEREST IN THE LAND WITHIN THE EASEMENT. THIS INTEREST INCLUDES THE PRESERVATION OF EXISTING HERITAGE TREE FOR ALL PURPOSES THAT BENEFIT THE PUBLIC HEALTH, SAFETY AND WELFARE, INCLUDING CONTROL OF SURFACE WATER AND EROSION, MAINTENANCE OF SLOPE STABILITY, VISUAL AND AURAL BUFFERING, AND PROTECTION OF PLANT AND ANIMAL HABITAT. THE HTPE IMPOSES UPON ALL PRESENT AND FUTURE OWNERS AND OCCUPIERS OF LAND SUBJECT TO THE EASEMENT THE OBLIGATION, ENFORCEABLE ON BEHALF OF THE PUBLIC OF THE CITY OF WHITE SALMON, TO LEAVE UNDISTURBED ALL HERITAGE TREES WITHIN THE EASEMENT. THE HERITAGE TREE PROTECTION AREA MAY NOT BE IMPACTED BY GRADING, EXCAVATION, DEMOLITION OR CONSTRUCTION WITHOUT EXPRESS PERMISSION FROM THE CITY OF WHITE SALMON, WHICH PERMISSION MUST BE OBTAINED IN WRITING.



N-S-W ROAD SECTION



ACCESS ROAD SECTION



CONNECTOR STREET - BICYCLE

HRK ENGINEERING & FIELD SERVICES
489 N 8TH STREET - SUITE 201
HOOD RIVER, OREGON 97031
541-386-6480 - WWW.HRKUS.COM

CLIENT

LEGACY DEVELOPMENT GROUP INC
403 HIGHWAY 35
HOOD RIVER, OR 97031

PROJECT NAME
CHERRY HILL ESTATES SUBDIVISION

PROJECT DATE
FEBRUARY 2021

PROJECT NO.
21-002

PHASE
SITE PLAN REVIEW

ENGINEERING & DESIGN GROUP

REVISION

NO.	DATE	DRWN	CHKD	DESCRIPTION
1	09/07/23	AP	CG	SITE PLAN REVIEW
2	11/08/23	AP	CG	CITY OF WHITE SALMON SPR COMMENTS 10/9/2023
3	11/28/23	AP	CG	CITY OF WHITE SALMON SPR COMMENTS 11/21/2023
4	05/13/24	AP	CG	CITY OF WHITE SALMON CONSISTENCY REVIEW 03/04/2024

SHEET NAME
SITE PLAN

SHEET NO. 3 OF 4