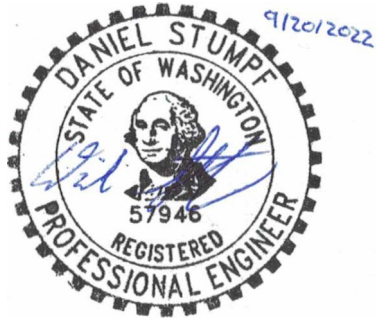




lancaster
moble



Valley View Subdivision

Transportation Impact Study

La Center, Washington

Date:
September 20, 2022

Prepared for:
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Executive Summary

1. The proposed Valley View Subdivision will include the construction of a residential subdivision located on a single property addressed at 2219 NE 339th Street in La Center, Washington, Washington. The project will subdivide the 8.46-acre lot into 34 single-family residential lots, removing 1 existing house and several ancillary farm structures for a net increase of 33 dwelling units. Main access to the site will be provided via the E Vine Maple Avenue extension to NE 339th Street and E 8th Way onto NE 24th Avenue; however, alternate routes to access the transportation system through the Sunrise Terrace Subdivision will be available.
2. The trip generation calculations show that the proposed project is projected to generate an additional 23 morning peak hour trips, 31 evening peak hour trips, and 310 average weekday trips.
3. 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. Provided any obstructing on-site foliage near the site access along NE 339th Street is removed/properly maintained and the existing on-site fence along the north edge of the site is removed, adequate intersection sight distances to the east and west of the proposed site access can be made available to ensure safe and efficient operation along NE 339th Street. No other mitigation is necessary or recommended with regard to sight distance at the proposed access intersection.
5. Left-turn lane warrants are not projected to be met at any of the applicable study intersections along NE Lockwood Creek Road, NE 24th Avenue, or NE 339th Street. Accordingly, no new left-turn lanes are necessary or recommended at any of the study intersections as part of the proposed Valley View Subdivision project.
6. Traffic signal warrants are projected to be met at the intersection of NW Timmen Road at NW La Center Road under year 2024 background conditions without the proposed development constructed. Per the City of La Center's Transportation Capital Facilities Plan and City staff, the intersection is currently planned as a roundabout and the improvement project is Traffic Impact Fee (TIF) eligible. No other new traffic signals are necessary or recommended at other study intersections as part of the proposed development application.
7. Based on the results of the operational analysis, the following intersections are currently or projected to exceed City of La Center mobility standards:
 1. NW Paradise Park Road at NW La Center Road
 2. NW Timmen Road at NW La Center Road

Both intersections are under consideration to be reconstructed as roundabouts, provided signal warrants and/or sufficient TIF's have been collected for these projects. Once these mitigative measures are implemented both intersections are projected to operate acceptably per City of La Center standards. Accordingly, no other operational mitigation is necessary or recommended at these study intersections.

8. All other study intersections are currently operating acceptably per La Center standards and are projected to continue operating acceptably through the 2024 buildout year of the site, provided planned mitigation at the intersections of E Stonecreek Drive at E 4th Street and NE Highland Avenue at E 4th Street are implemented. Accordingly, no other operational mitigation is necessary or recommended at these study intersections.

Project Description

Introduction

The proposed Valley View Subdivision will include the construction of a residential subdivision located on a single property addressed at 2219 NE 339th Street in La Center, Washington, Washington. The project will subdivide the 8.46-acre lot into 34 single-family residential lots, removing 1 existing house and several ancillary farm structures for a net increase of 33 dwelling units. Main access to the site will be provided via the E Vine Maple Avenue extension to NE 339th Street and E 8th Way onto NE 24th Avenue; however, alternate routes to access the transportation system through the Sunrise Terrace Subdivision will be available.

Based on correspondence with La Center staff, the report conducts safety and capacity/level of service analyses at the following intersections:

1. NW Paradise Park Road at NW La Center Road
2. NW Timmen Road at NW La Center Road
3. Aspen Avenue at E/W 4th Street
4. E Stonecreek Drive at E 4th Street
5. NE Highland Avenue at E 4th Street
6. NE 24th Avenue at NE Lockwood Creek Road
7. NE 24th Avenue at E 8th Way (site access)
8. E Vine Maple Avenue at NE 339th Street (site access)

The purpose of this study is to determine whether the transportation system within the vicinity of the site is capable of safely and efficiently supporting the existing and proposed uses, and to determine any mitigation that may be necessary to do so. Detailed information on traffic counts, trip generation calculations, safety analyses, and level of service calculations is included in the appendix to this report.

Location Description

The project site is located north of E 8th Way, south of NE 339th Street, east of E Upland Avenue, and west of NE 24th Avenue in La Center, Washington. The subject site is located within a developing residential area of the City with a residential subdivision to the south and west, and low-density single-family detached houses surrounding the site in all other directions.

The site consists of a single assessor parcel (parcel 209062000) which encompasses an approximate total of 8.64 acres. A single-family detached house and several ancillary farm structures are currently built on-site. Following redevelopment of the site, the existing house and all ancillary structures will be removed. The site is currently served by one driveway which will be removed.

Figure 1 presents an aerial image of the nearby vicinity with the project site outlined in yellow.



Figure 1: Aerial Photo of Site Vicinity (Image from Google Earth)

Vicinity Streets

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

Table 1: Vicinity Roadway Descriptions

Street Name	Jurisdiction	Functional Classification	Speed (MPH)	On-Street Parking	Curbs & Sidewalks	Bicycle Lanes
NW La Center Road	La Center	Principal Arterial	25/35/50	Not Permitted	Partial Both Sides	Partial Both Sides
NW Paradise Park Road	La Center	Major Collector	35	Not Permitted	Partial Both Sides	Partial Both Sides
NW Timmen Road	La Center	Minor Arterial	40	Not Permitted	None	None
Pacific Highway	La Center	Minor Arterial	25	Permitted Both Sides	Both Sides	None

Table Notes: *Functional classification based on Clark County 2016 Arterial Atlas and La Center Transportation Capital Facilities Plan Classification Map.*
Design speeds determined per Table 2.1 - Street Design Standards in City of La Centers Public Works Engineering Standards for Construction.



Table 1: Vicinity Roadway Descriptions (Continued)

Street Name	Jurisdiction	Functional Classification	Speed (MPH)	On-Street Parking	Curbs & Sidewalks	Bicycle Lanes
E/W 4th Street	La Center	Minor Arterial	25	Partially Permitted	Partial Both Sides	Partial Both Sides
Aspen Avenue	La Center	Major Collector	25	Partially Permitted	Both Sides	None
E Stonecreek Drive	La Center	Local Street	25	Permitted Both Sides	Both Sides	None
NE Highland Avenue	La Center	Major Collector	25/35	Not Permitted	Partial Both Sides	Partial Both Sides
NE Ivy Avenue	La Center	Local Street	25	Not Permitted	Both Sides	None
NE Lockwood Creek Road	La Center/ Clark County	Minor Arterial/ Rural Major Collector	25/35/ 50	Not Permitted	Partial Both Sides	Partial Both Sides
NE 339th Street	La Center/ Clark County	Major Collector/ Rural Minor Collector	35/50	Not Permitted	None	None
NE 24th Avenue	La Center	Minor Collector	25	Partially Permitted	Partial West Side	None
E Vine Maple Avenue	La Center	Local Street	25	Permitted Both Sides	Both Sides	None
E 8th Street	La Center	Local Street	25	Permitted South Side	South Side	None

Table Notes: *Functional classification based on Clark County 2016 Arterial Atlas and La Center Transportation Capital Facilities Plan Classification Map.*
Design speeds determined per Table 2.1 - Street Design Standards in City of La Centers Public Works Engineering Standards for Construction.



Study Intersections









A majority of site trips generated by the proposed development are expected to impact seven existing, nearby intersections of significance. A summarized description of these study intersections is provided in Table 2.

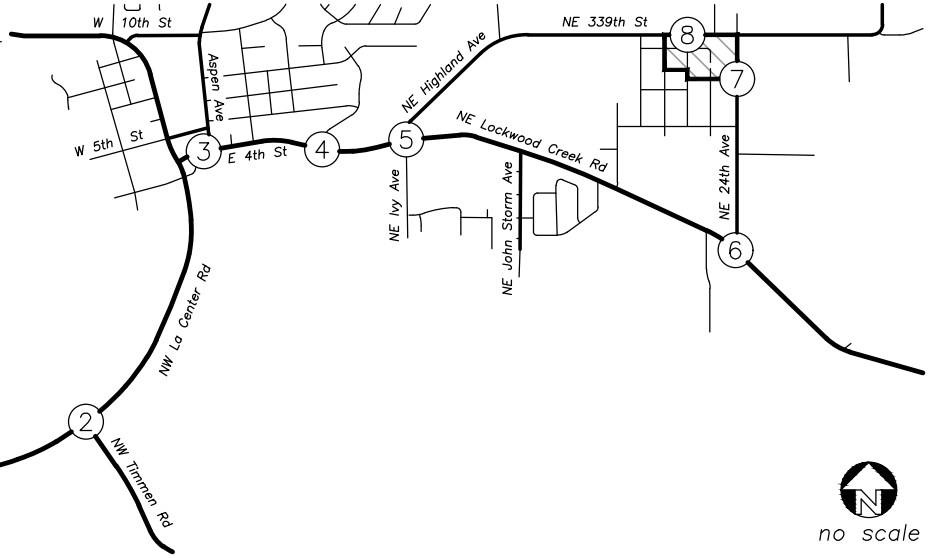
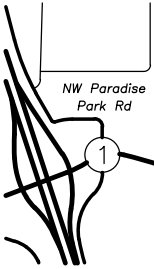
Table 2: Study Intersection Descriptions

Number	Intersection	Geometry	Traffic Control	Phasing/Stopped Approaches
1	NW Paradise Park Road at NW La Center Road	Four-Legged	Stop-Controlled	NB/SB Stop-Controlled Approaches, EB Right-turn Yield Controlled
2	NW Timmen Road at NW La Center Road	Three-Legged	Stop-Controlled	NWB Stop-Controlled Approach
3	Aspen Avenue at E/W 4th Street	Three-Legged	Stop-Controlled	SB Stop-Controlled Approach
4	E Stonecreek Drive at E 4th Street	Three-Legged	Stop-Controlled	SB Stop-Controlled Approach
5	NE Highland Avenue at E 4th Street	Four-Legged	Stop-Controlled	NB/SB Stop-Controlled Approaches
6	NE 24th Avenue at NE Lockwood Creek Road	Four-Legged	Stop-Controlled	NEB/SWB Stop-Controlled Approaches
7	NE 24th Avenue at E 8th Way	Three-Legged	Stop-Controlled	EB Stop-Controlled Approach

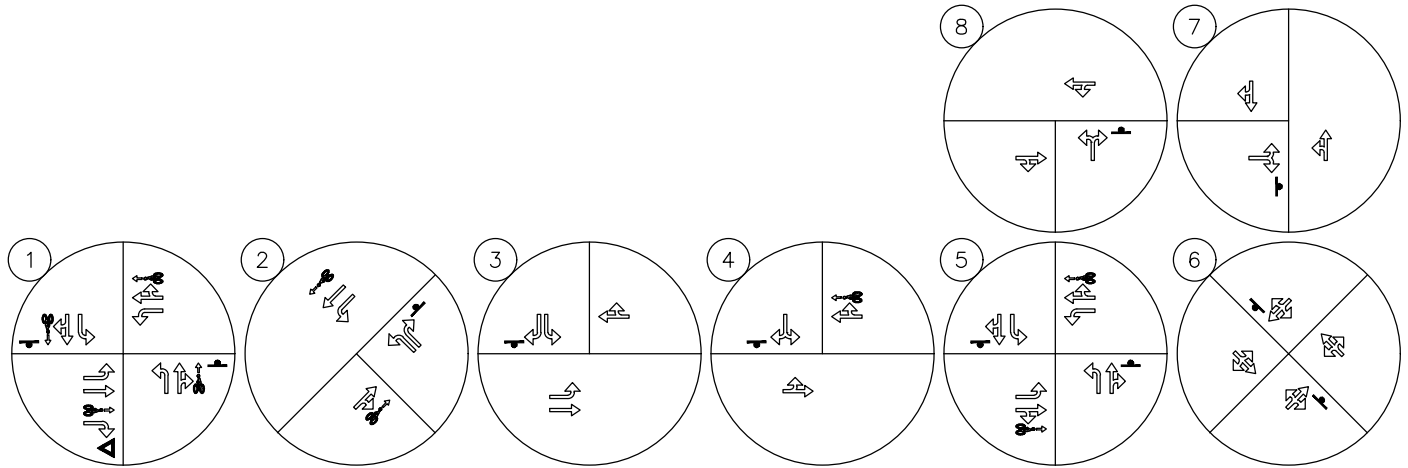
A vicinity map showing the project site, vicinity streets, and study intersection configurations are shown in Figure 2.

LEGEND

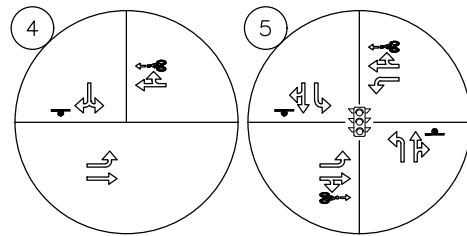
-  STUDY INTERSECTION
-  PROJECT SITE
-  STOP SIGN
-  ARTERIAL ROADWAY
-  TRAFFIC SIGNAL
-  COLLECTOR ROADWAY
-  BIKE LANE
-  LOCAL ROADWAY



EXISTING INTERSECTION CONFIGURATIONS



PLANNED INTERSECTION CONFIGURATIONS



Site Trips

Trip Generation

The proposed development will include the construction of 34 single-family detached houses, removing 1 existing house and several ancillary farm structures for a net increase of 33 dwelling units. To estimate the number of trips that are currently and will be generated by the existing and proposed uses, trip rates from the *Trip Generation Manual*¹ were used. Specifically, data from land use code 210, *Single-Family Detached Housing*, was used to estimate site trip generation based on the number of dwelling units.

The trip generation calculations show that the proposed project is projected to generate an additional 23 morning peak hour trips, 31 evening peak hour trips, and 310 average weekday trips. The trip generation estimates are summarized in Table 3. Detailed trip generation calculations are included in the technical appendix.

Table 3: Trip Generation Summary

	ITE Code	Size/Rate	Morning Peak Hour			Evening Peak Hour			Weekday Total
			Enter	Exit	Total	Enter	Exit	Total	
Existing Conditions	210	1 dwelling units	0	1	1	1	0	1	10
Proposed Conditions	210	34 dwelling units	6	18	24	20	12	32	320
Net New Trips		33 dwelling units	6	17	23	19	12	31	310

Trip Distribution

The trip distribution of the proposed development was referenced from the assumed distribution utilized in the *Sunrise Terrace Transportation Impact Study (TIS)*, dated July 7, 2015. The directional distribution percentages of trips to/from the Sunrise Terrace development were estimated based on the locations of likely trip destinations, locations of major transportation facilities in the site vicinity, and existing travel patterns at study area intersections.

¹ Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 11th Edition, 2021.

The following trip distribution is projected:

- Approximately 70 percent of site trips will travel to/from the west along NW La Center Road;
- Approximately 10 percent of site trips will travel to/from the north along NW Pacific Highway;
- Approximately 10 percent of site trips will travel to/from the east along NE Lockwood Creek Road;
- Approximately 5 percent of site trips will travel to/from the south along NW Timmen Road; and
- Approximately 5 percent of site trips will travel to/from the south along E Ivy Avenue (primarily to schools).

Although there are multiple routes of travel between the site and the greater transportation system, the main points of access are expected to include the intersections of NE 24th Avenue at E 8th Way and E Vine Maple Avenue at NE 339th Street. Based on the site location and trip distribution, for the purposes of this analysis site trips are anticipated to utilize site accesses accordingly:

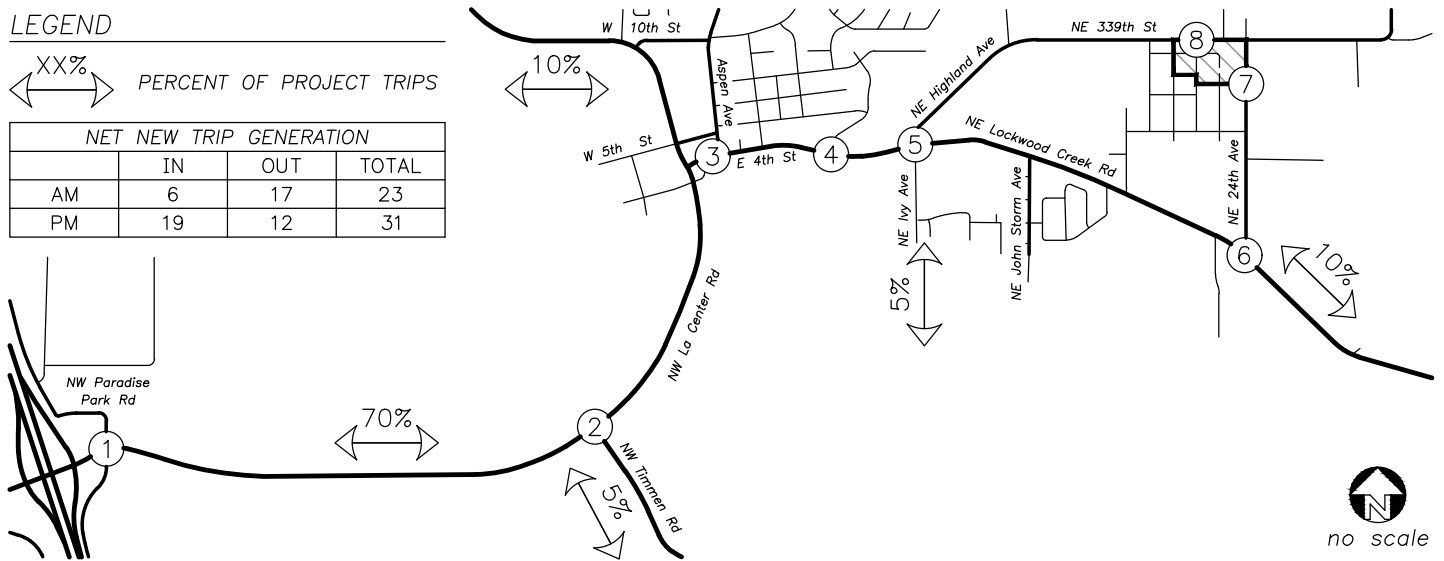
- Approximately 60 percent of site trips will access the site via the intersection of E Vine Maple Avenue at NE 339th Street.
- Approximately 40 percent of site trips will access the site via the intersection of NE 24th Avenue at E 8th Way.

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

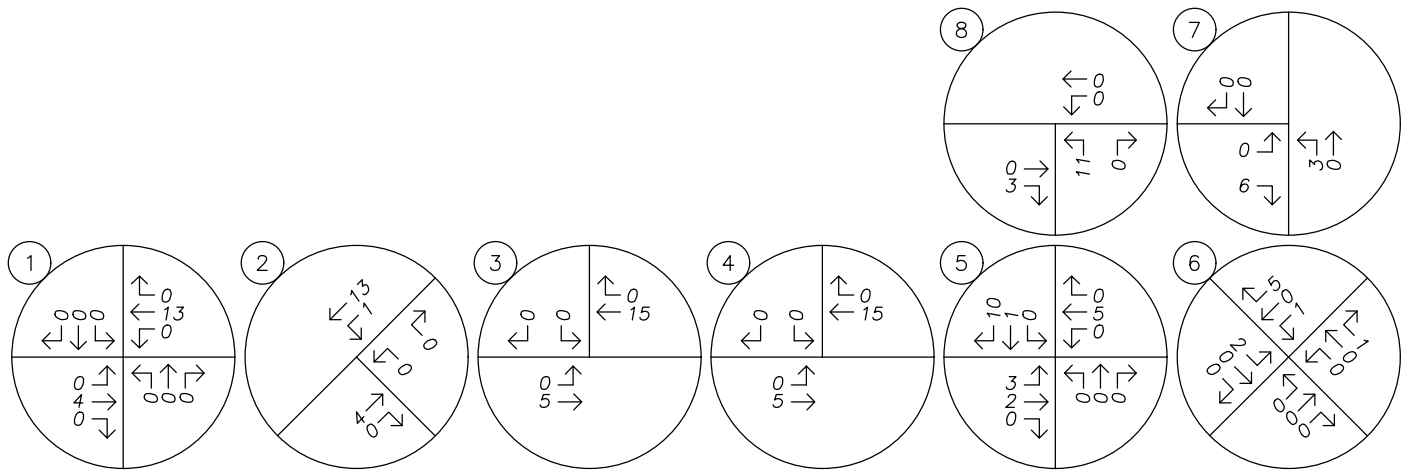
LEGEND

XX% PERCENT OF PROJECT TRIPS

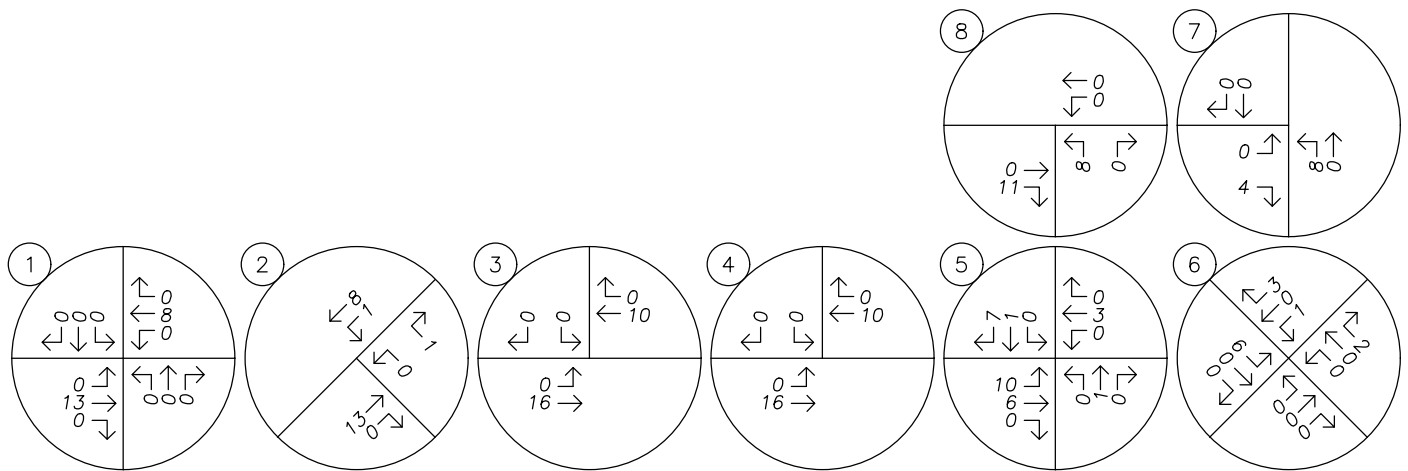
NET NEW TRIP GENERATION			
	IN	OUT	TOTAL
AM	6	17	23
PM	19	12	31



AM PEAK HOUR



PM PEAK HOUR



Traffic Volumes

Existing Conditions

Due to the ongoing COVID-19 viral pandemic, as of mid-March 2020 traffic volumes around Clark County have been depressed relative to normal conditions whereby traditional traffic count data collection methods are not recommended. A review of available traffic count data yielded morning and evening peak hour traffic counts at the following locations:

3. Aspen Avenue at E/W 4th Street (December 6, 2018).
4. E Stonecreek Drive at E 4th Street (December 6, 2018).
5. NE Highland Road at E 4th Street (December 6, 2018).

Given these available counts, the following methodology for data collection and volume adjustment was utilized:

- The historical 2018 traffic counts were grown to reflect 2022 existing conditions by applying a 1.26 percent per year compounded growth factor, in accordance with the Clark County Management Decision memorandum, dated March 20, 2020.
- Since 2018 - early 2020 traffic counts are not available at the other study intersections, current year 2022 traffic counts were collected at all of the existing study intersections on Wednesday, June 29, 2022, from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. Additionally, 24-hour roadway counts were collected along NE 339th Street east of E Tanoak Avenue on Thursday, July 13, 2022 in order to estimate major-street volumes at the future access intersection along NE 339th Street.
- The 2018 historical count data (grown to reflect 2022 conditions) and the recently collected 2022 counts at Intersection 3, Intersection 4, and Intersection 5 were compared. Based on the difference in peak period volumes for the three count locations, adjustment factors were calculated. These adjustment factors are intended to estimate normal traffic conditions without impacts from the COVID-19 virus (i.e. normal commuter patterns, businesses open, etc).
- The calculated adjustment factors were applied to their respective year 2022 intersection counts for the morning and evening peak hours. For intersections where pre-COVID-19 count data is unavailable, the calculated adjustment factors were averaged between the three locations for the morning and evening peak hours and applied to the recently collected year 2022 traffic counts.

Table 4 presents the calculated adjustment factors for each of the count locations as well as average adjustment factors for both the morning and evening peak hours.

Table 4: COVID-19 Adjustment Factor Calculations

	AM Peak Period (7:00 AM to 9:00 AM)	PM Peak Period (4:00 PM to 6:00 PM)
3. Aspen Avenue at E/W 4th Street		
Collected 2022 Peak Hour Volumes	1,083	1,754
Historical 2018 Peak Hour Volumes	1,198	1,671
Compounded Growth Factor (1.26% Per Year Over 4 Years)	1.0514	1.0514
Historical 2018 Peak Hour Volumes (Grown to 2022)	1,260	1,757
New Volumes > Grown Historical Volumes?	No	No
Adjustment Factor	1.163	1.002
4. E Stonecreek Drive at E 4th Street		
Collected 2022 Peak Hour Volumes	752	1,285
Historical 2018 Peak Hour Volumes	1,264	1,473
Compounded Growth Factor (1.26% Per Year Over 4 Years)	1.0514	1.0514
Historical 2018 Peak Hour Volumes (Grown to 2022)	1,329	1,549
New Volumes > Grown Historical Volumes?	No	No
Adjustment Factor	1.767	1.205
5. NE Highland Avenue at E 4th Street		
Collected 2022 Peak Hour Volumes	738	1,271
Historical 2018 Peak Hour Volumes	1,195	1,450
Compounded Growth Factor (1.26% Per Year Over 4 Years)	1.0514	1.0514
Historical 2018 Peak Hour Volumes (Grown to 2022)	1,256	1,524
New Volumes > Grown Historical Volumes?	No	No
Adjustment Factor	1.702	1.199
Average Adjustment Factors		
Average	1.544	1.135

Figure 4 shows the adjusted year 2022 existing traffic volumes at the study intersections during the morning and evening peak hours.



Background Conditions

Volume Growth

To provide analysis of the impact of the proposed development on the nearby transportation facilities, an estimate of future traffic volumes is required. In order to approximate the future year 2024 traffic volumes at the study intersections, a compounded growth rate of two percent per year for an assumed buildout condition of two years was applied to the adjusted year 2022 existing traffic volumes.

In-Process Data

In addition to the traffic volume growth described above, there are several in-process developments that are currently approved/proposed for construction within the site vicinity that are expected to impact nearby study intersections. The in-process developments include the following:

- Asa's View Subdivision – 0 percent constructed
- Highland Terrace Subdivision (aka Riverside Estates) – Approximately 10 percent of houses constructed, 0 percent of apartment units constructed
- Lockwood Meadows Subdivision – 0 percent constructed
- Stephen Hillside Farm Subdivision – 0 percent constructed

The in-process developments are currently not fully contributing trips to the transportation system but may potentially be by the assumed 2024 buildout year of the site. Additional trips corresponding to each in-process development were added to the existing year traffic volumes in addition to the two years of traffic growth at each of the applicable study intersections. To maintain a conservative analysis of operation at the study intersections, all in-process developments were assumed to be constructed by year 2024. Figure A in the technical appendix shows the in-process development trips at the study intersections during the morning and evening peak hours.

Planned Transportation Infrastructure Projects

Based on correspondence with City of La Center staff and referring to the *Breeze Creek/4th Street Widening Traffic Analysis Report*, dated November 5, 2020, several transportation improvement projects are planned along E 4th Street near La Center Elementary School. Specific to applicable study intersections, the following are planned:

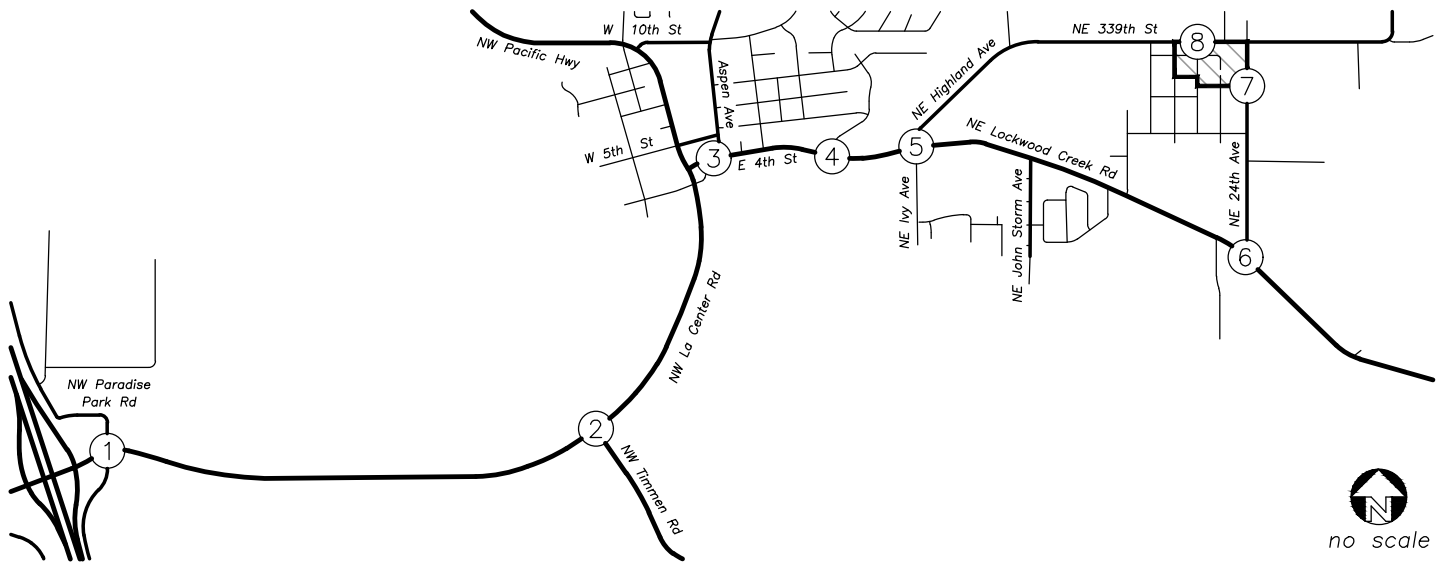
4. E Stonecreek Drive at E 4th Street
 - a. Widen E 4th Street to a three-lane cross-section east of the intersection and stripe a center two-way left-turn lane.
 - b. On the west leg of the intersection, stripe an eastbound left-turn lane.
5. NE Highland Avenue at E 4th Street
 - a. Install a traffic signal at the intersection while maintaining existing lane configurations.

It is assumed that future year 2024 conditions would reflect the aforementioned revisions to the transportation system. Figure 2 presents these future planned intersection configurations. Figure 5 shows the projected year 2024 background traffic volumes at the study intersections during the morning and evening peak hours.

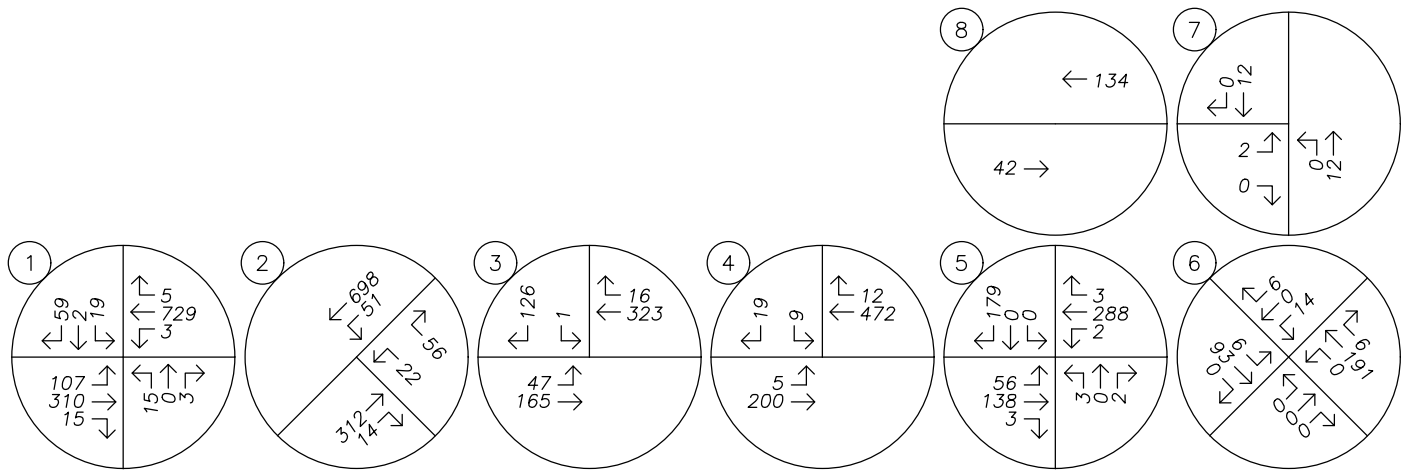
Buildout Conditions

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 2024 background traffic volumes to obtain the expected 2024 site buildout volumes.

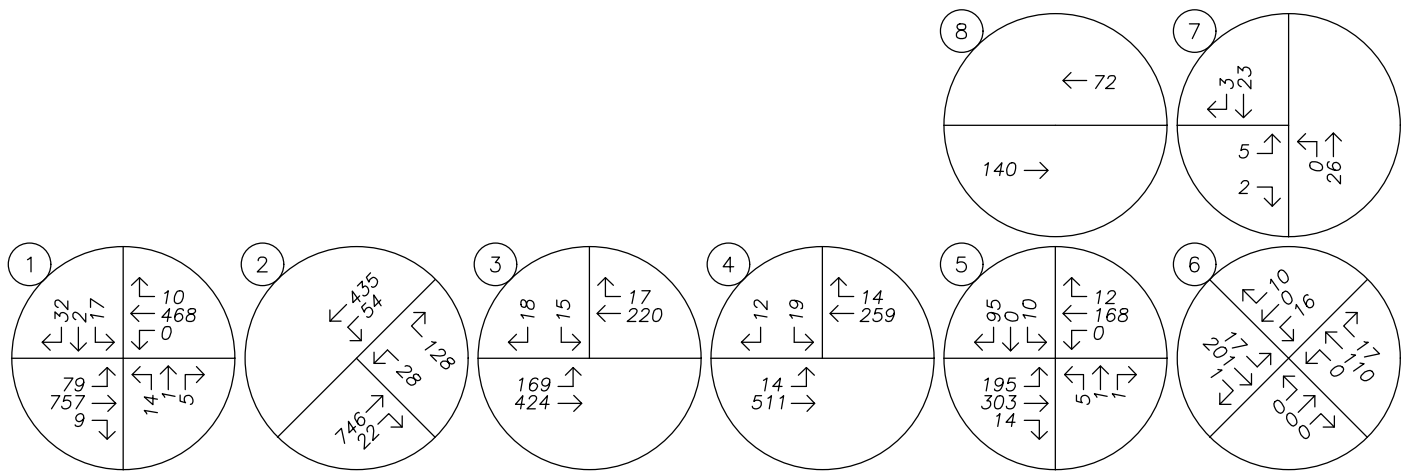
Figure 6 show the year 2024 buildout traffic volumes at the study intersections during the morning and evening peak hours.

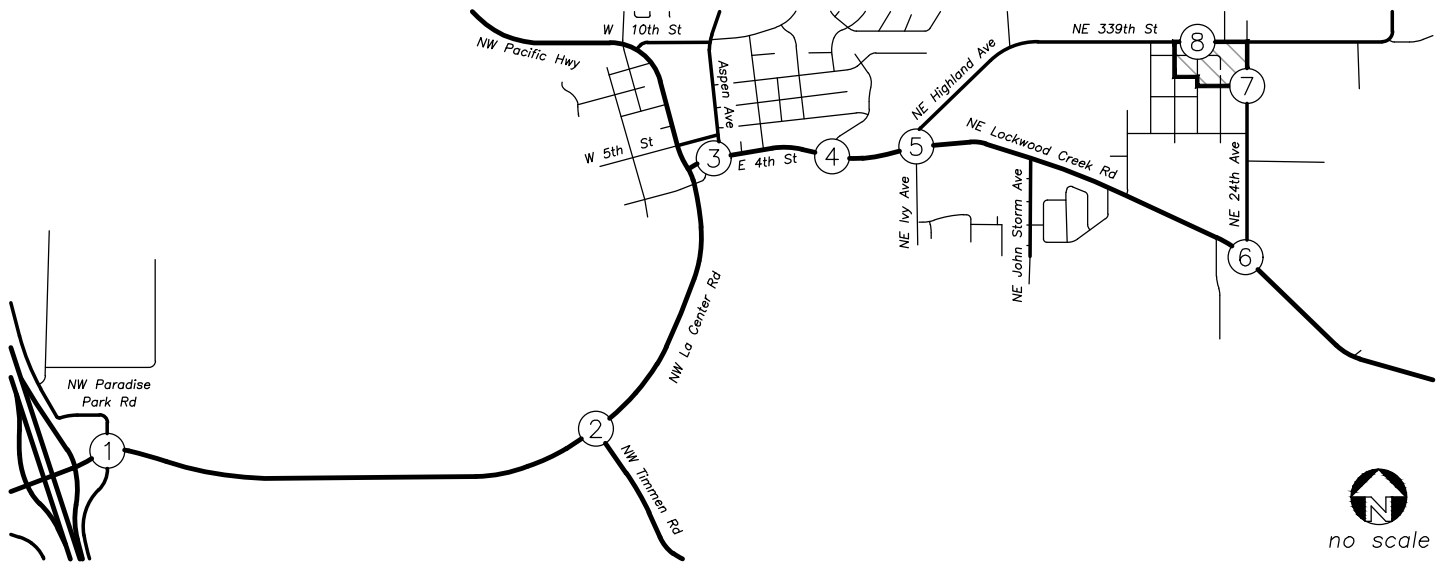


AM PEAK HOUR

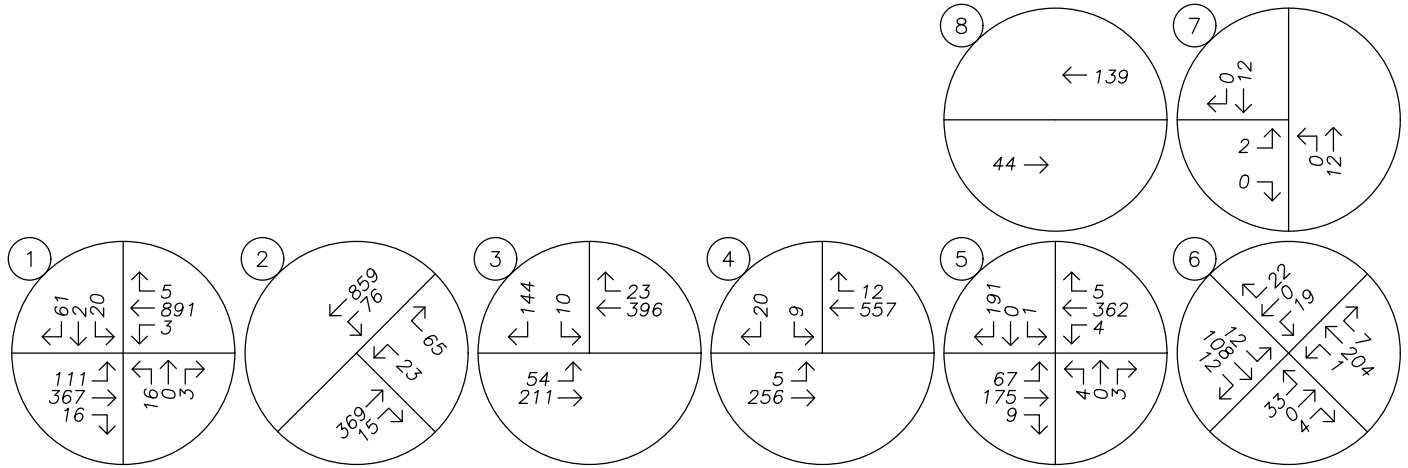


PM PEAK HOUR

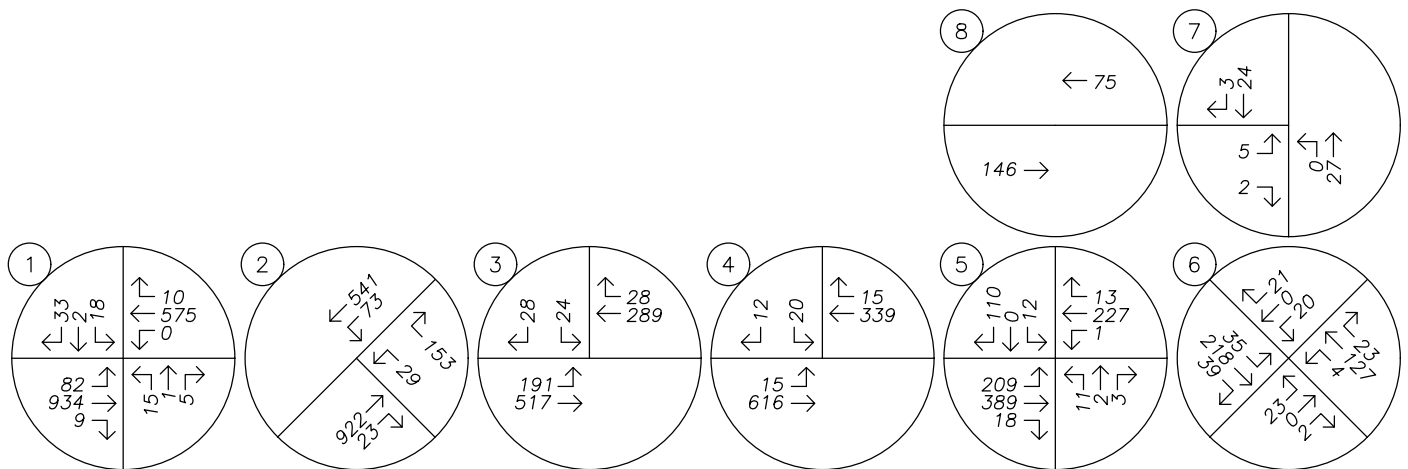


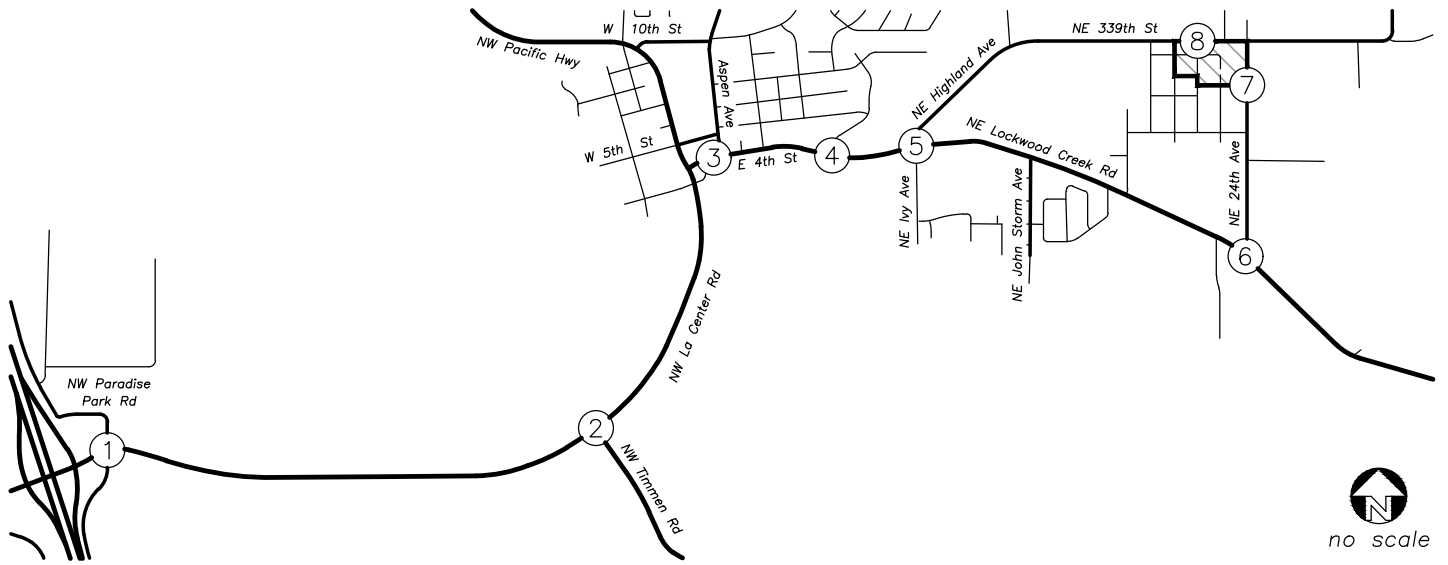


AM PEAK HOUR

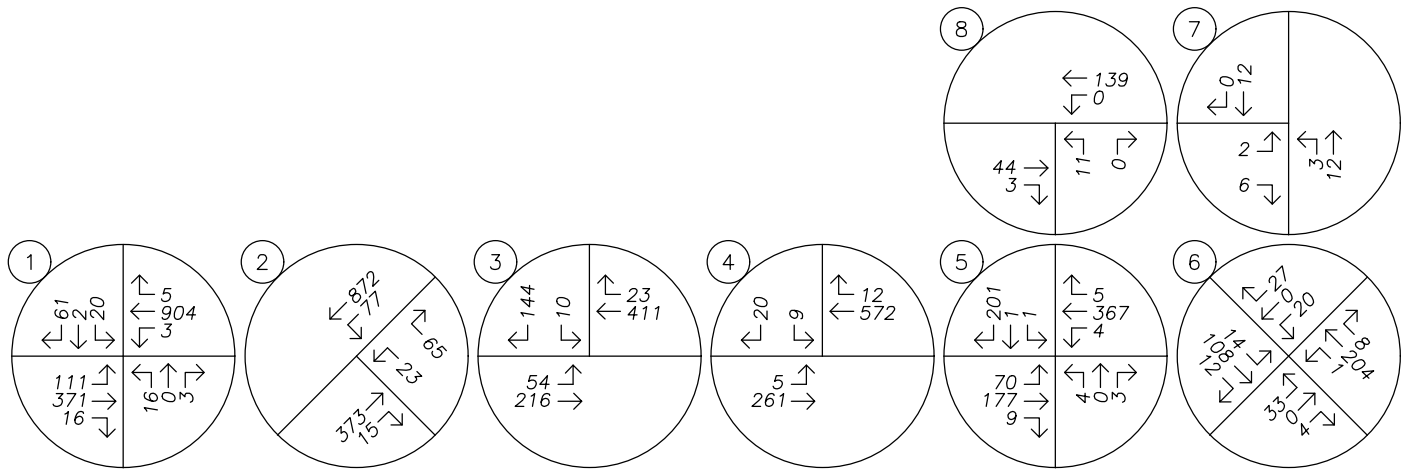


PM PEAK HOUR

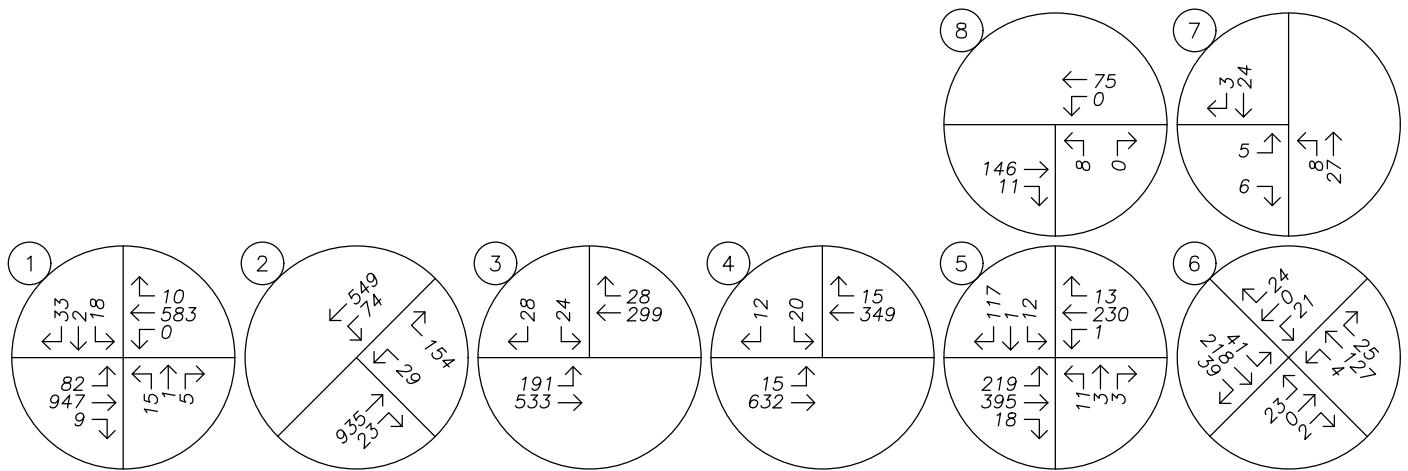




AM PEAK HOUR



PM PEAK HOUR



Safety Analysis

Crash History Review

Using data obtained from the Washington Department of Transportation (WSDOT) Crash Data and Reporting Branch, a review of the most recent available five years of crash history (January 2017 to December 2021) at the study intersections was performed. The crash data was evaluated based on the number of crashes, the type of collisions, the severity of the collisions, and the resulting crash rate for the intersection.

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 1.00 crashes per million entering vehicles (CMEV) may be indicative of design deficiencies and therefore require a need for further investigation and possible mitigation.

With regard to crash severity, WSDOT classifies crashes in the following categories:

- *No Apparent Injury (NA);*
- *Possible Injury (P);*
- *Suspected Minor Injury (SM);*
- *Suspected Serious Injury (SS); and*
- *Fatality or Fatal Injury.*

Table 5 provides a summary of crash types while Table 6 summarizes crash severities and rates for each of the applicable study intersections. Crash data is included in the technical appendix to this report.

Table 5: Crash Type Summary

Number	Intersection	Crash Type							Total
		Rear End	Turn	Angle	Fixed Object	Side swipe	Ped/ Bike	Other	
1	NW Paradise Park Road at NW La Center Road	0	1	1	0	0	0	0	2
2	NW Timmen Road at NW La Center Road	0	1	0	1	0	0	0	2
3	Aspen Avenue at E/W 4th Street	0	0	0	0	0	0	0	0
4	E Stonecreek Drive at E 4th Street	0	0	0	0	0	0	0	0



Table 5: Crash Type Summary (Continued)

Number	Intersection	Crash Type							Total
		Rear End	Turn	Angle	Fixed Object	Side swipe	Ped/ Bike	Other	
5	NE Highland Avenue at E 4th Street	0	0	1	0	0	1	0	2
6	NE 24th Avenue at NE Lockwood Creek Road	0	0	0	0	0	0	0	0
7	NE 24th Avenue at E 8th Way	0	0	0	0	0	0	0	0

Table 6: Crash Severity and Rate Summary

Number	Intersection	Crash Severity					Total Crashes	AADT	Crash Rate
		NA	P	SM	SS	Fatal			
1	NW Paradise Park Road at NW La Center Road	2	0	0	0	0	2	13,940	0.07
2	NW Timmen Road at NW La Center Road	0	1	1	0	0	2	14,130	0.08
3	Aspen Avenue at E/W 4th Street	0	0	0	0	0	0	8,630	0.00
4	E Stonecreek Drive at E 4th Street	0	0	0	0	0	0	8,290	0.00
5	NE Highland Avenue at E 4th Street	1	1	0	0	0	2	8,040	0.14
6	NE 24th Avenue at NE Lockwood Creek Road	0	0	0	0	0	0	3,720	0.00
7	NE 24th Avenue at E 8th Way	0	0	0	0	0	0	590	0.00

Table Notes: **BOLDED** text indicates a crash rate in excess of 1.00 CMEV.

Per Table 6, one crash at the intersection of NE Highland Avenue at E 4th Street involved a pedestrian. The crash occurred when the driver of an eastbound small truck/van failed to yield right-of-way to a pedestrian and struck



the pedestrian. The crash was classified as was classified as *Possible Injury*, where one person involved in the collision sustained injuries. There was another contributing factor for the crash occurring on the part of the pedestrian; however, no specifics were mentioned in the crash data.

Based on a review of 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.

Sight Distance Evaluation

Intersection sight distance was measured for the proposed site access intersection approach along NE 339th Street and evaluated in accordance with the standards established in *A Policy of Geometric Design of Highways and Streets*². According to AASHTO, the driver's eye is assumed to be approximately 15 feet from the near edge of the nearest travel lane of the intersecting street and at a height of 3.5 feet 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 the posted speed of 35 mph along NE 339th Street, the minimum recommended intersection sight distances include the following:

- 390 feet to the east for left turning vehicles.
- 335 feet to the west for right turning vehicles.

Note that due to an on-site fence and foliage near the access, sight distances were measured approximately 8 feet behind the edge of the roadway rather than the standard 15 feet behind the edge of the traveled way. However, no other obstructions were noted either on-site or along the roadway which would reduce sight distances to less than those measured in the field if measurements had been conducted at the standard 15-foot distance.

Provided any obstructing on-site foliage near the access is removed/properly maintained and the existing on-site fence along the north edge of the site is removed following redevelopment of the site, sight distances to the east and west were measured to be in excess of 400 feet in both directions. Therefore, adequate intersection sight distances to the east and west of the proposed site access can be made available to ensure safe and efficient operation along NE 339th Street. No other mitigation is necessary or recommended with regard to sight distance at the proposed access intersection.

Warrant Analysis

Left-turn lane 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 used were developed from the *National Cooperative Highway Research Project's (NCHRP) Report 457*. Turn lane warrants were evaluated based on the number of

² American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Streets*, 6th Edition, 2011.

advancing and opposing vehicles as well as the number of turning vehicles, the travel speed, and the number of through lanes.

Warrants were evaluated at study intersections where left-turn lanes are not currently provided or planned for installation. Left-turn lane warrants are not projected to be met at any of the applicable study intersections along NE Lockwood Creek Road, NE 24th Avenue, or NE 339th Street. Accordingly, no new left-turn lanes are necessary or recommended at any of the study intersections as part of the proposed Valley View Subdivision project.

Preliminary Traffic Signal Warrants

Preliminary traffic signal warrants were examined for the unsignalized study intersections where a traffic signal is currently not planned to determine whether the installation of a new traffic signal will be warranted at the intersections by the 2024 site buildout year. Based on the preliminary analysis following a review of Warrant 1 in the *Manual on Uniform Traffic Control Devices*, or MUTCD, traffic signal warrants are projected to be met at the intersection of NW Timmen Road at NW La Center Road under year 2024 background conditions without the proposed development constructed.

Per the City of La Center's Transportation Capital Facilities Plan, dated July 25, 2018, project ID T12 indicates the intersection is planned for improvement by either reconstructing it as a roundabout or installing a traffic signal. According to separate correspondence with City of La Center staff, the intersection is currently planned as a roundabout and the improvement project is Traffic Impact Fee (TIF) eligible.

No other new traffic signals are necessary or recommended as part of the proposed development application.



Operational Analysis

Intersection Capacity Analysis

A capacity and delay analysis were conducted for each of the study intersections per the signalized and unsignalized intersection analysis methodologies in the *Highway Capacity Manual (HCM)*³. 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

Per the *La Center Transportation Capital Facilities Plan (2018)*, the following minimum operation standards apply at intersections under City jurisdiction:

- Signalized intersections, as a whole, are required to operate at LOS D or better with a v/c ratio of 0.95 or less during the highest one-hour period of an average weekday.
- Unsignalized intersections are required to operate at LOS E or better for all movements during the highest one-hour period of an average weekday.

Delay & Capacity Analysis

The LOS, delay, and v/c results of the capacity analysis are shown in Table 7 for the morning and evening peak hours. Note that TrafficWare’s Synchro 10 software, utilizing HCM 6th Edition methodologies, does not report an overall v/c ratio for signalized intersections. Therefore, the overall intersection v/c ratio for the NE Highland Avenue at E 4th Street intersection was reported based on HCM 2000 methodologies. Detailed calculations as well as tables showing the relationship between delay and LOS are included in the appendix to this report.

Table 7: Intersection Capacity Analysis Summary

Analysis Scenario	AM Peak Hour			PM Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
1. NW Paradise Park Road at NW La Center Road						
2022 Existing Conditions	F	85	0.28	F	54	0.20
2024 Background Conditions	F	>120	0.53	F	105	0.36
2024 Buildout Conditions	F	>120	0.55	F	110	0.37

Table Notes: **BOLDED** text indicates intersection operation above jurisdictional standards.

³ Transportation Research Board, *Highway Capacity Manual 6th Edition*, 2016.



Table 7: Intersection Capacity Analysis Summary (Continued)

Analysis Scenario	AM Peak Hour			PM Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
2. NW Timmen Road at NW La Center Road						
2022 Existing Conditions	D	27	0.13	E	37	0.37
2024 Background Conditions	E	43	0.21	F	71	0.57
2024 Buildout Conditions	E	44	0.22	F	75	0.58
3. Aspen Avenue at E/W 4th Street						
2022 Existing Conditions	B	14	0.20	D	26	0.15
2024 Background Conditions	C	16	0.25	E	39	0.21
2024 Buildout Conditions	C	16	0.26	E	41	0.22
4. E Stonecreek Drive at E 4th Street						
2022 Existing Conditions	B	13	0.06	C	15	0.09
2024 Background Conditions*	B	13	0.07	B	14	0.08
2024 Buildout Conditions*	B	13	0.07	B	14	0.09
5. NE Highland Avenue at E 4th Street						
2022 Existing Conditions	C	19	0.26	D	29	0.16
2024 Background Conditions*	A	10	0.39	A	10	0.47
2024 Buildout Conditions *	B	10	0.40	A	10	0.48
6. NE 24th Avenue at NE Lockwood Creek Road						
2022 Existing Conditions	B	11	0.04	B	11	0.05
2024 Background Conditions	B	12	0.08	B	15	0.09
2024 Buildout Conditions	B	12	0.08	B	15	0.10
7. NE 24th Avenue at NE 8th Way						
2022 Existing Conditions	A	9	<0.01	A	9	0.01
2024 Background Conditions	A	9	<0.01	A	9	0.01
2024 Buildout Conditions	A	9	0.01	A	9	0.02
8. E Vine Maple Avenue at NE 339th Street						
2024 Buildout Conditions	A	10	0.02	B	10	0.01

Table Notes: **BOLDED** text indicates intersection operation above jurisdictional standards.

* Traffic controls revised based on planned transportation improvement projects.

Based on the results of the operational analysis, the following intersections are currently or projected to exceed City of La Center mobility standards:



1. NW Paradise Park Road at NW La Center Road: LOS F under current year 2022 conditions during the morning and evening peak hours.
2. NW Timmen Road at NW La Center Road: LOS F under future year 2024 conditions, without project buildout, during the evening peak hour.

Further inspection and potential mitigation at these intersections are discussed within the *Mitigation Analysis* section.

All other study intersections are currently operating acceptably per La Center standards and are projected to continue operating acceptably through the 2024 buildout year of the site, provided planned mitigation at the intersections of E Stonecreek Drive at E 4th Street and NE Highland Avenue at E 4th Street are implemented. Accordingly, no other operational mitigation is necessary or recommended at these study intersections.

Mitigation Analysis

As determined within the *Intersection Capacity Analysis* section, the two study intersections along NW La Center Road are either currently and/or projected to exceed acceptable La Center mobility standards. According to City of La Center staff, both intersections are under consideration to be redesigned as roundabouts:

1. NW Paradise Park Road at NW La Center Road
 - a. Per the City of La Center's Transportation Capital Facilities Plan, project ID T12 indicates the intersection is planned for improvement by either reconstructing it as a roundabout or installing a traffic signal. According to separate correspondence with City of La Center staff, the intersection is currently planned as a roundabout and the improvement project is TIF eligible.
 - b. The intersection was assumed to have two eastbound and westbound approach lanes, consistent with the roundabout intersections to the west, and one northbound and southbound approach lane.
2. NW Timmen Road at NW La Center Road
 - a. A roundabout is planned for construction at the intersection once traffic signal warrants are met. Per the *Warrant Analysis* section in this report, signal warrants are not projected to be met by the buildout year of the site.
 - b. The intersection was assumed to be designed as a single lane roundabout.

Although not expected to be constructed by year 2024, upon implementation of these planned mitigations, both intersections are projected to operate within acceptable levels of capacity. Therefore, no further mitigation is necessary or recommended at these intersections.

The LOS, delay, and v/c results of the capacity analysis are shown in Table 8 for the morning and evening peak hours.

Table 8: Mitigation Analysis Summary

Analysis Scenario	AM Peak Hour			PM Peak Hour		
	LOS	Delay (s)	v/c	LOS	Delay (s)	v/c
1. NW Paradise Park Road at NW La Center Road						
2024 Buildout Conditions	F	>120	0.55	F	110	0.37
2024 Mitigated Conditions	A	7	0.44	A	6	0.41
2. NW Timmen Road at NW La Center Road						
2024 Buildout Conditions	E	44	0.22	F	75	0.58
2024 Mitigated Conditions	B	12	0.79	B	14	0.81

Table Notes: **BOLDED** text indicates intersection operation above jurisdictional standards.



Conclusions

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.

Provided any obstructing on-site foliage near the site access along NE 339th Street is removed/properly maintained and the existing on-site fence along the north edge of the site is removed, adequate intersection sight distances to the east and west of the proposed site access can be made available to ensure safe and efficient operation along NE 339th Street. No other mitigation is necessary or recommended with regard to sight distance at the proposed access intersection.

Left-turn lane warrants are not projected to be met at any of the applicable study intersections along NE Lockwood Creek Road, NE 24th Avenue, or NE 339th Street. Accordingly, no new left-turn lanes are necessary or recommended at any of the study intersections as part of the proposed Valley View Subdivision project.

Traffic signal warrants are projected to be met at the intersection of NW Timmen Road at NW La Center Road under year 2024 background conditions without the proposed development constructed. Per the City of La Center's Transportation Capital Facilities Plan and City staff, the intersection is currently planned as a roundabout and the improvement project is Traffic Impact Fee (TIF) eligible. No other new traffic signals are necessary or recommended at other study intersections as part of the proposed development application.

Based on the results of the operational analysis, the following intersections are currently or projected to exceed City of La Center mobility standards:

1. NW Paradise Park Road at NW La Center Road
2. NW Timmen Road at NW La Center Road

Both intersections are under consideration to be reconstructed as roundabouts, provided signal warrants and/or sufficient TIF's have been collected for these projects. Once these mitigative measures are implemented both intersections are projected to operate acceptably per City of La Center standards. Accordingly, no other operational mitigation is necessary or recommended at these study intersections.

All other study intersections are currently operating acceptably per La Center standards and are projected to continue operating acceptably through the 2024 buildout year of the site, provided planned mitigation at the intersections of E Stonecreek Drive at E 4th Street and NE Highland Avenue at E 4th Street are implemented. Accordingly, no other operational mitigation is necessary or recommended at these study intersections.

Appendix A – Site Plan

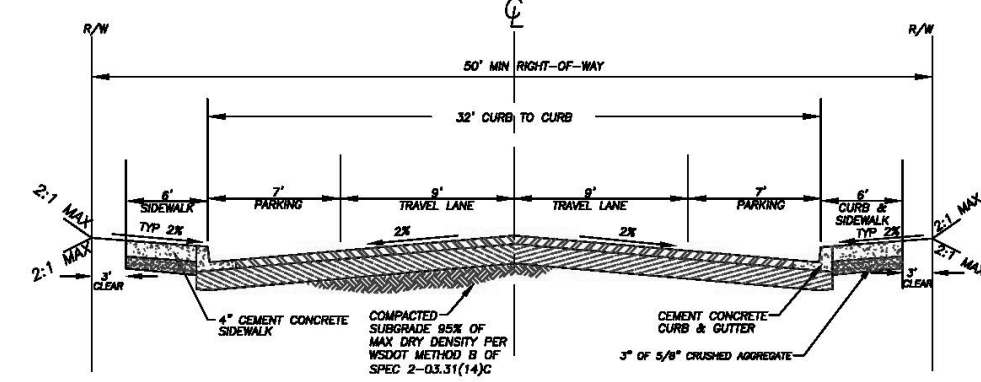
Site Plan



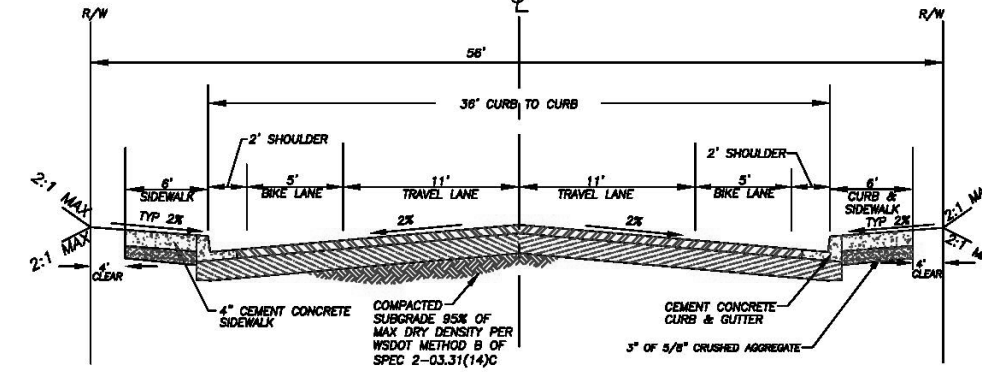
Valley View

A Subdivision In The
NE 1/4 of Section 02, T4N R1E WM
 County Parcel #: **209062000**
 Site Address: **2219 NE 339th Street**
La Center, WA 98629
 Site Area: **376,358+/- SF (8.64+/- acres)**
 Site Zoning: **LDR-7.5**

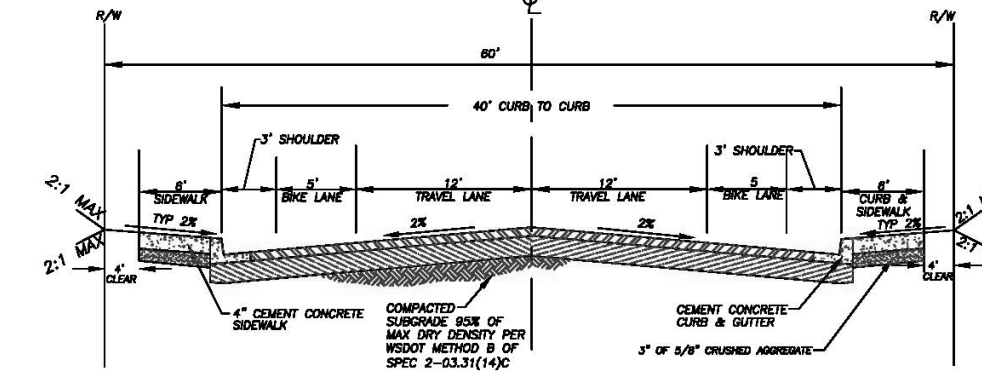
Detail 1: Local Access
 All Proposed Internal Roads
 Not to Scale



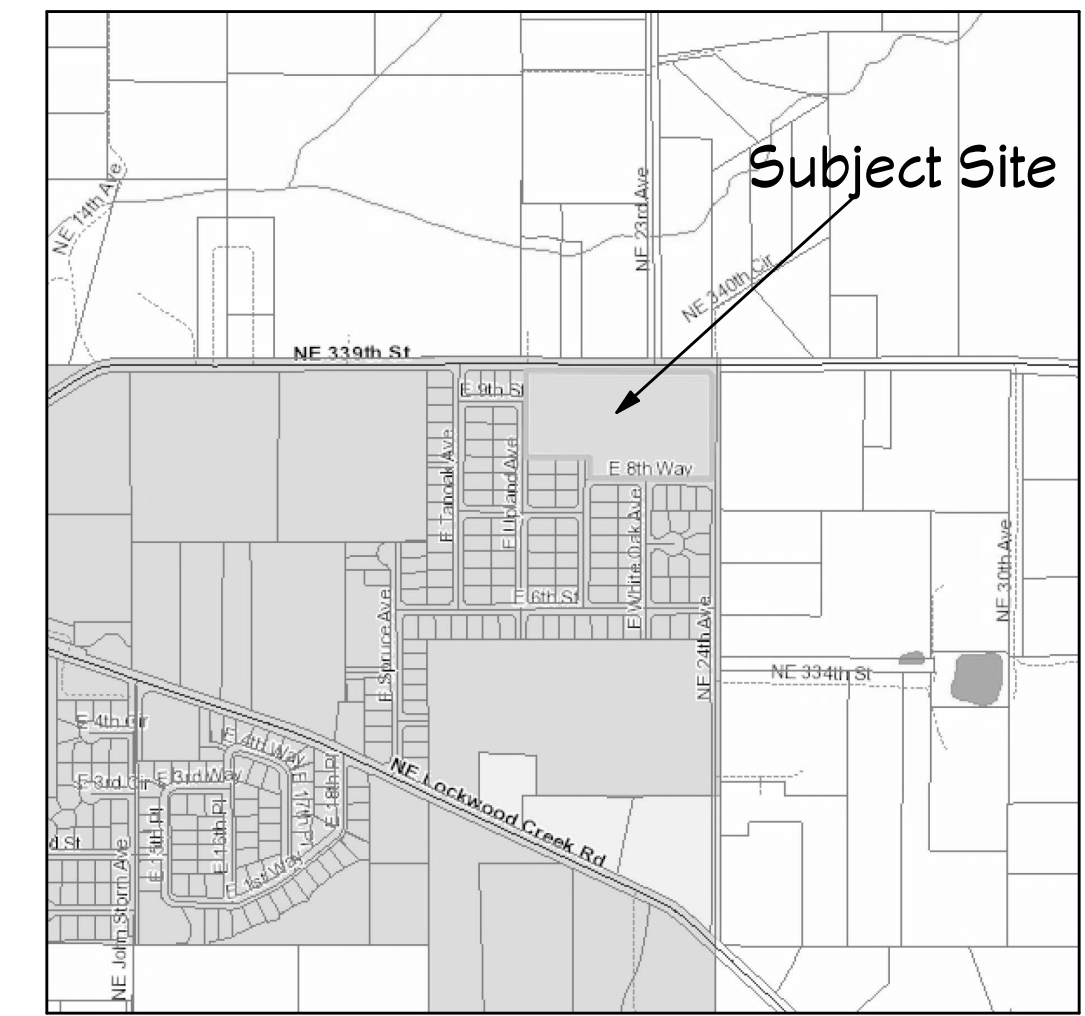
Detail 2: Rural Minor Collector
 NE 24th Avenue
 Not to Scale



Detail 3: Rural Major Collector
 NE 339th Street
 Not to Scale



VICINITY MAP



CURRENT OWNER:
 The Chicken Ranch, LLC
 PO Box 128
 La Center, Washington 98629
 503-348-1134
 sandyperrott88@hotmail.com

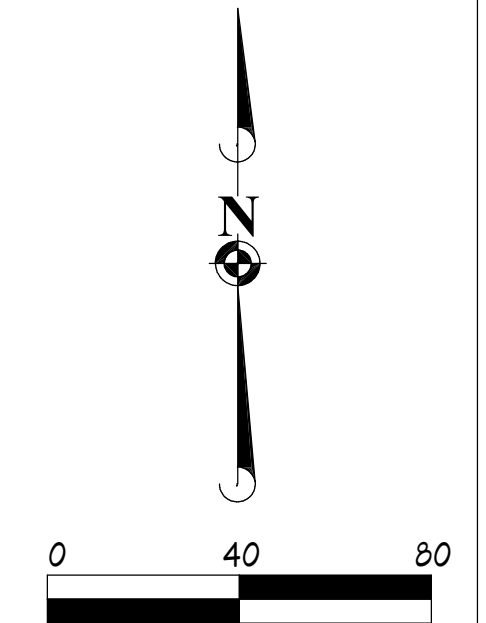
PLAT NOTES:

- Total Gross Area = 376,358 SF / 8.64 acres
- This subdivision proposes 34 single family residential lots.
- Site is currently zoned LDR-7.5
- Largest lot is 9,082 SF; Smallest lot is 7,500 SF; Average Lot size is 7,833 SF.
- Two flag lots are proposed.
 - The flag "pole" for both lots is 20' wide and only 104' long.
 - Both lots are 9,082 SF WITHOUT counting the flag "pole".
 - The flag "pole" for both lots can be constructed to the standards in 18.210.040.(3).(b).
- Gross density equals 3.93 dwelling units per acre; Net density equals 5.54 dwelling units per acre.
- All existing structures are to be removed. No new buildings or structures are proposed. Refer to Existing Conditions for existing structures.
- If required, a 6' tall chain-link fence around storm facility in proposed Tract A is only proposed fence. No walls are proposed.
- Only proposed landscaping are required street trees installed at required locations.
- Only proposed lighting is required street lighting that will be designed during final engineering.
- Only street parking proposed with this plan. Driveway and garage parking will be provided during building permit. No loading facilities are proposed.
- NE 339th Street is classified as a "Rural Major Collector".
- NE 24th Ave are classified "Rural Minor Collector".
- All proposed internal roads will be classified as "Local Access" roads.
- There are NO existing or proposed pedestrian facilities besides sidewalk.
- There are NO existing or proposed easements.
- There is an existing well shown on the Existing Conditions that will be properly abandon.
- There is an existing septic tank and septic drain-field shown on the Existing Conditions that will be properly abandon.
- There are NO other above ground tanks or known underground tanks.
- Refer to Existing Conditions for all existing public and private utilities.
- Public water will be extended from Heritage Country Estates and serve all new lots.
- Public sewer will be extended from Heritage Country Estates and serve all new lots.
- Storm water that drains south and West will be collected and sent to existing storm system in Heritage Country Estates.
- Storm water that drains north and east will be collected, treated and detained in proposed Tract A and released to existing drainage course to the north.
- Private utilities such as phone, cable & gas may be extended to and throughout this plan.
- In the LDR-7.5, only those developments proposing 40 or more units have to address Parks and Open Space.
- Impact Fees and System Development Charges: At time of the Application are as follows:
 - Traffic Impact Fee = \$1,561.00 per dwelling unit. Total = \$249,513.00
 - Park Impact Fee = \$2,842.00 per dwelling unit. Total = \$493,786.00
 - School Impact Fee = \$5,501.00 per dwelling unit. Total = \$115,533.00
 - Sanitary Sewer System Development Charge = \$1,800.00 per dwelling unit. Total = \$265,200.00
 - One lot will be exempt from Impact Fees as it is replacing an existing home.
- There are NO environmental critical areas on or known within 100' of site.



LEGEND

---	E-ROW	---	E-ROW	---	INDICATES EXISTING RIGHT-OF-WAY
---	S-ROW	---	S-ROW	---	INDICATES EXISTING STORM PIPE
---	S-ROW	---	S-ROW	---	INDICATES PROPOSED STORM PIPE
---	---	---	---	---	INDICATES EXISTING WATER LINE
---	---	---	---	---	INDICATES PROPOSED WATER LINE
---	---	---	---	---	INDICATES EXISTING SANITARY SEWER LINE
---	---	---	---	---	INDICATES PROPOSED SANITARY SEWER LINE



#	DATE	REVISION TABLE REVISED BY / NOTES
1	03-23-2022	MHW

Valley View
 A Subdivision In The
NE 1/4 of Section 02, T4N R1E WM
 County Parcel #: **209062000**
 Site Address: **2219 NE 339th Street**
La Center, WA 98629

Preliminary Plat & Preliminary Utility Plan

APPLICANT:
 Summerplace Homes, Inc.
 Shaun Macfarlane
 12401 SE 2nd Circle, Suite A
 VANCOUVER WASHINGTON 98684
 360-253-1488
 shaun@summerplacehomes.com

APPLICANT'S REPRESENTATIVE:
 Wolfe Project Management, LLC
 Mason Wolfe
 2401 W Main Street, Suite 210
 Battle Ground, Washington 98604
 360-907-9588
 mason@wolfepm.com

DATE:
 04/13/2022

SCALE:
 1" = 40'

SHEET:
 P-1

Appendix B – Trip Generation and Distribution

Trip Generation





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

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: 1

WARNING: Variable Quantity is less than Minimum Survey Size for Peak Hours

AM PEAK HOUR

Trip Rate: 0.7

	Enter	Exit	Total
Directional Split	26%	74%	
Trip Ends	0	1	1

PM PEAK HOUR

Trip Rate: 0.94

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	1	0	1

WEEKDAY

Trip Rate: 9.43

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	5	5	10

SATURDAY

Trip Rate: 9.48

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	5	5	10



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

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: **34**

AM PEAK HOUR

Trip Rate: 0.7

	Enter	Exit	Total
Directional Split	26%	74%	
Trip Ends	6	18	24

PM PEAK HOUR

Trip Rate: 0.94

	Enter	Exit	Total
Directional Split	63%	37%	
Trip Ends	20	12	32

WEEKDAY

Trip Rate: 9.43

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	160	160	320

SATURDAY

Trip Rate: 9.48

	Enter	Exit	Total
Directional Split	50%	50%	
Trip Ends	161	161	322

Appendix C – Traffic Volumes

Traffic Counts

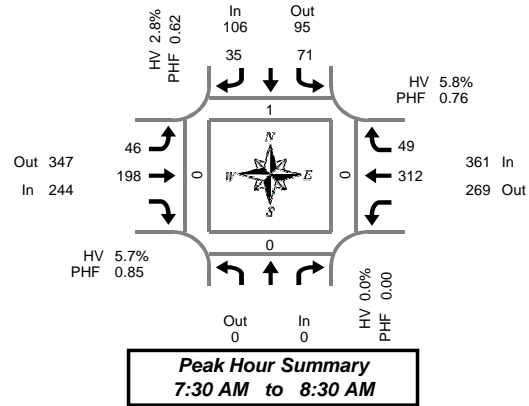
In-Process Data



Total Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & E 4th St

Thursday, December 06, 2018

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St			Westbound E 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	L	R	Total	Bikes	L	T	Total	Bikes	T	R		Total	North	South	East
7:00 AM				0	2	2	0	1	6	7	0	26	2	0	28	1	0	0	1
7:05 AM				0	2	2	0	1	12	13	0	20	0	0	20	0	0	0	0
7:10 AM				0	2	2	0	0	7	7	0	27	2	0	29	0	0	0	0
7:15 AM				0	0	1	0	2	11	13	0	27	0	0	27	0	0	0	0
7:20 AM				0	2	3	0	0	10	10	0	21	1	0	22	0	0	0	0
7:25 AM				0	1	5	0	6	12	18	0	36	1	0	37	0	0	0	0
7:30 AM				0	2	1	0	3	13	16	0	27	1	0	28	0	0	0	0
7:35 AM				0	4	7	0	2	21	25	0	20	1	0	21	0	0	0	0
7:40 AM				0	2	2	0	1	13	16	0	18	3	0	21	0	0	0	0
7:45 AM				0	6	0	0	5	15	20	0	22	3	0	25	0	0	0	0
7:50 AM				0	10	4	0	6	21	27	0	22	6	0	28	0	0	0	0
7:55 AM				0	6	5	0	3	22	25	0	22	5	0	27	0	0	0	0
8:00 AM				0	11	5	0	1	14	15	0	24	3	0	27	0	0	0	0
8:05 AM				0	8	2	0	4	20	24	0	32	4	0	36	1	0	0	0
8:10 AM				0	15	2	0	4	18	22	0	31	4	0	35	0	0	0	0
8:15 AM				0	4	1	0	7	15	20	0	39	8	0	47	0	0	0	0
8:20 AM				0	2	2	0	5	8	13	0	27	5	0	32	0	0	0	0
8:25 AM				0	1	4	0	5	18	23	0	28	6	0	34	0	0	0	0
8:30 AM				0	2	6	0	5	7	12	0	21	5	0	26	0	0	0	0
8:35 AM				0	1	1	0	1	10	11	0	24	4	0	28	0	0	0	0
8:40 AM				0	3	3	0	6	13	19	0	15	3	0	18	0	0	0	0
8:45 AM				0	1	1	0	4	8	12	0	12	1	0	13	0	0	0	0
8:50 AM				0	3	2	0	2	12	14	0	17	3	0	20	0	0	0	0
8:55 AM				0	0	2	0	3	16	19	0	14	1	0	15	0	0	0	0
Total Survey				0	90	65	0	77	322	402	0	572	72	0	644	2	0	0	1

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St			Westbound E 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	L	R	Total	Bikes	L	T	Total	Bikes	T	R		Total	North	South	East
7:00 AM				0	6	6	0	2	25	27	0	73	4	0	77	1	0	0	1
7:15 AM				0	3	9	0	8	33	36	0	84	2	0	86	0	0	0	0
7:30 AM				0	8	10	0	6	47	55	0	65	5	0	70	0	0	0	0
7:45 AM				0	22	9	0	14	58	72	0	66	14	0	80	0	0	0	0
8:00 AM				0	34	9	0	9	52	61	0	87	11	0	98	1	0	0	0
8:15 AM				0	7	7	0	17	41	58	0	94	19	0	113	0	0	0	0
8:30 AM				0	6	10	0	12	30	36	0	60	12	0	72	0	0	0	0
8:45 AM				0	4	5	0	9	36	45	0	43	5	0	48	0	0	0	0
Total Survey				0	90	65	0	77	322	402	0	572	72	0	644	2	0	0	1

Peak Hour Summary

7:30 AM to 8:30 AM

By Approach	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St			Westbound E 4th St			Total	Pedestrians Crosswalk					
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out		Total	North	South	East	West	
Volume	0	0	0	0	106	95	201	0	244	347	591	0	361	269	630	0	711	1	0	0	0
%HV	0.0%				2.8%				5.7%			5.8%			5.3%						
PHF	0.00				0.62				0.85			0.76			0.82						

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St			Westbound E 4th St			Total		
	Total	L	R	Total	L	T	Total	T	R	Total	T	R	Total				
Volume	0	71	35	106	46	198	244	312	49	361	288	25	313				
%HV	NA	NA	NA	0.0%	4.2%	NA	0.0%	2.8%	2.2%	6.6%	NA	5.7%	NA	5.8%	6.1%	5.8%	5.3%
PHF		0.00	0.52	0.63	0.62	0.68	0.85	0.85	0.76	0.64	0.76	0.76	0.82				

Rolling Hour Summary

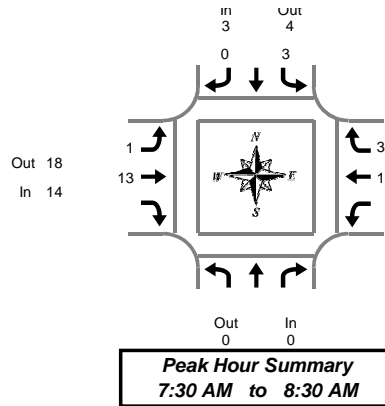
7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St			Westbound E 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	L	R	Total	Bikes	L	T	Total	Bikes	T	R		Total	North	South	East
7:00 AM				0	39	34	0	30	163	193	0	288	25	0	313	1	0	0	1
7:15 AM				0	67	37	0	37	190	227	0	302	32	0	334	1	0	0	0
7:30 AM				0	71	35	0	46	198	244	0	312	49	0	361	1	0	0	0
7:45 AM				0	69	35	0	52	181	233	0	307	56	0	363	1	0	0	0
8:00 AM				0	51	31	0	47	159	206	0	284	47	0	331	1	0	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & E 4th St

Thursday, December 06, 2018

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 4th St			Westbound E 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	3	3	0	1	1	4
7:05 AM	0	0	0	0	0	0	0	3	3	1	0	1	4
7:10 AM	0	0	0	0	0	0	0	2	2	1	0	1	3
7:15 AM	0	0	0	0	0	1	1	2	2	0	0	0	2
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	1	1	0	0	0	1
7:50 AM	0	1	0	1	0	1	0	1	1	1	1	2	4
7:55 AM	0	1	0	1	0	3	0	3	3	0	1	1	5
8:00 AM	0	1	0	1	0	0	0	0	0	0	1	1	2
8:05 AM	0	0	0	0	0	0	2	2	2	2	0	2	4
8:10 AM	0	0	0	0	0	0	1	1	1	11	0	11	12
8:15 AM	0	0	0	0	0	0	2	2	2	3	0	3	5
8:20 AM	0	0	0	0	0	0	1	1	1	1	0	1	2
8:25 AM	0	0	0	0	0	0	3	3	3	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	1
8:35 AM	0	0	0	0	0	0	1	1	1	1	0	1	2
8:40 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:50 AM	0	0	0	0	0	0	2	2	2	1	1	2	4
8:55 AM	0	0	0	0	0	0	2	2	2	1	0	1	3
Total Survey	0	3	0	3	2	27	29	29	29	24	6	30	62

Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 4th St			Westbound E 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	8	8	2	1	3	11
7:15 AM	0	0	0	0	0	1	1	2	2	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	2	0	2	1	4	5	5	5	1	2	3	10
8:00 AM	0	1	0	1	0	3	3	3	3	13	1	14	18
8:15 AM	0	0	0	0	0	0	6	6	6	4	0	4	10
8:30 AM	0	0	0	0	0	0	1	1	1	2	1	3	4
8:45 AM	0	0	0	0	0	0	4	4	4	2	1	3	7
Total Survey	0	3	0	3	2	27	29	29	29	24	6	30	62

Heavy Vehicle Peak Hour Summary

7:30 AM to 8:30 AM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	3	4	7	14	18	32	21	16	37	38
PHF	0.00			0.25			0.58			0.33			0.45

By Movement	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 4th St			Westbound E 4th St			Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
Volume	0	3	0	3	1	13	14	14	14	18	3	21	38
PHF	0.00	0.25	0.00	0.25	0.25	0.54	0.58			0.28	0.25	0.33	0.45

Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 4th St			Westbound E 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
7:00 AM	0	2	0	2	2	13	15	15	15	3	3	6	23
7:15 AM	0	3	0	3	2	8	10	10	10	14	3	17	30
7:30 AM	0	3	0	3	1	13	14	14	14	18	3	21	38
7:45 AM	0	3	0	3	1	14	15	15	15	20	4	24	42
8:00 AM	0	1	0	1	0	14	14	14	14	21	3	24	39

Peak Hour Summary

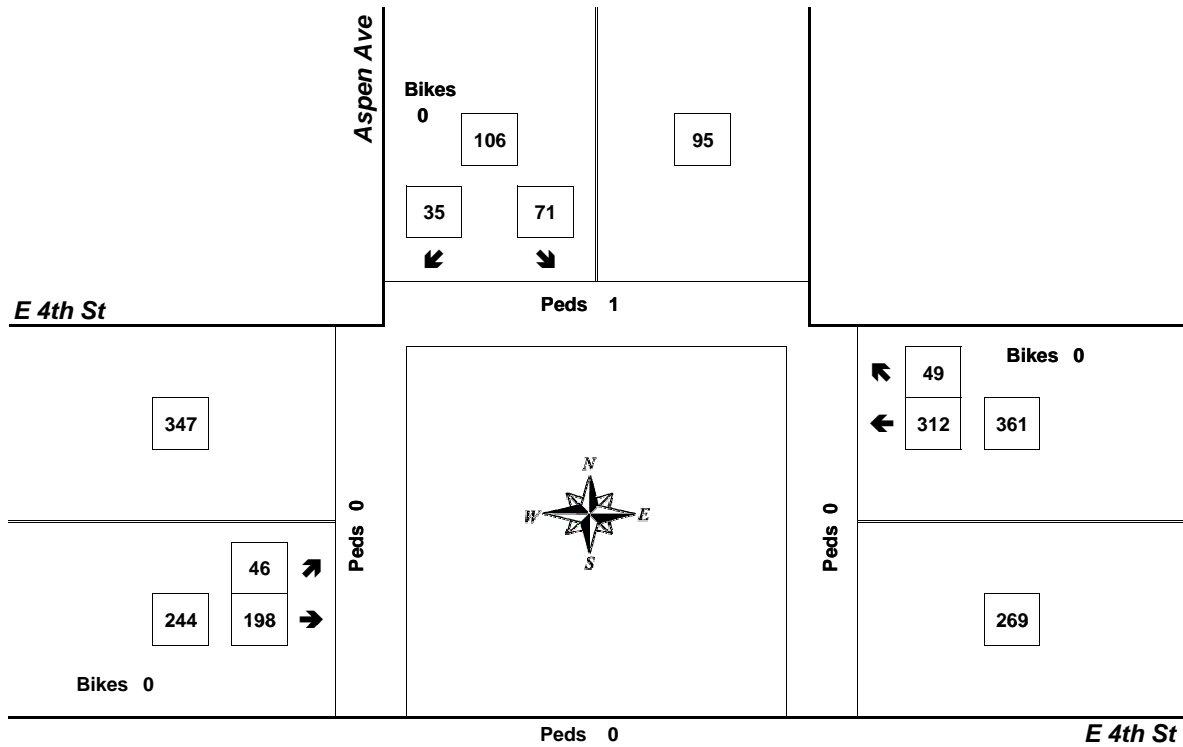


Clay Carney
(503) 833-2740

Aspen Ave & E 4th St

7:30 AM to 8:30 AM

Thursday, December 06, 2018



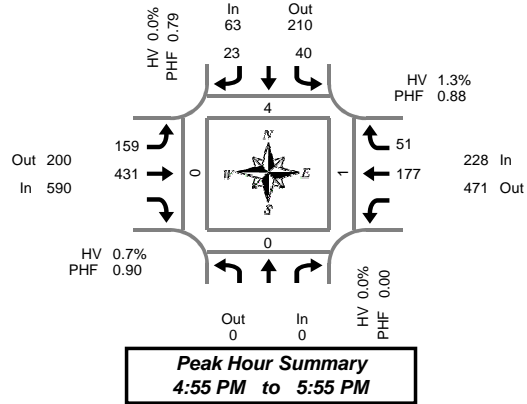
Approach	PHF	HV%	Volume
EB	0.85	5.7%	244
WB	0.76	5.8%	361
NB	0.00	0.0%	0
SB	0.62	2.8%	106
Intersection	0.82	5.3%	711

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & E 4th St

Thursday, December 06, 2018

4:00 PM to 6:00 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St			Westbound E 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	L	R	Total	Bikes	L	T	Bikes	T	R	Bikes		North	South	East	West
4:00 PM				0	2	2	0	10	39	0	17	3	0	73	0	0	0	0	
4:05 PM				0	1	2	0	5	42	0	21	3	0	74	0	0	0	0	
4:10 PM				0	2	1	0	16	29	0	19	2	0	69	0	0	0	0	
4:15 PM				0	0	1	0	13	28	0	15	9	0	66	0	0	0	0	
4:20 PM				0	1	2	0	10	28	0	14	1	0	56	2	0	1	0	
4:25 PM				0	1	1	0	16	27	0	22	3	0	70	2	0	0	0	
4:30 PM				0	1	2	0	17	33	0	16	2	0	71	1	0	0	0	
4:35 PM				0	1	4	0	8	33	0	18	0	0	64	0	0	0	0	
4:40 PM				0	4	2	0	14	30	0	17	3	0	70	0	0	0	0	
4:45 PM				0	5	0	0	10	25	0	9	4	0	53	1	0	0	0	
4:50 PM				0	3	2	0	12	26	0	18	2	0	63	0	0	0	0	
4:55 PM				0	0	2	0	13	38	0	13	3	0	69	0	0	0	0	
5:00 PM				0	3	0	0	15	32	0	12	8	0	70	1	0	0	0	
5:05 PM				0	2	4	0	9	32	0	17	6	0	70	0	0	0	0	
5:10 PM				0	2	2	0	8	32	0	19	3	0	66	0	0	0	0	
5:15 PM				0	5	2	0	16	30	0	16	3	0	72	0	0	0	0	
5:20 PM				0	4	0	0	23	38	0	16	1	0	82	1	0	0	0	
5:25 PM				0	8	1	0	18	28	0	11	5	0	71	1	0	0	0	
5:30 PM				0	2	5	0	16	41	0	15	4	0	83	1	0	0	0	
5:35 PM				0	2	2	0	11	47	0	13	6	0	81	0	0	0	0	
5:40 PM				0	4	1	0	14	35	0	16	2	0	72	0	0	1	0	
5:45 PM				0	5	1	0	7	44	0	11	4	0	72	0	0	0	0	
5:50 PM				0	3	3	0	9	34	0	18	6	0	73	0	0	0	0	
5:55 PM				0	0	3	0	17	31	0	8	2	0	61	0	0	0	0	
Total Survey				0	61	45	0	307	802	0	371	85	0	1,671	10	0	2	0	

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St			Westbound E 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	L	R	Total	Bikes	L	T	Bikes	T	R	Bikes		North	South	East	West
4:00 PM				0	5	5	0	31	110	0	57	8	0	216	0	0	0	0	
4:15 PM				0	2	4	0	39	83	0	51	13	0	192	4	0	1	0	
4:30 PM				0	6	8	0	39	96	0	51	5	0	205	1	0	0	0	
4:45 PM				0	8	4	0	35	89	0	40	9	0	185	1	0	0	0	
5:00 PM				0	7	6	0	32	96	0	48	17	0	206	1	0	0	0	
5:15 PM				0	17	3	0	57	96	0	43	9	0	225	2	0	0	0	
5:30 PM				0	8	8	0	41	123	0	44	12	0	236	1	0	1	0	
5:45 PM				0	8	7	0	33	109	0	37	12	0	206	0	0	0	0	
Total Survey				0	61	45	0	307	802	0	371	85	0	1,671	10	0	2	0	

Peak Hour Summary

4:55 PM to 5:55 PM

By Approach	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	63	210	273	0	590	200	790	0	228	471	699	0	881	4	0	1	0
%HV	0.0%				0.0%				0.7%				1.3%				0.8%				
PHF	0.00				0.79				0.90				0.88				0.93				

By Movement	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St				Westbound E 4th St				Total
	Total	L	R	Total	L	T	Total	L	T	Total	T	R	Total	Total			
Volume	0	40	23	63	159	431	590	177	51	228	881						
%HV	NA	NA	NA	0.0%	0.0%	NA	0.0%	0.0%	0.6%	0.7%	NA	0.7%	NA	1.7%	0.0%	1.3%	0.8%
PHF		0.00	0.59	0.72	0.79	0.70	0.86	0.90	0.85	0.75	0.88	0.93					

Rolling Hour Summary

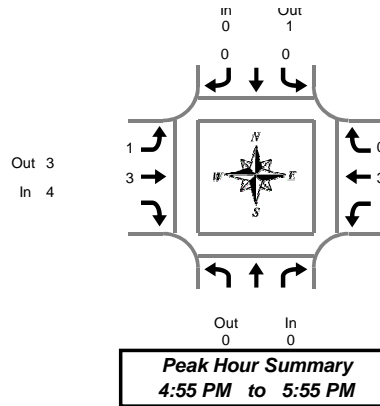
4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave				Southbound Aspen Ave				Eastbound E 4th St			Westbound E 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	L	R	Total	Bikes	L	T	Bikes	T	R	Bikes		North	South	East	West
4:00 PM				0	21	21	0	144	378	0	199	35	0	798	6	0	1	0	
4:15 PM				0	23	22	0	145	364	0	190	44	0	788	7	0	1	0	
4:30 PM				0	38	21	0	163	377	0	182	40	0	821	5	0	0	0	
4:45 PM				0	40	21	0	165	404	0	175	47	0	852	5	0	1	0	
5:00 PM				0	40	24	0	163	424	0	172	50	0	873	4	0	1	0	

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Aspen Ave & E 4th St

Thursday, December 06, 2018

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 4th St			Westbound E 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
4:00 PM	0	0	1	1	0	1	0	1	1	1	0	1	3
4:05 PM	0	0	1	1	0	1	0	2	2	1	0	1	4
4:10 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
4:20 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	3	3	3	0	0	0	3
4:35 PM	0	0	0	0	0	0	2	2	2	1	0	1	3
4:40 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
4:45 PM	0	0	0	0	0	0	1	1	1	0	0	0	1
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05 PM	0	0	0	0	0	0	1	1	1	0	0	0	1
5:10 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	0	0	0	1	0	1	1	1	1	0	1	2
5:30 PM	0	0	0	0	0	0	1	1	1	1	0	1	2
5:35 PM	0	0	0	0	0	0	1	1	1	0	0	0	1
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	2	2	1	12	13	13	13	0	13	28	28

Heavy Vehicle 15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 4th St			Westbound E 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
4:00 PM	0	0	2	2	0	3	3	3	3	3	0	3	8
4:15 PM	0	0	0	0	0	0	0	0	0	4	0	4	4
4:30 PM	0	0	0	0	0	0	5	5	5	3	0	3	8
4:45 PM	0	0	0	0	0	0	1	1	1	0	0	0	1
5:00 PM	0	0	0	0	0	0	1	1	1	1	0	1	2
5:15 PM	0	0	0	0	1	0	1	1	1	1	0	1	2
5:30 PM	0	0	0	0	0	0	2	2	2	1	0	1	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	2	2	1	12	13	13	13	0	13	28	28

Heavy Vehicle Peak Hour Summary 4:55 PM to 5:55 PM

By Approach	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	1	1	4	3	7	3	3	6	7
PHF	0.00			0.00			0.33			0.38			0.35

By Movement	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 4th St			Westbound E 4th St			Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
Volume	0	0	0	0	0	0	1	3	4	3	0	3	7
PHF	0.00	0.00		0.00	0.00		0.25	0.38	0.33	0.38	0.00	0.38	0.35

Heavy Vehicle Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Aspen Ave			Southbound Aspen Ave			Eastbound E 4th St			Westbound E 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
4:00 PM	0	0	2	2	0	9	9	9	9	10	0	10	21
4:15 PM	0	0	0	0	0	0	7	7	7	8	0	8	15
4:30 PM	0	0	0	0	1	7	8	8	8	5	0	5	13
4:45 PM	0	0	0	0	1	4	5	5	5	3	0	3	8
5:00 PM	0	0	0	0	1	3	4	4	4	3	0	3	7

Peak Hour Summary

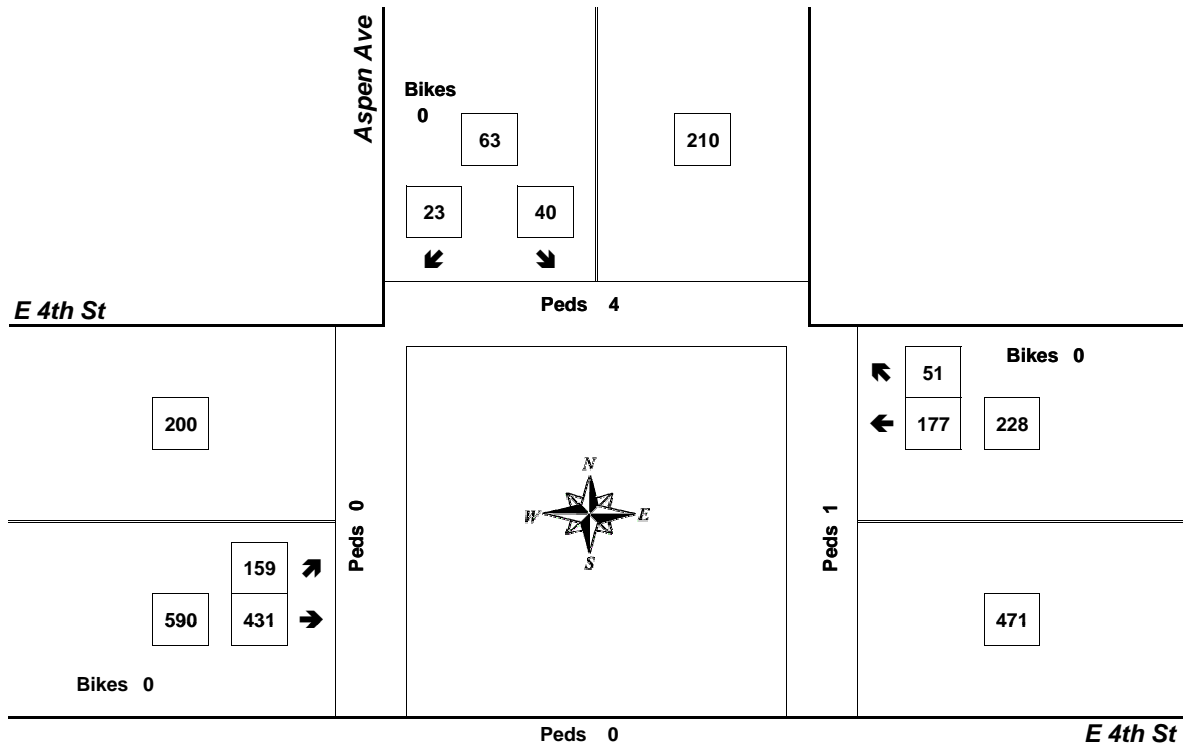


Clay Carney
(503) 833-2740

Aspen Ave & E 4th St

4:55 PM to 5:55 PM

Thursday, December 06, 2018



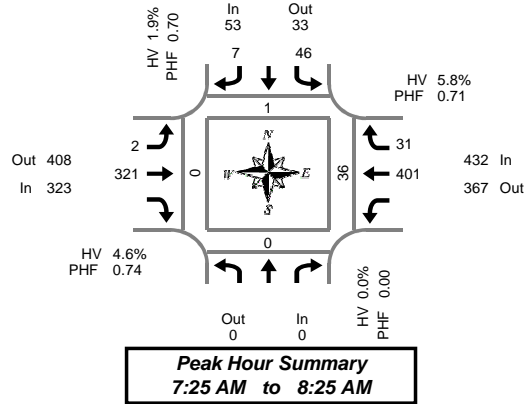
Approach	PHF	HV%	Volume
EB	0.90	0.7%	590
WB	0.88	1.3%	228
NB	0.00	0.0%	0
SB	0.79	0.0%	63
Intersection	0.93	0.8%	881

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



E Stonecreek Dr & E 4th St

Thursday, December 06, 2018

7:00 AM to 9:00 AM

Peak Hour Summary
7:25 AM to 8:25 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St			Westbound E 4th St			Interval Total	Pedestrians Crosswalk				
	In	Out	Total	Bikes	L	R	Total	Bikes	L	T	R	Total	Bikes	T		R	Total	North	South	East
7:00 AM				0	2	0	0	0	0	11	0	0	16	1	0	30	0	0	1	0
7:05 AM				0	1	0	0	0	0	15	0	0	29	0	0	45	0	0	0	0
7:10 AM				0	1	0	0	0	0	10	0	0	25	0	0	36	0	0	1	0
7:15 AM				0	1	0	0	0	0	13	0	0	30	0	0	44	0	0	0	0
7:20 AM				0	2	1	0	0	0	11	0	0	19	0	0	33	0	0	0	0
7:25 AM				0	1	2	0	0	0	15	0	0	41	0	0	59	0	0	0	0
7:30 AM				0	2	0	0	0	0	19	0	0	17	0	0	38	0	0	1	0
7:35 AM				0	7	1	0	0	0	25	0	0	28	3	0	64	1	0	3	0
7:40 AM				0	2	0	0	0	0	18	0	0	25	3	0	48	0	0	0	0
7:45 AM				0	4	1	0	0	0	26	0	0	26	0	0	57	0	0	2	0
7:50 AM				0	7	1	0	0	0	35	0	0	27	3	0	73	0	0	1	0
7:55 AM				0	3	0	0	0	0	28	0	0	30	1	0	62	0	0	2	0
8:00 AM				0	8	0	0	0	0	33	0	0	32	6	0	79	0	0	1	0
8:05 AM				0	3	0	0	0	0	34	0	0	39	3	0	79	0	0	11	0
8:10 AM				0	2	0	0	0	0	42	0	0	55	3	0	102	0	0	9	0
8:15 AM				0	3	1	0	0	0	30	0	0	46	6	0	86	0	0	5	0
8:20 AM				0	4	1	0	0	2	16	0	0	35	3	0	61	0	0	1	0
8:25 AM				0	2	1	0	0	0	20	0	0	26	2	0	51	0	0	0	0
8:30 AM				0	1	1	0	0	0	9	0	0	26	0	0	37	0	0	0	0
8:35 AM				0	2	0	0	0	0	10	0	0	26	1	0	39	0	0	0	0
8:40 AM				0	2	0	0	0	0	15	0	0	15	0	0	32	0	0	0	0
8:45 AM				0	0	0	0	0	0	11	0	0	13	2	0	26	0	0	0	0
8:50 AM				0	1	1	0	0	1	13	0	0	24	0	0	40	0	0	0	0
8:55 AM				0	2	0	0	0	0	21	0	0	18	2	0	43	0	0	2	0
Total Survey				0	63	11	0	0	3	480	0	0	668	39	0	1,264	1	0	40	0

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St			Westbound E 4th St			Interval Total	Pedestrians Crosswalk				
	In	Out	Total	Bikes	L	R	Total	Bikes	L	T	R	Total	Bikes	T		R	Total	North	South	East
7:00 AM				0	4	0	0	0	0	36	0	0	70	1	0	111	0	0	2	0
7:15 AM				0	4	3	0	0	0	39	0	0	90	0	0	136	0	0	0	0
7:30 AM				0	11	1	0	0	0	62	0	0	70	6	0	150	1	0	4	0
7:45 AM				0	14	2	0	0	0	89	0	0	83	4	0	192	0	0	5	0
8:00 AM				0	13	0	0	0	0	109	0	0	126	12	0	260	0	0	21	0
8:15 AM				0	9	3	0	2	2	66	0	0	107	11	0	198	0	0	6	0
8:30 AM				0	5	1	0	0	0	34	0	0	67	1	0	108	0	0	0	0
8:45 AM				0	3	1	0	0	1	45	0	0	55	4	0	109	0	0	2	0
Total Survey				0	63	11	0	0	3	480	0	0	668	39	0	1,264	1	0	40	0

Peak Hour Summary

7:25 AM to 8:25 AM

By Approach	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St			Westbound E 4th St			Total	Pedestrians Crosswalk					
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out		Total	North	South	East	West	
Volume	0	0	0	0	53	33	86	0	323	408	731	0	432	367	799	0	808	1	0	36	0
%HV	0.0%				1.9%				4.6%			5.8%			5.1%						
PHF	0.00				0.70				0.74			0.71			0.76						

By Movement	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St			Westbound E 4th St			Total		
	Total	L	R	Total	L	T	R	Total	T	R	Total	Total					
Volume	0	46	7	53	2	321	2	323	401	31	432	808					
%HV	NA	NA	NA	0.0%	2.2%	NA	0.0%	1.9%	0.0%	4.7%	NA	4.6%	NA	5.7%	6.5%	5.8%	5.1%
PHF		0.00	0.64	0.58	0.70	0.25	0.74	0.74	0.72	0.65	0.71	0.76					

Rolling Hour Summary

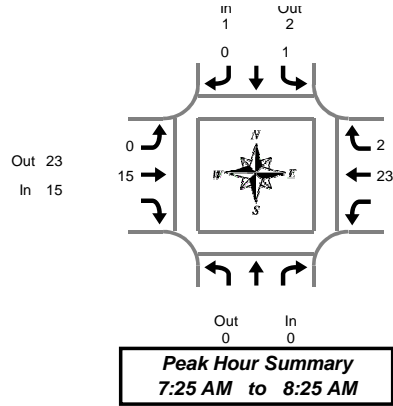
7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St			Westbound E 4th St			Interval Total	Pedestrians Crosswalk				
	In	Out	Total	Bikes	L	R	Total	Bikes	L	T	R	Total	Bikes	T		R	Total	North	South	East
7:00 AM				0	33	6	0	0	0	226	0	0	313	11	0	589	1	0	11	0
7:15 AM				0	42	6	0	0	0	299	0	0	369	22	0	738	1	0	30	0
7:30 AM				0	47	6	0	2	2	326	0	0	386	33	0	800	1	0	36	0
7:45 AM				0	41	6	0	2	2	298	0	0	383	28	0	758	0	0	32	0
8:00 AM				0	30	5	0	3	3	254	0	0	355	28	0	675	0	0	29	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



E Stonecreek Dr & E 4th St

Thursday, December 06, 2018

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr			Southbound E Stonecreek Dr			Eastbound E 4th St			Westbound E 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
7:00 AM	0	1	0	1	0	0	0	3	3	1	0	1	5
7:05 AM	0	0	0	0	0	0	0	3	3	2	0	2	5
7:10 AM	0	0	0	0	0	0	0	2	2	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	1	1	0	0	0	1
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:25 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:35 AM	0	0	0	0	0	0	0	0	0	0	1	1	1
7:40 AM	0	0	0	0	0	0	0	0	0	0	1	1	1
7:45 AM	0	0	0	0	0	0	0	2	2	1	0	1	3
7:50 AM	0	1	0	1	0	1	0	2	2	1	0	1	4
7:55 AM	0	0	0	0	0	0	0	3	3	1	0	1	4
8:00 AM	0	0	0	0	0	0	0	1	1	1	0	1	2
8:05 AM	0	0	0	0	0	0	0	2	2	6	0	6	8
8:10 AM	0	0	0	0	0	0	0	1	1	8	0	8	9
8:15 AM	0	0	0	0	0	0	0	3	3	3	0	3	6
8:20 AM	0	0	0	0	0	0	0	1	1	1	0	1	2
8:25 AM	0	0	0	0	0	0	0	3	3	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	3	0	3	3
8:35 AM	0	0	0	0	0	0	0	1	1	0	0	0	1
8:40 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:50 AM	0	0	0	0	0	0	0	2	2	1	0	1	3
8:55 AM	0	0	0	0	0	0	0	1	1	0	0	0	1
Total Survey	0	2	0	2	0	2	0	31	31	31	2	33	66

Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr			Southbound E Stonecreek Dr			Eastbound E 4th St			Westbound E 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
7:00 AM	0	1	0	1	0	0	0	8	8	3	0	3	12
7:15 AM	0	0	0	0	0	0	0	1	1	1	0	1	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	2	2
7:45 AM	0	1	0	1	0	1	0	7	7	3	0	3	11
8:00 AM	0	0	0	0	0	0	0	4	4	15	0	15	19
8:15 AM	0	0	0	0	0	0	0	7	7	4	0	4	11
8:30 AM	0	0	0	0	0	0	0	1	1	4	0	4	5
8:45 AM	0	0	0	0	0	0	0	3	3	1	0	1	4
Total Survey	0	2	0	2	0	2	0	31	31	31	2	33	66

Heavy Vehicle Peak Hour Summary

7:25 AM to 8:25 AM

By Approach	Northbound E Stonecreek Dr			Southbound E Stonecreek Dr			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	1	2	3	15	23	38	25	16	41	41
PHF	0.00			0.25			0.54			0.37			0.45

By Movement	Northbound E Stonecreek Dr			Southbound E Stonecreek Dr			Eastbound E 4th St			Westbound E 4th St			Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
Volume	0	1	0	1	0	1	0	15	15	23	2	25	41
PHF	0.00	0.25	0.00	0.25	0.00	0.25	0.00	0.54	0.54	0.34	0.25	0.37	0.45

Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound E Stonecreek Dr			Southbound E Stonecreek Dr			Eastbound E 4th St			Westbound E 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
7:00 AM	0	2	0	2	0	2	0	16	16	7	2	9	27
7:15 AM	0	1	0	1	0	1	0	12	12	19	2	21	34
7:30 AM	0	1	0	1	0	1	0	18	18	22	2	24	43
7:45 AM	0	1	0	1	0	1	0	19	19	26	0	26	46
8:00 AM	0	0	0	0	0	0	0	15	15	24	0	24	39

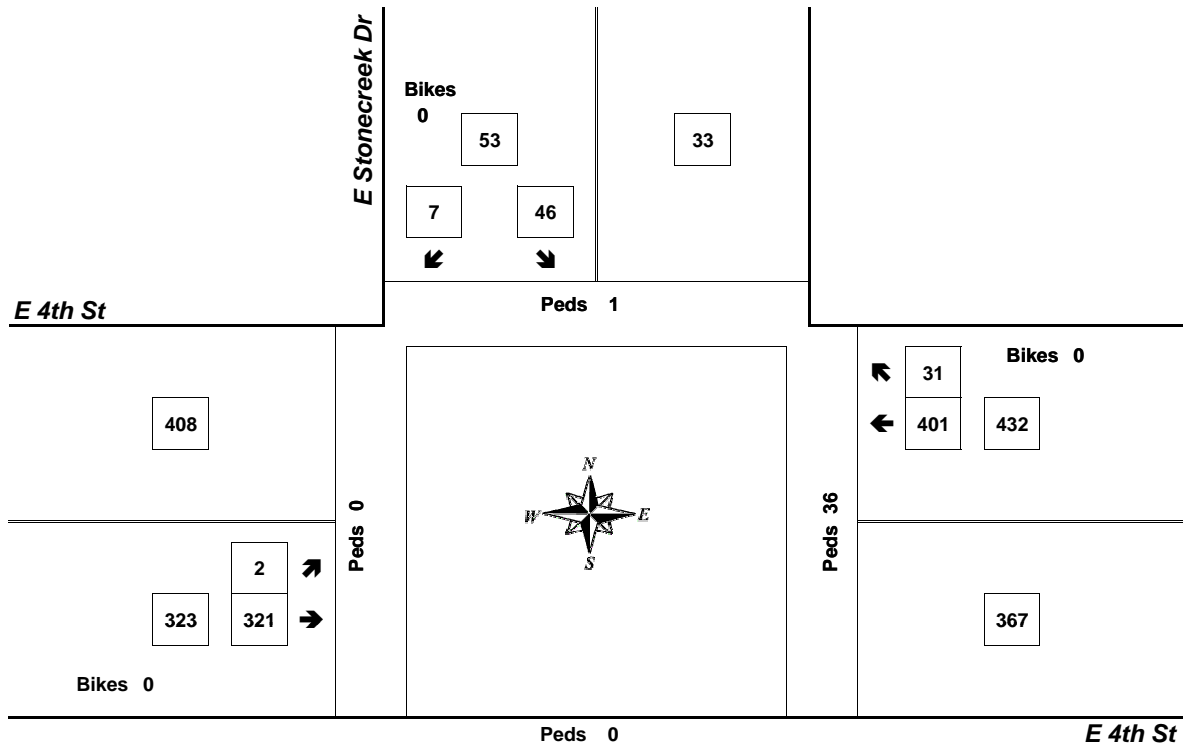
Peak Hour Summary



Clay Carney
(503) 833-2740

E Stonecreek Dr & E 4th St

7:25 AM to 8:25 AM
Thursday, December 06, 2018



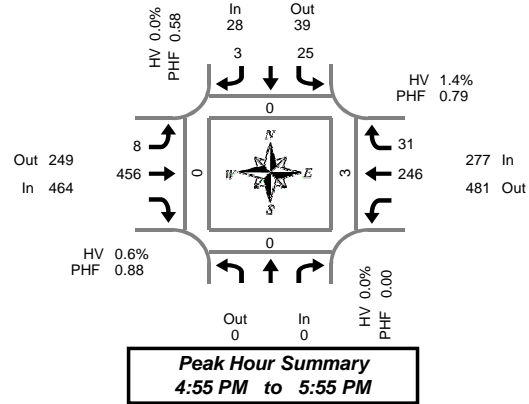
Approach	PHF	HV%	Volume
EB	0.74	4.6%	323
WB	0.71	5.8%	432
NB	0.00	0.0%	0
SB	0.70	1.9%	53
Intersection	0.76	5.1%	808

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



E Stonecreek Dr & E 4th St

Thursday, December 06, 2018

4:00 PM to 6:00 PM

5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St			Westbound E 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	L	R	Total	Bikes	L	T	Bikes	T	R	Bikes		North	South	East	West
4:00 PM	0	3	3	0	0	0	0	1	38	0	30	1	0	73	0	0	0	0	
4:05 PM	0	6	6	0	0	0	0	1	43	0	22	3	0	75	0	0	0	0	
4:10 PM	0	0	0	0	0	0	0	0	32	0	25	6	0	63	0	0	0	0	
4:15 PM	0	1	1	0	0	0	0	2	33	0	23	3	0	62	0	0	2	0	
4:20 PM	0	0	0	0	0	0	0	0	27	0	11	1	0	39	0	0	0	0	
4:25 PM	0	3	3	1	0	0	0	0	29	0	27	2	0	62	0	0	0	0	
4:30 PM	0	1	1	0	0	0	0	1	33	0	16	5	0	56	0	0	0	0	
4:35 PM	0	1	1	1	0	1	0	1	33	0	19	1	0	56	0	0	0	0	
4:40 PM	0	1	1	1	0	2	0	2	26	0	17	1	0	48	0	0	0	0	
4:45 PM	0	1	1	0	0	0	0	0	33	0	19	2	0	55	0	0	0	0	
4:50 PM	0	1	1	1	0	0	0	0	34	0	28	1	0	65	0	0	0	0	
4:55 PM	0	4	4	1	0	1	0	1	37	0	15	4	0	62	0	0	0	0	
5:00 PM	0	3	3	0	0	0	0	1	32	0	25	5	0	66	0	0	0	0	
5:05 PM	0	0	0	0	0	0	0	1	36	0	23	5	0	65	0	0	0	0	
5:10 PM	0	1	1	0	0	0	0	2	25	0	29	1	0	58	0	0	2	0	
5:15 PM	0	1	1	0	1	0	0	0	32	0	15	2	0	50	0	0	0	0	
5:20 PM	0	0	0	1	0	0	0	0	40	0	16	3	0	60	0	0	0	0	
5:25 PM	0	3	3	0	0	0	0	1	38	0	17	2	0	61	0	0	0	0	
5:30 PM	0	5	5	0	0	0	0	0	41	0	26	4	0	76	0	0	0	0	
5:35 PM	0	4	4	0	0	0	0	0	45	0	19	2	0	70	0	0	0	0	
5:40 PM	0	0	0	0	0	0	0	1	41	0	19	1	0	62	0	0	0	0	
5:45 PM	0	3	3	1	0	0	0	0	44	0	18	1	0	67	0	0	0	0	
5:50 PM	0	1	1	0	0	0	0	1	45	0	24	1	0	72	0	0	1	0	
5:55 PM	0	6	6	2	0	1	0	1	29	0	11	1	0	50	0	0	0	0	
Total Survey	0	49	49	9	1	17	846	0	494	58	0	1,473	0	0	5	0			

15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St			Westbound E 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	L	R	Total	Bikes	L	T	Bikes	T	R	Bikes		North	South	East	West
4:00 PM	0	9	9	0	0	2	113	0	77	10	0	211	0	0	0	0			
4:15 PM	0	4	4	1	0	2	89	0	61	6	0	163	0	0	2	0			
4:30 PM	0	3	3	2	0	4	92	0	52	7	0	160	0	0	0	0			
4:45 PM	0	6	6	2	0	1	104	0	62	7	0	182	0	0	0	0			
5:00 PM	0	4	4	0	0	4	93	0	77	11	0	189	0	0	2	0			
5:15 PM	0	4	4	1	1	1	110	0	48	7	0	171	0	0	0	0			
5:30 PM	0	9	9	0	0	1	127	0	64	7	0	208	0	0	0	0			
5:45 PM	0	10	10	3	0	2	118	0	53	3	0	189	0	0	1	0			
Total Survey	0	49	49	9	1	17	846	0	494	58	0	1,473	0	0	5	0			

Peak Hour Summary 4:55 PM to 5:55 PM

By Approach	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	0	0	0	0	28	39	67	1	464	249	713	0	277	481	758	0	769	0	0	3	0
%HV	0.0%				0.0%				0.6%				1.4%				0.9%				
PHF	0.00				0.58				0.88				0.79				0.92				

By Movement	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St				Westbound E 4th St				Total
	Total	L	R	Total	L	T	Total	T	R	Total	T	R	Total				
Volume	0	25	3	28	8	456	464	246	31	277	769	0	0	0			
%HV	NA	NA	NA	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.7%	NA	0.6%	NA	1.6%	0.0%	1.4%	0.9%
PHF		0.00	0.52	0.75	0.58	0.50	0.88	0.88	0.80	0.55	0.79	0.92					

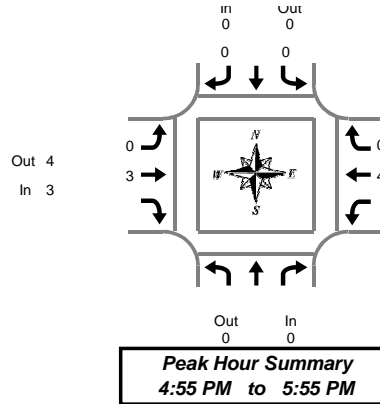
Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound E Stonecreek Dr				Southbound E Stonecreek Dr				Eastbound E 4th St			Westbound E 4th St			Interval Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	L	R	Total	Bikes	L	T	Bikes	T	R	Bikes		North	South	East	West
4:00 PM	0	22	22	0	5	0	9	398	0	252	30	0	716	0	0	2	0		
4:15 PM	0	17	17	0	5	0	11	378	0	252	31	0	694	0	0	4	0		
4:30 PM	0	17	17	5	1	10	399	0	239	32	0	702	0	0	2	0			
4:45 PM	0	23	23	3	1	7	434	0	251	32	0	750	0	0	2	0			
5:00 PM	0	27	27	4	1	8	448	0	242	28	0	757	0	0	3	0			

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



E Stonecreek Dr & E 4th St

Thursday, December 06, 2018

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound E Stonecreek Dr			Southbound E Stonecreek Dr			Eastbound E 4th St			Westbound E 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	1	1	0	0	0	1
4:05 PM	0	0	0	0	0	0	0	2	2	1	0	1	3
4:10 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	3	0	3	3
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	3	3	0	0	0	3
4:35 PM	0	0	0	0	0	0	2	2	2	1	0	1	3
4:40 PM	0	0	1	1	0	0	0	0	0	1	0	1	2
4:45 PM	0	0	0	0	0	0	1	1	1	0	0	0	1
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05 PM	0	0	0	0	0	0	1	1	1	0	0	0	1
5:10 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:30 PM	0	0	0	0	0	0	1	1	1	0	0	0	1
5:35 PM	0	0	0	0	0	0	1	1	1	0	0	0	1
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	1	1	0	12	12	11	0	11	0	11	24

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound E Stonecreek Dr			Southbound E Stonecreek Dr			Eastbound E 4th St			Westbound E 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
4:00 PM	0	0	0	0	0	0	0	3	3	2	0	2	5
4:15 PM	0	0	0	0	0	0	0	0	0	3	0	3	3
4:30 PM	0	0	1	1	0	0	5	5	5	2	0	2	8
4:45 PM	0	0	0	0	0	0	1	1	1	1	0	1	2
5:00 PM	0	0	0	0	0	0	1	1	1	1	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
5:30 PM	0	0	0	0	0	0	2	2	2	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	0	0	1	1	0	12	12	11	0	11	0	11	24

Heavy Vehicle Peak Hour Summary

4:55 PM to 5:55 PM

By Approach	Northbound E Stonecreek Dr			Southbound E Stonecreek Dr			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	0	0	0	0	0	0	3	4	7	4	3	7	7
PHF	0.00			0.00			0.38			0.50			0.58

By Movement	Northbound E Stonecreek Dr			Southbound E Stonecreek Dr			Eastbound E 4th St			Westbound E 4th St			Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
Volume	0	0	0	0	0	0	0	3	3	4	0	4	7
PHF	0.00	0.00		0.00	0.00		0.00	0.38	0.38	0.50	0.00	0.50	0.58

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound E Stonecreek Dr			Southbound E Stonecreek Dr			Eastbound E 4th St			Westbound E 4th St			Interval Total
	Total	L	R	Total	L	R	Total	T	Total	T	R	Total	
4:00 PM	0	0	0	1	1	0	9	9	9	8	0	8	18
4:15 PM	0	0	0	1	1	0	7	7	7	7	0	7	15
4:30 PM	0	0	0	1	1	0	7	7	7	6	0	6	14
4:45 PM	0	0	0	0	0	0	4	4	4	4	0	4	8
5:00 PM	0	0	0	0	0	0	3	3	3	3	0	3	6

Peak Hour Summary

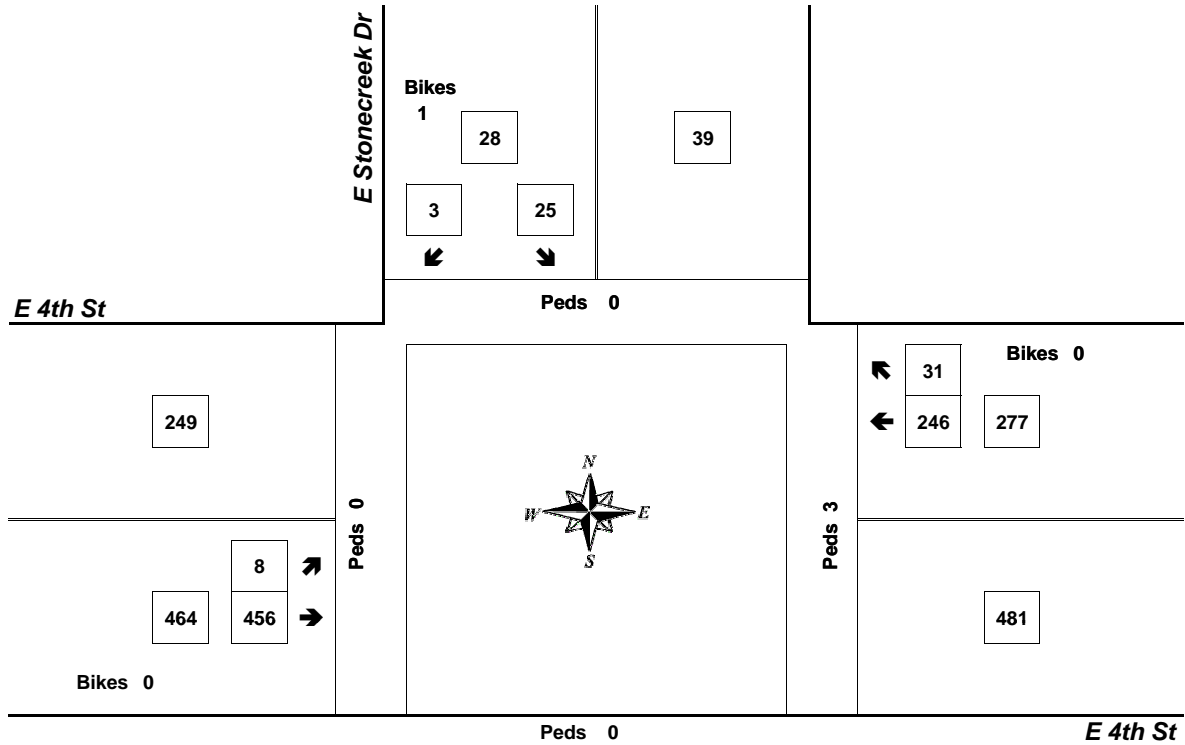


Clay Carney
(503) 833-2740

E Stonecreek Dr & E 4th St

4:55 PM to 5:55 PM

Thursday, December 06, 2018



Bikes
0

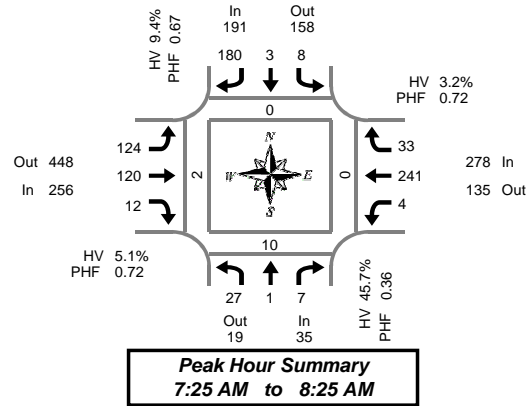
Approach	PHF	HV%	Volume
EB	0.88	0.6%	464
WB	0.79	1.4%	277
NB	0.00	0.0%	0
SB	0.58	0.0%	28
Intersection	0.92	0.9%	769

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



NE Highland Rd & E 4th St

Thursday, December 06, 2018

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	0	0	5	0	4	7	0	0	0	11	0	0	27	0	0	0	0
7:05 AM	0	0	0	0	0	0	14	0	2	9	2	0	0	17	0	0	44	0	0	0	0
7:10 AM	0	0	0	0	0	0	9	0	2	9	0	0	0	15	0	0	35	0	0	0	0
7:15 AM	0	0	0	0	0	0	12	0	8	5	0	0	0	17	0	0	42	0	1	0	0
7:20 AM	0	0	0	0	0	0	10	0	5	6	0	0	0	12	0	0	33	0	0	0	0
7:25 AM	0	0	1	0	0	0	12	0	4	7	1	0	0	27	1	0	53	0	0	0	0
7:30 AM	0	0	0	0	0	0	6	0	7	4	0	0	0	14	1	0	32	0	1	0	1
7:35 AM	0	0	0	0	0	0	16	0	13	9	0	0	0	21	2	0	61	0	0	0	0
7:40 AM	1	0	0	0	0	0	15	0	8	5	0	0	0	15	0	0	44	0	2	0	0
7:45 AM	0	0	1	0	0	0	8	0	14	9	1	0	0	17	3	0	53	0	1	0	0
7:50 AM	0	0	0	0	1	0	17	0	16	7	1	0	0	19	8	0	69	0	1	0	0
7:55 AM	0	0	0	0	1	0	21	0	14	6	0	0	0	16	4	0	62	0	2	0	1
8:00 AM	2	0	1	0	2	1	28	0	18	13	0	0	0	28	6	0	99	0	1	0	0
8:05 AM	9	0	2	0	2	2	14	0	11	19	2	0	2	26	5	0	94	0	1	0	0
8:10 AM	7	0	0	0	1	0	16	0	6	15	5	0	1	27	2	0	80	0	2	0	0
8:15 AM	5	0	1	0	1	0	14	0	9	17	0	0	1	16	1	0	65	0	0	0	0
8:20 AM	3	1	1	0	0	0	13	0	4	9	2	0	0	15	0	0	48	0	0	0	0
8:25 AM	3	0	0	0	0	0	6	0	7	12	1	0	0	11	2	0	42	0	0	0	0
8:30 AM	2	0	0	0	1	0	7	0	2	5	1	0	0	14	0	0	32	0	0	0	0
8:35 AM	1	0	0	0	0	0	9	0	5	9	0	0	0	15	1	0	40	0	0	0	0
8:40 AM	0	1	0	0	0	0	4	0	6	8	2	0	0	11	0	0	32	0	0	0	1
8:45 AM	0	0	1	0	0	0	5	0	1	8	0	0	0	11	0	0	26	0	0	0	0
8:50 AM	0	0	0	0	0	0	10	0	4	9	1	0	0	11	0	0	35	0	0	0	0
8:55 AM	0	0	0	0	0	0	4	0	6	18	1	0	0	17	1	0	47	0	0	0	0
Total Survey	33	2	8	0	9	3	275	0	176	225	20	0	4	403	37	0	1,195	0	11	0	3

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	0	0	0	0	0	28	0	8	25	2	0	0	43	0	0	106	0	0	0	0
7:15 AM	0	0	1	0	0	0	34	0	17	18	1	0	0	56	1	0	128	0	1	0	0
7:30 AM	1	0	0	0	0	0	37	0	28	18	0	0	0	50	3	0	137	0	3	0	1
7:45 AM	0	0	1	0	2	0	46	0	44	22	2	0	0	52	15	0	184	0	4	0	1
8:00 AM	18	0	3	0	5	3	58	0	35	47	7	0	3	81	13	0	273	0	3	0	0
8:15 AM	11	1	2	0	1	0	33	0	20	38	3	0	1	42	3	0	155	0	0	0	0
8:30 AM	3	1	0	0	1	0	20	0	13	22	3	0	0	40	1	0	104	0	0	0	1
8:45 AM	0	0	1	0	0	0	19	0	11	35	2	0	0	39	1	0	108	0	0	0	0
Total Survey	33	2	8	0	9	3	275	0	176	225	20	0	4	403	37	0	1,195	0	11	0	3

Peak Hour Summary

7:25 AM to 8:25 AM

By Approach	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	35	19	54	0	191	158	349	0	256	448	704	0	278	135	413	0	760	0	10	0	2
%HV	45.7%				9.4%				5.1%				3.2%				7.4%				
PHF	0.36				0.67				0.72				0.72				0.70				

By Movement	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	27	1	7	35	8	3	180	191	124	120	12	256	4	241	33	278	760
%HV	59.3%	0.0%	0.0%	45.7%	25.0%	0.0%	8.9%	9.4%	5.6%	5.0%	0.0%	5.1%	0.0%	2.9%	6.1%	3.2%	7.4%
PHF	0.32	0.25	0.58	0.36	0.40	0.25	0.68	0.67	0.65	0.59	0.43	0.72	0.25	0.74	0.46	0.72	0.70

Rolling Hour Summary

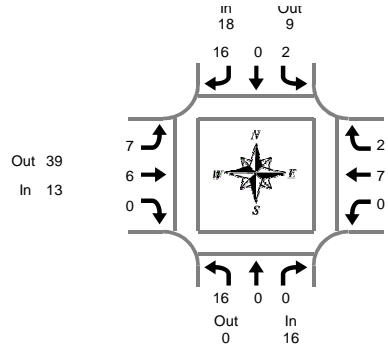
7:00 AM to 9:00 AM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	1	0	2	0	2	0	145	0	97	83	5	0	0	201	19	0	555	0	8	0	2
7:15 AM	19	0	5	0	7	3	175	0	124	105	10	0	3	239	32	0	722	0	11	0	2
7:30 AM	30	1	6	0	8	3	174	0	127	125	12	0	4	225	34	0	749	0	10	0	2
7:45 AM	32	2	6	0	9	3	157	0	112	129	15	0	4	215	32	0	716	0	7	0	2
8:00 AM	32	2	6	0	7	3	130	0	79	142	15	0	4	202	18	0	640	0	3	0	1

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
7:25 AM to 8:25 AM

NE Highland Rd & E 4th St

Thursday, December 06, 2018

7:00 AM to 9:00 AM

Heavy Vehicle 5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	5	0	5	0	1	0	1	6
7:05 AM	0	0	0	0	0	0	1	1	1	2	0	3	0	1	0	1	5
7:10 AM	0	0	0	0	0	0	1	1	0	2	0	2	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
7:50 AM	0	0	0	0	1	0	0	1	3	1	0	4	0	1	1	2	7
7:55 AM	0	0	0	0	1	0	2	3	2	0	0	2	0	2	0	2	7
8:00 AM	0	0	0	0	0	0	10	10	1	0	0	1	0	0	1	1	12
8:05 AM	8	0	0	8	0	0	2	2	0	3	0	3	0	1	0	1	14
8:10 AM	6	0	0	6	0	0	2	2	0	0	0	0	0	0	0	0	8
8:15 AM	1	0	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
8:20 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:25 AM	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
8:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:40 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
8:50 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
8:55 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Survey	16	0	0	16	2	0	18	20	10	21	0	31	0	13	2	15	82

Heavy Vehicle 15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	0	0	2	2	1	9	0	10	0	2	0	2	14
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
7:45 AM	0	0	0	0	2	0	2	4	6	1	0	7	0	4	1	5	16
8:00 AM	14	0	0	14	0	0	14	14	1	3	0	4	0	1	1	2	34
8:15 AM	2	0	0	2	0	0	0	0	2	3	0	5	0	0	0	0	7
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
8:45 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2	5
Total Survey	16	0	0	16	2	0	18	20	10	21	0	31	0	13	2	15	82

Heavy Vehicle Peak Hour Summary

7:25 AM to 8:25 AM

By Approach	Northbound NE Highland Rd			Southbound NE Highland Rd			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	16	0	16	18	9	27	13	39	52	9	8	17	56
PHF	0.27			0.30			0.46			0.45			0.41

By Movement	Northbound NE Highland Rd			Southbound NE Highland Rd			Eastbound E 4th St			Westbound E 4th St			Total		
	L	T	R	L	T	R	L	T	R	L	T	R			
Volume	16	0	0	2	0	16	7	6	0	13	0	7	2	9	56
PHF	0.27	0.00	0.00	0.27	0.25	0.00	0.29	0.30	0.00	0.46	0.00	0.44	0.25	0.45	0.41

Heavy Vehicle Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
7:00 AM	0	0	0	0	2	0	4	6	7	11	0	18	0	8	1	9	33
7:15 AM	14	0	0	14	2	0	16	18	7	5	0	12	0	7	2	9	53
7:30 AM	16	0	0	16	2	0	16	18	9	7	0	16	0	7	2	9	59
7:45 AM	16	0	0	16	2	0	16	18	9	8	0	17	0	7	2	9	60
8:00 AM	16	0	0	16	0	0	14	14	3	10	0	13	0	5	1	6	49

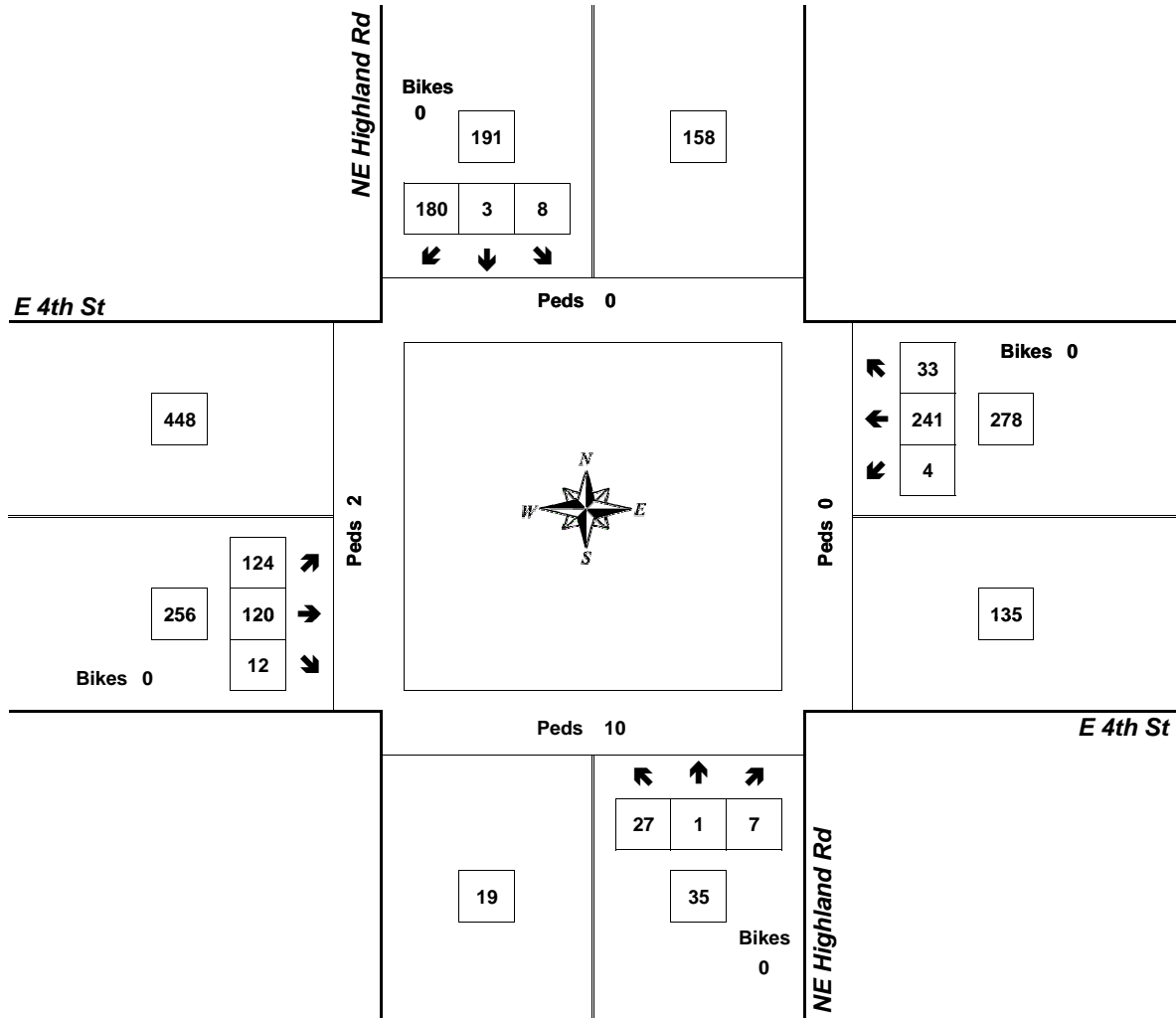
Peak Hour Summary



Clay Carney
(503) 833-2740

NE Highland Rd & E 4th St

7:25 AM to 8:25 AM
Thursday, December 06, 2018



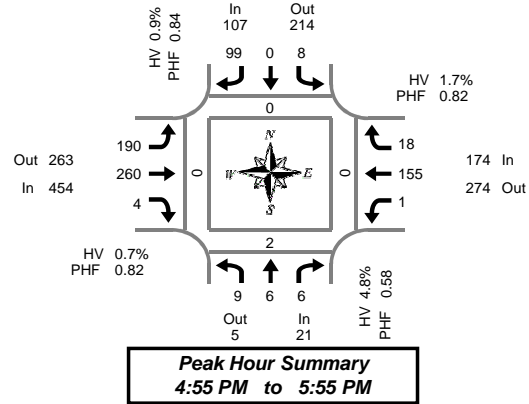
Approach	PHF	HV%	Volume
EB	0.72	5.1%	256
WB	0.72	3.2%	278
NB	0.36	45.7%	35
SB	0.67	9.4%	191
Intersection	0.70	7.4%	760

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



NE Highland Rd & E 4th St

Thursday, December 06, 2018

4:00 PM to 6:00 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	1	0	0	0	1	0	13	0	10	27	1	0	0	14	0	0	67	0	3	0	0
4:05 PM	0	0	0	0	4	0	12	0	20	29	0	0	1	10	1	0	77	0	0	0	0
4:10 PM	0	0	0	0	0	0	10	0	16	27	0	0	0	13	2	0	68	0	2	0	0
4:15 PM	3	0	0	0	0	0	6	0	14	17	0	0	1	9	1	0	51	0	0	0	0
4:20 PM	0	0	0	0	3	0	4	0	8	17	0	0	0	9	2	0	43	1	0	0	0
4:25 PM	0	0	0	0	2	0	12	0	14	26	0	0	0	17	2	0	73	0	0	0	0
4:30 PM	0	0	0	0	0	0	2	0	16	21	0	0	0	13	2	0	54	0	0	0	0
4:35 PM	0	0	0	0	2	0	7	0	17	12	0	0	0	15	1	0	54	0	0	0	0
4:40 PM	0	0	0	0	0	0	2	0	9	22	0	0	0	12	0	0	45	0	1	0	0
4:45 PM	0	0	0	0	0	0	7	0	12	20	0	0	0	14	1	0	54	0	1	0	0
4:50 PM	1	0	0	0	1	0	7	0	16	15	0	0	0	17	4	0	61	0	0	0	0
4:55 PM	0	1	0	0	0	0	10	0	17	19	0	0	1	10	1	0	59	0	0	0	0
5:00 PM	1	0	0	0	1	0	10	0	15	13	1	0	0	16	2	0	59	0	0	0	0
5:05 PM	1	0	0	0	1	0	10	0	15	21	0	0	0	17	0	0	65	0	0	0	0
5:10 PM	2	2	0	0	1	0	9	0	12	22	0	0	0	16	2	0	66	0	0	0	0
5:15 PM	0	0	3	0	1	0	9	0	17	12	0	0	0	10	1	0	53	0	1	0	0
5:20 PM	2	0	0	0	0	0	3	0	15	17	2	0	0	14	2	0	55	0	0	0	0
5:25 PM	1	0	1	0	1	0	6	0	16	23	0	0	0	17	1	0	66	0	0	0	0
5:30 PM	0	0	0	0	0	0	10	0	14	28	0	0	0	9	3	0	64	0	0	0	0
5:35 PM	0	0	0	0	0	0	11	0	22	29	0	0	0	10	1	0	73	0	0	0	0
5:40 PM	0	0	1	0	2	0	5	0	13	28	0	0	0	13	0	0	62	0	1	0	0
5:45 PM	2	1	1	0	1	0	7	0	16	29	1	0	0	8	3	0	69	0	0	0	0
5:50 PM	0	2	0	0	0	0	9	0	18	19	0	0	0	15	2	0	65	0	0	0	0
5:55 PM	0	0	0	0	0	0	9	0	9	22	0	0	0	7	0	0	47	0	2	0	0
Total Survey	14	6	6	0	21	0	190	0	351	515	5	0	3	305	34	0	1,450	1	11	0	0

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	1	0	0	0	5	0	35	0	46	83	1	0	1	37	3	0	212	0	5	0	0
4:15 PM	3	0	0	0	5	0	22	0	36	60	0	0	1	35	5	0	167	1	0	0	0
4:30 PM	0	0	0	0	2	0	11	0	42	55	0	0	0	40	3	0	153	0	1	0	0
4:45 PM	1	1	0	0	1	0	24	0	45	54	0	0	1	41	6	0	174	0	1	0	0
5:00 PM	4	2	0	0	3	0	29	0	42	56	1	0	0	49	4	0	190	0	0	0	0
5:15 PM	3	0	4	0	2	0	18	0	48	52	2	0	0	41	4	0	174	0	1	0	0
5:30 PM	0	0	1	0	2	0	26	0	49	85	0	0	0	32	4	0	199	0	1	0	0
5:45 PM	2	3	1	0	1	0	25	0	43	70	1	0	0	30	5	0	181	0	2	0	0
Total Survey	14	6	6	0	21	0	190	0	351	515	5	0	3	305	34	0	1,450	1	11	0	0

Peak Hour Summary

4:55 PM to 5:55 PM

By Approach	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	21	5	26	0	107	214	321	0	454	263	717	0	174	274	448	0	756	0	2	0	0
%HV	4.8%				0.9%				0.7%				1.7%				1.1%				
PHF	0.58				0.84				0.82				0.82				0.93				

By Movement	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	9	6	6	21	8	0	99	107	190	252	1	0	3	153	17	0	706
%HV	11.1%	0.0%	0.0%	4.8%	12.5%	0.0%	0.0%	0.9%	0.0%	1.2%	0.0%	0.7%	0.0%	1.9%	0.0%	1.7%	1.1%
PHF	0.56	0.50	0.38	0.58	0.67	0.00	0.83	0.84	0.91	0.76	0.50	0.82	0.25	0.79	0.75	0.82	0.93

Rolling Hour Summary

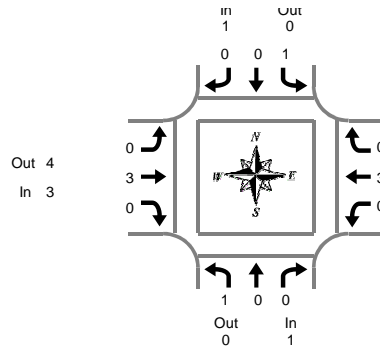
4:00 PM to 6:00 PM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	5	1	0	0	13	0	92	0	169	252	1	0	3	153	17	0	706	1	7	0	0
4:15 PM	8	3	0	0	11	0	86	0	165	225	1	0	2	165	18	0	684	1	2	0	0
4:30 PM	8	3	4	0	8	0	82	0	177	217	3	0	1	171	17	0	691	0	3	0	0
4:45 PM	8	3	5	0	8	0	97	0	184	247	3	0	1	163	18	0	737	0	3	0	0
5:00 PM	9	5	6	0	8	0	98	0	182	263	4	0	0	152	17	0	744	0	4	0	0

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Peak Hour Summary
4:55 PM to 5:55 PM

NE Highland Rd & E 4th St

Thursday, December 06, 2018

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
4:05 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
4:10 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
4:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
4:35 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
4:40 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:05 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:10 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:35 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	1	0	0	1	1	0	2	3	2	11	0	13	0	8	0	8	25

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	1	1	0	4	0	4	0	1	0	1	6
4:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
4:30 PM	0	0	0	0	0	0	0	0	2	3	0	5	0	2	0	2	7
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
5:00 PM	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
5:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	2	3
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Survey	1	0	0	1	1	0	2	3	2	11	0	13	0	8	0	8	25

Heavy Vehicle Peak Hour Summary

4:55 PM to 5:55 PM

By Approach	Northbound NE Highland Rd			Southbound NE Highland Rd			Eastbound E 4th St			Westbound E 4th St			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	1	0	1	1	0	1	3	4	7	3	4	7	8
PHF	0.25			0.25			0.38			0.38			0.50

By Movement	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	1	0	0	1	1	0	0	1	0	3	0	3	0	3	0	3	8
PHF	0.25	0.00	0.00	0.25	0.25	0.00	0.00	0.25	0.00	0.38	0.00	0.38	0.00	0.38	0.00	0.38	0.50

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound NE Highland Rd				Southbound NE Highland Rd				Eastbound E 4th St				Westbound E 4th St				Interval Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
4:00 PM	0	0	0	0	0	0	2	2	2	8	0	10	0	6	0	6	18
4:15 PM	1	0	0	1	0	0	1	1	2	5	0	7	0	5	0	5	14
4:30 PM	1	0	0	1	1	0	0	1	2	5	0	7	0	5	0	5	14
4:45 PM	1	0	0	1	1	0	0	1	0	4	0	4	0	3	0	3	9
5:00 PM	1	0	0	1	1	0	0	1	0	3	0	3	0	2	0	2	7

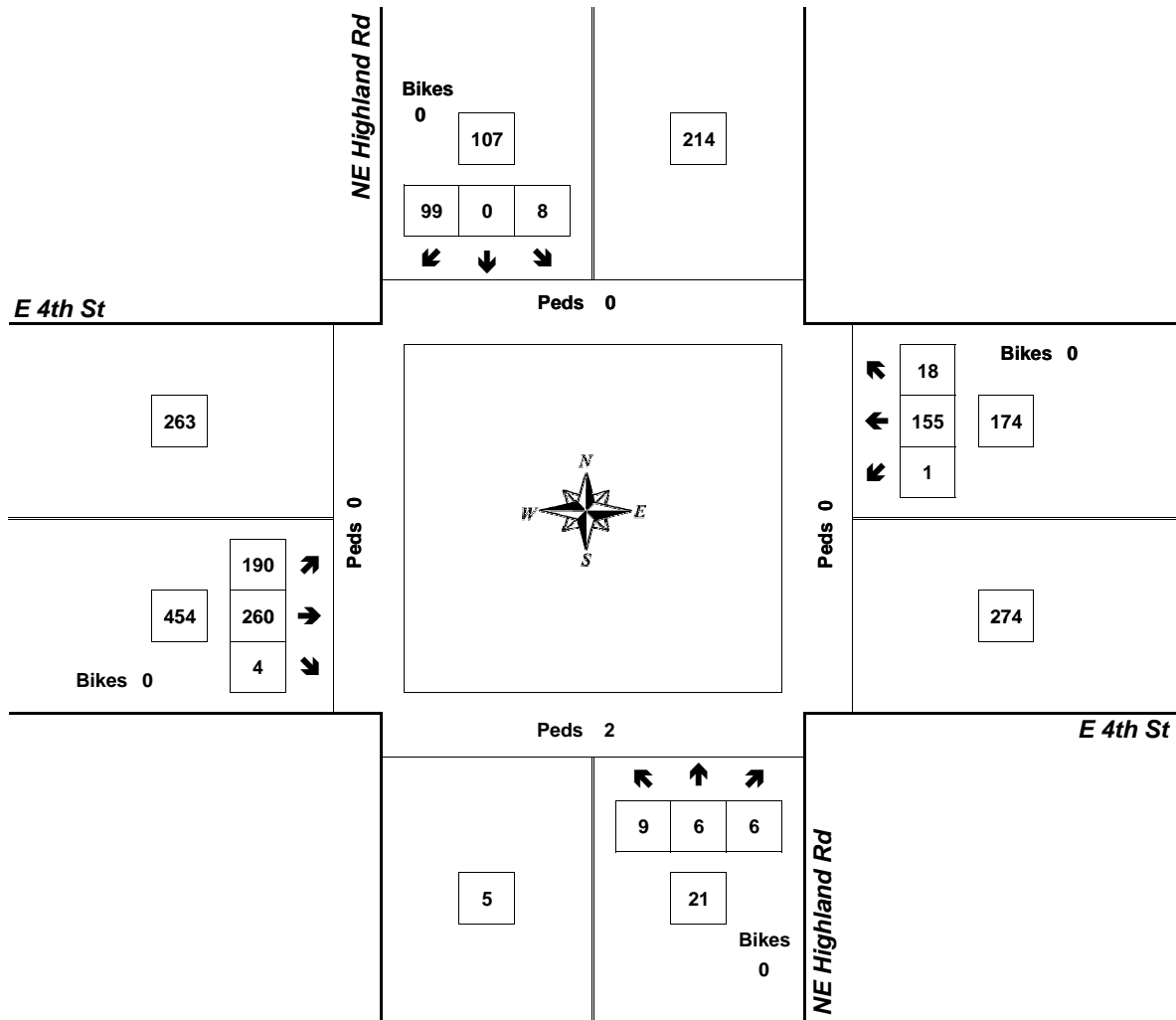
Peak Hour Summary



Clay Carney
(503) 833-2740

NE Highland Rd & E 4th St

4:55 PM to 5:55 PM
Thursday, December 06, 2018



Approach	PHF	HV%	Volume
EB	0.82	0.7%	454
WB	0.82	1.7%	174
NB	0.58	4.8%	21
SB	0.84	0.9%	107
Intersection	0.93	1.1%	756

Count Period: 4:00 PM to 6:00 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
7:00 AM	0	0	1	0	1	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:05 AM	3	0	0	0	3	7:05 AM	0	0	0	0	0	7:05 AM	0	0	0	0	0
7:10 AM	1	0	0	1	2	7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0
7:15 AM	2	0	2	1	5	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:20 AM	2	0	1	0	3	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	0	1	1	1	3	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	3	1	0	1	5	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:35 AM	3	0	1	0	4	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	5	0	3	0	8	7:40 AM	0	0	0	0	0	7:40 AM	0	0	0	0	0
7:45 AM	1	0	0	2	3	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	4	1	2	1	8	7:50 AM	0	0	0	0	0	7:50 AM	0	0	0	0	0
7:55 AM	7	0	0	0	7	7:55 AM	0	0	0	0	0	7:55 AM	0	0	0	0	0
8:00 AM	1	3	0	2	6	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	3	0	3	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	4	0	1	0	5	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	5	1	1	4	11	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	2	0	1	3	6	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
8:25 AM	1	0	2	3	6	8:25 AM	0	0	0	0	0	8:25 AM	0	0	0	0	0
8:30 AM	2	0	0	2	4	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:35 AM	3	0	1	1	5	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	2	0	1	2	5	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
8:45 AM	2	0	5	2	9	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
8:50 AM	2	0	0	2	4	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	1	0	0	1	8:55 AM	0	0	0	0	0
Count Total	55	7	26	29	117	Count Total	0	1	0	0	1	Count Total	0	0	0	0	0
Peak Hour	33	5	17	20	75	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0



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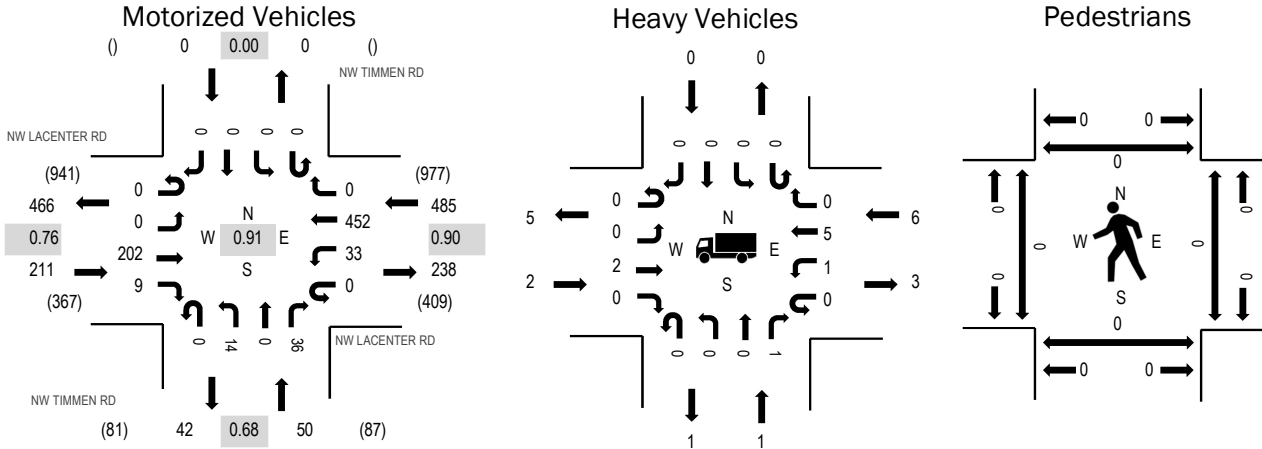
Location: 2 NW TIMMEN RD & NW LACENTER RD AM

Date: Wednesday, June 29, 2022

Peak Hour: 07:50 AM - 08:50 AM

Peak 15-Minutes: 08:35 AM - 08:50 AM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.9%	0.76
WB	1.2%	0.90
NB	2.0%	0.68
SB	0.0%	0.00
All	1.2%	0.91

Traffic Counts - Motorized Vehicles

Interval Start Time	NW LACENTER RD Eastbound				NW LACENTER RD Westbound				NW TIMMEN RD Northbound				NW TIMMEN 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	6	2	0	1	33	0	0	1	0	1	0	0	0	0	44	713
7:05 AM	0	0	8	0	0	4	38	0	0	2	0	2	0	0	0	0	54	728
7:10 AM	0	0	8	0	0	1	37	0	0	0	0	1	0	0	0	0	47	735
7:15 AM	0	0	7	1	0	3	44	0	0	1	0	0	0	0	0	0	56	745
7:20 AM	0	0	14	2	0	1	50	0	0	1	0	3	0	0	0	0	71	736
7:25 AM	0	0	11	1	0	2	39	0	0	2	0	2	0	0	0	0	57	735
7:30 AM	0	0	11	0	0	3	54	0	0	1	0	2	0	0	0	0	71	733
7:35 AM	0	0	11	1	0	1	44	0	0	0	0	1	0	0	0	0	58	717
7:40 AM	0	0	15	0	0	3	37	0	1	0	0	1	0	0	0	0	57	731
7:45 AM	0	0	14	0	0	5	37	0	0	3	0	3	0	0	0	0	62	736
7:50 AM	0	0	19	0	0	3	47	0	0	1	0	4	0	0	0	0	74	746
7:55 AM	0	0	22	1	0	5	31	0	0	0	0	3	0	0	0	0	62	732
8:00 AM	0	0	9	2	0	2	41	0	0	0	0	5	0	0	0	0	59	718
8:05 AM	0	0	12	0	0	1	43	0	0	2	0	3	0	0	0	0	61	
8:10 AM	0	0	10	2	0	1	35	0	0	4	0	5	0	0	0	0	57	
8:15 AM	0	0	14	0	0	1	31	0	0	0	0	1	0	0	0	0	47	
8:20 AM	0	0	23	0	0	4	36	0	0	0	0	7	0	0	0	0	70	
8:25 AM	0	0	19	1	0	2	30	0	0	0	0	3	0	0	0	0	55	
8:30 AM	0	0	15	0	0	2	36	0	0	2	0	0	0	0	0	0	55	
8:35 AM	0	0	14	0	0	5	49	0	0	1	0	3	0	0	0	0	72	
8:40 AM	0	0	16	1	0	4	39	0	0	1	0	1	0	0	0	0	62	
8:45 AM	0	0	29	2	0	3	34	0	0	3	0	1	0	0	0	0	72	
8:50 AM	0	0	22	1	0	2	31	0	0	0	0	4	0	0	0	0	60	
8:55 AM	0	0	20	1	0	3	19	0	0	1	0	4	0	0	0	0	48	
Count Total	0	0	349	18	0	62	915	0	1	26	0	60	0	0	0	0	1,431	
Peak Hour	0	0	202	9	0	33	452	0	0	14	0	36	0	0	0	0	746	

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	1	0	0	0	1	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	1	0	0	1	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	1	0	1	0	2	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	0	0
7:40 AM	1	0	0	0	1	7:40 AM	0	1	0	0	1	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	1	0	1	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	0	1	0	1	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	1	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	1	0	0	1	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
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	2	0	0	0	2	8:35 AM	0	0	0	0	0	8:35 AM	0	0	0	0	0
8:40 AM	0	0	2	0	2	8:40 AM	0	0	0	0	0	8:40 AM	0	0	0	0	0
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	1	0	1
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	5	2	7	0	14	Count Total	0	1	0	0	1	Count Total	0	0	1	0	1
Peak Hour	2	1	6	0	9	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0



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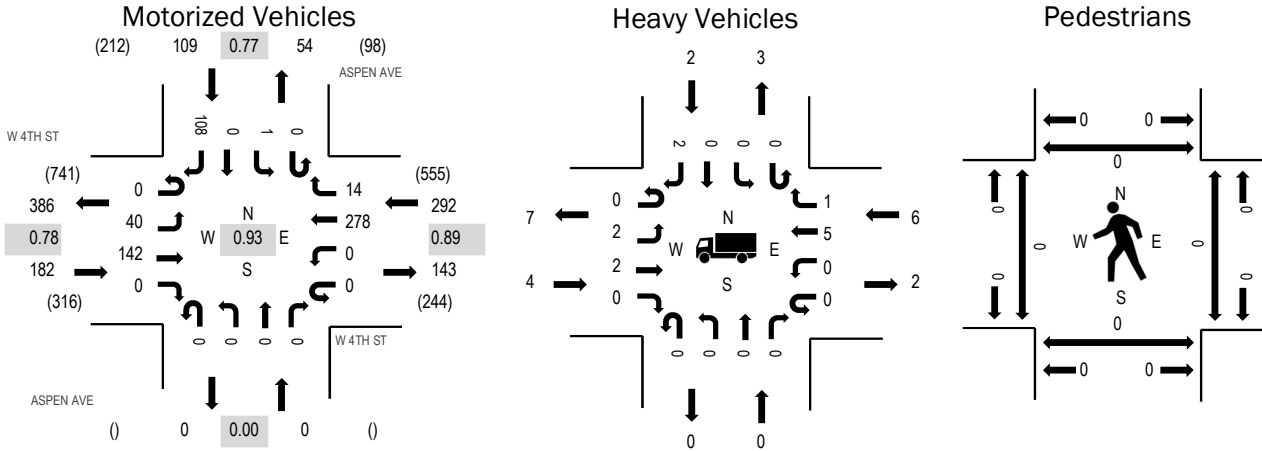
Location: 3 ASPEN AVE & W 4TH ST AM

Date: Wednesday, June 29, 2022

Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	2.2%	0.78
WB	2.1%	0.89
NB	0.0%	0.00
SB	1.8%	0.77
All	2.1%	0.93

Traffic Counts - Motorized Vehicles

Interval Start Time	W 4TH ST Eastbound				W 4TH ST Westbound				ASPEN AVE Northbound				ASPEN AVE 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	2	0	0	0	17	0	0	0	0	0	0	0	0	8	27	518
7:05 AM	0	2	1	0	0	0	24	0	0	0	0	0	0	0	0	9	36	540
7:10 AM	0	2	5	0	0	0	27	1	0	0	0	0	0	0	4	39	551	
7:15 AM	0	1	8	0	0	0	28	0	0	0	0	0	0	0	5	42	554	
7:20 AM	0	2	14	0	0	0	25	1	0	0	0	0	0	2	11	55	557	
7:25 AM	0	2	5	0	0	0	22	0	0	0	0	0	0	0	15	44	550	
7:30 AM	0	5	5	0	0	0	26	0	0	0	0	0	0	1	10	47	556	
7:35 AM	0	4	6	0	0	0	22	1	0	0	0	0	0	0	11	44	557	
7:40 AM	0	2	7	0	0	0	20	1	0	0	0	0	0	1	8	39	569	
7:45 AM	0	4	12	0	0	0	18	1	0	0	0	0	0	0	16	51	583	
7:50 AM	0	1	13	0	0	0	22	3	0	0	0	0	0	0	7	46	578	
7:55 AM	0	4	15	0	0	0	20	4	0	0	0	0	0	0	5	48	581	
8:00 AM	0	4	13	0	0	0	24	2	0	0	0	0	0	0	6	49	565	
8:05 AM	0	7	7	0	0	0	20	0	0	0	0	0	0	0	13	47		
8:10 AM	0	1	8	0	0	0	24	0	0	0	0	0	0	0	9	42		
8:15 AM	0	2	9	0	0	0	29	0	0	0	0	0	0	0	5	45		
8:20 AM	0	3	17	0	0	0	19	0	0	0	0	0	0	0	9	48		
8:25 AM	0	3	16	0	0	0	23	1	0	0	0	0	0	1	6	50		
8:30 AM	0	5	12	0	0	0	20	2	0	0	0	0	0	0	9	48		
8:35 AM	0	2	7	0	0	0	32	1	0	0	0	0	0	0	14	56		
8:40 AM	0	4	13	0	0	0	27	0	0	0	0	0	0	0	9	53		
8:45 AM	0	7	17	0	0	0	14	1	0	0	0	0	0	0	7	46		
8:50 AM	0	4	19	0	0	0	19	0	0	0	0	0	0	0	7	49		
8:55 AM	0	6	8	0	0	0	12	2	0	0	0	0	0	0	4	32		
Count Total	0	77	239	0	0	0	534	21	0	0	0	0	0	5	0	207	1,083	
Peak Hour	0	40	142	0	0	0	278	14	0	0	0	0	0	1	0	108	583	

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	2	2
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	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	0	0	0
7:35 AM	1	0	1	0	2	7:35 AM	0	0	0	0	0	7:35 AM	0	0	0	1	1
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	1	0	1	0	2	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
7:50 AM	0	0	0	1	1	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	0	2	0	2	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	2	0	2	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	1	0	0	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	0	0
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	0	0	0	0
8:40 AM	2	0	1	1	4	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	1	0	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	1	1	8:55 AM	0	0	0	0	0
Count Total	8	0	7	2	17	Count Total	0	0	0	1	1	Count Total	0	0	0	3	3
Peak Hour	4	0	6	2	12	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0



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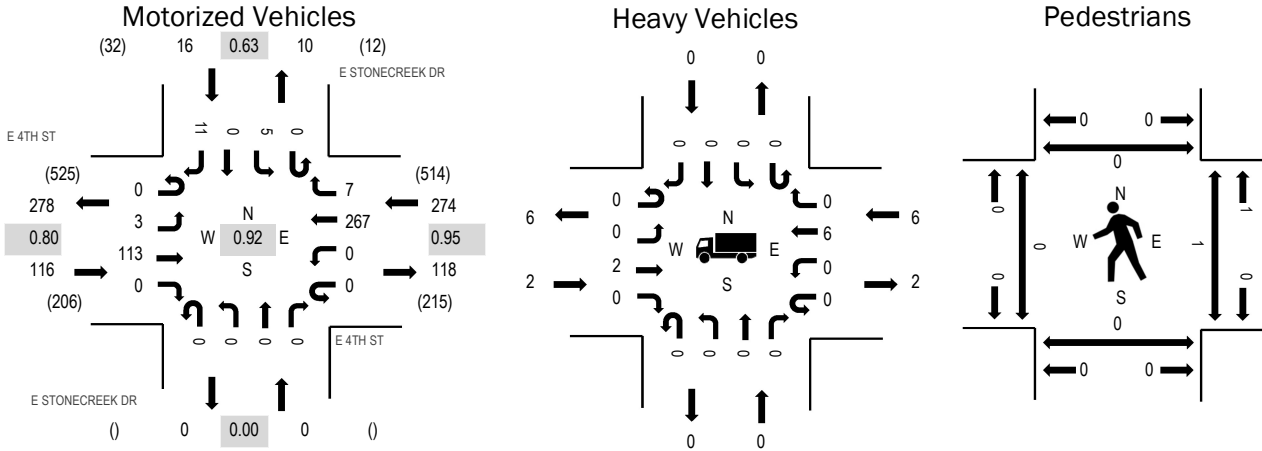
Location: 4 E STONECREEK DR & E 4TH ST AM

Date: Wednesday, June 29, 2022

Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:25 AM - 08:40 AM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	1.7%	0.80
WB	2.2%	0.95
NB	0.0%	0.00
SB	0.0%	0.63
All	2.0%	0.92

Traffic Counts - Motorized Vehicles

Interval Start Time	E 4TH ST Eastbound				E 4TH ST Westbound				E STONECREEK DR Northbound				E STONECREEK DR 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	17	0	0	0	0	0	0	1	0	0	21	355
7:05 AM	0	0	1	0	0	0	21	1	0	0	0	0	0	0	0	0	23	370
7:10 AM	0	0	5	0	0	0	23	0	0	0	0	0	0	0	0	2	30	376
7:15 AM	0	0	7	0	0	0	20	0	0	0	0	0	0	0	0	1	28	378
7:20 AM	0	0	13	0	0	0	24	0	0	0	0	0	0	0	0	0	37	383
7:25 AM	0	0	5	0	0	0	23	0	0	0	0	0	0	1	0	0	29	375
7:30 AM	0	0	4	0	0	0	23	0	0	0	0	0	0	0	0	1	28	382
7:35 AM	0	0	4	0	0	0	18	0	0	0	0	0	0	0	0	2	24	389
7:40 AM	0	0	8	0	0	0	24	0	0	0	0	0	0	1	0	0	33	404
7:45 AM	0	0	10	0	0	0	26	1	0	0	0	0	0	0	0	2	39	406
7:50 AM	0	0	9	0	0	0	22	0	0	0	0	0	0	0	0	0	31	395
7:55 AM	0	1	8	0	0	0	21	1	0	0	0	0	0	1	0	0	32	397
8:00 AM	0	0	11	0	0	0	24	0	0	0	0	0	0	0	0	1	36	397
8:05 AM	0	0	7	0	0	0	21	0	0	0	0	0	0	0	0	1	29	
8:10 AM	0	0	8	0	0	0	23	1	0	0	0	0	0	0	0	0	32	
8:15 AM	0	0	7	0	0	0	23	1	0	0	0	0	0	1	0	1	33	
8:20 AM	0	1	12	0	0	0	15	1	0	0	0	0	0	0	0	0	29	
8:25 AM	0	1	13	0	0	0	20	1	0	0	0	0	0	0	0	1	36	
8:30 AM	0	0	8	0	0	0	23	0	0	0	0	0	0	1	0	3	35	
8:35 AM	0	0	11	0	0	0	27	0	0	0	0	0	0	1	0	0	39	
8:40 AM	0	0	9	0	0	0	22	1	0	0	0	0	0	1	0	2	35	
8:45 AM	0	0	12	0	0	0	15	0	0	0	0	0	0	0	0	1	28	
8:50 AM	0	0	15	0	0	0	16	1	0	0	0	0	0	1	0	0	33	
8:55 AM	0	0	13	0	0	0	14	0	0	0	0	0	0	3	0	2	32	
Count Total	0	3	203	0	0	0	505	9	0	0	0	0	0	12	0	20	752	
Peak Hour	0	3	113	0	0	0	267	7	0	0	0	0	0	5	0	11	406	

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	2	0	2
7:10 AM	0	0	0	0	0	7:10 AM	0	0	0	0	0	7:10 AM	0	0	1	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	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	0	0	0	0	7:25 AM	0	0	0	0	0	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	0	1	0	1	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	1	0	1
7:45 AM	1	0	1	0	2	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	0	2	0	2	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	2	0	2	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	1	0	0	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	0	0
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	0	1	0	1
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	0	0	0	0	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	1	0	0	1	1	8:55 AM	0	0	0	0	0
Count Total	4	0	7	0	11	Count Total	1	0	0	1	1	Count Total	0	0	6	0	6
Peak Hour	2	0	6	0	8	Peak Hour	0	0	0	0	0	Peak Hour	0	0	1	0	1

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	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	2	0	0	2
7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0	7:15 AM	0	1	0	0	1
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	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	1	0	0	1
7:35 AM	0	0	1	0	1	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	1	0	1	0	2	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	1	0	0	0	1
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	0	2	0	2	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	1	0	1	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	0	1	0	1	8:10 AM	0	0	0	0	0	8:10 AM	0	0	0	0	0
8:15 AM	2	0	0	0	2	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:20 AM	1	0	0	0	1	8:20 AM	0	0	0	0	0	8:20 AM	0	0	0	0	0
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	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	0	0	0	0	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	1	1
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	1	0	0	1	1	8:55 AM	0	0	0	0	0
Count Total	7	0	7	0	14	Count Total	1	0	0	1	1	Count Total	1	4	0	1	6
Peak Hour	4	0	6	0	10	Peak Hour	0	0	0	0	0	Peak Hour	1	0	0	0	1

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	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	1	0	0	0	1	7:20 AM	0	0	0	0	0	7:20 AM	0	0	0	0	0
7:25 AM	1	0	0	0	1	7:25 AM	0	0	0	0	0	7:25 AM	0	0	0	0	0
7:30 AM	0	0	1	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	0	0	7:40 AM	0	0	0	0	0
7:45 AM	1	0	1	0	2	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	0	2	0	2	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:05 AM	0	0	1	0	1	8:05 AM	0	0	0	0	0	8:05 AM	0	0	0	0	0
8:10 AM	0	0	1	0	1	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	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	1	0	1	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	1	0	1	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	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	4	0	7	0	11	Count Total	0	0	1	0	1	Count Total	0	0	0	0	0
Peak Hour	3	0	6	0	9	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0



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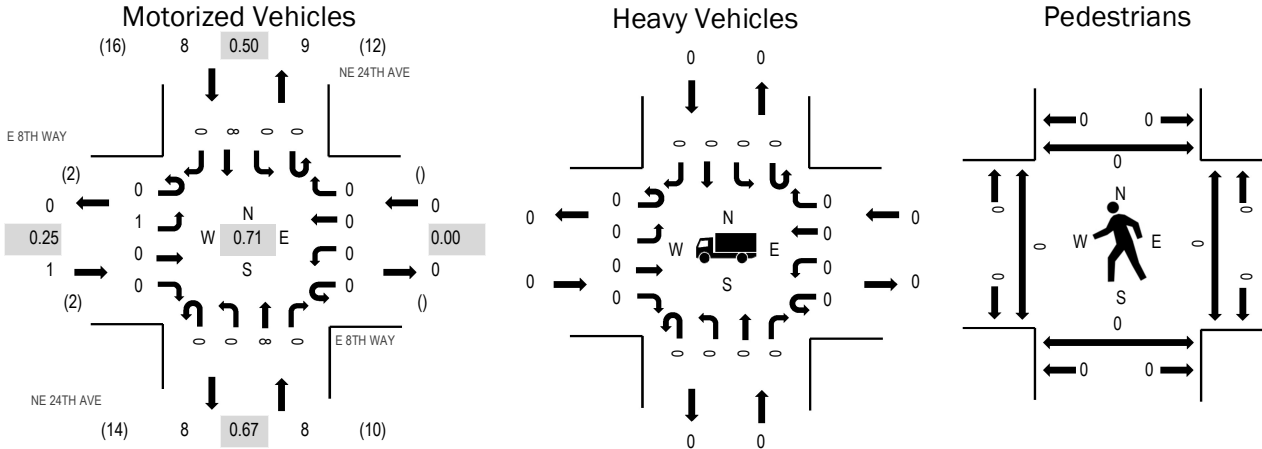
Location: 7 NE 24TH AVE & E 8TH WAY AM

Date: Wednesday, June 29, 2022

Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:00 AM - 07:15 AM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.25
WB	0.0%	0.00
NB	0.0%	0.67
SB	0.0%	0.50
All	0.0%	0.71

Traffic Counts - Motorized Vehicles

Interval Start Time	E 8TH WAY Eastbound				E 8TH WAY Westbound				NE 24TH AVE Northbound				NE 24TH AVE 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	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	17
7:05 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	15
7:10 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	13
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
7:20 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	12
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	10
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	11
7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
7:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
7:50 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	11
7:55 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	10
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
8:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
8:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	11
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
8:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	11
8:25 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	11
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	11
8:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
8:40 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
8:50 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	11
8:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	11
Count Total	0	2	0	0	0	0	0	0	0	0	10	0	0	0	14	2	28	
Peak Hour	0	1	0	0	0	0	0	0	0	0	8	0	0	0	8	0	17	

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	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	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	0	0	0	0	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	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	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	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	1	0	0	1	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	0	0	0	0	Count Total	0	1	0	0	1	Count Total	0	0	0	0	0
Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

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	1	0	3	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:05 PM	0	0	2	1	3	4:05 PM	0	0	0	0	0	4:05 PM	0	0	0	0	0
4:10 PM	3	0	0	0	3	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	0	0
4:15 PM	4	0	1	0	5	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	2	0	6	0	8	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	2	1	1	0	4	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	3	3
4:35 PM	2	0	2	0	4	4:35 PM	0	0	0	0	0	4:35 PM	0	0	0	0	0
4:40 PM	2	1	1	0	4	4:40 PM	0	0	0	0	0	4:40 PM	0	0	0	0	0
4:45 PM	1	0	1	0	2	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
4:50 PM	3	0	0	0	3	4:50 PM	0	0	0	0	0	4:50 PM	0	0	0	0	0
4:55 PM	2	0	2	0	4	4:55 PM	0	0	0	0	0	4:55 PM	0	0	0	0	0
5:00 PM	0	0	1	1	2	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:05 PM	1	0	3	0	4	5:05 PM	0	0	0	0	0	5:05 PM	0	0	0	0	0
5:10 PM	0	0	1	0	1	5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0
5:15 PM	3	0	2	1	6	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:20 PM	1	0	0	1	2	5:20 PM	0	0	0	0	0	5:20 PM	0	0	0	0	0
5:25 PM	1	0	2	0	3	5:25 PM	0	0	0	0	0	5:25 PM	0	0	0	0	0
5:30 PM	1	0	1	1	3	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	2	0	0	0	2	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	2	0	2	0	4	5:50 PM	0	0	0	0	0	5:50 PM	0	0	0	0	0
5:55 PM	2	0	0	0	2	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	39	2	30	7	78	Count Total	0	0	0	0	0	Count Total	0	0	0	3	3
Peak Hour	16	0	15	5	36	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

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	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	2	1	0	0	3	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	0	1	0	1	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	1	0	0	0	1	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	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	1	1	2	0	4
5:00 PM	0	2	0	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	1	0	1
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	1	0	0	1	5:15 PM	1	0	0	0	1	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	0	0	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	4	4	2	0	10	Count Total	1	0	1	0	2	Count Total	1	1	3	0	5
Peak Hour	0	3	0	0	3	Peak Hour	1	0	1	0	2	Peak Hour	1	1	3	0	5



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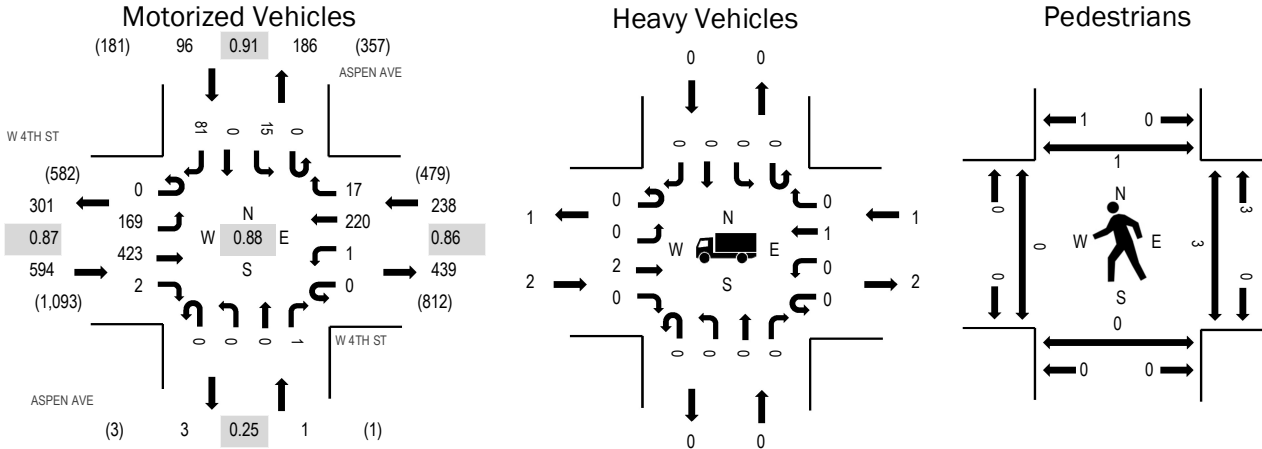
Location: 3 ASPEN AVE & W 4TH ST PM

Date: Wednesday, June 29, 2022

Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.3%	0.87
WB	0.4%	0.86
NB	0.0%	0.25
SB	0.0%	0.91
All	0.3%	0.88

Traffic Counts - Motorized Vehicles

Interval Start Time	W 4TH ST Eastbound				W 4TH ST Westbound				ASPEN AVE Northbound				ASPEN AVE 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	12	25	0	0	0	29	2	0	0	0	0	0	2	0	7	77	825
4:05 PM	0	8	28	0	0	0	18	4	0	0	0	0	0	1	0	5	64	857
4:10 PM	0	10	30	0	0	0	14	2	0	0	0	0	0	1	0	1	58	867
4:15 PM	0	6	30	0	0	0	25	2	0	0	0	0	0	0	0	5	68	891
4:20 PM	0	18	27	0	0	0	17	6	0	0	0	0	0	1	0	3	72	889
4:25 PM	0	12	24	0	0	0	17	3	0	0	0	0	0	1	0	8	65	905
4:30 PM	0	9	42	0	0	0	17	2	0	0	0	0	0	1	0	6	77	895
4:35 PM	0	12	30	0	0	0	12	0	0	0	0	0	0	2	0	8	64	897
4:40 PM	0	14	31	0	0	0	25	1	0	0	0	0	0	1	0	5	77	908
4:45 PM	0	14	30	0	0	0	9	0	0	0	0	0	0	5	0	5	63	907
4:50 PM	0	16	23	0	0	0	17	2	0	0	0	0	0	1	0	9	68	921
4:55 PM	0	12	36	0	0	0	13	4	0	0	0	0	0	1	0	6	72	925
5:00 PM	0	17	52	0	0	0	30	1	0	0	0	0	0	1	0	8	109	929
5:05 PM	0	14	35	0	0	0	12	3	0	0	0	1	0	1	0	8	74	
5:10 PM	0	13	39	0	0	0	19	3	0	0	0	0	0	3	0	5	82	
5:15 PM	0	14	32	0	0	0	12	0	0	0	0	0	0	0	0	8	66	
5:20 PM	0	13	40	0	0	0	26	1	0	0	0	0	0	1	0	7	88	
5:25 PM	0	10	22	1	0	0	14	0	0	0	0	0	0	1	0	7	55	
5:30 PM	0	12	36	0	0	0	18	0	0	0	0	0	0	3	0	10	79	
5:35 PM	0	12	41	0	0	1	14	1	0	0	0	0	0	2	0	4	75	
5:40 PM	0	19	31	0	0	0	19	1	0	0	0	0	0	0	0	6	76	
5:45 PM	0	15	35	1	0	0	19	2	0	0	0	0	0	1	0	4	77	
5:50 PM	0	10	31	0	0	0	20	3	0	0	0	0	0	2	0	6	72	
5:55 PM	0	20	29	0	0	0	17	2	0	0	0	0	0	0	0	8	76	
Count Total	0	312	779	2	0	1	433	45	0	0	0	1	0	32	0	149	1,754	
Peak Hour	0	169	423	2	0	1	220	17	0	0	0	1	0	15	0	81	929	

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	1	0	1	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	1	0	0	0	1	4:10 PM	0	0	0	0	0	4:10 PM	0	0	0	1	1
4:15 PM	0	0	1	0	1	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:20 PM	1	0	0	0	1	4:20 PM	0	0	0	0	0	4:20 PM	0	0	0	1	1
4:25 PM	1	0	0	0	1	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	1	0	1	0	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	1	0	0	0	1	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	1	1
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	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	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	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	0	1	0	1	5:25 PM	0	0	0	0	0	5:25 PM	0	0	2	0	2
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	1	0	1
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	0	0	2	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	0	0	0	0	0	5:55 PM	0	0	0	0	0	5:55 PM	0	0	0	0	0
Count Total	7	0	4	1	12	Count Total	0	0	0	0	0	Count Total	0	0	3	4	7
Peak Hour	2	0	1	0	3	Peak Hour	0	0	0	0	0	Peak Hour	0	0	3	1	4



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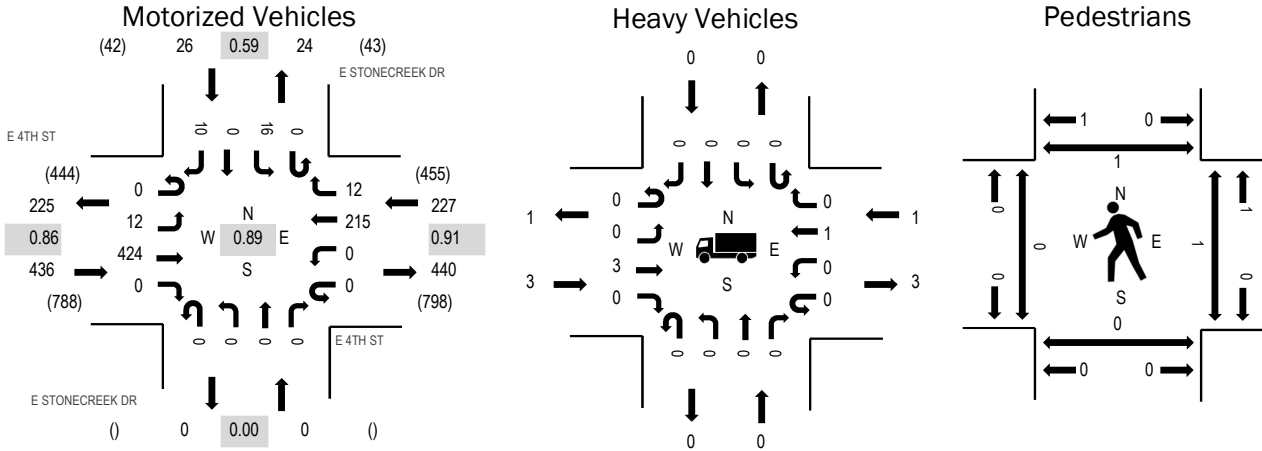
Location: 4 E STONECREEK DR & E 4TH ST PM

Date: Wednesday, June 29, 2022

Peak Hour: 04:25 PM - 05:25 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.7%	0.86
WB	0.4%	0.91
NB	0.0%	0.00
SB	0.0%	0.59
All	0.6%	0.89

Traffic Counts - Motorized Vehicles

Interval Start Time	E 4TH ST Eastbound				E 4TH ST Westbound				E STONECREEK DR Northbound				E STONECREEK DR 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	34	0	0	0	26	0	0	0	0	0	0	1	0	1	63	630
4:05 PM	0	0	25	0	0	0	20	0	0	0	0	0	0	1	0	0	46	637
4:10 PM	0	0	33	0	0	0	19	0	0	0	0	0	0	0	0	0	52	657
4:15 PM	0	1	21	0	0	0	18	1	0	0	0	0	0	0	0	1	42	662
4:20 PM	0	2	26	0	0	0	20	4	0	0	0	0	0	1	0	0	53	671
4:25 PM	0	1	35	0	0	0	15	3	0	0	0	0	0	1	0	3	58	689
4:30 PM	0	2	29	0	0	0	16	0	0	0	0	0	0	1	0	3	51	670
4:35 PM	0	1	32	0	0	0	18	3	0	0	0	0	0	0	0	0	54	666
4:40 PM	0	0	40	0	0	0	23	0	0	0	0	0	0	0	0	0	63	674
4:45 PM	0	0	29	0	0	0	12	0	0	0	0	0	0	2	0	1	44	656
4:50 PM	0	2	26	0	0	0	18	0	0	0	0	0	0	3	0	1	50	670
4:55 PM	0	1	30	0	0	0	19	1	0	0	0	0	0	3	0	0	54	670
5:00 PM	0	0	44	0	0	0	22	0	0	0	0	0	0	2	0	2	70	655
5:05 PM	0	2	42	0	0	0	20	1	0	0	0	0	0	1	0	0	66	
5:10 PM	0	0	39	0	0	0	15	2	0	0	0	0	0	1	0	0	57	
5:15 PM	0	2	33	0	0	0	13	2	0	0	0	0	0	1	0	0	51	
5:20 PM	0	1	45	0	0	0	24	0	0	0	0	0	0	1	0	0	71	
5:25 PM	0	0	22	0	0	0	16	1	0	0	0	0	0	0	0	0	39	
5:30 PM	0	0	33	0	0	0	14	0	0	0	0	0	0	0	0	0	47	
5:35 PM	0	0	42	0	0	0	19	1	0	0	0	0	0	0	0	0	62	
5:40 PM	0	0	23	0	0	0	17	3	0	0	0	0	0	2	0	0	45	
5:45 PM	0	1	37	0	0	0	16	2	0	0	0	0	0	2	0	0	58	
5:50 PM	0	1	27	0	0	0	18	0	0	0	0	0	0	2	0	2	50	
5:55 PM	0	0	23	0	0	0	12	1	0	0	0	0	0	3	0	0	39	
Count Total	0	18	770	0	0	0	430	25	0	0	0	0	0	28	0	14	1,285	
Peak Hour	0	12	424	0	0	0	215	12	0	0	0	0	0	16	0	10	689	

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	1	0	1	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	1	0	0	0	1	4:10 PM	0	0	0	0	0	4:10 PM	0	0	1	0	1
4:15 PM	0	0	1	0	1	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	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	1	0	0	0	1	4:25 PM	0	0	0	0	0	4:25 PM	0	0	0	1	1
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	1	0	1	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	0	1	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	1	0	1
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	0	0	0	0	0	5:05 PM	0	0	0	0	0	5:05 PM	0	0	1	0	1
5:10 PM	0	0	0	0	0	5:10 PM	0	0	0	0	0	5:10 PM	0	0	1	0	1
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	2	0	0	0	2	5:20 PM	0	0	0	0	0
5:25 PM	0	0	1	0	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	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	1	0	0	0	1	5:40 PM	0	0	0	0	0
5:45 PM	2	0	0	0	2	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	0	0	1	0	1	5:55 PM	0	0	2	0	2	5:55 PM	0	0	0	0	0
Count Total	6	0	5	0	11	Count Total	3	0	2	0	5	Count Total	0	0	4	1	5
Peak Hour	3	0	1	0	4	Peak Hour	2	0	0	0	2	Peak Hour	0	0	3	1	4



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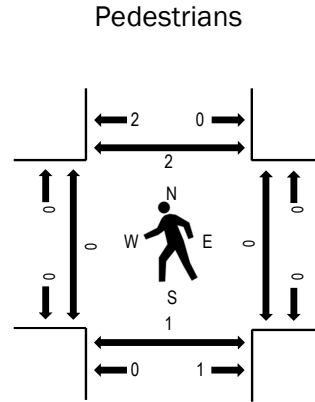
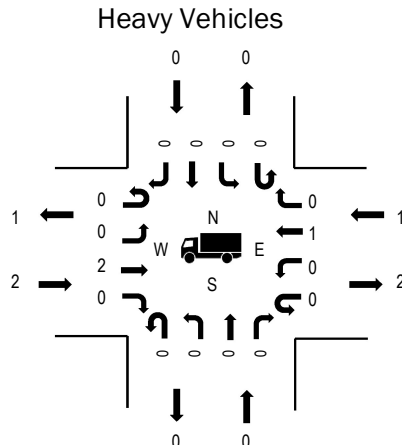
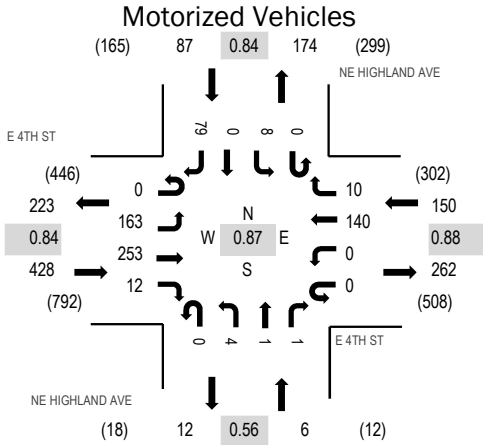
Location: 5 NE HIGHLAND AVE & E 4TH ST PM

Date: Wednesday, June 29, 2022

Peak Hour: 04:55 PM - 05:55 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.5%	0.84
WB	0.7%	0.88
NB	0.0%	0.56
SB	0.0%	0.84
All	0.4%	0.87

Traffic Counts - Motorized Vehicles

Interval Start Time	E 4TH ST Eastbound				E 4TH ST Westbound				NE HIGHLAND AVE Northbound				NE HIGHLAND AVE 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	14	21	0	0	0	17	1	0	1	0	0	0	0	1	7	62	612
4:05 PM	0	6	19	0	0	0	12	0	0	0	0	0	0	1	0	8	46	613
4:10 PM	0	13	20	0	0	0	15	0	0	0	0	1	0	0	0	5	54	638
4:15 PM	0	9	16	0	0	0	10	0	0	0	0	0	0	0	1	10	46	642
4:20 PM	0	8	18	0	0	0	17	0	0	2	0	0	0	1	0	3	49	646
4:25 PM	0	14	19	0	0	0	10	1	0	0	0	0	0	0	0	8	52	665
4:30 PM	0	10	18	1	0	0	13	0	0	0	0	0	0	0	0	3	45	656
4:35 PM	0	13	22	0	0	0	13	0	0	1	0	1	0	0	0	8	58	657
4:40 PM	0	14	22	0	0	0	13	0	0	0	0	0	0	0	0	8	57	664
4:45 PM	0	6	24	2	0	0	7	0	0	0	0	0	0	0	0	4	43	651
4:50 PM	0	7	22	1	0	0	13	0	0	0	0	0	0	0	0	4	47	666
4:55 PM	0	7	21	2	0	0	15	1	0	0	0	0	0	0	0	7	53	671
5:00 PM	0	13	30	1	0	0	12	0	0	1	0	1	0	0	0	5	63	659
5:05 PM	0	18	25	0	0	0	12	1	0	2	0	0	0	2	0	11	71	
5:10 PM	0	15	27	1	0	0	7	0	0	0	0	0	0	0	0	8	58	
5:15 PM	0	17	17	1	0	0	10	0	0	0	0	0	0	1	0	4	50	
5:20 PM	0	18	26	1	0	0	15	1	0	0	0	0	0	0	0	7	68	
5:25 PM	0	8	13	2	0	0	9	1	0	0	0	0	0	1	0	9	43	
5:30 PM	0	18	14	0	0	0	7	0	0	0	0	0	0	0	0	7	46	
5:35 PM	0	15	24	1	0	0	16	1	0	1	0	0	0	2	0	5	65	
5:40 PM	0	7	19	0	0	0	13	1	0	0	0	0	0	0	0	4	44	
5:45 PM	0	16	19	1	0	0	12	2	0	0	0	0	0	2	0	6	58	
5:50 PM	0	11	18	2	0	0	12	2	0	0	1	0	0	0	0	6	52	
5:55 PM	0	7	18	0	0	0	8	2	0	0	0	0	0	3	0	3	41	
Count Total	0	284	492	16	0	0	288	14	0	8	1	3	0	13	2	150	1,271	
Peak Hour	0	163	253	12	0	0	140	10	0	4	1	1	0	8	0	79	671	

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	1	0	1	4:00 PM	0	0	0	0	0	4:00 PM	0	1	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	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	1	0	2	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	0	0	0	4:20 PM	0	0	0	0	0
4:25 PM	1	0	0	0	1	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	1	0	1	4:35 PM	0	0	0	0	0	4:35 PM	0	1	0	0	1
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	0	1	4:45 PM	0	0	0	0	0	4:45 PM	0	1	0	0	1
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	1	0	0	1
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	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	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	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	0	1	0	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	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	2	0	0	0	2	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	2	2
5:55 PM	0	0	1	0	1	5:55 PM	0	0	0	0	0	5:55 PM	0	2	0	0	2
Count Total	6	0	5	0	11	Count Total	0	0	0	0	0	Count Total	0	6	0	2	8
Peak Hour	2	0	1	0	3	Peak Hour	0	0	0	0	0	Peak Hour	0	1	0	2	3



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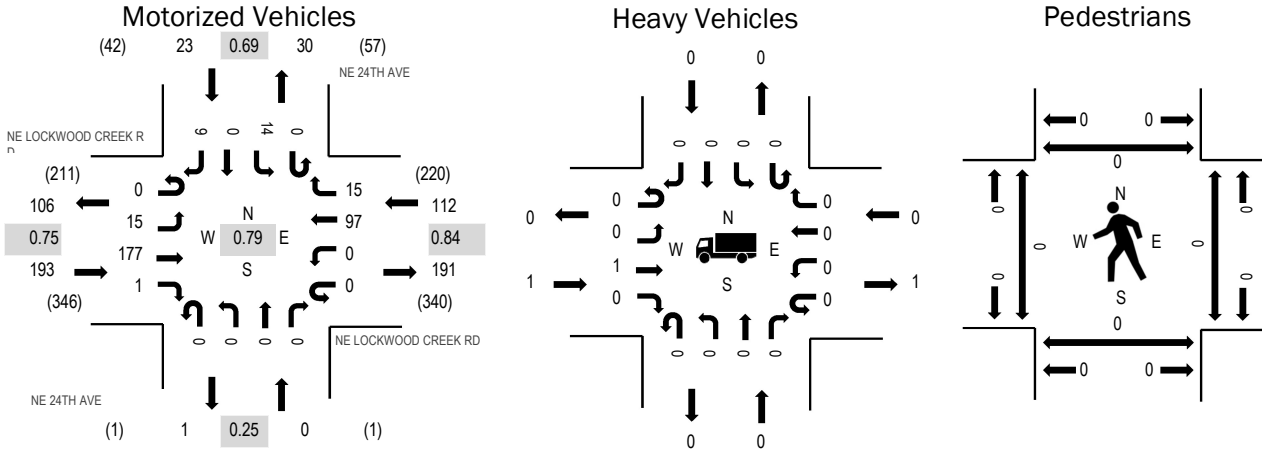
Location: 6 NE 24TH AVE & NE LOCKWOOD CREEK RD PM

Date: Wednesday, June 29, 2022

Peak Hour: 04:25 PM - 05:25 PM

Peak 15-Minutes: 05:05 PM - 05:20 PM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.5%	0.75
WB	0.0%	0.84
NB	0.0%	0.25
SB	0.0%	0.69
All	0.3%	0.79

Traffic Counts - Motorized Vehicles

Interval Start Time	NE LOCKWOOD CREEK RD Eastbound				NE LOCKWOOD CREEK RD Westbound				NE 24TH AVE Northbound				NE 24TH AVE 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	12	0	0	0	9	0	0	0	0	0	0	2	0	0	24	282
4:05 PM	0	1	8	0	0	0	4	0	0	0	0	0	0	1	0	0	14	282
4:10 PM	0	1	13	0	0	0	10	1	0	0	0	0	0	1	0	0	26	316
4:15 PM	0	0	20	0	0	0	6	0	0	0	0	0	0	1	0	1	28	313
4:20 PM	0	4	5	0	0	0	4	0	0	0	0	0	0	0	0	1	14	318
4:25 PM	0	1	17	0	0	0	11	2	0	0	0	0	0	0	0	1	32	328
4:30 PM	0	2	11	0	0	0	9	0	0	0	0	0	0	1	0	2	25	316
4:35 PM	0	2	11	0	0	0	6	3	0	0	0	0	0	2	0	0	24	306
4:40 PM	0	1	12	0	0	0	9	2	0	0	0	0	0	2	0	1	27	311
4:45 PM	0	2	13	0	0	0	11	0	0	0	0	0	0	0	0	1	27	309
4:50 PM	0	0	12	0	0	0	11	1	0	0	0	0	0	2	0	0	26	305
4:55 PM	0	1	10	0	0	0	4	0	0	0	0	0	0	0	0	0	15	311
5:00 PM	0	0	16	0	0	0	6	1	0	0	0	0	0	0	0	1	24	327
5:05 PM	0	2	28	0	0	0	12	1	0	0	0	0	0	4	0	1	48	328
5:10 PM	0	1	14	0	0	0	3	3	0	0	0	0	0	1	0	1	23	316
5:15 PM	0	1	17	1	0	0	11	1	0	0	0	0	0	2	0	0	33	316
5:20 PM	0	2	16	0	0	0	4	1	0	0	0	0	0	0	0	1	24	316
5:25 PM	0	1	6	0	0	0	7	2	0	1	0	0	0	3	0	0	20	316
5:30 PM	0	0	6	0	0	0	8	1	0	0	0	0	0	0	0	0	15	316
5:35 PM	0	0	14	0	0	0	12	2	0	0	0	0	0	1	0	0	29	316
5:40 PM	0	2	12	0	0	0	8	0	0	0	0	0	0	2	0	1	25	316
5:45 PM	0	4	6	0	0	0	13	0	0	0	0	0	0	0	0	0	23	316
5:50 PM	0	0	18	0	0	0	10	2	0	0	0	0	0	0	0	2	32	316
5:55 PM	0	4	15	0	0	0	8	1	0	0	0	0	0	3	0	0	31	316
Count Total	0	33	312	1	0	0	196	24	0	1	0	0	0	28	0	14	609	
Peak Hour	0	15	177	1	0	0	97	15	0	0	0	0	0	14	0	9	328	

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	1	0	1	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	1	0	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	0	0	0	0	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	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	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	0	0	0	0	5:00 PM	1	0	0	0	1	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	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	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	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	1	0	0	0	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	2	0	2	0	4	Count Total	1	0	0	0	1	Count Total	0	0	0	0	0
Peak Hour	1	0	0	0	1	Peak Hour	1	0	0	0	1	Peak Hour	0	0	0	0	0



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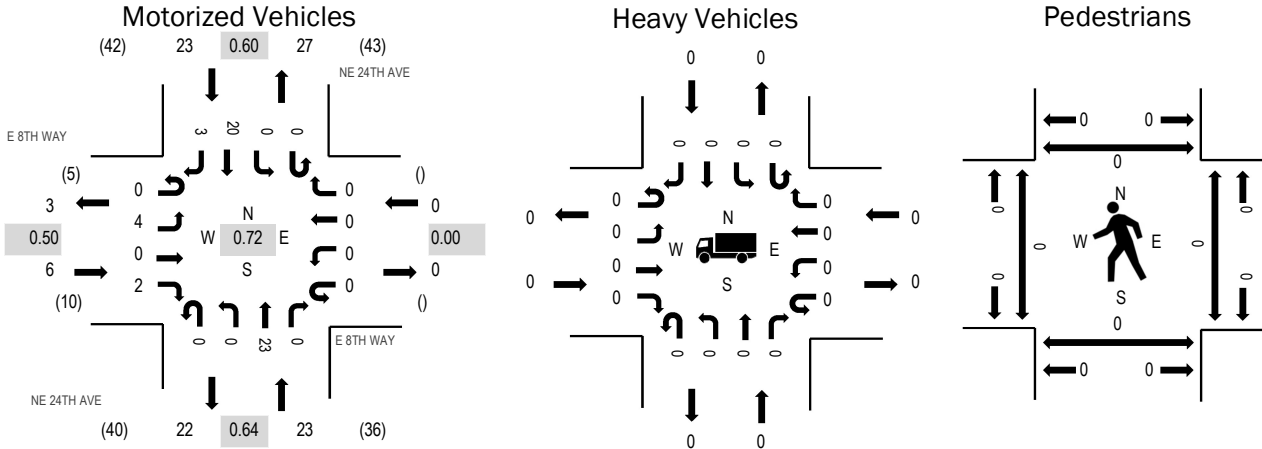
Location: 7 NE 24TH AVE & E 8TH WAY PM

Date: Wednesday, June 29, 2022

Peak Hour: 04:25 PM - 05:25 PM

Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.0%	0.50
WB	0.0%	0.00
NB	0.0%	0.64
SB	0.0%	0.60
All	0.0%	0.72

Traffic Counts - Motorized Vehicles

Interval Start Time	E 8TH WAY Eastbound				E 8TH WAY Westbound				NE 24TH AVE Northbound				NE 24TH AVE 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	0	0	0	0	0	0	0	0	1	0	0	0	2	0	4	41
4:05 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	41
4:10 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2	1	5	45
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	44
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	50
4:25 PM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	3	52
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	5	50
4:35 PM	0	1	0	0	0	0	0	0	0	0	4	0	0	0	2	0	7	47
4:40 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	6	43
4:45 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	0	1	0	4	39
4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	38
4:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	1	4	47
5:05 PM	0	1	0	1	0	0	0	0	0	0	3	0	0	0	1	0	6	
5:10 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	
5:15 PM	0	1	0	0	0	0	0	0	0	0	3	0	0	0	4	0	8	
5:20 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
5:30 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	
5:35 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	
5:50 PM	0	0	0	1	0	0	0	0	0	0	3	0	0	0	2	1	7	
5:55 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	
Count Total	0	7	0	3	0	0	0	0	0	0	36	0	0	0	37	5	88	
Peak Hour	0	4	0	2	0	0	0	0	0	0	23	0	0	0	20	3	52	

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	1	1	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	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	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	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	0	0	0	0	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	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	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	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	0	0	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	0	0	0	1	1	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0

All Traffic Data Services, LLC
alltrafficdata.net

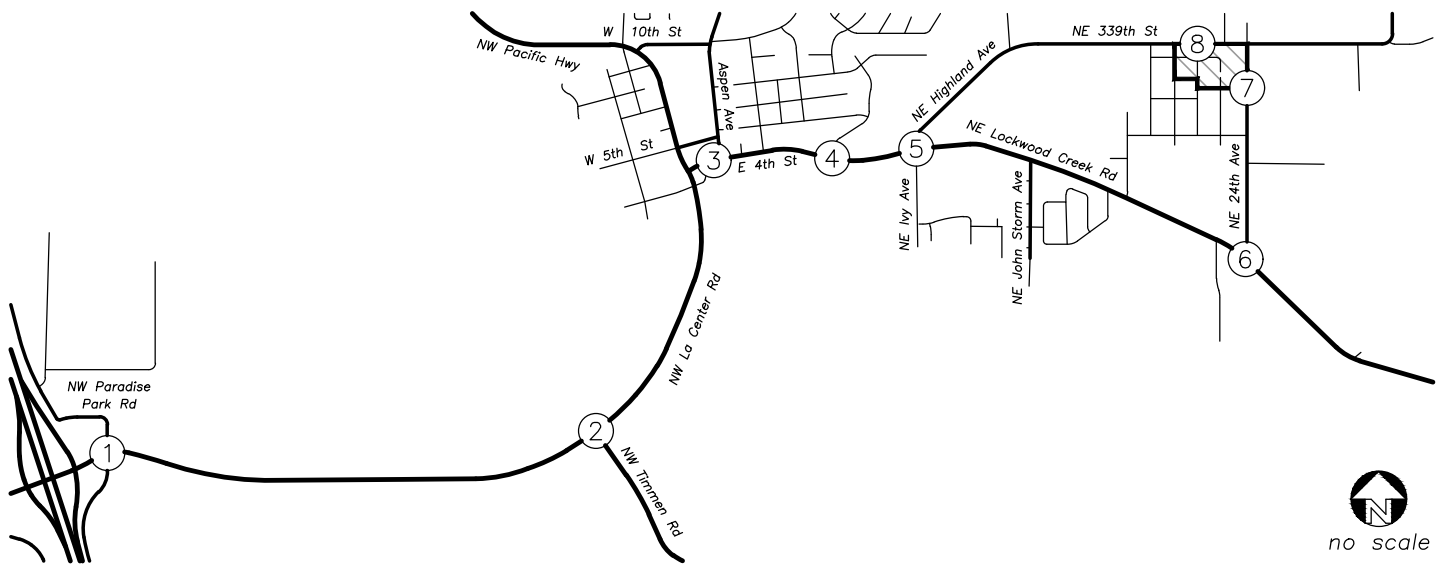
Date Start: 13-Jul-22
Date End: 14-Jul-22
NE 339th St E-O E Tanoak Ave
Site Code: 1

Start Time	13-Jul-22 Wed	EB	WB							Total
12:00 AM		*	*							*
01:00		*	*							*
02:00		*	*							*
03:00		*	*							*
04:00		*	*							*
05:00		*	*							*
06:00		*	*							*
07:00		*	*							*
08:00		*	*							*
09:00		*	*							*
10:00		*	*							*
11:00		46	67							113
12:00 PM		64	55							119
01:00		64	54							118
02:00		68	55							123
03:00		98	67							165
04:00		96	50							146
05:00		100	59							159
06:00		78	52							130
07:00		72	34							106
08:00		55	24							79
09:00		50	12							62
10:00		30	8							38
11:00		12	2							14
Total		833	539							1372
Percent		60.7%	39.3%							
AM Peak	-	11:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	46	67	-	-	-	-	-	-	113
PM Peak	-	17:00	15:00	-	-	-	-	-	-	15:00
Vol.	-	100	67	-	-	-	-	-	-	165

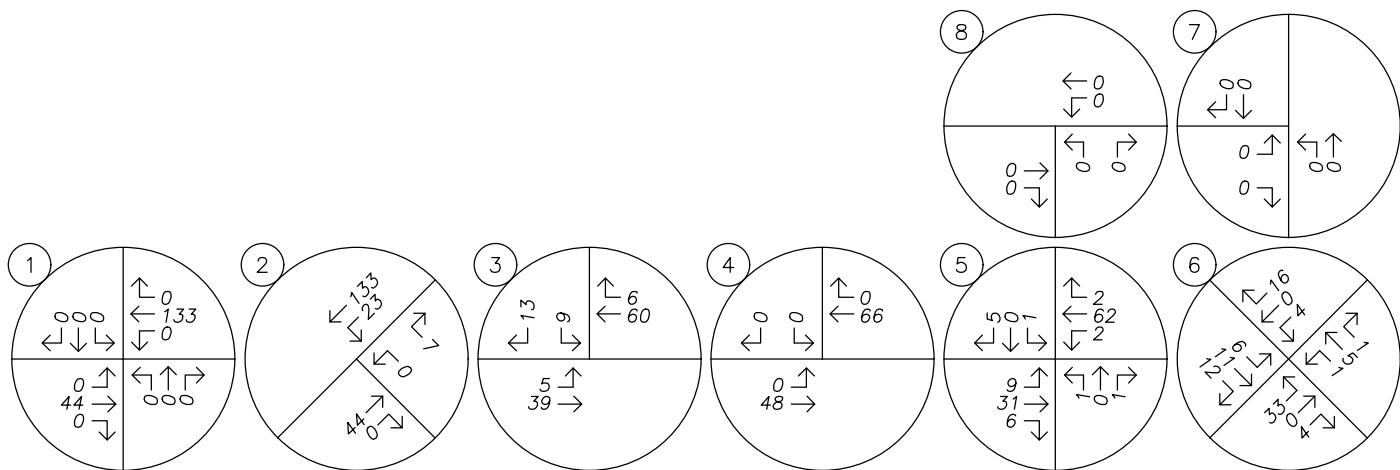
All Traffic Data Services, LLC
alltrafficdata.net

Date Start: 13-Jul-22
Date End: 14-Jul-22
NE 339th St E-O E Tanoak Ave
Site Code: 1

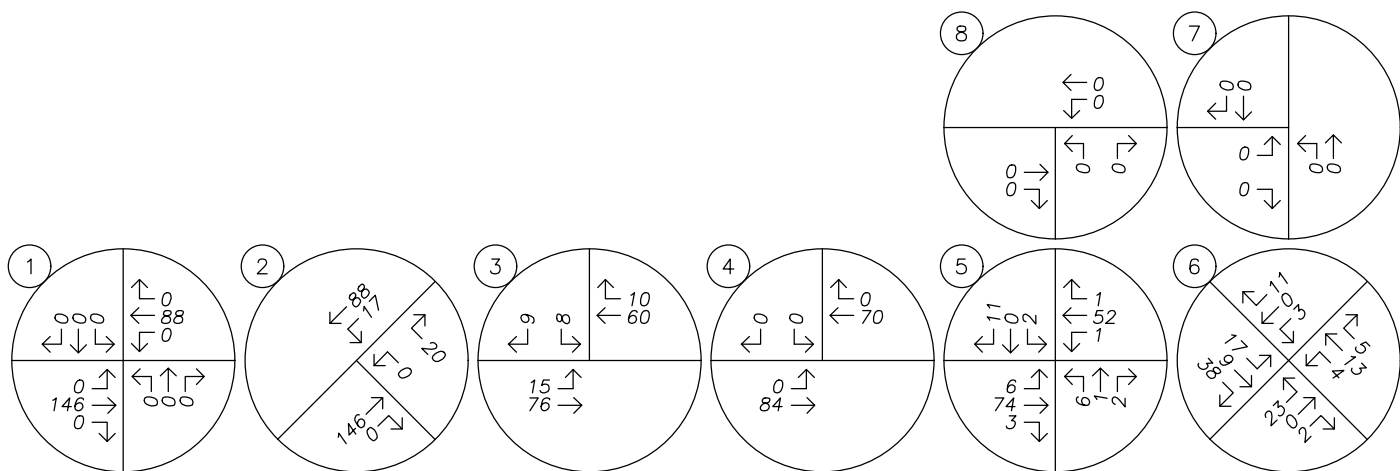
Start Time	14-Jul-22 Thu	EB	WB							Total
12:00 AM		12	2							14
01:00		6	0							6
02:00		4	2							6
03:00		1	9							10
04:00		2	16							18
05:00		1	51							52
06:00		16	86							102
07:00		16	76							92
08:00		27	87							114
09:00		31	76							107
10:00		41	75							116
11:00		*	*							*
12:00 PM		*	*							*
01:00		*	*							*
02:00		*	*							*
03:00		*	*							*
04:00		*	*							*
05:00		*	*							*
06:00		*	*							*
07:00		*	*							*
08:00		*	*							*
09:00		*	*							*
10:00		*	*							*
11:00		*	*							*
Total		157	480							637
Percent		24.6%	75.4%							
AM Peak	-	10:00	08:00	-	-	-	-	-	-	10:00
Vol.	-	41	87	-	-	-	-	-	-	116
PM Peak	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-
Grand Total		990	1019							2009
Percent		49.3%	50.7%							
ADT		ADT 2,009	AADT 2,009							



AM PEAK HOUR



PM PEAK HOUR



Appendix D – Safety Analysis

Crash History Data

Left-turn Lane Warrant Analysis

Traffic Signal Warrant Analysis



OFFICER REPORTED CRASHES THAT OCCURRED at OR in the vicinity of MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

PARADISE PARK RD @ LA CENTER RD

01/01/2017 - 12/31/2021 See 2nd tab below for road information

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

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FATAL	# VEH	# PEDES	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION
City Street	Clark	La Center	NW LA CENTER RD	2798	NW PARADISE PARK RD							No	EB57965	08/14/2021	14:27	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Overcast	Dry	Daylight	From opposite direction - one left turn - one straight	Going Straight Ahead
City Street	Clark	La Center	NW LACENTER RD	0	NW PARADISE PARK RD							No	E866954	11/26/2018	16:30	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Overcast	Wet	Dark-Street Lights On	Entering at angle	Going Straight Ahead

OFFICER REPORTED CRASHES THAT OCCURRED at OR in the vicinity of MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

PARADISE PARK RD @ LA CENTER RD

01/01/2017 - 12/31/2021 See 2nd tab below for road information

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

VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
Making Left Turn	West	East	East	South	None			Did Not Grant RW to Vehicle						Lane of Primary Trafficway	1079903.93	197214.91
Going Straight Ahead	South	North	West	East	Inattention			None						Lane of Primary Trafficway	1079896.34	197210.52

OFFICER REPORTED CRASHES THAT OCCURRED at OR in the vicinity of MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

TIMMEN RD @ LA CENTER RD

01/01/2017 - 12/31/2021 See 2nd tab below for road information

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

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FATAL	# VEH	# PEDES	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION
City Street	Clark	La Center	NW TIMMEN RD	31986	NW LA CENTER RD							No	EC15297	12/18/2021	23:24	Suspected Minor Injury	1	0	1	0	0	Pickup, Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Snowing	Wet	Dark-Street Lights On	Guardrail - Through, Over or Under	Going Straight Ahead
City Street	Clark	La Center	NW TIMMEN RD	0	NW LACENTER RD							No	E839247	08/29/2018	19:45	Possible Injury	1	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Dusk	Entering at angle	Other*

OFFICER REPORTED CRASHES THAT OCCURRED at OR in the vicinity of MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

TIMMEN RD @ LA CENTER RD

01/01/2017 - 12/31/2021 See 2nd tab below for road information

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

VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
	Southeast	Northwest			Under Influence of Alcohol	Operating Handheld Cell Phone	Disregard Traffic Sign and Signals							Other Location (City/County/Misc. Trafficway)	1085769.12	197298.37
Going Straight Ahead	North	West	West	East	Did Not Grant RW to Vehicle			Driver Not Distracted						Lane of Primary Trafficway	1085768.8	197299.71

OFFICER REPORTED CRASHES THAT OCCURRED at OR in the vicinity of MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

ASPEN AVE @ 4th ST - No Reported Crashes

01/01/2017 - 12/31/2021 See 2nd tab below for road information

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

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FATAL	# VEH	# PEDES	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION
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OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of* MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

ASPEN AVE @ 4th ST - No Reported Crashes

01/01/2017 - 12/31/2021 See 2nd tab below for road information

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

VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
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OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of* MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

STONECREEK DR @ 4th ST

01/01/2017 - 12/31/2021 See 2nd tab below for road information

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

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FATAL	# VEH	# PEDES	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION
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OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of* MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

STONECREEK DR @ 4th ST

01/01/2017 - 12/31/2021 See 2nd tab below for road information

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

VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
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OFFICER REPORTED CRASHES THAT OCCURRED at OR in the vicinity of MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

HIGHLAND RD / IVY AVE @ 4th ST

01/01/2017 - 12/31/2021 See 2nd tab below for road information

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

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FATAL	# VEH	# PEDES	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION
City Street	Clark	La Center	E 4TH ST	0	NE HIGHLAND RD							No	E826699	06/14/2018	11:25	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead
City Street	Clark	La Center	E 4TH ST	0	NE HIGHLAND RD							No	E713418	09/18/2017	07:56	Possible Injury	1	0	1	1	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Raining	Wet	Daylight	Vehicle going straight hits pedestrian	Going Straight Ahead

OFFICER REPORTED CRASHES THAT OCCURRED at OR in the vicinity of MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

HIGHLAND RD / IVY AVE @ 4th ST

01/01/2017 - 12/31/2021 See 2nd tab below for road information

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VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
Going Straight Ahead	North	South	East	West	Did Not Grant RW to Vehicle			None						Lane of Primary Trafficway	1089710.55	200594.81
	West	East			Did Not Grant R/W to Non Motorist						Other Contributing Circ Not Listed			Lane of Primary Trafficway	1089710.55	200594.81

OFFICER REPORTED CRASHES THAT OCCURRED at OR in the vicinity of MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

LOCKWOOD CREEK RD - west leg (City St) @ 24th Ave - No Reported Crashes

COUNTY ROADS

LOCKWOOD CREEK RD - east leg (Co Rd #94450, MP 7.340 - 7.380) @ 24th AVE (Co Rd #60430, MP 0.470 - 0.490) - No Reported Crashes

01/01/2017 - 12/31/2021 See 2nd tab below for road information

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

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FATAL	# VEH	# PEDES	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION
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OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of* MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

LOCKWOOD CREEK RD - west leg (City St) @ 24th Ave - No Reported Crashes

COUNTY ROADS

LOCKWOOD CREEK RD - east leg (Co Rd #94450, MP 7.340 - 7.380) @ 24th AVE (Co Rd #60430, MP 0.470 - 0.490) - No Reported Crashes

01/01/2017 - 12/31/2021 See 2nd tab below for road information

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

VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
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OFFICER REPORTED CRASHES THAT OCCURRED at OR in the vicinity of MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

24th AVE @ 8th WAY - No Reported Crashes

01/01/2017 - 12/31/2021 See 2nd tab below for road information

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

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FATAL	# VEH	# PEDES	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION
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OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of* MULTIPLE INTERSECTIONS IN THE CITY OF LA CENTER & CLARK COUNTY

CITY STREETS

24th AVE @ 8th WAY - No Reported Crashes

01/01/2017 - 12/31/2021 See 2nd tab below for road information

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

VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	PEDESTRIAN CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
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Left-Turn Lane Warrant Analysis



Project: Valley View Subdivision
 Intersection: 6. NE 24th Avenue at NE Lockwood Creek Road
 Date: 8/4/2022
 Scenario: 2024 Buildout Conditions - AM Peak Hour (EB)

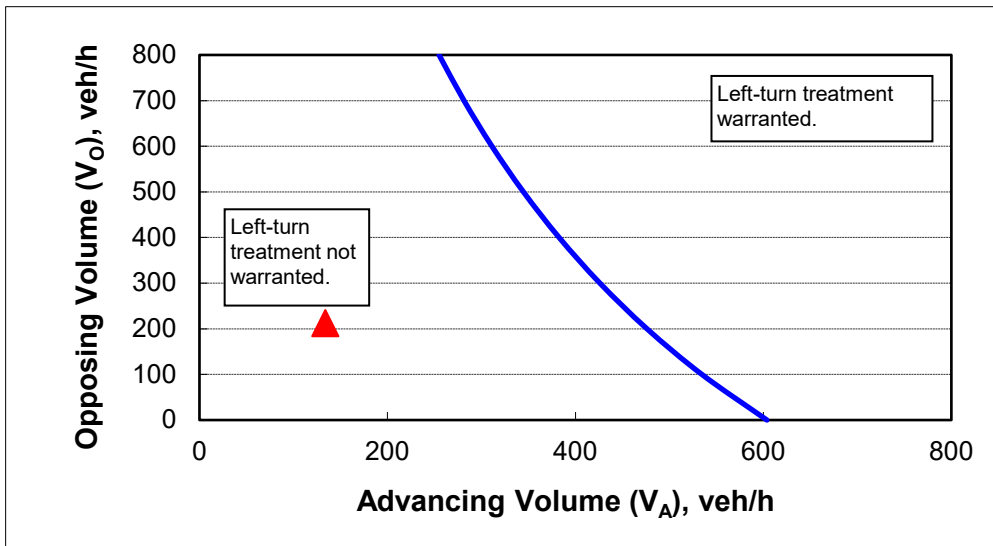
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	10%
Advancing volume (V_A), veh/h:	134
Opposing volume (V_O), veh/h:	212

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	470
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: Valley View Subdivision
 Intersection: 6. NE 24th Avenue at NE Lockwood Creek Road
 Date: 8/4/2022
 Scenario: 2024 Buildout Conditions - AM Peak Hour (WB)

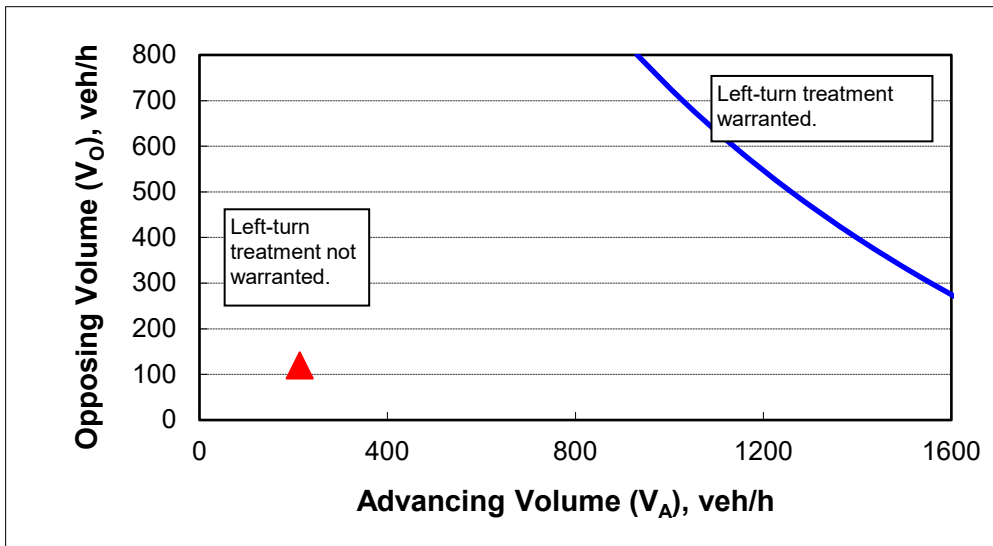
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	50
Percent of left-turns in advancing volume (V_A), %:	0%
Advancing volume (V_A), veh/h:	213
Opposing volume (V_O), veh/h:	120

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1907
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: Valley View Subdivision
 Intersection: 6. NE 24th Avenue at NE Lockwood Creek Road
 Date: 8/4/2022
 Scenario: 2024 Buildout Conditions - PM Peak Hour (EB)

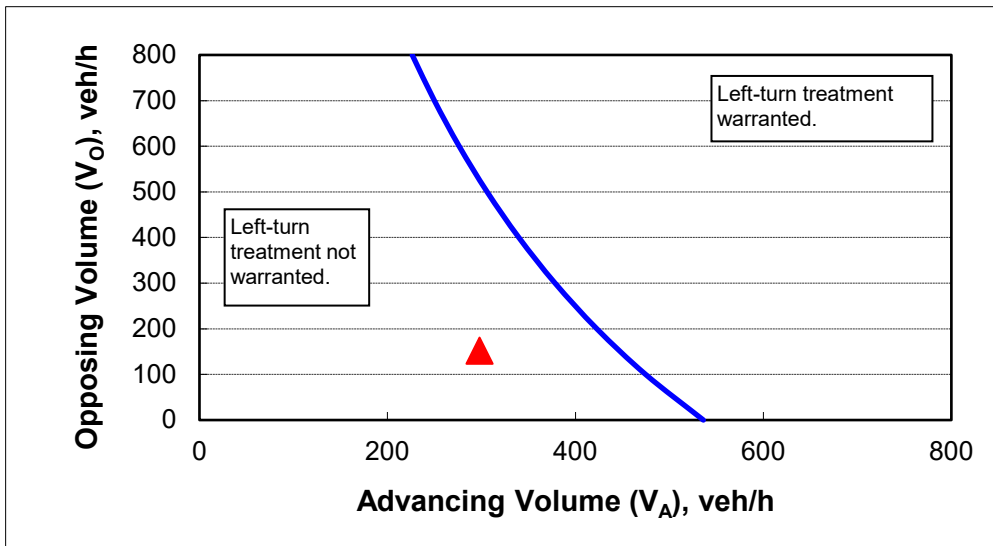
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	14%
Advancing volume (V_A), veh/h:	298
Opposing volume (V_O), veh/h:	152

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	447
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: Valley View Subdivision
 Intersection: 6. NE 24th Avenue at NE Lockwood Creek Road
 Date: 8/4/2022
 Scenario: 2024 Buildout Conditions - PM Peak Hour (WB)

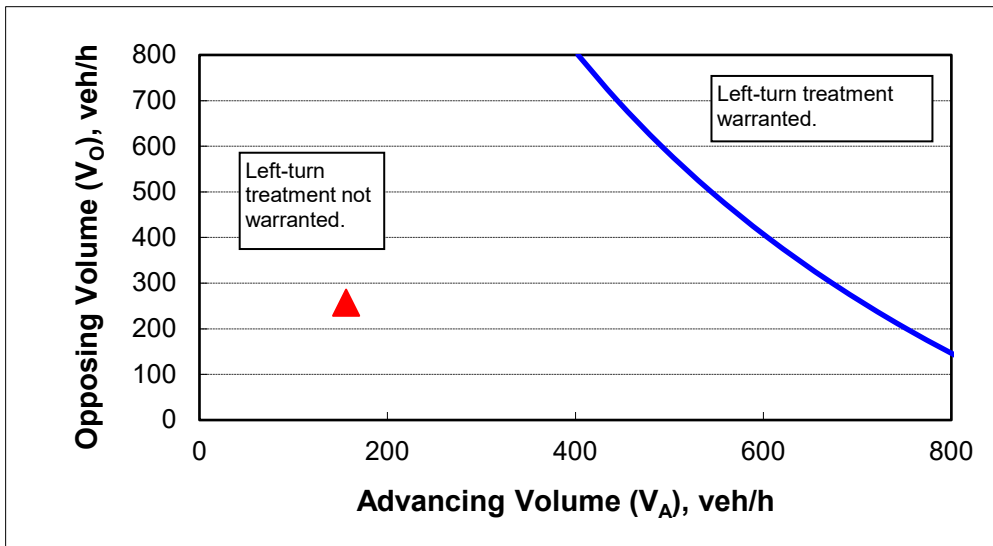
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	50
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	156
Opposing volume (V_O), veh/h:	257

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	706
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: Valley View Subdivision
 Intersection: 7. NE 24th Avenue at E 8th Way
 Date: 8/4/2022
 Scenario: 2024 Buildout Conditions - AM Peak Hour (NB)

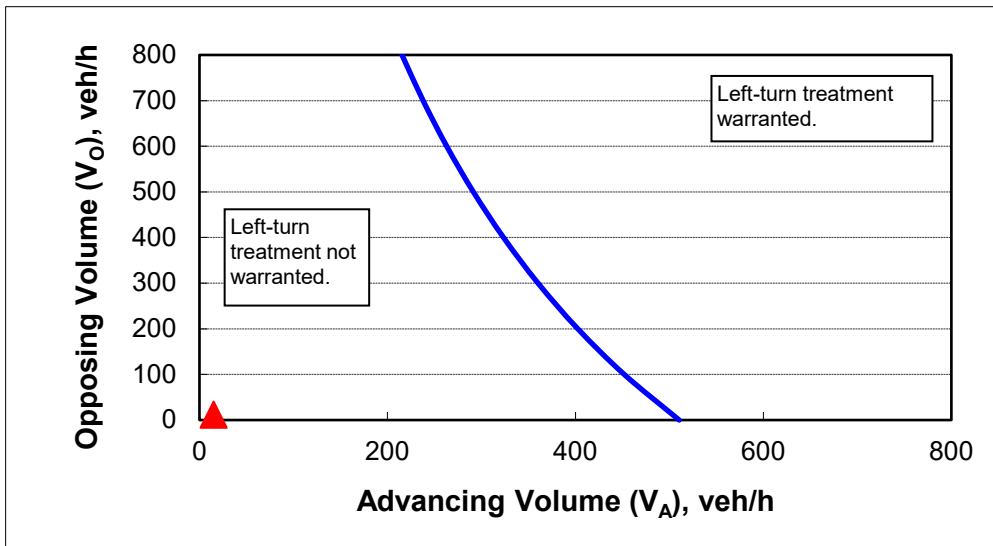
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	20%
Advancing volume (V_A), veh/h:	15
Opposing volume (V_O), veh/h:	12

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	503
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: Valley View Subdivision
 Intersection: 7. NE 24th Avenue at E 8th Way
 Date: 8/4/2022
 Scenario: 2024 Buildout Conditions - PM Peak Hour (NB)

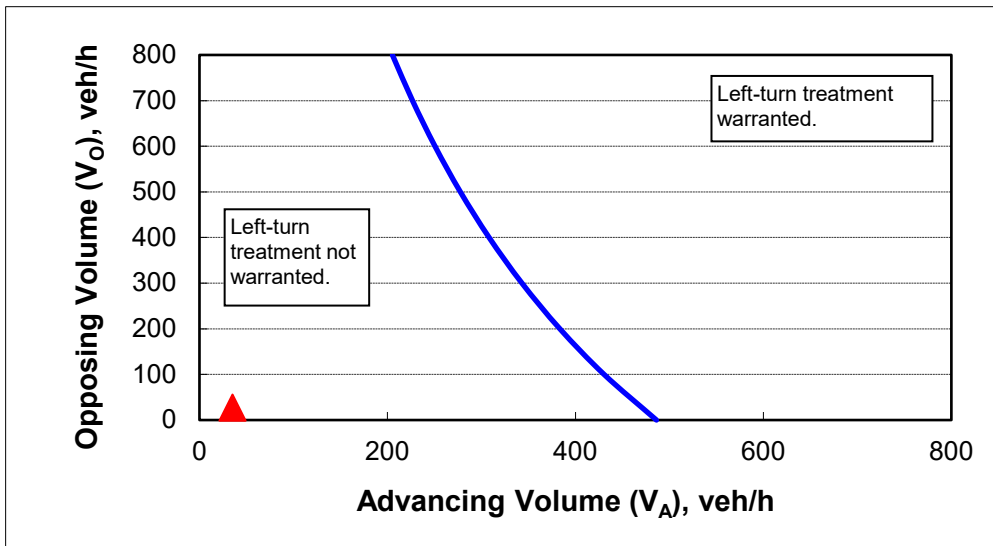
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	25
Percent of left-turns in advancing volume (V_A), %:	23%
Advancing volume (V_A), veh/h:	35
Opposing volume (V_O), veh/h:	27

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	470
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: Valley View Subdivision
 Intersection: 8. E Vine Maple Avenue at NE 339th Street
 Date: 8/4/2022
 Scenario: 2024 Buildout Conditions - AM Peak Hour (WB)

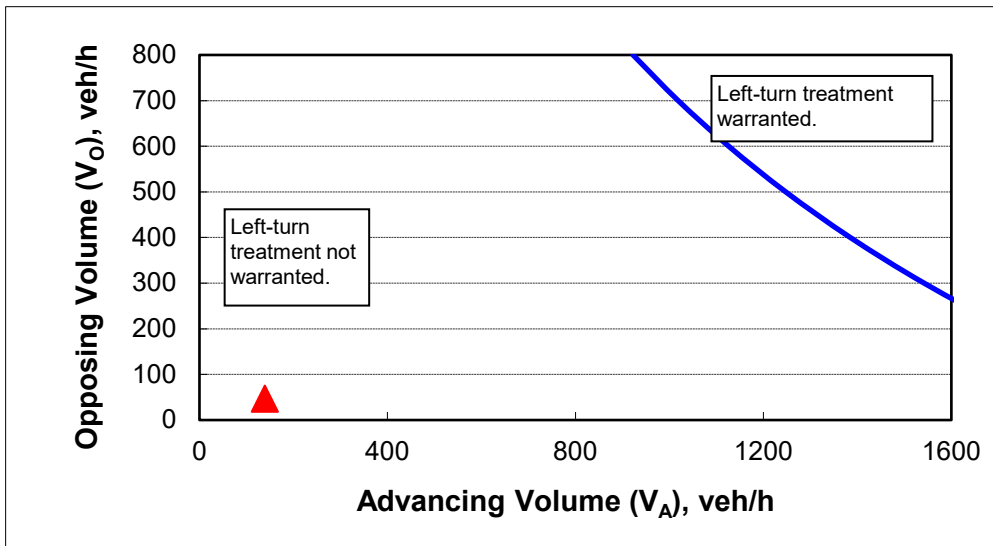
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	139
Opposing volume (V_O), veh/h:	47

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	2062
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: Valley View Subdivision
 Intersection: 8. E Vine Maple Avenue at NE 339th Street
 Date: 8/4/2022
 Scenario: 2024 Buildout Conditions - PM Peak Hour (WB)

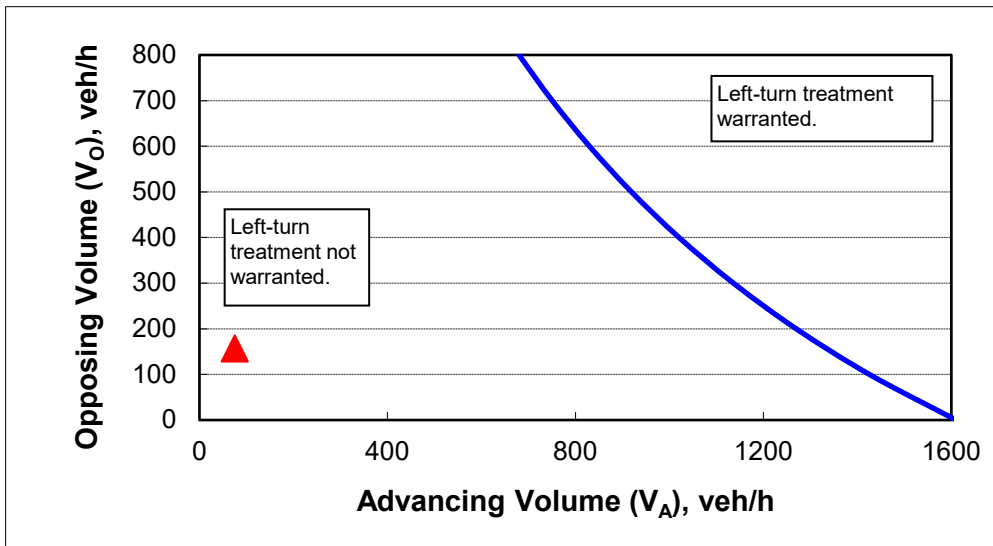
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	35
Percent of left-turns in advancing volume (V_A), %:	1%
Advancing volume (V_A), veh/h:	75
Opposing volume (V_O), veh/h:	157

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	1334
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: Valley View Subdivision
 Date: 8/4/2022
 Scenario: 2024 Buildout Conditions

Major Street:	NW La Center Road	Minor Street:	NW Paradise Park Road
Number of Lanes:	2	Number of Lanes:	2
PM Peak Hour Volumes:	1631	PM Peak Hour Volumes:	45

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)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1, CONDITION A					
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?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	16,310	7,400	
Minor Street*	450	2,500	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	16,310	11,100	
Minor Street*	450	1,250	No
<i>Combination Warrant</i>			
Major Street	16,310	8,880	
Minor Street*	450	2,000	No

Note: Minor street right-turning traffic volumes reduced by 25%.

Traffic Signal Warrant Analysis



Project: Valley View Subdivision
 Date: 8/4/2022
 Scenario: 2024 Background Conditions

Major Street:	NW La Center Road	Minor Street:	NW Timmen Road
Number of Lanes:	1	Number of Lanes:	2
PM Peak Hour Volumes:	1559	PM Peak Hour Volumes:	144

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)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1, CONDITION A					
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?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	15,590	6,200	
Minor Street*	1,440	2,500	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	15,590	9,300	
Minor Street*	1,440	1,250	Yes
<i>Combination Warrant</i>			
Major Street	15,590	7,440	
Minor Street*	1,440	2,000	No

Note: Minor street right-turning traffic volumes reduced by 25%.

Traffic Signal Warrant Analysis



Project: Valley View Subdivision
 Date: 8/4/2022
 Scenario: 2024 Buildout Conditions

Major Street:	E/W 4th Street	Minor Street:	Aspen Avenue
Number of Lanes:	1	Number of Lanes:	2
PM Peak Hour Volumes:	1051	PM Peak Hour Volumes:	45

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)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1, CONDITION A					
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?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	10,510	6,200	
Minor Street*	450	2,500	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	10,510	9,300	
Minor Street*	450	1,250	No
<i>Combination Warrant</i>			
Major Street	10,510	7,440	
Minor Street*	450	2,000	No

Note: Minor street right-turning traffic volumes reduced by 25%.

Traffic Signal Warrant Analysis



Project: Valley View Subdivision
 Date: 8/4/2022
 Scenario: 2024 Buildout Conditions

Major Street:	E 4th Street	Minor Street:	E Stonecreek Drive
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	1011	PM Peak Hour Volumes:	29

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)	
<u>Major St.</u>	<u>Minor St.</u>	<u>100% Warrants</u>	<u>70% Warrants</u>	<u>100% Warrants</u>	<u>70% Warrants</u>
WARRANT 1, CONDITION A					
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?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	10,110	6,200	
Minor Street*	290	1,850	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	10,110	9,300	
Minor Street*	290	950	No
<i>Combination Warrant</i>			
Major Street	10,110	7,440	
Minor Street*	290	1,480	No

Note: Minor street right-turning traffic volumes reduced by 25%.

Traffic Signal Warrant Analysis



Project: Valley View Subdivision
 Date: 8/4/2022
 Scenario: 2024 Buildout Conditions

Major Street:	NE Lockwood Creek Road	Minor Street:	NE 24th Avenue
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	454	PM Peak Hour Volumes:	39

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)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1, CONDITION A					
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?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	4,540	6,200	
Minor Street*	390	1,850	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	4,540	9,300	
Minor Street*	390	950	No
<i>Combination Warrant</i>			
Major Street	4,540	7,440	
Minor Street*	390	1,480	No

Note: Minor street right-turning traffic volumes reduced by 25%.

Traffic Signal Warrant Analysis



Project: Valley View Subdivision
 Date: 8/4/2022
 Scenario: 2024 Buildout Conditions

Major Street:	NE 24th Avenue	Minor Street:	E 8th Way
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	62	PM Peak Hour Volumes:	10

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)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1, CONDITION A					
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?
<i>Warrant 1</i>			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	620	6,200	
Minor Street*	100	1,850	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	620	9,300	
Minor Street*	100	950	No
<i>Combination Warrant</i>			
Major Street	620	7,440	
Minor Street*	100	1,480	No

Note: Minor street right-turning traffic volumes reduced by 25%.

Traffic Signal Warrant Analysis



Project: Valley View Subdivision
 Date: 8/4/2022
 Scenario: 2024 Buildout Conditions

Major Street:	NE 339th Street	Minor Street:	E Vine Maple Avenue
Number of Lanes:	1	Number of Lanes:	1
PM Peak Hour Volumes:	232	PM Peak Hour Volumes:	8

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)	
Major St.	Minor St.	100% Warrants	70% Warrants	100% Warrants	70% Warrants
WARRANT 1, CONDITION A					
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			
<i>Condition A: Minimum Vehicular Volume</i>			
Major Street	2,320	6,200	
Minor Street*	80	1,850	No
<i>Condition B: Interruption of Continuous Traffic</i>			
Major Street	2,320	9,300	
Minor Street*	80	950	No
<i>Combination Warrant</i>			
Major Street	2,320	7,440	
Minor Street*	80	1,480	No

Note: Minor street right-turning traffic volumes reduced by 25%.

Appendix E – Operation Analysis

Level of Service Descriptions

Capacity Reports





Level of Service Definitions

Level of service is used to describe the quality of traffic flow. Levels of service A to C are considered good, and rural roads are usually designed for level of service C. Urban streets and signalized intersections are typically designed for level of service D. Level of service E is considered to be the limit of acceptable delay. For unsignalized intersections, level of service E is generally considered acceptable. Here is a more complete description of levels of service:

- *Level of service A:* Very low delay at intersections, with all traffic signal cycles clearing and no vehicles waiting through more than one signal cycle. On highways, low volume and high speeds, with speeds not restricted by other vehicles.
- *Level of service B:* Operating speeds beginning to be affected by other traffic; short traffic delays at intersections. Higher average intersection delay than for level of service A resulting from more vehicles stopping.
- *Level of service C:* Operating speeds and maneuverability closely controlled by other traffic; higher delays at intersections than for level of service B due to a significant number of vehicles stopping. Not all signal cycles clear the waiting vehicles. This is the recommended design standard for rural highways.
- *Level of service D:* Tolerable operating speeds; long traffic delays occur at intersections. The influence of congestion is noticeable. At traffic signals many vehicles stop, and the proportion of vehicles not stopping declines. The number of signal cycle failures, for which vehicles must wait through more than one signal cycle, are noticeable. This is typically the design level for urban signalized intersections.
- *Level of service E:* Restricted speeds, very long traffic delays at traffic signals, and traffic volumes near capacity. Flow is unstable so that any interruption, no matter how minor, will cause queues to form and service to deteriorate to level of service F. Traffic signal cycle failures are frequent occurrences. For unsignalized intersections, level of service E or better is generally considered acceptable.
- *Level of service F:* Extreme delays, resulting in long queues which may interfere with other traffic movements. There may be stoppages of long duration, and speeds may drop to zero. There may be frequent signal cycle failures. Level of service F will typically result when vehicle arrival rates are greater than capacity. It is considered unacceptable by most drivers.



Level of Service Criteria
For Signalized Intersections

Level of Service (LOS)	Control Delay per Vehicle (Seconds)
A	<10
B	10-20
C	20-35
D	35-55
E	55-80
F	>80

Level of Service Criteria
For Unsignalized Intersections

Level of Service (LOS)	Control Delay per Vehicle (Seconds)
A	<10
B	10-15
C	15-25
D	25-35
E	35-50
F	>50

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗	↙	↑	↗	↙	↑		↙	↑	
Traffic Vol, veh/h	107	310	15	3	729	5	15	0	3	19	2	59
Future Vol, veh/h	107	310	15	3	729	5	15	0	3	19	2	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	200	-	100	175	-	-	140	-	-	130	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	12	12	12	4	4	4	42	42	42	39	39	39
Mvmt Flow	120	348	17	3	819	6	17	0	3	21	2	66

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	825	0	0	348	0	0	1450	1419	348	1418	1416	822
Stage 1	-	-	-	-	-	-	588	588	-	828	828	-
Stage 2	-	-	-	-	-	-	862	831	-	590	588	-
Critical Hdwy	4.22	-	-	4.14	-	-	7.52	6.92	6.62	7.49	6.89	6.59
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.92	-	6.49	5.89	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.92	-	6.49	5.89	-
Follow-up Hdwy	2.308	-	-	2.236	-	-	3.878	4.378	3.678	3.851	4.351	3.651
Pot Cap-1 Maneuver	764	-	-	1200	-	-	89	113	613	95	115	323
Stage 1	-	-	-	-	-	-	432	438	-	317	338	-
Stage 2	-	-	-	-	-	-	299	333	-	435	442	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	764	-	-	1200	-	-	61	95	613	83	97	323
Mov Cap-2 Maneuver	-	-	-	-	-	-	61	95	-	83	97	-
Stage 1	-	-	-	-	-	-	364	369	-	267	337	-
Stage 2	-	-	-	-	-	-	235	332	-	365	373	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.6	0	72.8	30.5
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	61	613	764	-	-	1200	-	-	83	300
HCM Lane V/C Ratio	0.276	0.005	0.157	-	-	0.003	-	-	0.257	0.228
HCM Control Delay (s)	85.2	10.9	10.6	-	-	8	-	-	62.8	20.5
HCM Lane LOS	F	B	B	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	1	0	0.6	-	-	0	-	-	0.9	0.9

HCM 6th TWSC
2: NW La Center Road & NW Timmen Road

08/05/2022

Intersection						
Int Delay, s/veh	1.4					
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	22	56	312	14	51	698
Future Vol, veh/h	22	56	312	14	51	698
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	100	-	-	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	1	1	1	1
Mvmt Flow	24	62	343	15	56	767

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1230	351	0	0	358
Stage 1	351	-	-	-	-
Stage 2	879	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.11
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.209
Pot Cap-1 Maneuver	196	692	-	-	1206
Stage 1	713	-	-	-	-
Stage 2	406	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	187	692	-	-	1206
Mov Cap-2 Maneuver	187	-	-	-	-
Stage 1	713	-	-	-	-
Stage 2	387	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	15.3	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	187	692	1206	-
HCM Lane V/C Ratio	-	-	0.129	0.089	0.046	-
HCM Control Delay (s)	-	-	27.1	10.7	8.1	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.3	0.1	-

HCM 6th TWSC
3: E 4th Street & Aspen Avenue

08/05/2022

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↗		↙	↗
Traffic Vol, veh/h	47	165	323	16	1	126
Future Vol, veh/h	47	165	323	16	1	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	90	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	177	347	17	1	135

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	364	0	-	0	635 356
Stage 1	-	-	-	-	356 -
Stage 2	-	-	-	-	279 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1195	-	-	-	443 688
Stage 1	-	-	-	-	709 -
Stage 2	-	-	-	-	768 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1195	-	-	-	424 688
Mov Cap-2 Maneuver	-	-	-	-	424 -
Stage 1	-	-	-	-	679 -
Stage 2	-	-	-	-	768 -

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1195	-	-	-	424	688
HCM Lane V/C Ratio	0.042	-	-	-	0.003	0.197
HCM Control Delay (s)	8.1	-	-	-	13.5	11.5
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0	0.7

HCM 6th TWSC
 4: E 4th Street & E Stonecreek Drive

08/05/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	5	200	472	12	9	19
Future Vol, veh/h	5	200	472	12	9	19
Conflicting Peds, #/hr	0	0	0	0	1	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	2	2	0	0
Mvmt Flow	5	217	513	13	10	21

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	526	0	-	0	748 520
Stage 1	-	-	-	-	520 -
Stage 2	-	-	-	-	228 -
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	1041	-	-	-	383 560
Stage 1	-	-	-	-	601 -
Stage 2	-	-	-	-	815 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1041	-	-	-	381 560
Mov Cap-2 Maneuver	-	-	-	-	381 -
Stage 1	-	-	-	-	598 -
Stage 2	-	-	-	-	815 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1041	-	-	-	487
HCM Lane V/C Ratio	0.005	-	-	-	0.062
HCM Control Delay (s)	8.5	0	-	-	12.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

HCM 6th TWSC
5: NE Highland Avenue & E 4th Street

08/05/2022

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	
Traffic Vol, veh/h	56	138	3	2	288	3	3	0	2	0	0	179
Future Vol, veh/h	56	138	3	2	288	3	3	0	2	0	0	179
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	180	-	-	110	-	-	180	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	4	4	4	0	0	0	0	0	0
Mvmt Flow	60	147	3	2	306	3	3	0	2	0	0	190

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	309	0	0	150	0	0	677	582	149	582	582	309
Stage 1	-	-	-	-	-	-	269	269	-	312	312	-
Stage 2	-	-	-	-	-	-	408	313	-	270	270	-
Critical Hdwy	4.13	-	-	4.14	-	-	7.1	6.5	6.2	7.1	6.5	6.2
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	2.227	-	-	2.236	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1246	-	-	1419	-	-	369	427	903	427	427	736
Stage 1	-	-	-	-	-	-	741	690	-	703	661	-
Stage 2	-	-	-	-	-	-	624	661	-	740	690	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1246	-	-	1419	-	-	263	406	903	410	406	735
Mov Cap-2 Maneuver	-	-	-	-	-	-	263	406	-	410	406	-
Stage 1	-	-	-	-	-	-	705	657	-	669	660	-
Stage 2	-	-	-	-	-	-	461	660	-	703	657	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.3			0.1			14.9			11.6		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	263	903	1246	-	-	1419	-	-	-	735
HCM Lane V/C Ratio	0.012	0.002	0.048	-	-	0.001	-	-	-	0.259
HCM Control Delay (s)	18.9	9	8	-	-	7.5	-	-	0	11.6
HCM Lane LOS		C	A	A	-	A	-	-	A	B
HCM 95th %tile Q(veh)	0	0	0.1	-	-	0	-	-	-	1

HCM 6th TWSC
6: NE 24th Avenue & NE Lockwood Creek Road

08/05/2022

Intersection												
Int Delay, s/veh	0.8											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	93	0	0	191	6	0	0	0	14	0	6
Future Vol, veh/h	6	93	0	0	191	6	0	0	0	14	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	5	5	5	5	5	5	0	0	0	0	0	0
Mvmt Flow	7	109	0	0	225	7	0	0	0	16	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	232	0	0	109	0	0	355	355	109	352	352	229
Stage 1	-	-	-	-	-	-	123	123	-	229	229	-
Stage 2	-	-	-	-	-	-	232	232	-	123	123	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.1	6.5	6.2	7.1	6.5	6.2
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	2.245	-	-	2.245	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1318	-	-	1463	-	-	604	574	950	607	576	815
Stage 1	-	-	-	-	-	-	886	798	-	778	718	-
Stage 2	-	-	-	-	-	-	775	716	-	886	798	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1318	-	-	1463	-	-	596	571	950	604	573	815
Mov Cap-2 Maneuver	-	-	-	-	-	-	596	571	-	604	573	-
Stage 1	-	-	-	-	-	-	881	793	-	773	718	-
Stage 2	-	-	-	-	-	-	768	716	-	881	793	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.5	0	0	10.7
HCM LOS			A	B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	-	1463	-	-	1318	-	655
HCM Lane V/C Ratio	-	-	-	-	0.005	-	0.036
HCM Control Delay (s)	0	0	-	-	7.7	0	10.7
HCM Lane LOS	A	A	-	-	A	A	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	0.1

HCM 6th TWSC
7: NE 24th Avenue & E 8th Way

08/05/2022

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	2	0	0	12	12	0
Future Vol, veh/h	2	0	0	12	12	0
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	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	0	0	17	17	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	34	17	17	0	0
Stage 1	17	-	-	-	-
Stage 2	17	-	-	-	-
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	984	1068	1613	-	-
Stage 1	1011	-	-	-	-
Stage 2	1011	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	984	1068	1613	-	-
Mov Cap-2 Maneuver	984	-	-	-	-
Stage 1	1011	-	-	-	-
Stage 2	1011	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1613	-	984	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s)	0	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
 1: NW Paradise Park Road & NW La Center Road

08/05/2022

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↶	↶	↷		↶	↷		↶	↷	
Traffic Vol, veh/h	79	757	9	0	468	10	14	1	5	17	2	32
Future Vol, veh/h	79	757	9	0	468	10	14	1	5	17	2	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	200	-	100	175	-	-	140	-	-	130	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	0	0	0	11	11	11
Mvmt Flow	84	805	10	0	498	11	15	1	5	18	2	34

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	509	0	0	805	0	0	1495	1482	805	1480	1477	504
Stage 1	-	-	-	-	-	-	973	973	-	504	504	-
Stage 2	-	-	-	-	-	-	522	509	-	976	973	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.1	6.5	6.2	7.21	6.61	6.31
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.21	5.61	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.21	5.61	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.5	4	3.3	3.599	4.099	3.399
Pot Cap-1 Maneuver	1056	-	-	811	-	-	102	126	386	99	121	550
Stage 1	-	-	-	-	-	-	306	333	-	534	526	-
Stage 2	-	-	-	-	-	-	542	541	-	291	319	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1056	-	-	811	-	-	89	116	386	91	111	550
Mov Cap-2 Maneuver	-	-	-	-	-	-	89	116	-	91	111	-
Stage 1	-	-	-	-	-	-	282	306	-	491	526	-
Stage 2	-	-	-	-	-	-	506	541	-	263	293	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0	42.9	27.2
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	89	278	1056	-	-	811	-	-	91	446
HCM Lane V/C Ratio	0.167	0.023	0.08	-	-	-	-	-	0.199	0.081
HCM Control Delay (s)	53.4	18.3	8.7	-	-	0	-	-	54.1	13.8
HCM Lane LOS	F	C	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.6	0.1	0.3	-	-	0	-	-	0.7	0.3

HCM 6th TWSC
 2: NW La Center Road & NW Timmen Road

08/05/2022

Intersection						
Int Delay, s/veh	2.9					
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	28	128	746	22	54	435
Future Vol, veh/h	28	128	746	22	54	435
Conflicting Peds, #/hr	1	3	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	30	138	802	24	58	468

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1400	818	0	0	827	0
Stage 1	815	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.1	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.2	-
Pot Cap-1 Maneuver	155	376	-	-	813	-
Stage 1	435	-	-	-	-	-
Stage 2	557	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	144	375	-	-	812	-
Mov Cap-2 Maneuver	144	-	-	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	517	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	23	0	1.1
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NWL	N2	SWL	SWT
Capacity (veh/h)	-	-	144	375	812	-
HCM Lane V/C Ratio	-	-	0.209	0.367	0.072	-
HCM Control Delay (s)	-	-	36.5	20.1	9.8	-
HCM Lane LOS	-	-	E	C	A	-
HCM 95th %tile Q(veh)	-	-	0.8	1.6	0.2	-

HCM 6th TWSC
3: E 4th Street & Aspen Avenue

08/05/2022

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↗		↘	↗
Traffic Vol, veh/h	169	424	220	17	15	18
Future Vol, veh/h	169	424	220	17	15	18
Conflicting Peds, #/hr	1	0	0	1	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	90	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	192	482	250	19	17	20

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	270	0	-	0	1130 261
Stage 1	-	-	-	-	261 -
Stage 2	-	-	-	-	869 -
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	1305	-	-	-	227 783
Stage 1	-	-	-	-	787 -
Stage 2	-	-	-	-	414 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1304	-	-	-	193 782
Mov Cap-2 Maneuver	-	-	-	-	193 -
Stage 1	-	-	-	-	671 -
Stage 2	-	-	-	-	414 -

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	16.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1304	-	-	-	193	782
HCM Lane V/C Ratio	0.147	-	-	-	0.088	0.026
HCM Control Delay (s)	8.2	-	-	-	25.5	9.7
HCM Lane LOS	A	-	-	-	D	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.3	0.1

HCM 6th TWSC
4: E 4th Street & E Stonecreek Drive

08/05/2022

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	14	511	259	14	19	12
Future Vol, veh/h	14	511	259	14	19	12
Conflicting Peds, #/hr	1	0	0	1	1	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	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	16	574	291	16	21	13

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	308	0	-	0	907 300
Stage 1	-	-	-	-	300 -
Stage 2	-	-	-	-	607 -
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	1264	-	-	-	309 744
Stage 1	-	-	-	-	756 -
Stage 2	-	-	-	-	548 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1263	-	-	-	303 743
Mov Cap-2 Maneuver	-	-	-	-	303 -
Stage 1	-	-	-	-	741 -
Stage 2	-	-	-	-	547 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1263	-	-	-	393
HCM Lane V/C Ratio	0.012	-	-	-	0.089
HCM Control Delay (s)	7.9	0	-	-	15
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

HCM 6th TWSC
5: NE Highland Avenue & E 4th Street

08/05/2022

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Vol, veh/h	195	303	14	0	168	12	5	1	1	10	0	95
Future Vol, veh/h	195	303	14	0	168	12	5	1	1	10	0	95
Conflicting Peds, #/hr	2	0	1	1	0	2	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	180	-	-	110	-	-	180	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	0	0	0
Mvmt Flow	224	348	16	0	193	14	6	1	1	11	0	109

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	209	0	0	365	0	0	1060	1014	357	1007	1015	202
Stage 1	-	-	-	-	-	-	805	805	-	202	202	-
Stage 2	-	-	-	-	-	-	255	209	-	805	813	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.1	6.5	6.2	7.1	6.5	6.2
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	2.209	-	-	2.209	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1368	-	-	1199	-	-	204	240	692	221	240	844
Stage 1	-	-	-	-	-	-	379	398	-	805	738	-
Stage 2	-	-	-	-	-	-	754	733	-	379	395	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1365	-	-	1198	-	-	155	200	691	192	200	842
Mov Cap-2 Maneuver	-	-	-	-	-	-	155	200	-	192	200	-
Stage 1	-	-	-	-	-	-	316	332	-	671	737	-
Stage 2	-	-	-	-	-	-	656	732	-	315	330	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	0	25.6	11.3
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	155	310	1365	-	-	1198	-	-	192	842
HCM Lane V/C Ratio	0.037	0.007	0.164	-	-	-	-	-	0.06	0.13
HCM Control Delay (s)	29.1	16.7	8.2	-	-	0	-	-	24.9	9.9
HCM Lane LOS	D	C	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.1	0	0.6	-	-	0	-	-	0.2	0.4

HCM 6th TWSC
6: NE 24th Avenue & NE Lockwood Creek Road

08/05/2022

Intersection												
Int Delay, s/veh	1.1											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	201	1	0	110	17	0	0	0	16	0	10
Future Vol, veh/h	17	201	1	0	110	17	0	0	0	16	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	254	1	0	139	22	0	0	0	20	0	13

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	161	0	0	255	0	0	456	460	255	449	449	150
Stage 1	-	-	-	-	-	-	299	299	-	150	150	-
Stage 2	-	-	-	-	-	-	157	161	-	299	299	-
Critical Hdwy	4.11	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
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	2.209	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1424	-	-	1322	-	-	518	501	789	524	508	902
Stage 1	-	-	-	-	-	-	714	670	-	857	777	-
Stage 2	-	-	-	-	-	-	850	769	-	714	670	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1424	-	-	1322	-	-	503	492	789	517	499	902
Mov Cap-2 Maneuver	-	-	-	-	-	-	503	492	-	517	499	-
Stage 1	-	-	-	-	-	-	701	658	-	842	777	-
Stage 2	-	-	-	-	-	-	838	769	-	701	658	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.6	0	0	11.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	-	1322	-	-	1424	-	-
HCM Lane V/C Ratio	-	-	-	-	0.015	-	-
HCM Control Delay (s)	0	0	-	-	7.6	0	-
HCM Lane LOS	A	A	-	-	A	A	-
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-

HCM 6th TWSC
7: NE 24th Avenue & E 8th Way

08/05/2022

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	2	0	26	23	3
Future Vol, veh/h	5	2	0	26	23	3
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	3	0	36	32	4

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	70	34	36	0	0
Stage 1	34	-	-	-	-
Stage 2	36	-	-	-	-
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	939	1045	1588	-	-
Stage 1	994	-	-	-	-
Stage 2	992	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	939	1045	1588	-	-
Mov Cap-2 Maneuver	939	-	-	-	-
Stage 1	994	-	-	-	-
Stage 2	992	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1588	-	967	-	-
HCM Lane V/C Ratio	-	-	0.01	-	-
HCM Control Delay (s)	0	-	8.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection												
Int Delay, s/veh	5.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗	↙	↑	↗	↙	↑		↙	↑	
Traffic Vol, veh/h	111	367	16	3	891	5	16	0	3	20	2	61
Future Vol, veh/h	111	367	16	3	891	5	16	0	3	20	2	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	200	-	100	175	-	-	140	-	-	130	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	12	12	12	4	4	4	42	42	42	39	39	39
Mvmt Flow	125	412	18	3	1001	6	18	0	3	22	2	69

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1007	0	0	412	0	0	1708	1675	412	1674	1672	1004
Stage 1	-	-	-	-	-	-	662	662	-	1010	1010	-
Stage 2	-	-	-	-	-	-	1046	1013	-	664	662	-
Critical Hdwy	4.22	-	-	4.14	-	-	7.52	6.92	6.62	7.49	6.89	6.59
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.92	-	6.49	5.89	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.92	-	6.49	5.89	-
Follow-up Hdwy	2.308	-	-	2.236	-	-	3.878	4.378	3.678	3.851	4.351	3.651
Pot Cap-1 Maneuver	650	-	-	1136	-	-	57	77	562	62	79	250
Stage 1	-	-	-	-	-	-	391	403	-	248	274	-
Stage 2	-	-	-	-	-	-	233	270	-	394	407	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	650	-	-	1136	-	-	34	62	562	52	64	250
Mov Cap-2 Maneuver	-	-	-	-	-	-	34	62	-	52	64	-
Stage 1	-	-	-	-	-	-	316	326	-	200	273	-
Stage 2	-	-	-	-	-	-	167	269	-	316	329	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.7			0			166.6			49.6		
HCM LOS							F			E		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	34	562	650	-	-	1136	-	-	52	229
HCM Lane V/C Ratio	0.529	0.006	0.192	-	-	0.003	-	-	0.432	0.309
HCM Control Delay (s)	195.7	11.4	11.8	-	-	8.2	-	-	119.1	27.6
HCM Lane LOS	F	B	B	-	-	A	-	-	F	D
HCM 95th %tile Q(veh)	1.8	0	0.7	-	-	0	-	-	1.6	1.3

HCM 6th TWSC
 2: NW La Center Road & NW Timmen Road

08/08/2022

Intersection						
Int Delay, s/veh	1.7					
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	23	65	369	15	76	859
Future Vol, veh/h	23	65	369	15	76	859
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	100	-	-	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	25	71	405	16	84	944

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1525	413	0	0	421	0
Stage 1	413	-	-	-	-	-
Stage 2	1112	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.12	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.218	-
Pot Cap-1 Maneuver	130	641	-	-	1138	-
Stage 1	670	-	-	-	-	-
Stage 2	316	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	120	641	-	-	1138	-
Mov Cap-2 Maneuver	120	-	-	-	-	-
Stage 1	670	-	-	-	-	-
Stage 2	293	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	19.5	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NWL	N2	SWL	SWT
Capacity (veh/h)	-	-	120	641	1138	-
HCM Lane V/C Ratio	-	-	0.211	0.111	0.073	-
HCM Control Delay (s)	-	-	42.8	11.3	8.4	-
HCM Lane LOS	-	-	E	B	A	-
HCM 95th %tile Q(veh)	-	-	0.8	0.4	0.2	-

HCM 6th TWSC
3: E 4th Street & Aspen Avenue

08/08/2022

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	54	211	396	23	10	144
Future Vol, veh/h	54	211	396	23	10	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	90	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	227	426	25	11	155

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	451	0	-	0	782 439
Stage 1	-	-	-	-	439 -
Stage 2	-	-	-	-	343 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1109	-	-	-	363 618
Stage 1	-	-	-	-	650 -
Stage 2	-	-	-	-	719 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1109	-	-	-	344 618
Mov Cap-2 Maneuver	-	-	-	-	344 -
Stage 1	-	-	-	-	616 -
Stage 2	-	-	-	-	719 -

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1109	-	-	-	344	618
HCM Lane V/C Ratio	0.052	-	-	-	0.031	0.251
HCM Control Delay (s)	8.4	-	-	-	15.8	12.8
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	1

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	256	557	12	9	20
Future Vol, veh/h	5	256	557	12	9	20
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	0	0
Mvmt Flow	5	278	605	13	10	22

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	618	0	-	0	901 612
Stage 1	-	-	-	-	612 -
Stage 2	-	-	-	-	289 -
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	962	-	-	-	311 497
Stage 1	-	-	-	-	545 -
Stage 2	-	-	-	-	765 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	962	-	-	-	309 497
Mov Cap-2 Maneuver	-	-	-	-	423 -
Stage 1	-	-	-	-	542 -
Stage 2	-	-	-	-	765 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	962	-	-	-	471
HCM Lane V/C Ratio	0.006	-	-	-	0.067
HCM Control Delay (s)	8.8	-	-	-	13.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

HCM Signalized Intersection Capacity Analysis

5: NE Highland Avenue & E 4th Street

08/08/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (vph)	67	175	9	4	362	5	4	0	3	1	0	191
Future Volume (vph)	67	175	9	4	362	5	4	0	3	1	0	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1831		1736	1823		1804	1615		1805	1581	
Flt Permitted	0.40	1.00		0.63	1.00		0.69	1.00		0.76	1.00	
Satd. Flow (perm)	737	1831		1159	1823		1310	1615		1436	1581	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	71	186	10	4	385	5	4	0	3	1	0	203
RTOR Reduction (vph)	0	2	0	0	1	0	0	3	0	0	177	0
Lane Group Flow (vph)	71	194	0	4	389	0	4	0	0	1	26	0
Confl. Peds. (#/hr)							1					1
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	23.6	20.8		19.4	18.7		6.5	5.8		6.5	5.8	
Effective Green, g (s)	23.6	20.8		19.4	18.7		6.5	5.8		6.5	5.8	
Actuated g/C Ratio	0.51	0.45		0.42	0.41		0.14	0.13		0.14	0.13	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	439	827		497	741		192	203		208	199	
v/s Ratio Prot	c0.01	0.11		0.00	c0.21		c0.00	0.00		0.00	c0.02	
v/s Ratio Perm	0.07			0.00			0.00			0.00		
v/c Ratio	0.16	0.23		0.01	0.53		0.02	0.00		0.00	0.13	
Uniform Delay, d1	6.0	7.7		7.7	10.3		17.0	17.6		17.0	17.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.1		0.0	0.7		0.0	0.0		0.0	0.3	
Delay (s)	6.2	7.9		7.7	11.0		17.0	17.6		17.0	18.1	
Level of Service	A	A		A	B		B	B		B	B	
Approach Delay (s)		7.4			10.9			17.3			18.1	
Approach LOS		A			B			B			B	

Intersection Summary		
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio	0.39	
Actuated Cycle Length (s)	46.0	Sum of lost time (s) 18.0
Intersection Capacity Utilization	46.8%	ICU Level of Service A
Analysis Period (min)	15	

c Critical Lane Group

HCM 6th Signalized Intersection Summary
 5: NE Highland Avenue & E 4th Street

08/08/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	67	175	9	4	362	5	4	0	3	1	0	191
Future Volume (veh/h)	67	175	9	4	362	5	4	0	3	1	0	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		1.00	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1841	1841	1841	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	71	186	8	4	385	4	4	0	0	1	0	26
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	4	4	4	0	0	0	0	0	0
Cap, veh/h	480	664	29	594	560	6	271	80	0	290	0	61
Arrive On Green	0.07	0.38	0.38	0.01	0.31	0.31	0.01	0.00	0.00	0.00	0.00	0.04
Sat Flow, veh/h	1767	1766	76	1753	1818	19	1810	1900	0	1810	0	1605
Grp Volume(v), veh/h	71	0	194	4	0	389	4	0	0	1	0	26
Grp Sat Flow(s),veh/h/ln	1767	0	1842	1753	0	1837	1810	1900	0	1810	0	1605
Q Serve(g_s), s	0.8	0.0	2.3	0.0	0.0	5.8	0.1	0.0	0.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.8	0.0	2.3	0.0	0.0	5.8	0.1	0.0	0.0	0.0	0.0	0.5
Prop In Lane	1.00		0.04	1.00		0.01	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	480	0	693	594	0	566	271	80	0	290	0	61
V/C Ratio(X)	0.15	0.00	0.28	0.01	0.00	0.69	0.01	0.00	0.00	0.00	0.00	0.42
Avail Cap(c_a), veh/h	638	0	1094	864	0	1086	550	1116	0	573	0	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.8	0.0	6.8	7.4	0.0	9.5	14.4	0.0	0.0	14.4	0.0	14.7
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.6	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.0	0.0	7.0	7.4	0.0	11.0	14.4	0.0	0.0	14.4	0.0	19.3
LnGrp LOS	A	A	A	A	A	B	B	A	A	B	A	B
Approach Vol, veh/h		265			393			4				27
Approach Delay, s/veh		7.0			11.0			14.4				19.1
Approach LOS		A			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.5	5.8	4.7	16.3	4.7	5.7	6.8	14.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.4	5.0	18.6	5.0	18.4	5.1	18.5				
Max Q Clear Time (g_c+I1), s	2.0	0.0	2.0	4.3	2.1	2.5	2.8	7.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	0.1	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			9.8									
HCM 6th LOS			A									

HCM 6th TWSC
6: NE 24th Avenue & NE Lockwood Creek Road

08/08/2022

Intersection												
Int Delay, s/veh	2.3											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	108	12	1	204	7	33	0	4	19	0	22
Future Vol, veh/h	12	108	12	1	204	7	33	0	4	19	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	5	5	5	5	5	5	0	0	0	0	0	0
Mvmt Flow	14	127	14	1	240	8	39	0	5	22	0	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	248	0	0	141	0	0	421	412	134	411	415	244
Stage 1	-	-	-	-	-	-	162	162	-	246	246	-
Stage 2	-	-	-	-	-	-	259	250	-	165	169	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.1	6.5	6.2	7.1	6.5	6.2
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	2.245	-	-	2.245	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1300	-	-	1424	-	-	546	533	920	555	531	800
Stage 1	-	-	-	-	-	-	845	768	-	762	706	-
Stage 2	-	-	-	-	-	-	750	704	-	842	763	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1300	-	-	1424	-	-	523	526	920	547	524	800
Mov Cap-2 Maneuver	-	-	-	-	-	-	523	526	-	547	524	-
Stage 1	-	-	-	-	-	-	835	759	-	753	705	-
Stage 2	-	-	-	-	-	-	725	703	-	828	754	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.7	0	12.1	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	549	1424	-	-	1300	-	659
HCM Lane V/C Ratio	0.079	0.001	-	-	0.011	-	0.073
HCM Control Delay (s)	12.1	7.5	0	-	7.8	0	10.9
HCM Lane LOS	B	A	A	-	A	A	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	0.2

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	0	12	12	0
Future Vol, veh/h	2	0	0	12	12	0
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	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	0	0	17	17	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	34	17	17	0	0
Stage 1	17	-	-	-	-
Stage 2	17	-	-	-	-
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	984	1068	1613	-	-
Stage 1	1011	-	-	-	-
Stage 2	1011	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	984	1068	1613	-	-
Mov Cap-2 Maneuver	984	-	-	-	-
Stage 1	1011	-	-	-	-
Stage 2	1011	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1613	-	984	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s)	0	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
 1: NW Paradise Park Road & NW La Center Road

08/08/2022

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	82	934	9	0	575	10	15	1	5	18	2	33
Future Vol, veh/h	82	934	9	0	575	10	15	1	5	18	2	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	200	-	100	175	-	-	140	-	-	130	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	0	0	0	11	11	11
Mvmt Flow	87	994	10	0	612	11	16	1	5	19	2	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	623	0	0	994	0	0	1804	1791	994	1789	1786	618
Stage 1	-	-	-	-	-	-	1168	1168	-	618	618	-
Stage 2	-	-	-	-	-	-	636	623	-	1171	1168	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.1	6.5	6.2	7.21	6.61	6.31
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.21	5.61	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.21	5.61	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.5	4	3.3	3.599	4.099	3.399
Pot Cap-1 Maneuver	958	-	-	688	-	-	62	82	300	60	77	473
Stage 1	-	-	-	-	-	-	238	270	-	462	467	-
Stage 2	-	-	-	-	-	-	469	481	-	225	257	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	958	-	-	688	-	-	52	75	300	54	70	473
Mov Cap-2 Maneuver	-	-	-	-	-	-	52	75	-	54	70	-
Stage 1	-	-	-	-	-	-	216	245	-	420	467	-
Stage 2	-	-	-	-	-	-	432	481	-	200	234	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0	79.8	46.3
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	52	200	958	-	-	688	-	-	54	356
HCM Lane V/C Ratio	0.307	0.032	0.091	-	-	-	-	-	0.355	0.105
HCM Control Delay (s)	102.3	23.6	9.1	-	-	0	-	-	104.6	16.3
HCM Lane LOS	F	C	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	1.1	0.1	0.3	-	-	0	-	-	1.3	0.3

HCM 6th TWSC
 2: NW La Center Road & NW Timmen Road

08/08/2022

Intersection						
Int Delay, s/veh	4.5					
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	↙	↗	↔		↙	↗
Traffic Vol, veh/h	29	153	922	23	73	541
Future Vol, veh/h	29	153	922	23	73	541
Conflicting Peds, #/hr	1	3	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	31	165	991	25	78	582

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1744	1008	0	0	1017	0
Stage 1	1005	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.1	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.2	-
Pot Cap-1 Maneuver	95	292	-	-	690	-
Stage 1	354	-	-	-	-	-
Stage 2	472	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	84	291	-	-	689	-
Mov Cap-2 Maneuver	84	-	-	-	-	-
Stage 1	354	-	-	-	-	-
Stage 2	418	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	38.5	0	1.3
HCM LOS	E		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	84	291	689	-
HCM Lane V/C Ratio	-	-	0.371	0.565	0.114	-
HCM Control Delay (s)	-	-	71.2	32.3	10.9	-
HCM Lane LOS	-	-	F	D	B	-
HCM 95th %tile Q(veh)	-	-	1.5	3.2	0.4	-

HCM 6th TWSC
3: E 4th Street & Aspen Avenue

08/08/2022

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↗		↘	↗
Traffic Vol, veh/h	191	517	289	28	24	28
Future Vol, veh/h	191	517	289	28	24	28
Conflicting Peds, #/hr	1	0	0	1	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	90	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	217	588	328	32	27	32

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	361	0	-	0	1370 345
Stage 1	-	-	-	-	345 -
Stage 2	-	-	-	-	1025 -
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	1209	-	-	-	163 702
Stage 1	-	-	-	-	722 -
Stage 2	-	-	-	-	349 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1208	-	-	-	133 701
Mov Cap-2 Maneuver	-	-	-	-	133 -
Stage 1	-	-	-	-	591 -
Stage 2	-	-	-	-	349 -

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	23.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1208	-	-	-	133	701
HCM Lane V/C Ratio	0.18	-	-	-	0.205	0.045
HCM Control Delay (s)	8.6	-	-	-	38.9	10.4
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.7	-	-	-	0.7	0.1

HCM 6th TWSC
4: E 4th Street & E Stonecreek Drive

08/08/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	616	339	15	20	12
Future Vol, veh/h	15	616	339	15	20	12
Conflicting Peds, #/hr	1	0	0	1	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	17	692	381	17	22	13

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	399	0	-	0	1118 391
Stage 1	-	-	-	-	391 -
Stage 2	-	-	-	-	727 -
Critical Hdwy	4.11	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.209	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1165	-	-	-	231 662
Stage 1	-	-	-	-	688 -
Stage 2	-	-	-	-	482 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1164	-	-	-	227 661
Mov Cap-2 Maneuver	-	-	-	-	356 -
Stage 1	-	-	-	-	677 -
Stage 2	-	-	-	-	482 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1164	-	-	-	430
HCM Lane V/C Ratio	0.014	-	-	-	0.084
HCM Control Delay (s)	8.1	-	-	-	14.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

HCM Signalized Intersection Capacity Analysis

5: NE Highland Avenue & E 4th Street

08/08/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	209	389	18	1	227	13	11	2	3	12	0	110
Future Volume (vph)	209	389	18	1	227	13	11	2	3	12	0	110
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.91		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1786	1867		1787	1864		1805	1729		1805	1615	
Flt Permitted	0.45	1.00		0.49	1.00		0.89	1.00		0.89	1.00	
Satd. Flow (perm)	846	1867		930	1864		1689	1729		1689	1615	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	240	447	21	1	261	15	13	2	3	14	0	126
RTOR Reduction (vph)	0	2	0	0	2	0	0	3	0	0	114	0
Lane Group Flow (vph)	240	466	0	1	274	0	13	2	0	14	12	0
Confl. Peds. (#/hr)	2		1	1		2						
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	27.1	21.9		18.0	17.3		5.2	4.5		5.2	4.5	
Effective Green, g (s)	27.1	21.9		18.0	17.3		5.2	4.5		5.2	4.5	
Actuated g/C Ratio	0.59	0.48		0.39	0.38		0.11	0.10		0.11	0.10	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	609	892		378	704		193	169		193	158	
v/s Ratio Prot	c0.05	c0.25		0.00	0.15		0.00	0.00		c0.00	c0.01	
v/s Ratio Perm	0.19			0.00			0.01			0.01		
v/c Ratio	0.39	0.52		0.00	0.39		0.07	0.01		0.07	0.08	
Uniform Delay, d1	4.8	8.3		8.4	10.4		18.1	18.6		18.1	18.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.4	0.6		0.0	0.4		0.1	0.0		0.2	0.2	
Delay (s)	5.2	8.9		8.4	10.7		18.3	18.7		18.3	19.0	
Level of Service	A	A		A	B		B	B		B	B	
Approach Delay (s)		7.6			10.7			18.4			18.9	
Approach LOS		A			B			B			B	

Intersection Summary

HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	45.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
 5: NE Highland Avenue & E 4th Street

08/08/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	389	18	1	227	13	11	2	3	12	0	110
Future Volume (veh/h)	209	389	18	1	227	13	11	2	3	12	0	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	240	447	19	1	261	13	13	2	0	14	0	12
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	599	678	29	393	427	21	298	63	0	307	0	56
Arrive On Green	0.14	0.38	0.38	0.00	0.24	0.24	0.02	0.03	0.00	0.02	0.00	0.03
Sat Flow, veh/h	1795	1795	76	1795	1780	89	1810	1900	0	1810	0	1610
Grp Volume(v), veh/h	240	0	466	1	0	274	13	2	0	14	0	12
Grp Sat Flow(s),veh/h/ln	1795	0	1871	1795	0	1869	1810	1900	0	1810	0	1610
Q Serve(g_s), s	2.7	0.0	6.5	0.0	0.0	4.1	0.2	0.0	0.0	0.2	0.0	0.2
Cycle Q Clear(g_c), s	2.7	0.0	6.5	0.0	0.0	4.1	0.2	0.0	0.0	0.2	0.0	0.2
Prop In Lane	1.00		0.04	1.00		0.05	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	599	0	706	393	0	448	298	63	0	307	0	56
V/C Ratio(X)	0.40	0.00	0.66	0.00	0.00	0.61	0.04	0.03	0.00	0.05	0.00	0.22
Avail Cap(c_a), veh/h	639	0	1095	671	0	1088	553	1112	0	560	0	942
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.5	0.0	8.2	9.2	0.0	10.7	14.4	14.8	0.0	14.3	0.0	14.8
Incr Delay (d2), s/veh	0.4	0.0	1.1	0.0	0.0	1.4	0.1	0.2	0.0	0.1	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.9	0.0	0.0	1.5	0.1	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.9	0.0	9.2	9.2	0.0	12.1	14.4	15.0	0.0	14.4	0.0	16.7
LnGrp LOS	A	A	A	A	A	B	B	B	A	B	A	B
Approach Vol, veh/h		706			275			15				26
Approach Delay, s/veh		8.4			12.0			14.5				15.5
Approach LOS		A			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	5.6	4.5	16.4	5.0	5.6	8.9	12.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.5	5.0	18.5	5.0	18.5	5.1	18.4				
Max Q Clear Time (g_c+I1), s	2.2	2.0	2.0	8.5	2.2	2.2	4.7	6.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			9.7									
HCM 6th LOS			A									

HCM 6th TWSC
6: NE 24th Avenue & NE Lockwood Creek Road

08/08/2022

Intersection												
Int Delay, s/veh	2.2											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	218	39	4	127	23	23	0	2	20	0	21
Future Vol, veh/h	35	218	39	4	127	23	23	0	2	20	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	44	276	49	5	161	29	29	0	3	25	0	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	190	0	0	325	0	0	588	589	301	576	599	176
Stage 1	-	-	-	-	-	-	389	389	-	186	186	-
Stage 2	-	-	-	-	-	-	199	200	-	390	413	-
Critical Hdwy	4.11	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
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	2.209	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1390	-	-	1246	-	-	423	423	743	431	418	872
Stage 1	-	-	-	-	-	-	639	612	-	820	750	-
Stage 2	-	-	-	-	-	-	807	739	-	638	597	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1390	-	-	1246	-	-	396	404	743	415	400	872
Mov Cap-2 Maneuver	-	-	-	-	-	-	396	404	-	415	400	-
Stage 1	-	-	-	-	-	-	614	588	-	788	746	-
Stage 2	-	-	-	-	-	-	778	735	-	611	574	-

Approach	SE			NW			NE			SW		
HCM Control Delay, s	0.9			0.2			14.5			12		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	411	1246	-	-	1390	-	567
HCM Lane V/C Ratio	0.077	0.004	-	-	0.032	-	0.092
HCM Control Delay (s)	14.5	7.9	0	-	7.7	0	12
HCM Lane LOS	B	A	A	-	A	A	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	0.3

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	2	0	27	24	3
Future Vol, veh/h	5	2	0	27	24	3
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	3	0	38	33	4

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	73	35	37	0	0
Stage 1	35	-	-	-	-
Stage 2	38	-	-	-	-
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	936	1044	1587	-	-
Stage 1	993	-	-	-	-
Stage 2	990	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	936	1044	1587	-	-
Mov Cap-2 Maneuver	936	-	-	-	-
Stage 1	993	-	-	-	-
Stage 2	990	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1587	-	965	-	-
HCM Lane V/C Ratio	-	-	0.01	-	-
HCM Control Delay (s)	0	-	8.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
 1: NW Paradise Park Road & NW La Center Road

08/08/2022

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗	↙	↑	↗	↙	↑		↙	↑	
Traffic Vol, veh/h	111	371	16	3	904	5	16	0	3	20	2	61
Future Vol, veh/h	111	371	16	3	904	5	16	0	3	20	2	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	200	-	100	175	-	-	140	-	-	130	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	12	12	12	4	4	4	42	42	42	39	39	39
Mvmt Flow	125	417	18	3	1016	6	18	0	3	22	2	69

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1022	0	0	417	0	0	1728	1695	417	1694	1692	1019
Stage 1	-	-	-	-	-	-	667	667	-	1025	1025	-
Stage 2	-	-	-	-	-	-	1061	1028	-	669	667	-
Critical Hdwy	4.22	-	-	4.14	-	-	7.52	6.92	6.62	7.49	6.89	6.59
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.92	-	6.49	5.89	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.92	-	6.49	5.89	-
Follow-up Hdwy	2.308	-	-	2.236	-	-	3.878	4.378	3.678	3.851	4.351	3.651
Pot Cap-1 Maneuver	642	-	-	1131	-	-	55	75	558	60	76	245
Stage 1	-	-	-	-	-	-	389	401	-	243	270	-
Stage 2	-	-	-	-	-	-	228	266	-	392	405	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	642	-	-	1131	-	-	33	60	558	51	61	245
Mov Cap-2 Maneuver	-	-	-	-	-	-	33	60	-	51	61	-
Stage 1	-	-	-	-	-	-	313	323	-	196	269	-
Stage 2	-	-	-	-	-	-	162	265	-	314	326	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.7	0	174.1	51
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	33	558	642	-	-	1131	-	-	51	224
HCM Lane V/C Ratio	0.545	0.006	0.194	-	-	0.003	-	-	0.441	0.316
HCM Control Delay (s)	204.6	11.5	12	-	-	8.2	-	-	122.5	28.3
HCM Lane LOS	F	B	B	-	-	A	-	-	F	D
HCM 95th %tile Q(veh)	1.8	0	0.7	-	-	0	-	-	1.6	1.3

HCM 6th TWSC
2: NW La Center Road & NW Timmen Road

08/08/2022

Intersection						
Int Delay, s/veh	1.7					
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	↙	↗	↔		↙	↗
Traffic Vol, veh/h	23	65	373	15	77	872
Future Vol, veh/h	23	65	373	15	77	872
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	100	-	-	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	25	71	410	16	85	958

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1546	418	0	0	426
Stage 1	418	-	-	-	-
Stage 2	1128	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.12
Critical Hdwy Stg 1	5.41	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.218
Pot Cap-1 Maneuver	127	637	-	-	1133
Stage 1	666	-	-	-	-
Stage 2	310	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	117	637	-	-	1133
Mov Cap-2 Maneuver	117	-	-	-	-
Stage 1	666	-	-	-	-
Stage 2	287	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	19.9	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NWLn1	NWLn2	SWL	SWT
Capacity (veh/h)	-	-	117	637	1133	-
HCM Lane V/C Ratio	-	-	0.216	0.112	0.075	-
HCM Control Delay (s)	-	-	44.1	11.4	8.4	-
HCM Lane LOS	-	-	E	B	A	-
HCM 95th %tile Q(veh)	-	-	0.8	0.4	0.2	-

HCM 6th TWSC
3: E 4th Street & Aspen Avenue

08/08/2022

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↖		↖	↗
Traffic Vol, veh/h	54	216	411	23	10	144
Future Vol, veh/h	54	216	411	23	10	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	90	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	232	442	25	11	155

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	467	0	-	0	803
Stage 1	-	-	-	-	455
Stage 2	-	-	-	-	348
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1094	-	-	-	353
Stage 1	-	-	-	-	639
Stage 2	-	-	-	-	715
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1094	-	-	-	334
Mov Cap-2 Maneuver	-	-	-	-	334
Stage 1	-	-	-	-	605
Stage 2	-	-	-	-	715

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1094	-	-	-	334	605
HCM Lane V/C Ratio	0.053	-	-	-	0.032	0.256
HCM Control Delay (s)	8.5	-	-	-	16.1	13
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	1

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	261	572	12	9	20
Future Vol, veh/h	5	261	572	12	9	20
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	0	0
Mvmt Flow	5	284	622	13	10	22

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	635	0	-	0	924 629
Stage 1	-	-	-	-	629 -
Stage 2	-	-	-	-	295 -
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	948	-	-	-	302 486
Stage 1	-	-	-	-	535 -
Stage 2	-	-	-	-	760 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	948	-	-	-	300 486
Mov Cap-2 Maneuver	-	-	-	-	415 -
Stage 1	-	-	-	-	532 -
Stage 2	-	-	-	-	760 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	948	-	-	-	461
HCM Lane V/C Ratio	0.006	-	-	-	0.068
HCM Control Delay (s)	8.8	-	-	-	13.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

HCM Signalized Intersection Capacity Analysis

5: NE Highland Avenue & E 4th Street

08/08/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	177	9	4	367	5	4	0	3	1	1	201
Future Volume (vph)	70	177	9	4	367	5	4	0	3	1	1	201
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.85		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1831		1736	1823		1804	1615		1805	1582	
Flt Permitted	0.39	1.00		0.63	1.00		0.57	1.00		0.76	1.00	
Satd. Flow (perm)	716	1831		1157	1823		1085	1615		1436	1582	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	74	188	10	4	390	5	4	0	3	1	1	214
RTOR Reduction (vph)	0	2	0	0	1	0	0	3	0	0	182	0
Lane Group Flow (vph)	74	196	0	4	394	0	4	0	0	1	33	0
Confl. Peds. (#/hr)							1					1
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	23.9	21.1		19.7	19.0		7.7	7.0		7.7	7.0	
Effective Green, g (s)	23.9	21.1		19.7	19.0		7.7	7.0		7.7	7.0	
Actuated g/C Ratio	0.50	0.44		0.41	0.40		0.16	0.15		0.16	0.15	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	421	813		488	729		186	238		238	233	
v/s Ratio Prot	c0.01	0.11		0.00	c0.22		c0.00	0.00		0.00	c0.02	
v/s Ratio Perm	0.08			0.00			0.00			0.00		
v/c Ratio	0.18	0.24		0.01	0.54		0.02	0.00		0.00	0.14	
Uniform Delay, d1	6.5	8.2		8.2	10.9		16.7	17.3		16.7	17.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.2		0.0	0.8		0.0	0.0		0.0	0.3	
Delay (s)	6.7	8.4		8.2	11.7		16.8	17.3		16.7	17.9	
Level of Service	A	A		A	B		B	B		B	B	
Approach Delay (s)		7.9			11.7			17.0			17.9	
Approach LOS		A			B			B			B	

Intersection Summary

HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	47.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary
 5: NE Highland Avenue & E 4th Street

08/08/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	70	177	9	4	367	5	4	0	3	1	1	201
Future Volume (veh/h)	70	177	9	4	367	5	4	0	3	1	1	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		1.00	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1841	1841	1841	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	188	8	4	390	4	4	0	0	1	1	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	4	4	4	0	0	0	0	0	0
Cap, veh/h	477	669	28	592	562	6	271	94	0	296	2	71
Arrive On Green	0.08	0.38	0.38	0.01	0.31	0.31	0.01	0.00	0.00	0.00	0.05	0.05
Sat Flow, veh/h	1767	1767	75	1753	1819	19	1810	1900	0	1810	49	1564
Grp Volume(v), veh/h	74	0	196	4	0	394	4	0	0	1	0	33
Grp Sat Flow(s),veh/h/ln	1767	0	1842	1753	0	1837	1810	1900	0	1810	0	1613
Q Serve(g_s), s	0.9	0.0	2.4	0.0	0.0	6.0	0.1	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear(g_c), s	0.9	0.0	2.4	0.0	0.0	6.0	0.1	0.0	0.0	0.0	0.0	0.6
Prop In Lane	1.00		0.04	1.00		0.01	1.00		0.00	1.00		0.97
Lane Grp Cap(c), veh/h	477	0	698	592	0	567	271	94	0	296	0	73
V/C Ratio(X)	0.16	0.00	0.28	0.01	0.00	0.69	0.01	0.00	0.00	0.00	0.00	0.45
Avail Cap(c_a), veh/h	627	0	1075	857	0	1067	545	1097	0	575	0	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.9	0.0	6.9	7.5	0.0	9.7	14.4	0.0	0.0	14.5	0.0	14.8
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.7	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.1	0.0	7.1	7.5	0.0	11.2	14.4	0.0	0.0	14.5	0.0	19.1
LnGrp LOS	A	A	A	A	A	B	B	A	A	B	A	B
Approach Vol, veh/h		270			398			4				34
Approach Delay, s/veh		7.1			11.2			14.4				18.9
Approach LOS		A			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.5	6.1	4.7	16.6	4.7	5.9	6.9	14.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.4	5.0	18.6	5.0	18.4	5.1	18.5				
Max Q Clear Time (g_c+I1), s	2.0	0.0	2.0	4.4	2.1	2.6	2.9	8.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	0.1	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay				10.0								
HCM 6th LOS				B								

HCM 6th TWSC
6: NE 24th Avenue & NE Lockwood Creek Road

08/08/2022

Intersection												
Int Delay, s/veh	2.5											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	108	12	1	204	8	33	0	4	20	0	27
Future Vol, veh/h	14	108	12	1	204	8	33	0	4	20	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	5	5	5	5	5	5	0	0	0	0	0	0
Mvmt Flow	16	127	14	1	240	9	39	0	5	24	0	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	249	0	0	141	0	0	429	417	134	416	420	245
Stage 1	-	-	-	-	-	-	166	166	-	247	247	-
Stage 2	-	-	-	-	-	-	263	251	-	169	173	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.1	6.5	6.2	7.1	6.5	6.2
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	2.245	-	-	2.245	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1299	-	-	1424	-	-	540	530	920	551	528	799
Stage 1	-	-	-	-	-	-	841	765	-	761	706	-
Stage 2	-	-	-	-	-	-	747	703	-	838	760	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1299	-	-	1424	-	-	513	523	920	542	521	799
Mov Cap-2 Maneuver	-	-	-	-	-	-	513	523	-	542	521	-
Stage 1	-	-	-	-	-	-	830	755	-	751	705	-
Stage 2	-	-	-	-	-	-	717	702	-	823	750	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	0.8	0	12.3	10.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	539	1424	-	-	1299	-	665
HCM Lane V/C Ratio	0.081	0.001	-	-	0.013	-	0.083
HCM Control Delay (s)	12.3	7.5	0	-	7.8	0	10.9
HCM Lane LOS	B	A	A	-	A	A	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	0.3

HCM 6th TWSC
7: NE 24th Avenue & E 8th Way

08/08/2022

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	2	6	3	12	12	0
Future Vol, veh/h	2	6	3	12	12	0
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	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	8	4	17	17	0

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	42	17	17	0	0
Stage 1	17	-	-	-	-
Stage 2	25	-	-	-	-
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	974	1068	1613	-	-
Stage 1	1011	-	-	-	-
Stage 2	1003	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	971	1068	1613	-	-
Mov Cap-2 Maneuver	971	-	-	-	-
Stage 1	1008	-	-	-	-
Stage 2	1003	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	1.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1613	-	1042	-	-
HCM Lane V/C Ratio	0.003	-	0.011	-	-
HCM Control Delay (s)	7.2	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
 8: E Vine Maple Avenue & NE 339th Street

08/08/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	44	3	0	139	11	0
Future Vol, veh/h	44	3	0	139	11	0
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	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	4	0	176	14	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	60	0	234 58
Stage 1	-	-	-	-	58 -
Stage 2	-	-	-	-	176 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1544	-	754 1008
Stage 1	-	-	-	-	965 -
Stage 2	-	-	-	-	855 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1544	-	754 1008
Mov Cap-2 Maneuver	-	-	-	-	754 -
Stage 1	-	-	-	-	965 -
Stage 2	-	-	-	-	855 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	754	-	-	1544	-
HCM Lane V/C Ratio	0.018	-	-	-	-
HCM Control Delay (s)	9.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗	↙	↑	↗	↙	↑		↙	↑	
Traffic Vol, veh/h	82	947	9	0	583	10	15	1	5	18	2	33
Future Vol, veh/h	82	947	9	0	583	10	15	1	5	18	2	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	200	-	100	175	-	-	140	-	-	130	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	0	0	0	11	11	11
Mvmt Flow	87	1007	10	0	620	11	16	1	5	19	2	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	631	0	0	1007	0	0	1825	1812	1007	1810	1807	626
Stage 1	-	-	-	-	-	-	1181	1181	-	626	626	-
Stage 2	-	-	-	-	-	-	644	631	-	1184	1181	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.1	6.5	6.2	7.21	6.61	6.31
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.21	5.61	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.21	5.61	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.5	4	3.3	3.599	4.099	3.399
Pot Cap-1 Maneuver	951	-	-	680	-	-	60	79	295	58	75	468
Stage 1	-	-	-	-	-	-	234	266	-	457	463	-
Stage 2	-	-	-	-	-	-	465	477	-	221	254	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	951	-	-	680	-	-	50	72	295	52	68	468
Mov Cap-2 Maneuver	-	-	-	-	-	-	50	72	-	52	68	-
Stage 1	-	-	-	-	-	-	213	242	-	415	463	-
Stage 2	-	-	-	-	-	-	428	477	-	196	231	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0	83.8	48.3
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	50	195	951	-	-	680	-	-	52	350
HCM Lane V/C Ratio	0.319	0.033	0.092	-	-	-	-	-	0.368	0.106
HCM Control Delay (s)	107.7	24.1	9.2	-	-	0	-	-	110.1	16.5
HCM Lane LOS	F	C	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	1.1	0.1	0.3	-	-	0	-	-	1.3	0.4

HCM 6th TWSC
2: NW La Center Road & NW Timmen Road

08/08/2022

Intersection						
Int Delay, s/veh	4.6					
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	↙	↗	↔		↙	↗
Traffic Vol, veh/h	29	154	935	23	74	549
Future Vol, veh/h	29	154	935	23	74	549
Conflicting Peds, #/hr	1	3	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	140	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	31	166	1005	25	80	590

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1770	1022	0	0	1031	0
Stage 1	1019	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.1	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.2	-
Pot Cap-1 Maneuver	92	287	-	-	682	-
Stage 1	348	-	-	-	-	-
Stage 2	466	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	81	286	-	-	681	-
Mov Cap-2 Maneuver	81	-	-	-	-	-
Stage 1	348	-	-	-	-	-
Stage 2	411	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	40.1	0	1.3
HCM LOS	E		

Minor Lane/Major Mvmt	NET	NER	NWL	N1	NWL	N2	SWL	SWT
Capacity (veh/h)	-	-	81	286	681	-	-	-
HCM Lane V/C Ratio	-	-	0.385	0.579	0.117	-	-	-
HCM Control Delay (s)	-	-	74.9	33.6	11	-	-	-
HCM Lane LOS	-	-	F	D	B	-	-	-
HCM 95th %tile Q(veh)	-	-	1.5	3.4	0.4	-	-	-

HCM 6th TWSC
3: E 4th Street & Aspen Avenue

08/08/2022

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↘		↙	↘
Traffic Vol, veh/h	191	533	299	28	24	28
Future Vol, veh/h	191	533	299	28	24	28
Conflicting Peds, #/hr	1	0	0	1	3	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	90	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	217	606	340	32	27	32

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	373	0	-	0	1400 357
Stage 1	-	-	-	-	357 -
Stage 2	-	-	-	-	1043 -
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	1197	-	-	-	156 692
Stage 1	-	-	-	-	713 -
Stage 2	-	-	-	-	342 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1196	-	-	-	127 691
Mov Cap-2 Maneuver	-	-	-	-	127 -
Stage 1	-	-	-	-	583 -
Stage 2	-	-	-	-	342 -

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	24.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1196	-	-	-	127	691
HCM Lane V/C Ratio	0.181	-	-	-	0.215	0.046
HCM Control Delay (s)	8.7	-	-	-	40.9	10.5
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.7	-	-	-	0.8	0.1

HCM 6th TWSC
4: E 4th Street & E Stonecreek Drive

08/08/2022

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	632	349	15	20	12
Future Vol, veh/h	15	632	349	15	20	12
Conflicting Peds, #/hr	1	0	0	1	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	17	710	392	17	22	13

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	410	0	-	0	1147 402
Stage 1	-	-	-	-	402 -
Stage 2	-	-	-	-	745 -
Critical Hdwy	4.11	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.209	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1154	-	-	-	222 653
Stage 1	-	-	-	-	680 -
Stage 2	-	-	-	-	473 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1153	-	-	-	218 652
Mov Cap-2 Maneuver	-	-	-	-	348 -
Stage 1	-	-	-	-	669 -
Stage 2	-	-	-	-	473 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	14.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1153	-	-	-	422
HCM Lane V/C Ratio	0.015	-	-	-	0.085
HCM Control Delay (s)	8.2	-	-	-	14.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

HCM Signalized Intersection Capacity Analysis

5: NE Highland Avenue & E 4th Street

08/08/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	219	395	18	1	230	13	11	3	3	12	1	117
Future Volume (vph)	219	395	18	1	230	13	11	3	3	12	1	117
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.93		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1786	1867		1787	1864		1805	1758		1805	1617	
Flt Permitted	0.44	1.00		0.49	1.00		0.78	1.00		0.78	1.00	
Satd. Flow (perm)	832	1867		924	1864		1490	1758		1490	1617	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	252	454	21	1	264	15	13	3	3	14	1	134
RTOR Reduction (vph)	0	2	0	0	3	0	0	3	0	0	119	0
Lane Group Flow (vph)	252	473	0	1	276	0	13	3	0	14	16	0
Confl. Peds. (#/hr)	2		1	1		2						
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	27.0	21.8		17.8	17.1		5.8	5.1		5.8	5.1	
Effective Green, g (s)	27.0	21.8		17.8	17.1		5.8	5.1		5.8	5.1	
Actuated g/C Ratio	0.58	0.47		0.38	0.37		0.13	0.11		0.13	0.11	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	596	879		368	688		191	193		191	178	
v/s Ratio Prot	c0.05	c0.25		0.00	0.15		0.00	0.00		c0.00	c0.01	
v/s Ratio Perm	0.20			0.00			0.01			0.01		
v/c Ratio	0.42	0.54		0.00	0.40		0.07	0.02		0.07	0.09	
Uniform Delay, d1	5.1	8.7		8.8	10.8		17.8	18.4		17.9	18.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	0.6		0.0	0.4		0.2	0.0		0.2	0.2	
Delay (s)	5.6	9.3		8.8	11.2		18.0	18.4		18.0	18.7	
Level of Service	A	A		A	B		B	B		B	B	
Approach Delay (s)		8.0			11.2			18.1			18.7	
Approach LOS		A			B			B			B	

Intersection Summary		
HCM 2000 Control Delay	10.3	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.48	B
Actuated Cycle Length (s)	46.3	Sum of lost time (s)
Intersection Capacity Utilization	44.6%	18.0
Analysis Period (min)	15	ICU Level of Service
		A

c Critical Lane Group

HCM 6th Signalized Intersection Summary
 5: NE Highland Avenue & E 4th Street

08/08/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	219	395	18	1	230	13	11	3	3	12	1	117
Future Volume (veh/h)	219	395	18	1	230	13	11	3	3	12	1	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	252	454	19	1	264	12	13	3	0	14	1	16
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	596	679	28	386	429	20	300	75	0	313	4	63
Arrive On Green	0.14	0.38	0.38	0.00	0.24	0.24	0.02	0.04	0.00	0.02	0.04	0.04
Sat Flow, veh/h	1795	1796	75	1795	1789	81	1810	1900	0	1810	96	1529
Grp Volume(v), veh/h	252	0	473	1	0	276	13	3	0	14	0	17
Grp Sat Flow(s),veh/h/ln	1795	0	1871	1795	0	1870	1810	1900	0	1810	0	1625
Q Serve(g_s), s	2.9	0.0	6.7	0.0	0.0	4.2	0.2	0.0	0.0	0.2	0.0	0.3
Cycle Q Clear(g_c), s	2.9	0.0	6.7	0.0	0.0	4.2	0.2	0.0	0.0	0.2	0.0	0.3
Prop In Lane	1.00		0.04	1.00		0.04	1.00		0.00	1.00		0.94
Lane Grp Cap(c), veh/h	596	0	708	386	0	449	300	75	0	313	0	67
V/C Ratio(X)	0.42	0.00	0.67	0.00	0.00	0.62	0.04	0.04	0.00	0.04	0.00	0.26
Avail Cap(c_a), veh/h	631	0	1082	661	0	1075	551	1098	0	563	0	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.6	0.0	8.3	9.3	0.0	10.8	14.3	14.8	0.0	14.3	0.0	14.9
Incr Delay (d2), s/veh	0.5	0.0	1.1	0.0	0.0	1.4	0.1	0.2	0.0	0.1	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.0	0.0	0.0	1.5	0.1	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.1	0.0	9.4	9.3	0.0	12.2	14.4	15.0	0.0	14.4	0.0	16.9
LnGrp LOS	A	A	A	A	A	B	B	B	A	B	A	B
Approach Vol, veh/h		725			277			16				31
Approach Delay, s/veh		8.6			12.2			14.5				15.7
Approach LOS		A			B			B				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	5.8	4.5	16.6	5.0	5.8	9.0	12.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.0	18.5	5.0	18.5	5.0	18.5	5.1	18.4				
Max Q Clear Time (g_c+I1), s	2.2	2.0	2.0	8.7	2.2	2.3	4.9	6.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			9.8									
HCM 6th LOS			A									

HCM 6th TWSC
6: NE 24th Avenue & NE Lockwood Creek Road

08/08/2022

Intersection												
Int Delay, s/veh	2.4											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	41	218	39	4	127	25	23	0	2	21	0	24
Future Vol, veh/h	41	218	39	4	127	25	23	0	2	21	0	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	52	276	49	5	161	32	29	0	3	27	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	193	0	0	325	0	0	607	608	301	593	616	177
Stage 1	-	-	-	-	-	-	405	405	-	187	187	-
Stage 2	-	-	-	-	-	-	202	203	-	406	429	-
Critical Hdwy	4.11	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
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	2.209	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1386	-	-	1246	-	-	411	413	743	420	409	871
Stage 1	-	-	-	-	-	-	626	602	-	819	749	-
Stage 2	-	-	-	-	-	-	805	737	-	626	587	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1386	-	-	1246	-	-	381	392	743	402	388	871
Mov Cap-2 Maneuver	-	-	-	-	-	-	381	392	-	402	388	-
Stage 1	-	-	-	-	-	-	597	574	-	781	745	-
Stage 2	-	-	-	-	-	-	773	733	-	595	560	-

Approach	SE			NW			NE			SW		
HCM Control Delay, s	1.1			0.2			14.9			12.1		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	396	1246	-	-	1386	-	564
HCM Lane V/C Ratio	0.08	0.004	-	-	0.037	-	0.101
HCM Control Delay (s)	14.9	7.9	0	-	7.7	0	12.1
HCM Lane LOS	B	A	A	-	A	A	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	0.3

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	5	6	8	27	24	3
Future Vol, veh/h	5	6	8	27	24	3
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	7	8	11	38	33	4

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	95	35	37	0	0
Stage 1	35	-	-	-	-
Stage 2	60	-	-	-	-
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	909	1044	1587	-	-
Stage 1	993	-	-	-	-
Stage 2	968	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	903	1044	1587	-	-
Mov Cap-2 Maneuver	903	-	-	-	-
Stage 1	986	-	-	-	-
Stage 2	968	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	1.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1587	-	975	-	-
HCM Lane V/C Ratio	0.007	-	0.016	-	-
HCM Control Delay (s)	7.3	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
 8: E Vine Maple Avenue & NE 339th Street

08/08/2022

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	146	11	0	75	8	0
Future Vol, veh/h	146	11	0	75	8	0
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	164	12	0	84	9	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	176	0	254
Stage 1	-	-	-	-	170
Stage 2	-	-	-	-	84
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1400	-	735
Stage 1	-	-	-	-	860
Stage 2	-	-	-	-	939
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1400	-	735
Mov Cap-2 Maneuver	-	-	-	-	735
Stage 1	-	-	-	-	860
Stage 2	-	-	-	-	939

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10
HCM LOS			B

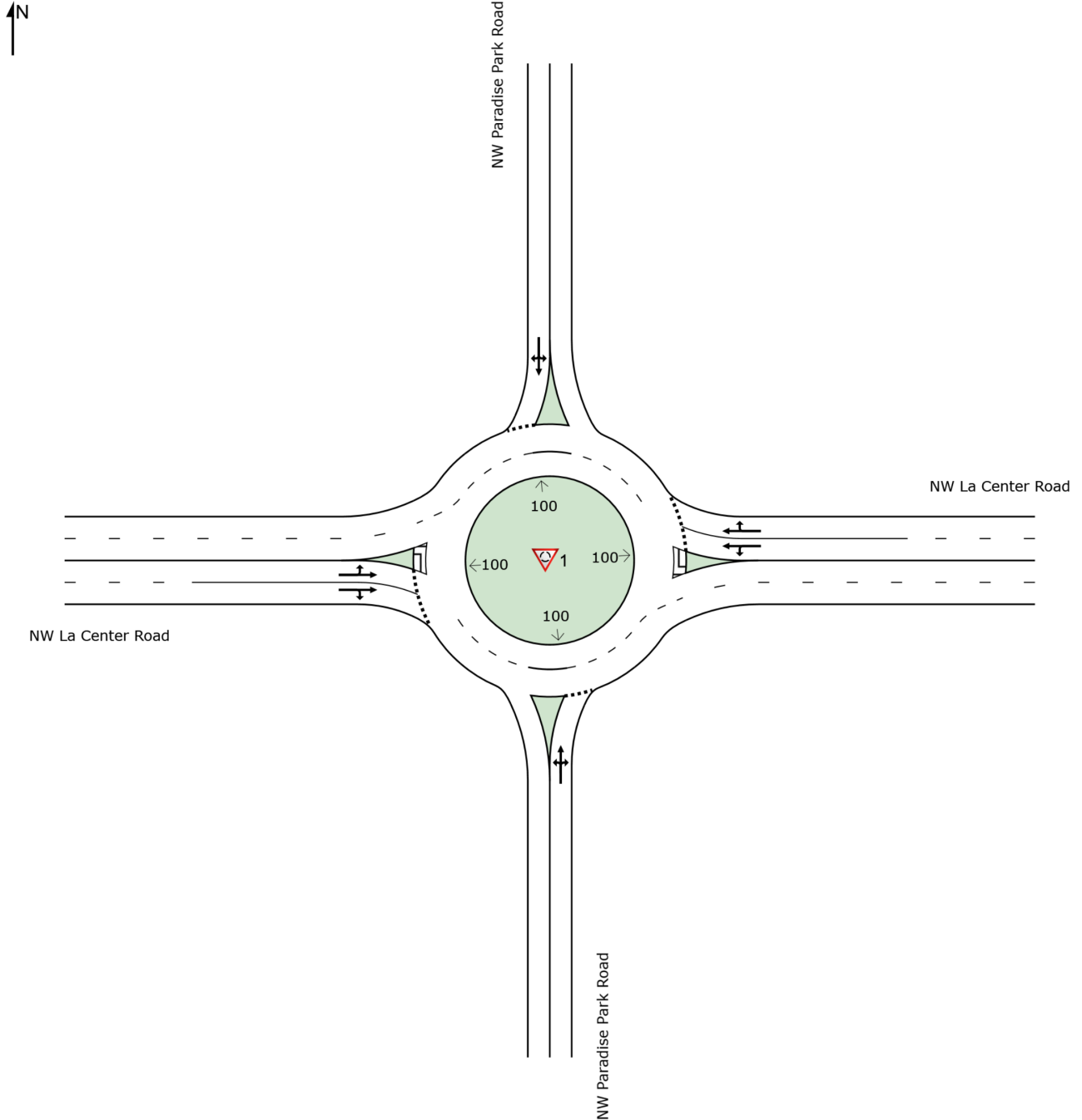
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	735	-	-	1400	-
HCM Lane V/C Ratio	0.012	-	-	-	-
HCM Control Delay (s)	10	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

SITE LAYOUT

Site: 1 [Int. 1 - AM (Site Folder: General)]

NW Paradise Park Road at NW La Center Road
Site Category: 2024 Mitigated Conditions - AM Peak Hour
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 1 [Int. 1 - AM (Site Folder: General)]

NW Paradise Park Road at NW La Center Road
 Site Category: 2024 Mitigated Conditions - AM Peak Hour
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: NW Paradise Park Road														
3	L2	16	41.7	18	41.7	0.039	6.6	LOS A	0.1	3.1	0.50	0.41	0.50	29.3
8	T1	1	41.7	1	41.7	0.039	6.6	LOS A	0.1	3.1	0.50	0.41	0.50	29.5
18	R2	3	41.7	3	41.7	0.039	6.6	LOS A	0.1	3.1	0.50	0.41	0.50	28.6
Approach		20	41.7	22	41.7	0.039	6.6	LOS A	0.1	3.1	0.50	0.41	0.50	29.2
East: NW La Center Road														
1	L2	3	3.6	3	3.6	0.435	7.6	LOS A	2.5	64.0	0.41	0.27	0.41	31.2
6	T1	904	3.6	1016	3.6	0.435	7.6	LOS A	2.5	64.0	0.41	0.27	0.41	31.0
16	R2	5	3.6	6	3.6	0.435	7.6	LOS A	2.5	64.0	0.41	0.27	0.41	30.1
Approach		912	3.6	1025	3.6	0.435	7.6	LOS A	2.5	64.0	0.41	0.27	0.41	31.0
North: NW Paradise Park Road														
7	L2	20	39.2	22	39.2	0.229	12.6	LOS B	0.6	18.8	0.64	0.64	0.64	28.2
4	T1	2	39.2	2	39.2	0.229	12.6	LOS B	0.6	18.8	0.64	0.64	0.64	28.3
14	R2	61	39.2	69	39.2	0.229	12.6	LOS B	0.6	18.8	0.64	0.64	0.64	27.4
Approach		83	39.2	93	39.2	0.229	12.6	LOS B	0.6	18.8	0.64	0.64	0.64	27.6
West: NW La Center Road														
5	L2	111	11.8	125	11.8	0.228	4.9	LOS A	1.0	26.7	0.14	0.05	0.14	31.2
2	T1	371	11.8	417	11.8	0.228	4.9	LOS A	1.0	26.7	0.14	0.05	0.14	31.7
12	R2	16	11.8	18	11.8	0.228	4.9	LOS A	1.0	26.7	0.14	0.05	0.14	31.1
Approach		498	11.8	560	11.8	0.228	4.9	LOS A	1.0	26.7	0.14	0.05	0.14	31.6
All Vehicles		1513	8.8	1700	8.8	0.435	7.0	LOS A	2.5	64.0	0.34	0.22	0.34	31.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

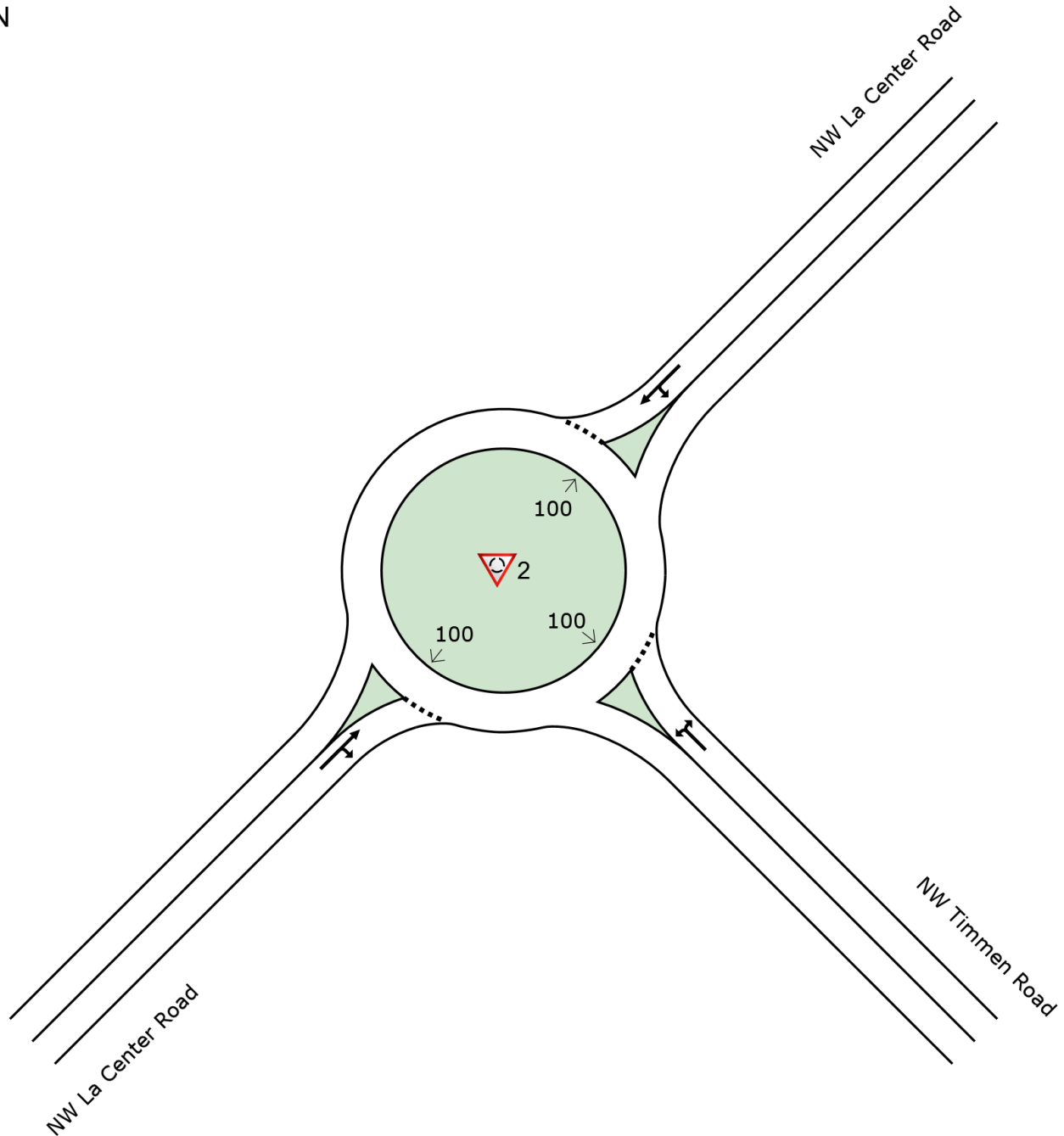
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 2 [Int. 2 - AM (Site Folder: General)]

NW Timmen Road at NW La Center Road
Site Category: 2024 Mitigated Conditions - AM Peak Hour
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 2 [Int. 2 - AM (Site Folder: General)]

NW Timmen Road at NW La Center Road
 Site Category: 2024 Mitigated Conditions - AM Peak Hour
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
SouthEast: NW Timmen Road														
3x	L2	23	2.0	25	2.0	0.109	5.1	LOS A	0.5	11.5	0.49	0.40	0.49	36.1
18x	R2	65	2.0	71	2.0	0.109	5.1	LOS A	0.5	11.5	0.49	0.40	0.49	35.3
Approach		88	2.0	97	2.0	0.109	5.1	LOS A	0.5	11.5	0.49	0.40	0.49	35.5
NorthEast: NW La Center Road														
1x	L2	77	1.2	85	1.2	0.785	15.7	LOS B	13.3	335.2	0.41	0.14	0.41	31.9
6x	T1	872	1.2	958	1.2	0.785	15.7	LOS B	13.3	335.2	0.41	0.14	0.41	33.5
Approach		949	1.2	1043	1.2	0.785	15.7	LOS B	13.3	335.2	0.41	0.14	0.41	33.4
SouthWest: NW La Center Road														
2x	T1	373	0.9	410	0.9	0.340	6.0	LOS A	2.0	50.9	0.29	0.15	0.29	39.5
12x	R2	15	0.9	16	0.9	0.340	6.0	LOS A	2.0	50.9	0.29	0.15	0.29	35.9
Approach		388	0.9	426	0.9	0.340	6.0	LOS A	2.0	50.9	0.29	0.15	0.29	39.3
All Vehicles		1425	1.2	1566	1.2	0.785	12.4	LOS B	13.3	335.2	0.38	0.16	0.38	35.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

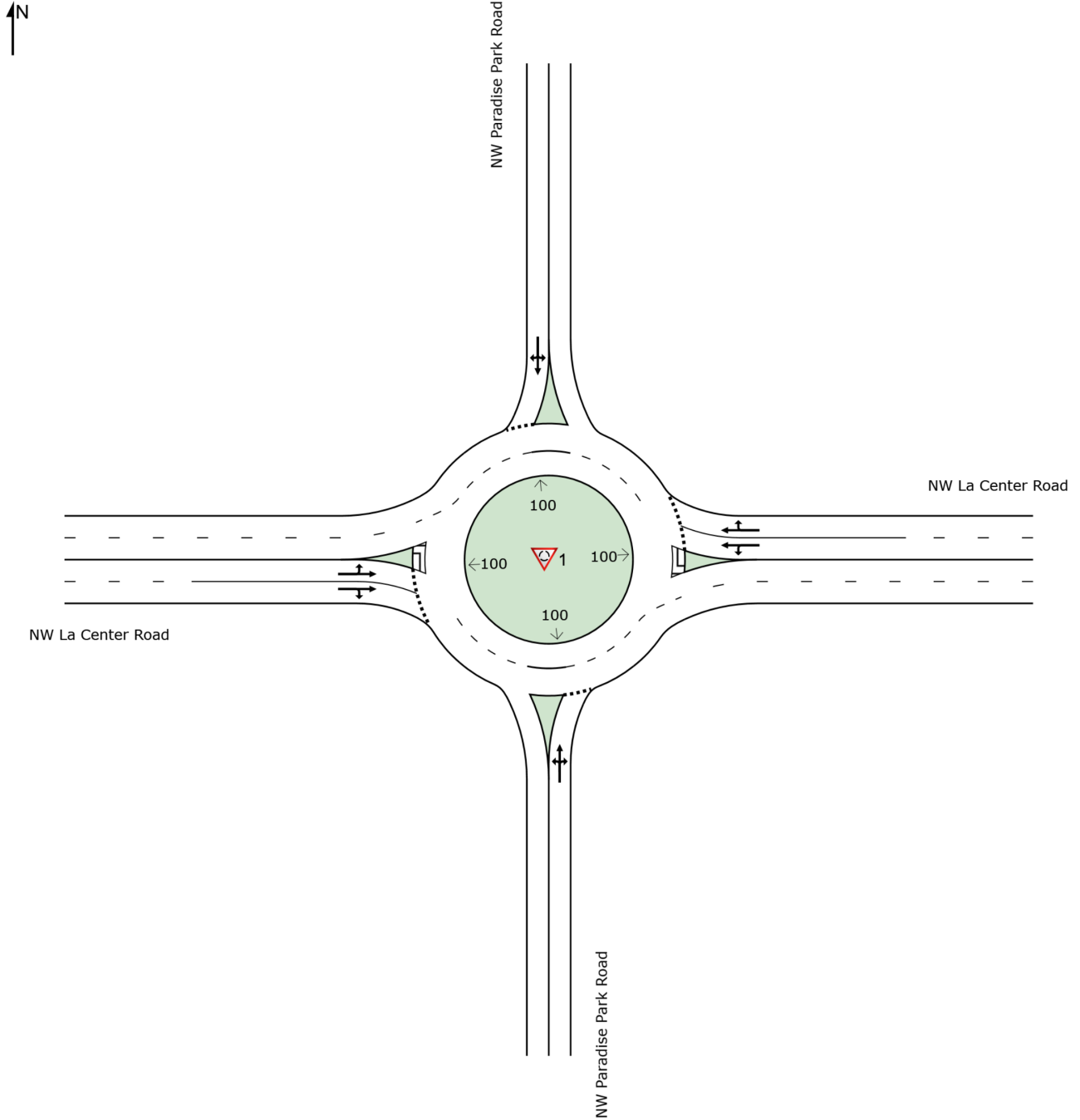
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 1 [Int. 1 - PM (Site Folder: General)]

NW Paradise Park Road at NW La Center Road
Site Category: 2024 Mitigated Conditions - PM Peak Hour
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 1 [Int. 1 - PM (Site Folder: General)]

NW Paradise Park Road at NW La Center Road
 Site Category: 2024 Mitigated Conditions - PM Peak Hour
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
South: NW Paradise Park Road														
3	L2	15	0.0	16	0.0	0.041	7.2	LOS A	0.1	3.4	0.63	0.63	0.63	29.8
8	T1	1	0.0	1	0.0	0.041	7.2	LOS A	0.1	3.4	0.63	0.63	0.63	29.6
18	R2	5	0.0	5	0.0	0.041	7.2	LOS A	0.1	3.4	0.63	0.63	0.63	28.8
Approach		21	0.0	22	0.0	0.041	7.2	LOS A	0.1	3.4	0.63	0.63	0.63	29.6
East: NW La Center Road														
1	L2	1	3.6	1	3.6	0.254	5.1	LOS A	1.2	30.9	0.26	0.14	0.26	32.3
6	T1	583	3.6	620	3.6	0.254	5.1	LOS A	1.2	30.9	0.26	0.14	0.26	32.1
16	R2	10	3.6	11	3.6	0.254	5.1	LOS A	1.2	30.9	0.26	0.14	0.26	31.1
Approach		594	3.6	632	3.6	0.254	5.1	LOS A	1.2	30.9	0.26	0.14	0.26	32.1
North: NW Paradise Park Road														
7	L2	18	11.1	19	11.1	0.077	5.7	LOS A	0.2	6.7	0.51	0.46	0.51	31.0
4	T1	2	11.1	2	11.1	0.077	5.7	LOS A	0.2	6.7	0.51	0.46	0.51	30.9
14	R2	33	11.1	35	11.1	0.077	5.7	LOS A	0.2	6.7	0.51	0.46	0.51	30.0
Approach		53	11.1	56	11.1	0.077	5.7	LOS A	0.2	6.7	0.51	0.46	0.51	30.3
West: NW La Center Road														
5	L2	82	2.1	87	2.1	0.406	6.5	LOS A	2.5	63.6	0.14	0.04	0.14	31.4
2	T1	947	2.1	1007	2.1	0.406	6.5	LOS A	2.5	63.6	0.14	0.04	0.14	31.3
12	R2	9	2.1	10	2.1	0.406	6.5	LOS A	2.5	63.6	0.14	0.04	0.14	30.6
Approach		1038	2.1	1104	2.1	0.406	6.5	LOS A	2.5	63.6	0.14	0.04	0.14	31.3
All Vehicles		1706	2.9	1815	2.9	0.406	6.0	LOS A	2.5	63.6	0.20	0.10	0.20	31.5

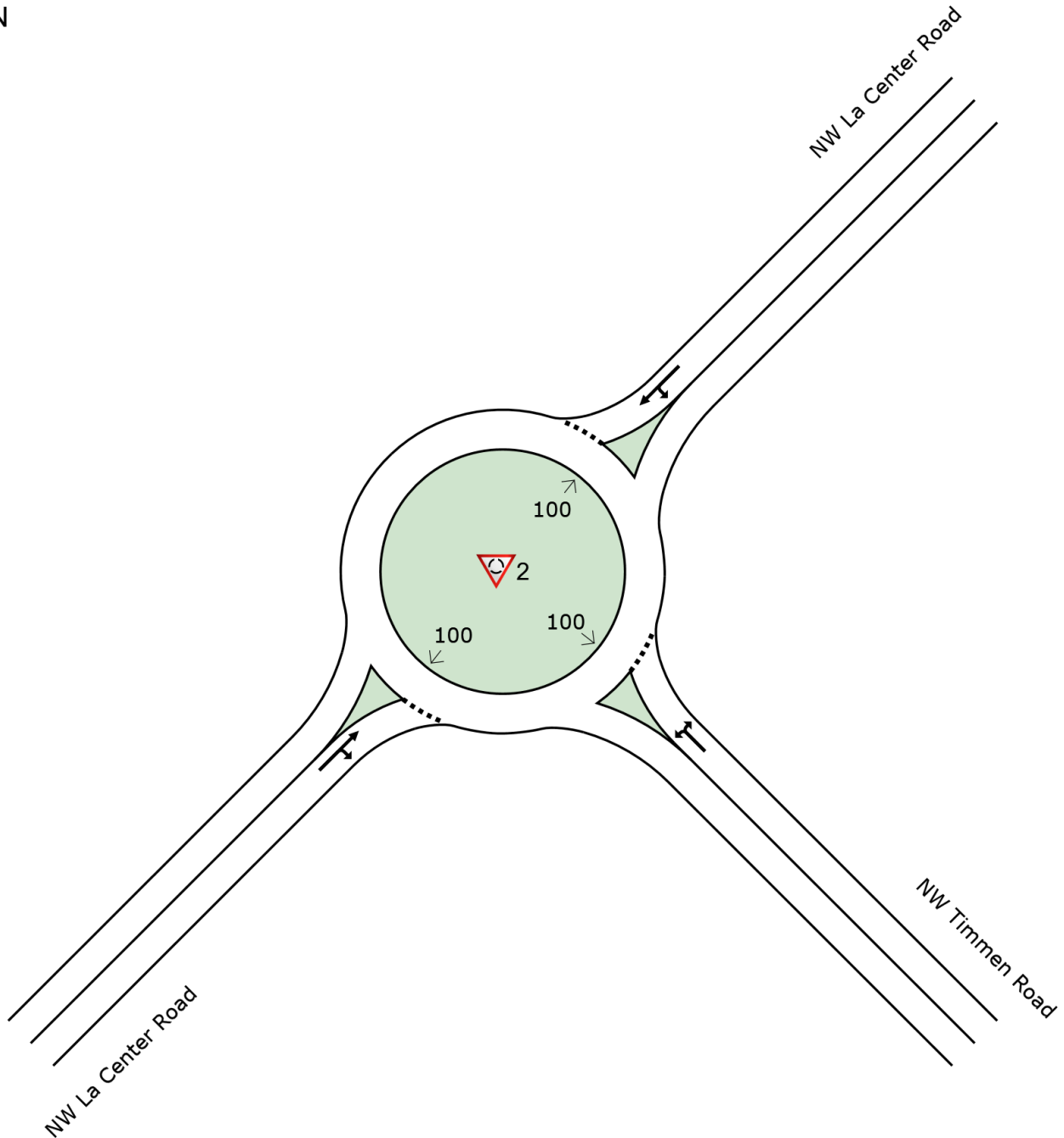
Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Signalised Intersections.
 Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
 LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
 Roundabout Capacity Model: US HCM 6.
 Delay Model: HCM Delay Formula (Geometric Delay is not included).
 Queue Model: HCM Queue Formula.
 Gap-Acceptance Capacity: Traditional M1.
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SITE LAYOUT

Site: 2 [Int. 2 - PM (Site Folder: General)]

NW Timmen Road at NW La Center Road
Site Category: 2024 Mitigated Conditions - PM Peak Hour
Roundabout

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MOVEMENT SUMMARY

Site: 2 [Int. 2 - PM (Site Folder: General)]

NW Timmen Road at NW La Center Road
 Site Category: 2024 Mitigated Conditions - PM Peak Hour
 Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist ft]				
SouthEast: NW Timmen Road														
3x	L2	29	2.2	31	2.2	0.406	14.5	LOS B	1.9	49.0	0.75	0.83	1.02	31.6
18x	R2	154	2.2	166	2.2	0.406	14.5	LOS B	1.9	49.0	0.75	0.83	1.02	31.0
Approach		183	2.2	197	2.2	0.406	14.5	LOS B	1.9	49.0	0.75	0.83	1.02	31.1
NorthEast: NW La Center Road														
1x	L2	74	0.0	80	0.0	0.501	7.9	LOS A	4.1	101.8	0.22	0.08	0.22	35.7
6x	T1	549	0.0	590	0.0	0.501	7.9	LOS A	4.1	101.8	0.22	0.08	0.22	37.9
Approach		623	0.0	670	0.0	0.501	7.9	LOS A	4.1	101.8	0.22	0.08	0.22	37.7
SouthWest: NW La Center Road														
2x	T1	935	0.0	1005	0.0	0.810	17.6	LOS B	13.2	331.1	0.76	0.40	0.76	33.0
12x	R2	23	0.0	25	0.0	0.810	17.6	LOS B	13.2	331.1	0.76	0.40	0.76	30.4
Approach		958	0.0	1030	0.0	0.810	17.6	LOS B	13.2	331.1	0.76	0.40	0.76	32.9
All Vehicles		1764	0.2	1897	0.2	0.810	13.8	LOS B	13.2	331.1	0.57	0.33	0.60	34.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.