7. Traffic Study

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Transportation Impact Study

November 5, 2024 Project# 30088

To: James E Carothers, PE & Anita Ashton
City of Camas
616 NE 4th Avenue
Camas, WA 98607

Dylan Bass, Jason Lugo, & Courtney Sell
Washington State Department of Transportation (WSDOT) Southwest Region
11018 Northeast 51st Circle
Vancouver, WA 98668-1709

From: Chris Brehmer, PE, Russ Doubleday, AICP & Julia Kuhn, PE

CC: Eric Hahn, PE, City of Vancouver
David Jardin, Clark County Department of Public Works
Bryce Hanson, PE, LSIT, AKS Engineering & Forestry, LLC
Andy Swanson & Kevin Miller, Camas Woods LLC

RE: Camas Woods Transportation Impact Study (City File PA23-30)

Camas Woods LLC proposes to develop a mixed-use project located on the east side of NE Everett Street (State Route 500) and NE Everett Drive in Camas. A Transportation Impact Study (TIS) is required per City of Camas Municipal Code (CMC) Section 17.11.030.B.12. This memorandum documents the TIS analysis, findings, and recommendations. Subject to City and Washington State Department of Transportation (WSDOT) review and direction, the following recommendations were identified to be implemented in conjunction with site development:

- Reconstruct the NE Everett Street/NE Everett Drive intersection to a three-approach single lane roundabout in conjunction with site development (with provisions for a potential future fourth (west) leg).
  - The roundabout should be in place prior to permitting the 39th weekday AM peak hour trip associated with site development (anticipated to be commensurate with the start of Phase 4B site development, reflecting a total of 89 or more townhomes on site).
- Make a proportional financial mitigation contribution to the City of Camas' planned NW Sierra Street/NW Lake Road roundabout project.
  - Pending City direction, the contribution could be made through (1) payment of a future Traffic Impact Fee that incorporates the roundabout cost or (2) via a proportional share mitigation assessment program should the City choose to implement a cost sharing assessment methodology for the roundabout project (we understand City staff anticipates the future Traffic Impact Fee program will in part fund the planned roundabout).
- Collaborate with WSDOT to identify and implement (if construction is required) capacity mitigation at the NE 242nd Avenue/NE 28th Street intersection in conjunction with site development.
  - Potential options identified to explore with WSDOT include but are not limited to implementation of interim all-way stop control or payment of a proportional share financial contribution to a future intersection capacity improvement.

- Post new STOP (R1-1) signs in accordance with applicable City standards and the *Manual on Uniform Traffic Control Devices* (MUTCD) at the locations listed below when the new roadway approaches are constructed as part of site development:
  - Eastbound on N Rekdahl Street at NE Everett Drive;
  - Southbound on the public street approaches to N Rekdahl Street internal to the project site; and,
  - Northbound and southbound on the public street approaches to SE 8th Street internal to the project site.
- Subject to City of Vancouver concurrence and final residential unit count confirmation, pay $4,800 in proportionate share contributions to the 192nd Avenue/NE 13th Street intersection as identified per City of Vancouver requirements.
- Locate and maintain site landscaping, above-ground utilities, and site signage within the site as well as at the site driveways to provide adequate intersection sight distance per applicable City requirements.

The details of the study methodology, findings, and recommendations are summarized herein.

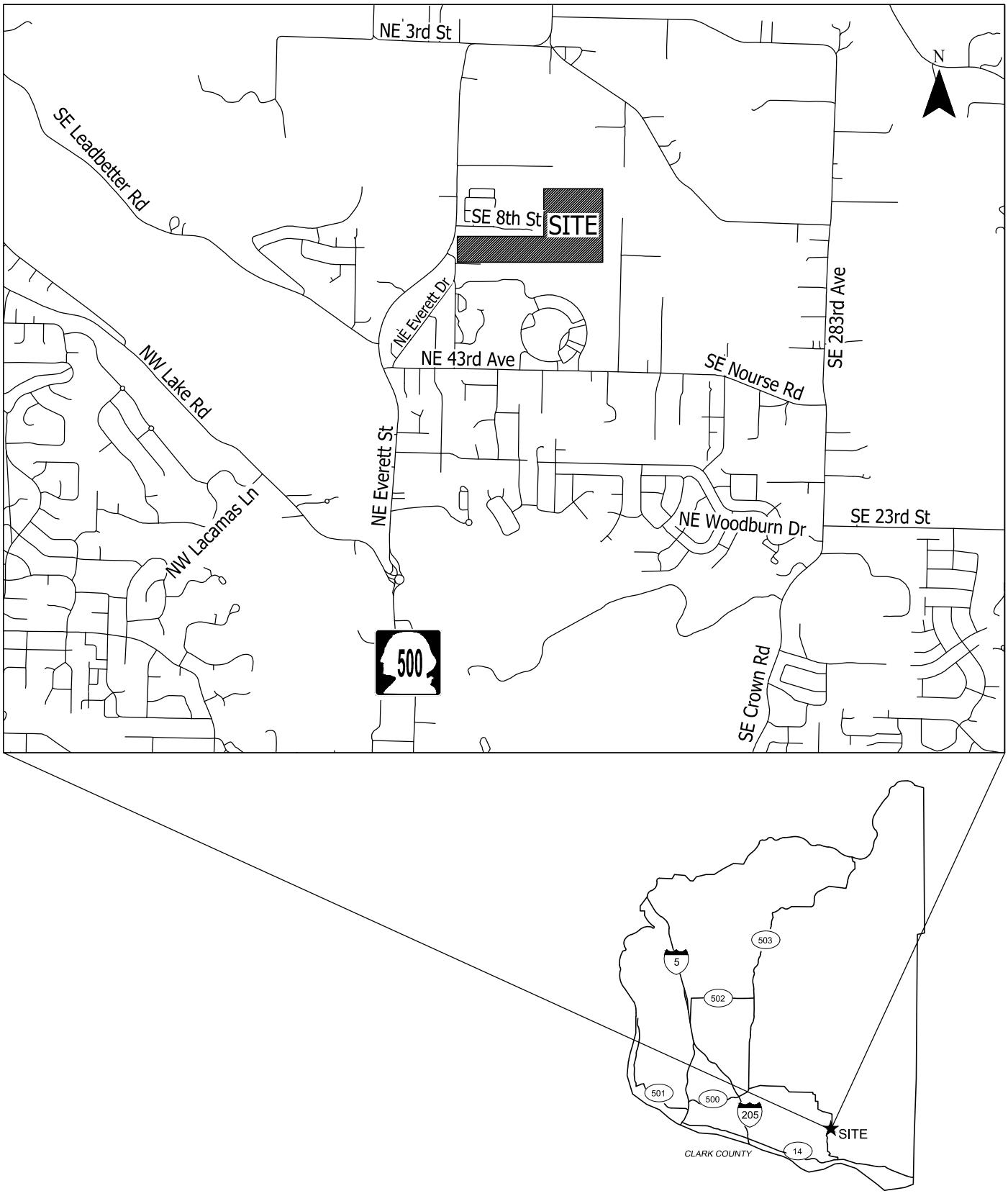
INTRODUCTION

Camas Woods LLC proposes to develop a mixed-use project on approximately 36.37 acres of land located on the east side of NE Everett Street and NE Everett Drive generally north of Camas High School. Preliminary plans indicate that the site could include approximately 120 detached single-family homes, 88 townhomes, 88 apartment units, and 10,000 square feet of commercial space. The commercial space could house office or retail use(s). No tenant(s) for the commercial space were identified at time this report was prepared so retail use was assumed to provide a reasonable worst-case analysis of potential site trip impacts.

Figure 1 shows the site vicinity map, and Figure 2 shows a preliminary site plan.

Primary vehicular site access is proposed via a new public street (N Rekdahl Street) connection to NE Everett Drive south of NE Everett Street (SR 500). SE 8th Street has been identified by the City as a desired second vehicular access to the site. The ability to construct a full width SE 8th Street connection to City standards between the western portion of the project site and an off-site connection west to NE Everett Street is not yet confirmed and may necessitate that SE 8th Street function initially as a second public street connection and/or emergency only access. This study analyzes future traffic conditions assuming the proposed development both without and with the potential SE 8th Street connection for comparison purposes.

As currently contemplated, full occupancy of the homes and commercial space is expected to occur by 2030.



Site Vicinity Map
Camas, Washington

Figure
1

C:\Users\rdoubleday\appdata\local\temp\AcPublish_23824\30088_figureset.dwg Oct 10, 2024 - 3:27pm - rdoubleday Layout Tab: Fig1 Site Vicinity Map

APPLICANT/OWNER

CAMAS WOODS, LLC
CONTACT: XXXXXXX
19120 SE 34TH ST
STE 103
VANCOUVER WA, 98683
PARCEL SERIAL # 178140-000

REKDAHL DONALD A & REKDAHL SHIRLEY M TRUSTEES
CONTACT: XXXXXXX
921 SE GARDNER RD
CAMAS WA, 98607
PARCEL SERIAL #'S 178159-000, 178169-000, 178108-000

CONTACT:

AKS ENGINEERING & FORESTRY, LLC.
CONTACT: MICHAEL ANDREOTTI
9600 NE 126TH AVENUE, SUITE 2520
VANCOUVER, WA 98682
PH: 360-882-0419
FAX: 360-882-0426
E-MAIL: ANDREOTTIM@AKS-ENG.COM

PROPERTY DESCRIPTION

LOCATED IN THE NORTHEAST 1/4 OF SECTION 35 TOWNSHIP 2 NORTH RANGE 3 EAST, WILLAMETTE MERIDIAN, CLARK COUNTY, WASHINGTON. PROPERTY SERIAL #'S 178159-000, 178169-000, 178108-000, 178140-000

EXISTING LAND USE

PROJECT PURPOSE

SUBDIVIDE 3 PARCELS INTO 152 DETACHED SINGLE-FAMILY RESIDENTIAL LOTS WITH ASSOCIATED ROADS AND SITE IMPROVEMENTS.

SITE AREA

36.37 AC (1,584,326 SF)

VERTICAL DATUM

ELEVATIONS ARE BASED ON CLARK COUNTY BENCHMARK NO. 240, LOCATED AT THE NE CORNER OF STATE ROUTE 500 (EVERETT STREET) AND 23RD AVENUE. ELEVATION 213.07 FEET (NGVD 29(47)).

PROPOSED PHASING PLAN

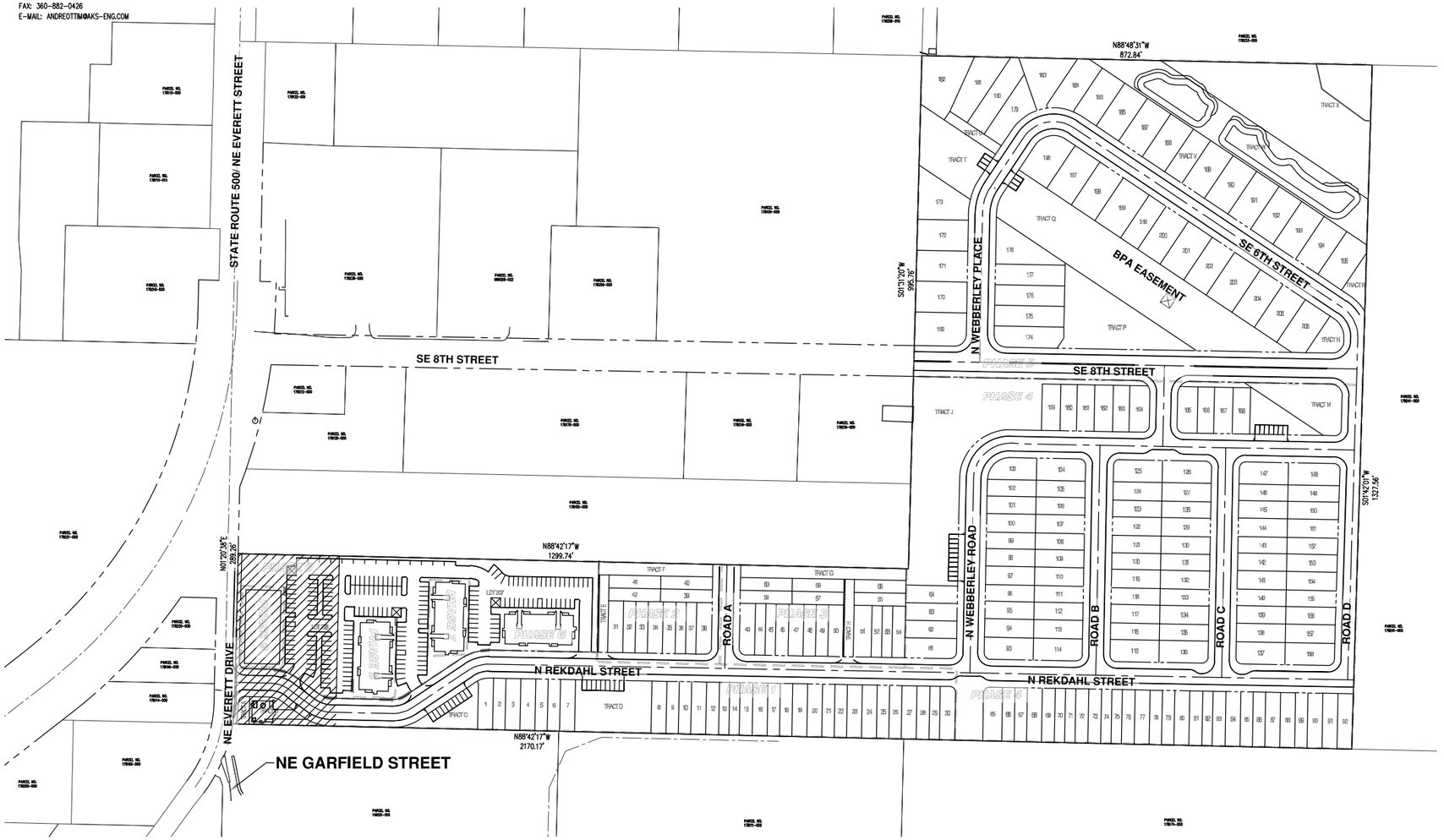
PHASE 1: 30 TOWN HOMES, SEWER PUMP STATION
PHASE 2: 12 TOWN HOMES
PHASE 3: 18 TOWN HOMES
PHASE 4: 28 TOWN HOMES, 80 DETACHED SFR
PHASE 5: 40 DETACHED SFR, STORMWATER
PHASE 6: 24 APARTMENT UNITS, PARKING LOT, STORMWATER
PHASE 7: 24 APARTMENT UNITS
PHASE 8: 24 APARTMENT UNITS
PHASE 9: 16 APARTMENT UNITS, +/- 10,000 SF COMMERCIAL

LEGEND

NORTH SHORE MIXED USE (MX-NS)
NORTH SHORE LOWER DENSITY RESIDENTIAL (LD-NS)
NORTH SHORE HIGHER DENSITY RESIDENTIAL (HD-NS)
AREA IS NON-HATCHED

N

SCALE: 1"=100 FEET
100 0 20 50 100
ORIGINAL PAGE SIZE: 22" x 34"



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ENGINEERING SURVEYING NATURAL RESOURCES
FORESTRY PLANNING LANDSCAPE ARCHITECTURE

PRELIMINARY PLAT & SITE PLAN OVERVIEW
CAMAS WOODS SUBDIVISION
CAMAS WOODS, LLC
CAMAS, WASHINGTON

JOB NUMBER:	8397
DATE:	4/16/2024
DESIGNED BY:	CJS
DRAWN BY:	JRF
CHECKED BY:	BDH

P3.0

AKS DRAWING FILE: 8397 20240418 OVERALL SITE PLANLINE | LAYOUT: P3.0

C:\Users\rdoubleday\appdata\local\temp\AcPublish_23824\300B8_figureset.dwg Oct 10, 2024 - 3:27pm - rdoubleday Layout Tab: Fig2 Proposed Site Plan

RECEIVED FROM AKS ENGINEERING AND FORESTRY, LLC: (APRIL 18, 2024)

Preliminary Site Plan
Camas, Washington

Figure
2

KITTELSON & ASSOCIATES

STUDY METHODOLOGY

The City of Camas' *Transportation Impact Study Guidelines* (Reference 1) require preparation and submittal of a TIS for each proposed development that generates 200 or more daily vehicle trips. The 200 daily trip threshold is met for the Camas Woods project, triggering a TIS.

The study intersections were determined through a scoping process involving staff from the City of Camas, WSDOT, Clark County, the City of Washougal, and the City of Vancouver. The final study intersection list reflects a combination of City of Camas trip thresholds, the anticipated site trip distribution pattern and trip assignment, comments from the pre-application hearing and scoping correspondence with agency staff. *Appendix A includes documentation from the scoping process.*

Analysis Scenarios

Weekday morning (7-9 AM), school PM (2-4 PM) and weekday PM (4-6 PM) commuter peak period traffic conditions were assessed for the following analysis scenarios:

- Year 2024 existing traffic conditions;
- Year 2030 background traffic conditions (including background growth and identified in-process developments, but not including any site-generated traffic volumes related to the proposed development); and,
- Year 2030 total traffic conditions (including site-generated traffic volumes to the proposed development).

Study Intersections

The study intersections are identified in Table 1 and vary by analysis period based on the different agency requirements and proximity to the high school. The intersection numbers listed in Table 1 correspond with the analysis figures in this report.

Table 1. Study Intersections and Peak Hour Analysis Periods

ID	Study Intersection	Traffic Control	Weekday AM Peak Study Intersection	Weekday School PM Peak Study Intersection	Weekday PM Peak Study Intersection
1	NE 232nd Ave/NE 28th St	TWSC	√		√
2	SR 500/NE 28th St	TWSC	√		√
3	NE Everett St/SE 8th St	TWSC	√	√	√
4	NE Everett St/NE Everett Dr	TWSC	√	√	√
5	NE Everett St/SE Leadbetter Rd	TWSC	√	√	√
6	NE Everett St/NE 43rd Ave	Signalized	√	√	√
7	NE Everett St/NW Lake Rd	Roundabout	√	√	√
8	NE Everett St/NE 17th Ave	TWSC	√		√
9	NE Everett St/NE 15th Ave	TWSC	√		√
10	NE Everett St/NE 14th Ave	TWSC			√
11	NE Dallas St/NE 6th Ave	TWSC			√
12	Division St/NW 6th Ave	TWSC	√		√
13	NW Norwood St/NW 6th Ave	Roundabout	√		√
14	NW Lacamas Ln/NW Lake Rd	TWSC	√		√
15	NW Sierra St/NW Lake Rd	TWSC	√	√	√
16	NW Leadbetter Dr/NW Lake Rd	TWSC	√		√
17	NW Parker St/NW Lake Rd	Signalized			√
18	NW Friberg-Strunk St/NW Lake Rd	Signalized			√
19	NW Parker St/NW Leadbetter Dr	TWSC			√
20	NW Parker St/NE 38th Ave	Signalized			√
21	NW 232nd Ave/N Shore Blvd	TWSC	√	√	√
22	SE 283rd Ave/SE Nourse Rd	TWSC	√	√	√
23	SE 283rd Ave/SE 23rd St	TWSC			√
24	SE 283rd Ave/NE Woodburn Dr	TWSC			√
25	SE Crown Rd/NE 3rd Ave	Signalized			√

Where: TWSC = Two-way Stop Control
√ = Analysis period evaluated

Exhibit 7 SUB24-1002

Capacity Analysis Methodology

Intersection level-of-service and volume-to-capacity (v/c) analyses described in this report were performed at signalized and unsignalized intersections in accordance with the procedures stated in the *Highway Capacity Manual, 7th Edition* (Reference 2) methodology using Vistro software. Roundabouts were analyzed using Sidra and incorporate Sidra Policy Settings per WSDOT requirements[1].

Mobility Standards

City of Camas

Camas uses level of service (LOS) as a performance metric for traffic operations. Minor and local streets must meet LOS C standards, and collector and arterial streets must meet LOS D standards. If site traffic contributes to traffic operations that exceed the LOS D standard, then the TIS recommendations need to include mitigations or roadways improvements per the City's *Transportation Impact Study Guidelines*.

SR 500 (NE Everett Street)

Chapter 320 of WSDOT's *Design Manual* (Reference 3) addresses traffic impact analysis methodologies for state facilities. Regional Transportation Planning Organizations (RTPOs) have the authority to set LOS thresholds for non-Highways of Statewide Significance (HSS). The Urban non-National Highway System facilities (non-HSS standard) metrics established by the Southwest Washington Regional Transportation Council (RTC) for Clark County is LOS E and applies to study intersections 1 through 9.

Clark County

Clark County Code (CCC) Section 40.350.020.G defines the County's LOS standards.

> Per CCC Section 40.350.020.G.1.c: "*All unsignalized intersections of regional significance in the unincorporated county shall achieve LOS E standards or better (if warrants are not met). If warrants are met, unsignalized intersections of regional significance shall achieve LOS D standards or better. Intersection control or mitigation of unsignalized intersections shall be at the discretion of the Public Works Director and shall not obligate the County to meet this LOS standard. However, proposed developments shall not be required to mitigate their impacts in order to obtain a concurrency approval unless:*
>
> *(1) The proposed development adds at least five (5) peak hour trips to a failing intersection approach; and*
>
> *(2) The worst movement on the failing approach is worsened by the proposed development. In determining whether the movement is worsened, the Public Works Director shall consider trip volume, delay, and any other relevant factors.*"

Table 2 provides a summary of applicable intersection performance metrics at the study intersections.

[1] https://wsdot.wa.gov/sites/default/files/2021-03/TrafficOps-WSDOTSidraPolicyAndSettings.pdf

Table 2. Study Intersection Performance Metrics

ID	Study Intersection	Traffic Control	Jurisdictional Authority	Facility Designation	Operating Requirement
1	NE 232nd Ave/NE 28th St	TWSC	Clark County	Arterial	LOS E
2	SR 500/NE 28th St	TWSC	RTC[1]	Urban non-HSS	LOS E
3	NE Everett St/SE 8th St	TWSC	RTC[1]	Urban non-HSS	LOS E
4	NE Everett St/NE Everett Dr	TWSC	RTC[1]	Urban non-HSS	LOS E
5	NE Everett St/SE Leadbetter Rd	TWSC	RTC[1]	Urban non-HSS	LOS E
6	NE Everett St/NE 43rd Ave	Signalized	RTC[1]	Urban non-HSS	LOS E
7	NE Everett St/NW Lake Rd	Roundabout	RTC[1]	Urban non-HSS	LOS E
8	NE Everett St/NE 17th Ave	TWSC	RTC[1]	Urban non-HSS	LOS E
9	NE Everett St/NE 15th Ave	TWSC	RTC[1]	Urban non-HSS	LOS E
10	NE Everett St/NE 14th Ave	TWSC	RTC[1]	Urban non-HSS	LOS E
11	NE Dallas St/NE 6th Ave	TWSC	City of Camas	City Arterial	LOS D
12	Division St/NW 6th Ave	TWSC	City of Camas	City Arterial	LOS D
13	NW Norwood St/NW 6th Ave	Roundabout	WSDOT	Urban HSS	LOS D
14	NW Lacamas Ln/NW Lake Rd	TWSC	City of Camas	City Arterial	LOS D
15	NW Sierra St/NW Lake Rd	TWSC	City of Camas	City Arterial	LOS D
16	NW Leadbetter Dr/NW Lake Rd	TWSC	City of Camas	City Arterial	LOS D
17	NW Parker St/NW Lake Rd	Signalized	City of Camas	City Arterial	LOS D
18	NW Friberg-Strunk St/NW Lake Rd	Signalized	City of Camas	City Arterial	LOS D
19	NW Parker St/NW Leadbetter Dr	TWSC	City of Camas	City Arterial	LOS D
20	NW Parker St/NE 38th Ave	Signalized	City of Camas	City Arterial	LOS D
21	NW 232nd Ave/N Shore Blvd	TWSC	City of Camas	City Arterial	LOS D
22	SE 283rd Ave/SE Nourse Rd	TWSC	City of Camas	City Arterial	LOS D
23	SE 283rd Ave/SE 23rd St	TWSC	City of Camas	City Arterial	LOS D
24	SE 283rd Ave/NE Woodburn Dr	TWSC	City of Camas	City Arterial	LOS D
25	SE Crown Rd/NE 3rd Ave	Signalized	City of Camas	City Arterial	LOS D

Where: TWSC = Two-way Stop Control
[1] Regional Transportation Planning Organizations (RTPOs) have the authority to set LOS thresholds for non-Highways of Statewide Significance (non-HSS). The Urban non-HSS standard established by RTC for Clark County is LOS E.

REPORT FORMAT

This report addresses the following transportation topics:

- Existing land use and transportation system conditions within the site vicinity;
- Planned developments and transportation improvements within the study area;
- Forecast year 2030 background traffic conditions during the weekday AM, school PM, and PM peak hours;
- Weekday AM and PM peak hour site trip generation and distribution estimates;
- Forecast year 2030 total traffic conditions with site development during the weekday AM, school PM, and PM peak hours;
- Vehicle queuing at the study intersections;
- Facilities for people walking, riding bikes and taking transit; and
- Conclusions and recommendations.

EXISTING CONDITIONS

The existing conditions analysis identifies site conditions and the current operational and geometric characteristics of streets within the study area. The purpose of this section is to set the stage for a basis of comparison to future conditions. The study intersections were inventoried during June and July 2024.

Site Conditions and Adjacent Land Uses

The proposed development is generally located north of Camas High School east of NE Everett Street and NE Everett Drive. The approximately 36.37 acre site is comprised of Parcel Numbers 17814000, 178108000, 178169000 and 178159000. The existing SE 8th Street right-of-way terminates at the west property line of Parcel 17814000.

Two single family homes are located on the site today: one on Parcel 178159000 and one on Parcel 178169000. The two homes share a common driveway access to NE Everett Drive. Both homes will be removed and their current access to NE Everett Drive will be closed as part of the proposed site redevelopment.

Camas High School borders the site to the south. There are six single family homes with driveway access along SE 8th Street located off-site west of Parcel 17814000. Grace Foursquare Church is located west of the homes on the north side of SE 8th Street directly east of NE Everett Street. Additional single family homes are located north and east of Parcel 17814000.

The four parcels comprising the site are zoned a combination of North Shore Mixed Use, North Shore Residential-High Density, North Shore Residential-Low Density, and Parks/Open Space. As proposed, the development is permitted within these zones.

Transportation Facilities

Table 3 provides a summary of the existing streets near the site. Figure 3 illustrates the existing lane configurations and traffic control devices at the study intersections.

Table 3. Existing Transportation Facilities

Street	Classification[1]	Jurisdiction	Cross-Section	Posted Speed	Sidewalks Present?	Bike Lanes Present?	On-Street Parking Allowed?
NE Everett Street (SR 500)	2-Lane Arterial	WSDOT	2-lane	35 mph[2]	No	No	No
SE 8th Street	Private Road	Private	2-lane	35 mph	No	No	No
NE Everett Drive	2-Lane Local	City	2-lane	25 mph	No	No	No
SE Leadbetter Road	2-Lane Local	City	2-lane	40 mph	No	No	No
NE 43rd Ave./ SE 15th Street/SE Nourse Road	2-3 Lane Arterial	City	2 – 3 lanes	25 mph (20 mph in school zone)	Partial[3]	Partial[4]	No

[1] Source: *City of Camas 2035 Comprehensive Plan (Transportation Element)*
[2] Posted speed is 35 miles per hour south of SE 5th Street and 50 miles per hour north of SE 5th Street.
[3] Sidewalks provided on the north side of the roadway along Camas High School frontage between NE Hayes Street and SE 271st Avenue as well as along the side of the roadway for a distance of approximately 290 feet west of NE Umatilla Street.
[4] Westbound bike lane striped on the north side of the roadway along Camas High School frontage between NE Hayes Street and SE 271st Avenue.

Facilities for People Walking

As shown in Table 3, there are no sidewalks along the study streets near the site today except for a portion of SE 15th Street along the Camas High School frontage. New sidewalks will be constructed along the site frontage on the east side of NE Everett Drive and along both sides of the new public roadways constructed with site development.

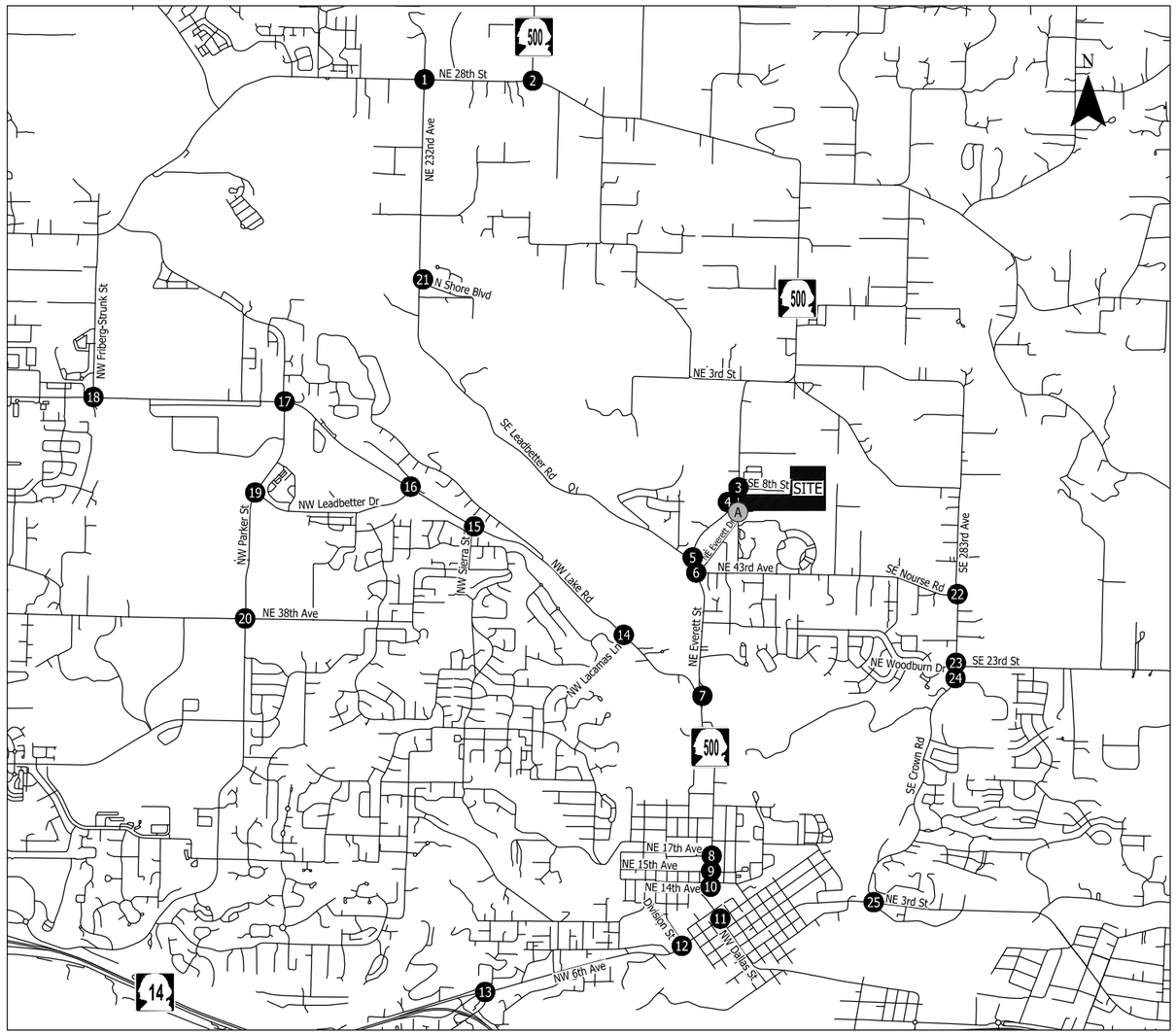
Facilities for People Riding Bikes

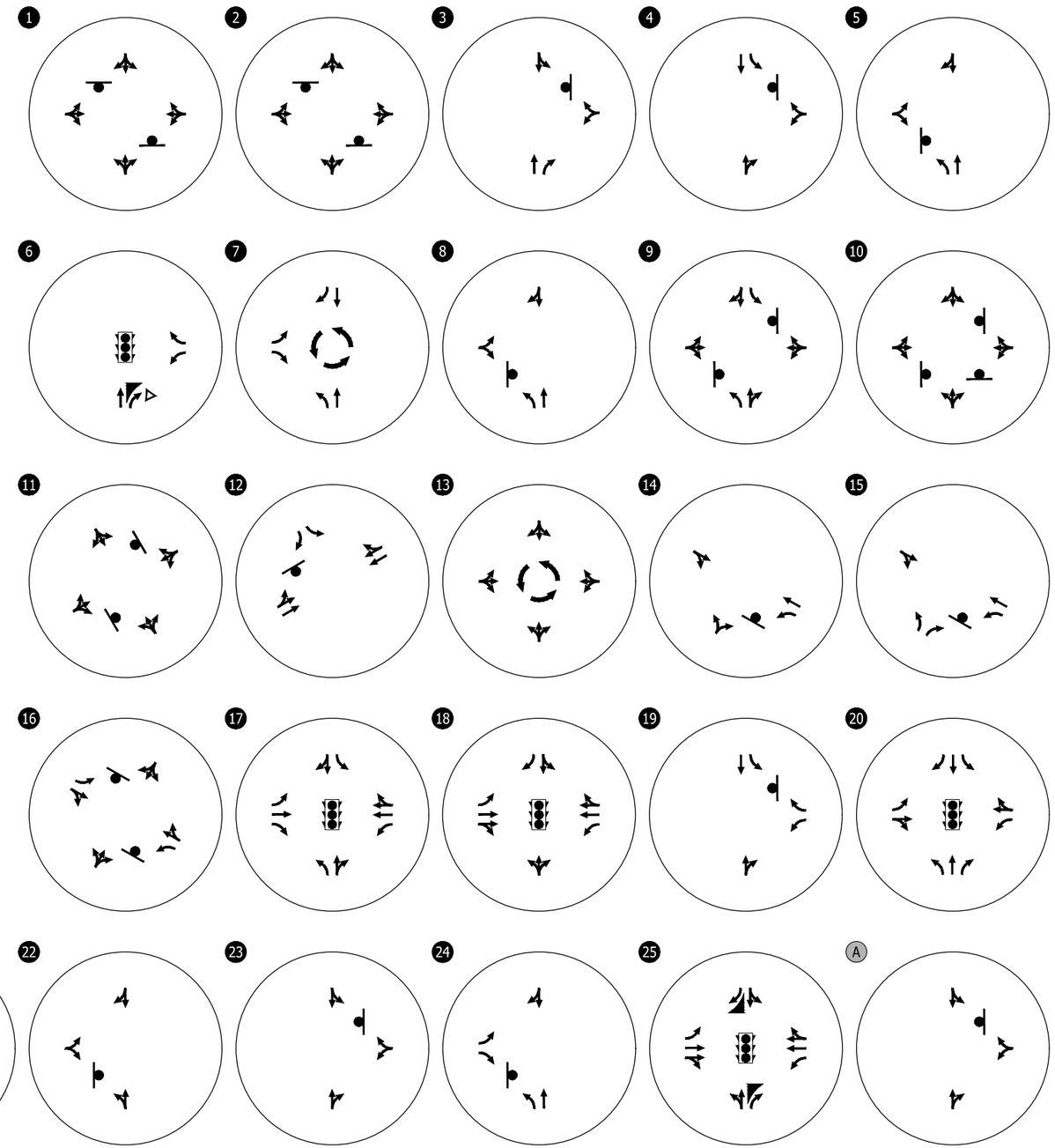
As shown in Table 3, the only striped bike lane provided in the site vicinity today is situated along the Camas High School site frontage of SE 15th Street (available for westbound bike travel). Bike lanes are required on designated City collectors and arterials as part of site development, including the portion of SE 8th Street through the site.

Transit Facilities

C-Tran provides transit service within the City of Camas. There are no fixed-route transit services currently operated within a ½ mile walking distance of the site. The nearest fixed-route service provides east-west service along NE 3rd Avenue at NE Franklin Street in the downtown area and is located over two miles south of the project site.

Given the lack of transit service within convenient ½ mile walking distance today and for the foreseeable future, no transit-related trip reductions were assumed in this study and no transit-related mitigation measures are recommended as part of the proposed development.





Stop Sign
Traffic Signal
Yield Sign
Study Intersections
Site Driveway
Roundabout

Existing Lane Configurations
& Traffic Control Devices
Camas, Washington

Figure
3

KITTELSON & ASSOCIATES

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TRAFFIC SAFETY

WSDOT provided crash records for the five-year period from January 1, 2019 to December 31, 2023. The data was reviewed to identify potential safety needs. Table 4 summarizes the reported crash type and crash rate by intersection. *Appendix B contains the WSDOT crash data*.

Table 4. Intersection Crash Frequency and Severity (January 2019 through December 2023)

Intersection (# = ID Number in Figures)	Total Number of Crashes	Crash Type								Crash Severity			Crash Rate[1]
		Pedestrian	Bicycle	Angle	Rear-End	Turning	Overturn	Side-swipe	Fixed Object	Property Damage Only	Injury	Fatal	
WSDOT Maintained Intersections													
SR 500/NE 28th St (#2)	3	0	0	3	0	0	0	0	0	2	1	0	0.19
NE Everett St/SE 8th St (#3)	0	0	0	0	0	0	0	0	0	0	0	0	0
NE Everett St/NE Everett Dr (#4)	2	0	0	0	0	0	0	0	2	2	0	0	0.22
NE Everett St/SE Leadbetter Rd (#5)	3	0	0	1	1	0	1	0	0	2	1	0	0.25
NE Everett St/NE 43rd Ave (#6)	4	0	0	0	1	2	0	0	1	1	3	0	0.20
NE Everett St/NW Lake Rd (#7)	5	0	0	1	3	0	0	1	0	3	2	0	0.12
NE Everett St/NE 17th Ave (#8)	0	0	0	0	0	0	0	0	0	0	0	0	0
NE Everett St/NE 15th Ave (#9)	1	0	0	1	0	0	0	0	0	0	1	0	0.04
NE Everett St/NE 14th Ave (#10)	4	0	0	0	1	1	0	0	2	4	0	0	0.18
NW Norwood St/NW 6th Ave/SW 6th Ave (#13)	7	0	0	2	2	0	0	0	3	7	0	0	0.15
City Maintained Intersections													
NE Dallas St/NE 6th Ave (#11)	7	0	0	7	0	0	0	0	0	4	3	0	0.38
Division St/NW 6th Ave (#12)	7	1	1	0	1	3	0	0	1	4	3	0	0.17
NW Lacamas Ln/NW Lake Rd (#14)	1	0	0	0	0	0	0	0	1	1	0	0	0.03
NW Sierra St/NW Lake Rd (#15)	2	0	0	1	1	0	0	0	0	2	0	0	0.06
NW Leadbetter Dr/NW Lake Rd (#16)	0	0	0	0	0	0	0	0	0	0	0	0	0
NW Parker St/NW Lake Rd (#17)	5	0	0	1	4	0	0	0	0	3	2	0	0.13
NW Friberg-Strunk St/NW Lake Rd (#18)	2	0	0	0	1	1	0	0	0	1	1	0	0.05
NW Parker St/NW Leadbetter Dr (#19)	1	0	0	0	0	0	0	0	1	0	1	0	0.06
NW Parker St/NE 38th Ave (#20)	2	0	0	0	0	1	0	0	1	1	1	0	0.06
NW 232nd Ave/N Shore Blvd (#21)	1	0	0	0	0	0	0	0	1	1	0	0	0.27
SE 283rd Ave/SE Nourse Rd (#22)	2	0	0	0	0	1	1	0	0	2	0	0	0.23
SE 283rd Ave/SE 23rd St (#23)	3	0	0	0	0	0	1	0	2	1	2	0	0.32
SE 283rd Ave/NE Woodburn Dr (#24)	1	0	0	0	0	0	0	0	1	0	1	0	0.09
SE Crown Rd/NE 3rd Ave (#25)	3	0	0	1	1	0	0	0	1	2	1	0	0.07
Clark County Maintained Intersections													
NE 232nd Ave/NE 28th St (#1)	8	0	1	0	1	5	0	0	1	6	2	0	0.65

[1] Crash rate is calculated as the number of crashes per million entering vehicles.

Identification of Crash Types or Human Factors Contributing to Reported Crashes

Walking and Biking Related Crashes

As shown in Table 4, there were no reported crashes involving people walking or biking at WSDOT maintained facilities.

The City maintained Division Street/NW 6th Avenue intersection had one reported crash involving a pedestrian and one involving a bicyclist. The "possible injury" pedestrian crash reportedly involved a southbound vehicle that struck the pedestrian. The "suspected minor injury" bike related crash involved a physically impaired bicyclist that was reported to have struck a vehicle stopped at the stop sign.

The was one reported non-injury bicycle related crash involving a westbound motor vehicle at the NE 232nd Avenue/NE 28th Street intersection maintained by Clark County. The crash was attributed to an improper turn/merge made by the bicyclist.

Crash Severity

There were no reported fatal crashes at the study intersections.

There was one reported serious injury crash amongst all the crash data. This crash was reported at the NE Everett Street/SE Leadbetter Road intersection in 2019 and involved a southbound motorcyclist that overturned; the crash was classified as occurring at the intersection but "not intersection related".

None of the study intersections experienced a crash rate greater than 1.0 crashes per million entering vehicles (i.e., the metric used by the City to assess whether further analyses are warranted).

Further review of individual intersection crash patterns at the nine WSDOT-maintained intersections with reported crashes is summarized below.

SR 500/NE 28th Street

Of the three reported crashes at the SR 500/NE 28th Street intersection:

- All occurred under daylight conditions and one occurred in 2019, one in 2021, and one in 2023.
- One of the crashes involved a possible injury and two were noted to not result in any injuries.
- The 2019 crash was attributed to one of the drivers being under the influence of drugs and involved a semi-truck and passenger car.
- The other two were angle-related and one was attributed to an improper turn and the other to one driver not granting the appropriate right-of-way.

No crash trends requiring mitigation were identified at this intersection through a review of the crash data.

NE Everett Street/SE 8th Street

No crashes were reported at this intersection.

NE Everett Street/NE Everett Drive

Of the two reported crashes at the NE Everett Street/NE Everett Drive intersection:

- Both were single vehicle crashes and both occurred on a spring afternoon; one occurred in 2020 and the other occurred in 2022.
- One of the crashes was attributed to alcohol and the person drove into a ditch. The other crash was attributable to distracted driving and the person ran into a street pole. Neither crash involved an injury.

No crash trends requiring mitigation were identified at this intersection through a review of the crash data.

NE Everett Street/SE Leadbetter Road

Of the three reported crashes at the NE Everett Street/SE Leadbetter Road intersection:

- As noted above, there was one serious injury crash involving a motorcyclist that occurred at the intersection but was classified as "not intersection related."
- The other two crashes did not involve an injury and both occurred under daylight conditions.
- The crash in 2019 was a rear-end and was attributed to "other distractions."
- The crash in 2022 involved an eastbound left-turning driver and a southbound driver and was attributed to driver inattention.

No crash trends requiring mitigation were identified at this intersection through a review of the crash data.

NE Everett Street/NE 43rd Avenue

Of the four reported crashes at the NE Everett Street/NE 43rd Place intersection:

- Two occurred in 2019, one in 2021 and one in 2022; all occurred under daylight conditions.
- Three crashes involved a possible injury and one did not result in an injury.
- One of the crashes was classified as a rear-end crash and involved two southbound drivers and was attributed to unknown distractions.
- Two crashes involved a southbound left-turning driver and a northbound through vehicle and were attributed to the turning driver not granting the appropriate right-of-way. We note that the southbound left-turn movement is operating using protected-permitted phasing at this signalized intersection.
- One crash was a single vehicle crash that occurred under icy conditions in which the driver hit a traffic island; no injuries resulted from this crash.

No crash trends requiring mitigation were identified at this intersection through review of the crash data.

NE Everett Street/NW Lake Road

This intersection was reconstructed with a roundabout in 2020. Roundabouts are considered a proven safety countermeasure by the Federal Highway Administration (FHWA) with benefits that include but are not limited to comparatively slower travel speeds, fewer number of conflicts and lower severities compared to other intersection control forms. One of the five reported crashes occurred in 2019 before the roundabout was constructed. A reported crash at the intersection in December 2020 was reported as not intersection related. Given the configuration as a roundabout, no further analyses were prepared.

Exhibit 7 SUB24-1002

NE Everett Street/NE 17th Avenue

No crashes were reported at this intersection.

NE Everett St/NE 15th Avenue

There was one reported crash at this intersection that was classified as an angle crash involving a westbound and northbound driver. This crash involved a suspected injury and was attributed to one driver not yielding the right-of-way. No crash trends requiring mitigation were identified at this intersection through review of the crash data.

NE Everett St/NE 14th Avenue

Of the four reported non-injury crashes at the NE Everett Street/NE 14th Avenue intersection:

- One involved a westbound school bus in September 2021 turning left that did not grant the right of way to a northbound vehicle during dry daylight conditions.
- One involved a rear-end crash between two southbound vehicles during dark rainy conditions.
- Two involved single vehicle crashes with fixed objects including a southbound vehicle that ran into a fire hydrant during dry daylight conditions and one in which a speeding driver made a left-turn into a legally parked vehicle at 5:30 AM during wet rainy conditions.

No crash trends requiring mitigation were identified at this intersection through review of the crash data.

NW 6th Place/NW 6th Avenue

This intersection was reconstructed with a roundabout in 2017. Roundabouts are considered a proven safety countermeasure by the Federal Highway Administration (FHWA) with benefits that include but are not limited to comparatively slower travel speeds, fewer number of conflicts and lower severities compared to other intersection control forms. None of the seven reported crashes resulted in any injuries and six of the seven occurred under daylight conditions. Two crashes that occurred were attributed to the driver being under the influence of alcohol, one was attributed to the driver being ill, and one was attributed to the driver exceeding safe speeds at the intersection. Of the remaining three crashes, one was attributed to driver inattention, one was attributed to a driver attempting to pass in the intersection and third was related to a driver hitting a deer. Given the configuration as a roundabout, no further analyses were prepared.

No safety-based mitigation needs were identified for implementation in conjunction with the proposed development based on the crash data review.

Traffic Volumes and Peak Hour Operations

Vehicle turning movement, pedestrian and bicycle counts were collected at the study intersections on a mid-week day in May 2024 during the morning (7:00 – 9:00 AM) and afternoon (2:00 - 6:00 PM) hours when local schools were in-session and there were no adverse weather conditions. *Appendix C* contains the traffic count sheets used in this study.

Exhibit 7 SUB24-1002

The weekday AM, school PM and commuter PM peak hour traffic volumes and the associated intersection operations are shown in Figures 4, 5 and 6. As shown, the study intersections satisfy the applicable agency standards/targets under existing weekday AM peak hour conditions. With the exception of the NW Sierra Street/NW Lake Road intersection, all of the intersections analyzed during the weekday school PM peak hour also satisfy agency requirements. During the weekday PM peak hour, 23 of the 25 existing intersections were found to satisfy the applicable agency standards/targets under existing. Peak hour operations at the study intersections that do not satisfy the applicable performance measures are discussed further below.

NE Everett Street/NE 15th Avenue (Intersection #9)

Delay experienced on the eastbound stop controlled approach results in LOS F operations (exceed LOS E requirement) during the weekday PM peak hour with a V/C ratio of 0.85. Queues southbound on NE Everett Street at this intersection were observed to back north up to and past NE 17th Avenue during the weekday PM peak hour, in some cases resulting in eastbound drivers finding "courtesy gaps" created by southbound drivers to enter the intersection. Eastbound left-turns experienced the longest delays on the single lane stop controlled approach with one vehicle experiencing a measured control delay of over two minutes from joining the back of queue to completing their turn at the intersection.

NW Sierra Street/NW Lake Road (Intersection #15)

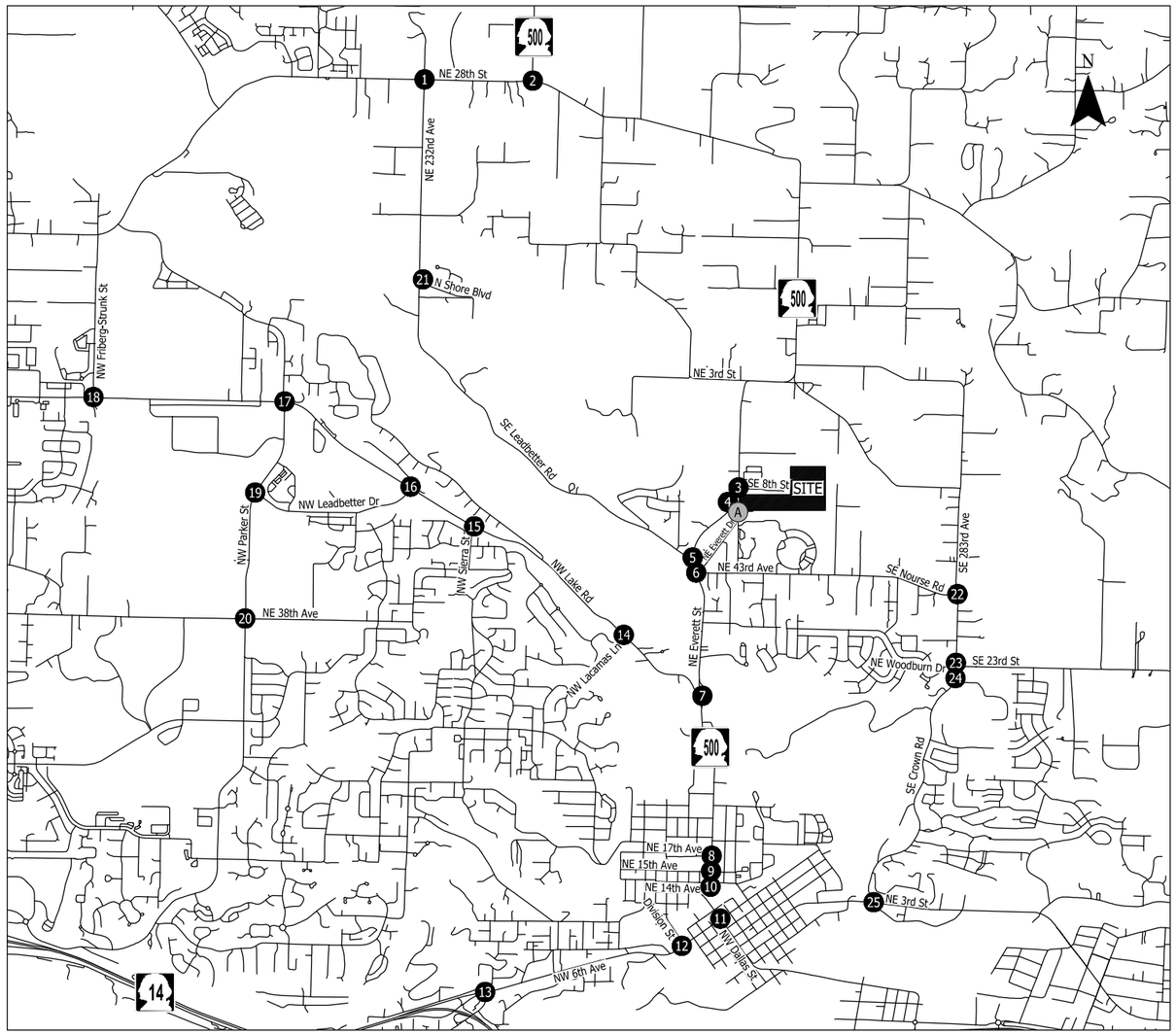
Delay experienced by the stop controlled northbound left-turn movement results in LOS F operations (exceed LOS D requirement) with a V/C ratio of 0.85 during the weekday PM peak hour. Northbound right-turn movements operate at LOS E with a 0.78 V/C ratio during the same period. The northbound left-turn movement was also found to experience relatively long delays during the school PM peak hour but operates at less than half its capacity (LOS E, V/C ratio of 0.40). The City of Camas is preparing design plans to construct a roundabout at the intersection (per City Council direction provided at the July 15, 2024 City Council Workshop).

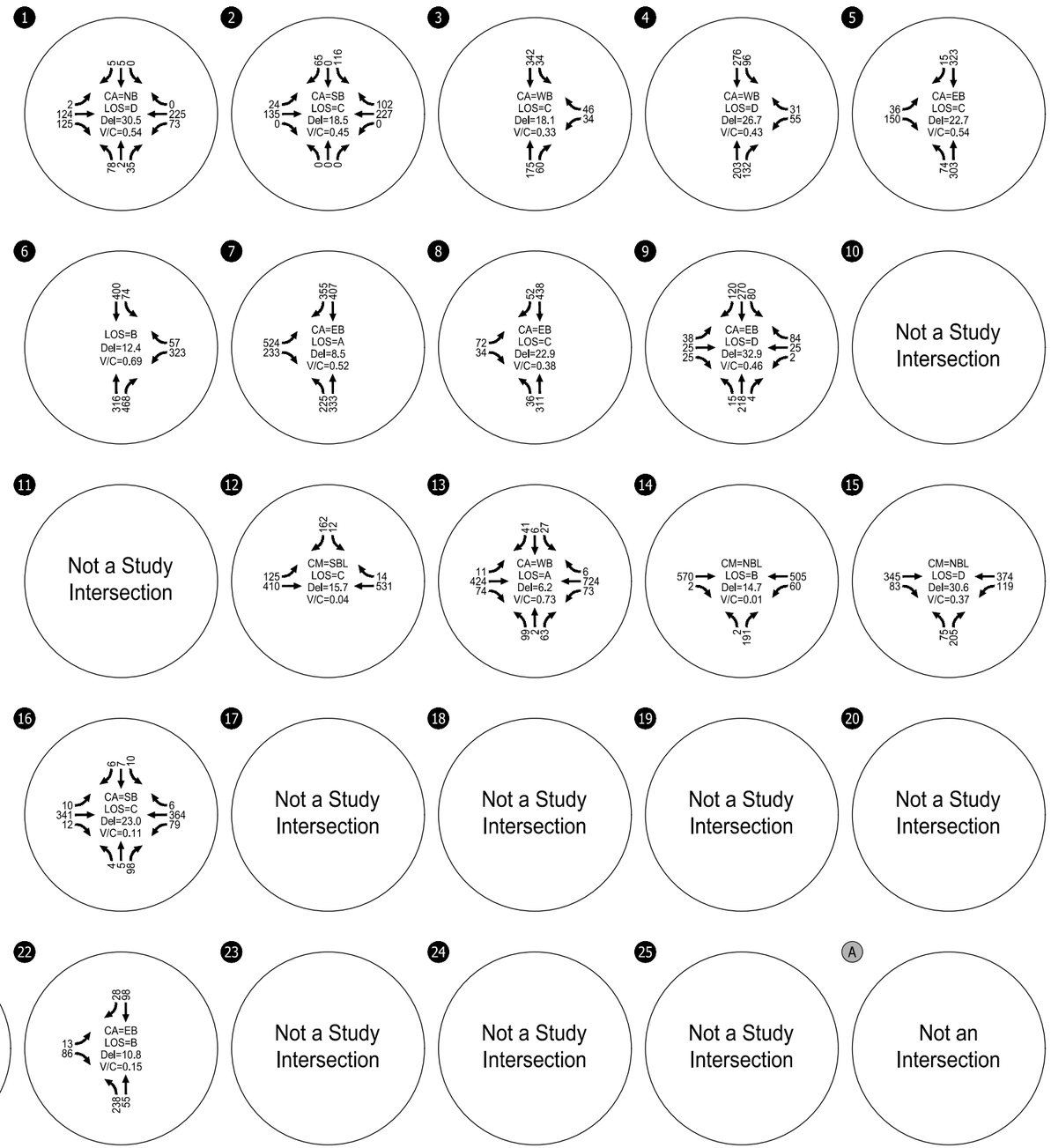
Other Observations

While the respective agency standards/targets are met, field observations found that westbound queues on the signalized NE 43rd Avenue approach to NE Everett Street (Intersection #6) back to the Camas High School site frontage during the weekday morning and school PM peak hour dismissal periods. These peak queues were observed to last for approximately 15 minutes and were associated with school related trips at the start and end of the school classroom day.

Separately, operations of the single lane roundabout at NW Norwood Street/NW 6th Avenue (Intersection #12) were observed to be near capacity on the eastbound approach during the weekday PM peak hour (V/C ratio of 0.97 under existing conditions).

Appendix D includes the existing conditions level-of-service worksheets.





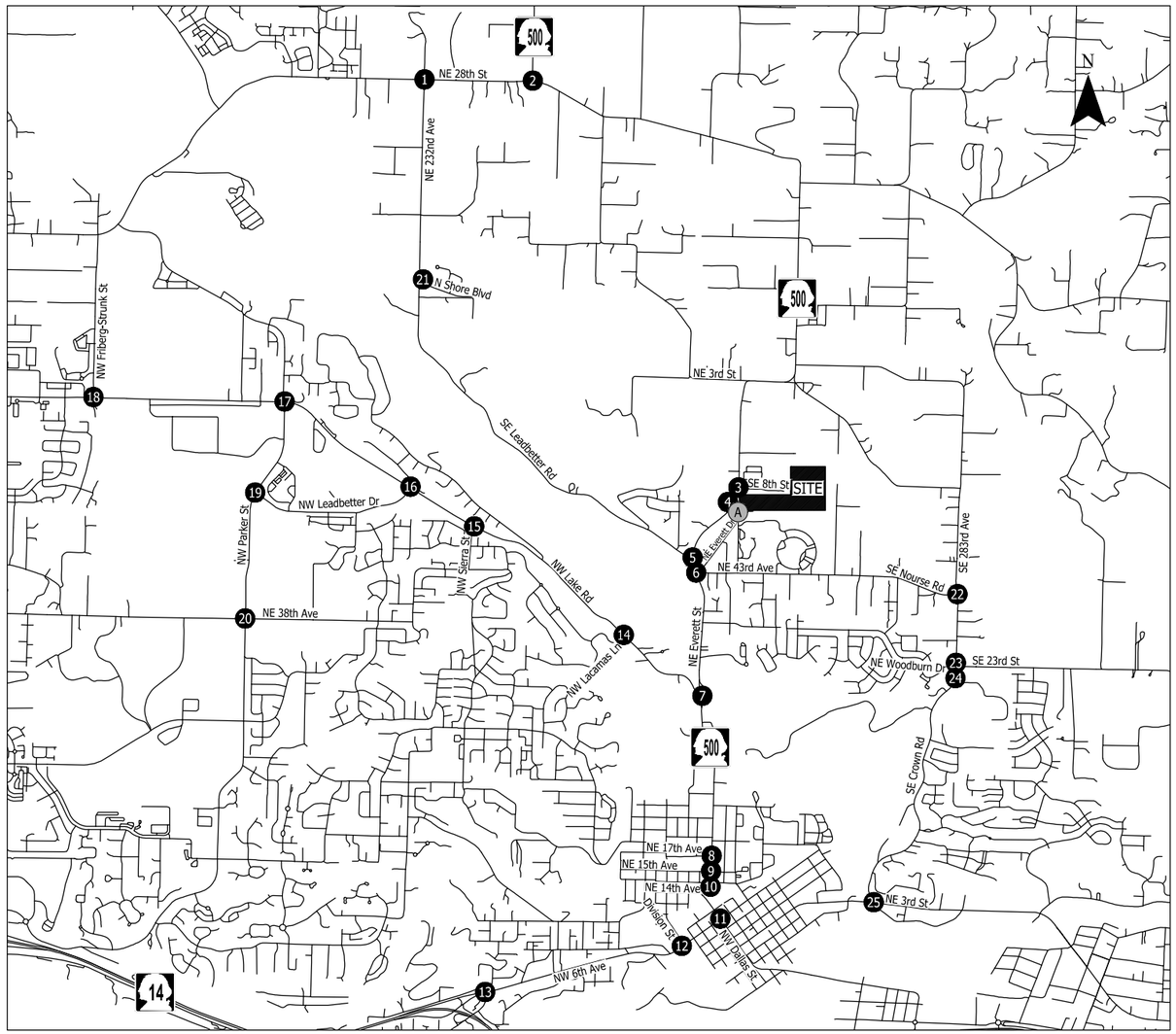
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CM = CRITICAL MOVEMENT (TWSC)
LOS = INTERSECTION LEVEL OF SERVICE (SIGNALIZED) / CRITICAL MOVEMENT LEVEL OF SERVICE (TWSC / ROUNDABOUT)
V/C = VOLUME-TO-CAPACITY RATIO
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TWSC = TWO-WAY STOP CONTROL

2024 Existing Traffic Conditions
Weekday AM Peak Hour
Camas, Washington

Figure 4

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1 Not a Study Intersection

2 Not a Study Intersection

3 CA=WB LOS=C Del=16.2 V/C=0.29 — 223, 22, 45, 37, 250, 67

4 CA=WB LOS=B Del=13.8 V/C=0.07 — 235, 26, 13, 10, 304, 20

5 CA=EB LOS=B Del=12.5 V/C=0.20 — 10, 259, 6, 87, 75, 309

6 LOS=A Del=9.3 V/C=0.58 — 307, 45, 41, 161, 334, 136

7 CA=EB LOS=A Del=6.8 V/C=0.32 — 264, 309, 254, 365, 255, 312

8 Not a Study Intersection

9 Not a Study Intersection

10 Not a Study Intersection

11 Not a Study Intersection

12 Not a Study Intersection

13 Not a Study Intersection

14 Not a Study Intersection

15 CM=NBL LOS=E Del=35.4 V/C=0.40 — 439, 107, 353, 103, 72, 110

16 Not a Study Intersection

17 Not a Study Intersection

18 Not a Study Intersection

19 Not a Study Intersection

20 Not a Study Intersection

21 CA=EB LOS=A Del=9.4 V/C=0.07 — 57, 14, 47, 9, 14, 19

22 CA=EB LOS=A Del=9.6 V/C=0.12 — 10, 67, 11, 82, 53, 39

23 Not a Study Intersection

24 Not a Study Intersection

25 Not a Study Intersection

A Not an Intersection

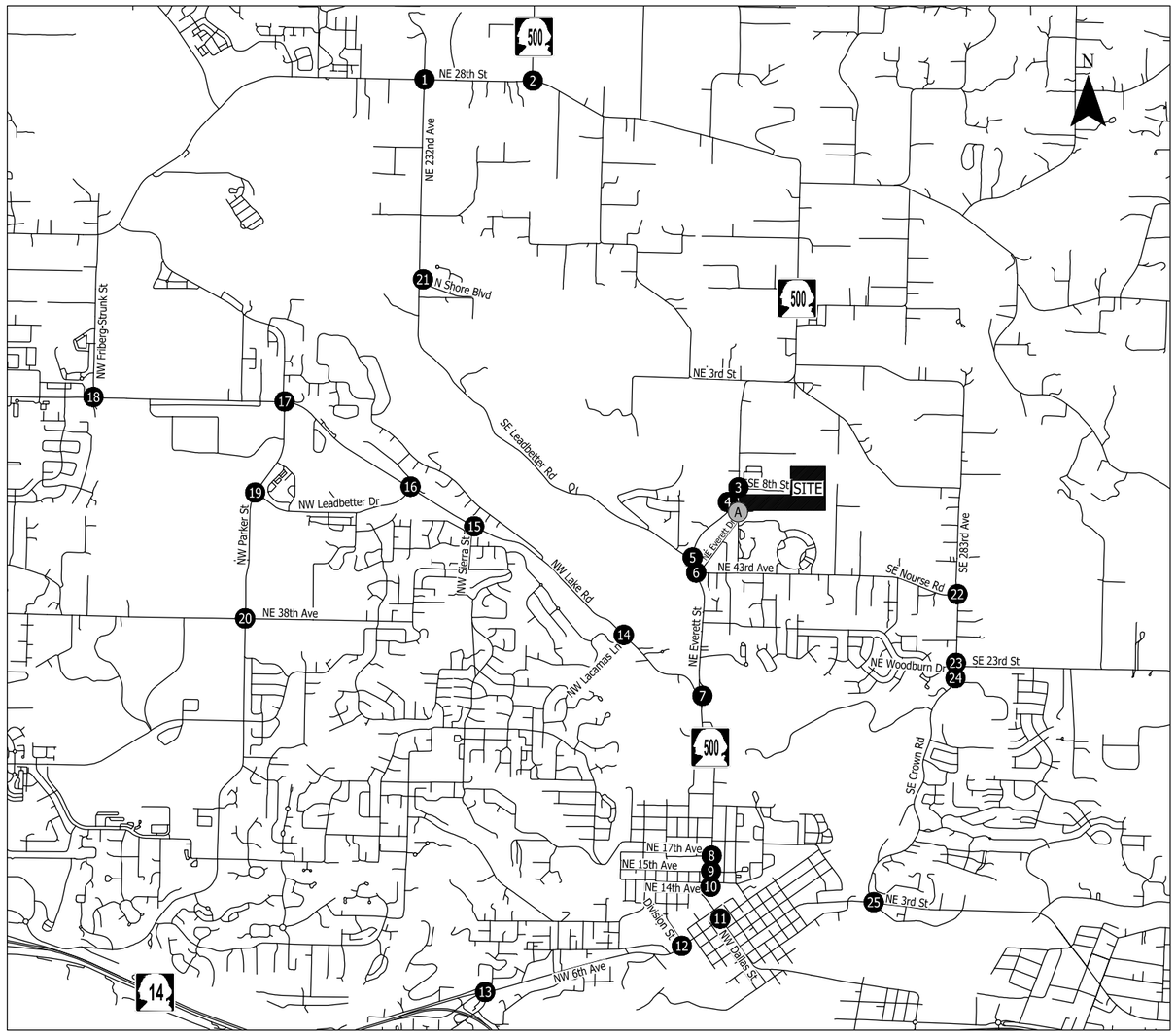
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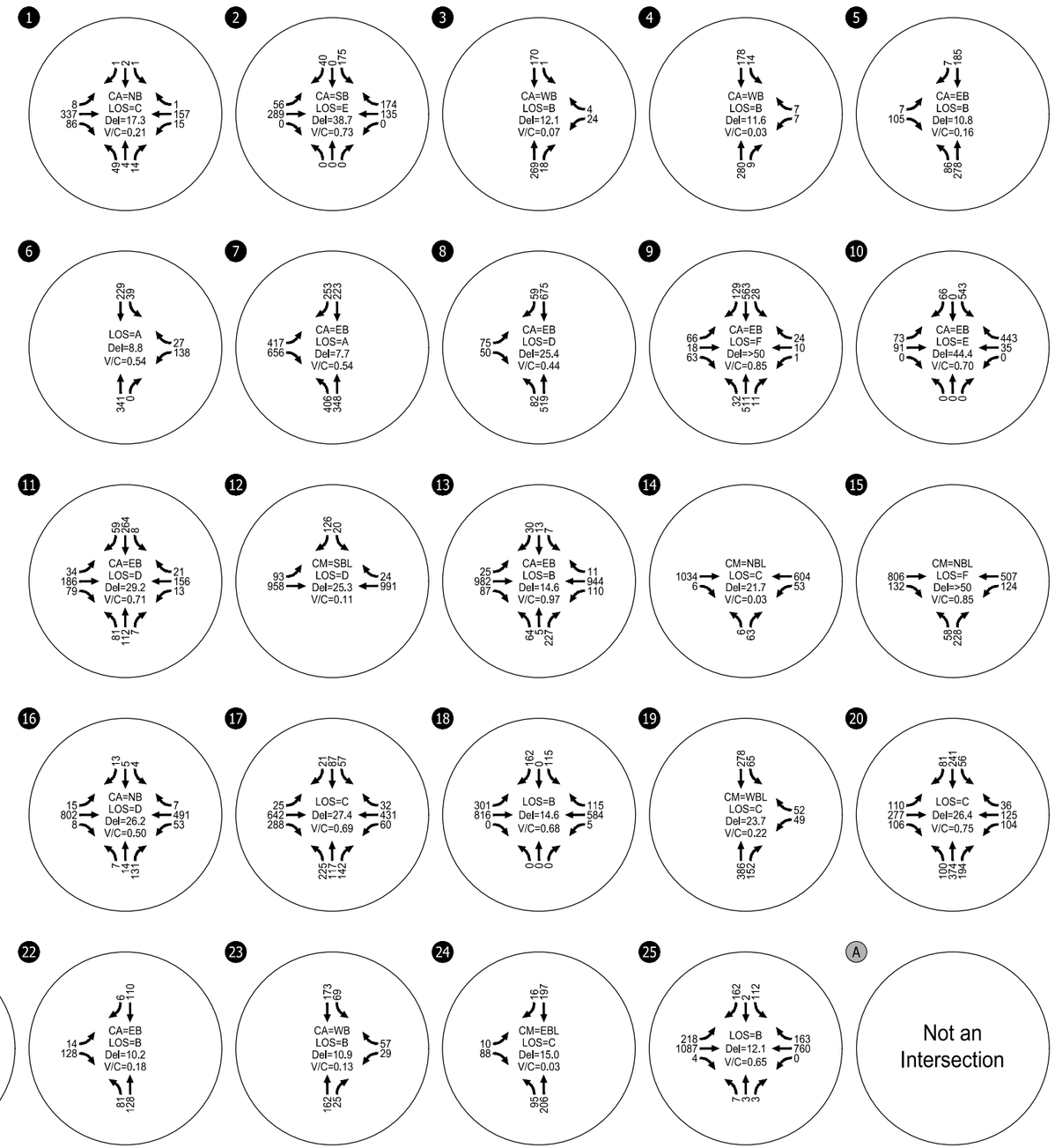
2024 Existing Traffic Conditions
Weekday School PM Peak Hour
Camas, Washington

Figure 5

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2024 Existing Traffic Conditions
Weekday PM Peak Hour
Camas, Washington

Figure 6

KITTELSON & ASSOCIATES

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2030 BACKGROUND TRAFFIC CONDITIONS

The year 2030 background traffic analysis identifies how the study intersections will operate prior to the construction and occupancy of the development. This analysis includes traffic attributed to planned developments within the study area and to general growth in the region but does not include traffic from the proposed development.

Planned Developments & Transportation Improvements

City staff identified the following five previously approved developments to include in the traffic forecasts for the year 2030:

- Camas Heights, located on the north side of NE 28th Street at and west of NE 232nd Avenue;
- Green Mountain Estates, located on the north side of NE 28th Street east of NE 222nd Avenue;
- Green Mountain Planned Residential Development (PRD), located east of NE Ingle Road north of NE 28th Street;
- Lacamas Hills, located on the north side of Leadbetter Road west of Everett Road (formerly known as CJ Dens East Subdivision); and,
- Monte Verde Subdivision, located on the south side of NE 28th Street west of NE 232nd Avenue.

In addition to the "in-process" development traffic, a two percent growth rate was applied to the year 2030 volumes to account for continued growth in regional traffic. *The trips associated with the in-process traffic are documented in Appendix E*.

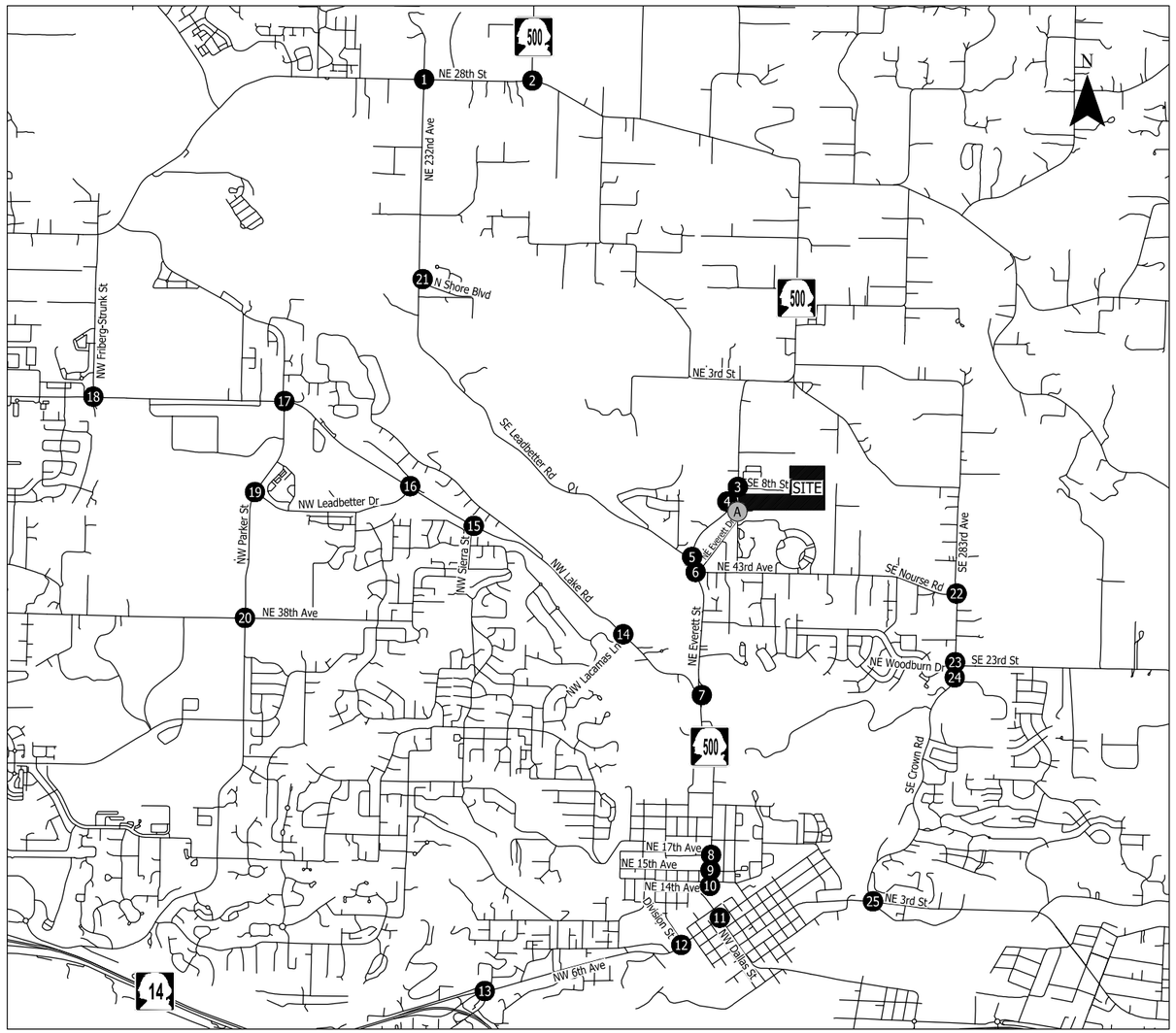
Per City staff, there are no funded changes to the study intersections and/or streets within the next six years that will materially affect traffic volumes.

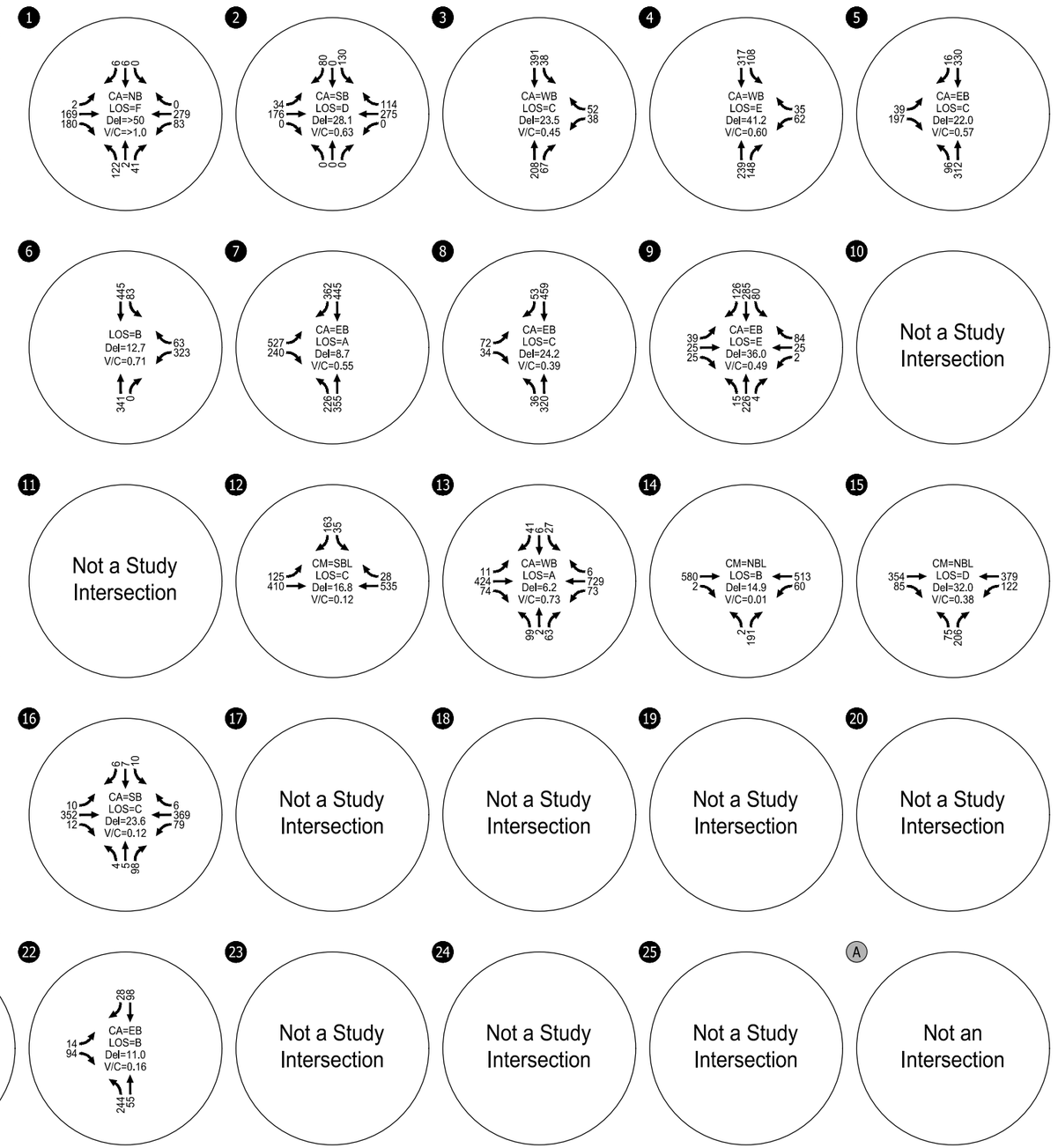
Figures 7 - 9 show the projected 2030 turning movements and associated intersection analyses during the three peak hour analysis periods. As shown, multiple intersections were found to experience delays that do not satisfy the applicable operating parameters during the future peak hour analysis periods including the two intersections whose performance levels don't satisfy the operating metrics today (NE Everett Street/NE 15th Avenue and NW Sierra Street/NW Lake Road).

Study intersections that are projected to not satisfy the applicable performance metrics include the following.

- NE 232nd Avenue/NE 28th Street (Intersection #1): AM peak hour
- NE 242nd Avenue/NE 28th Street (Intersection #2): PM peak hour
- NE Everett Street/NE 15th Avenue (Intersection #9): PM peak hour
- NE Everett Street/NE 14th Avenue (Intersection #10): PM peak hour
- NW Sierra Street/NW Lake Road (Intersection #15): School PM peak and PM peak hour

Appendix F includes the 2030 background traffic operations worksheets.





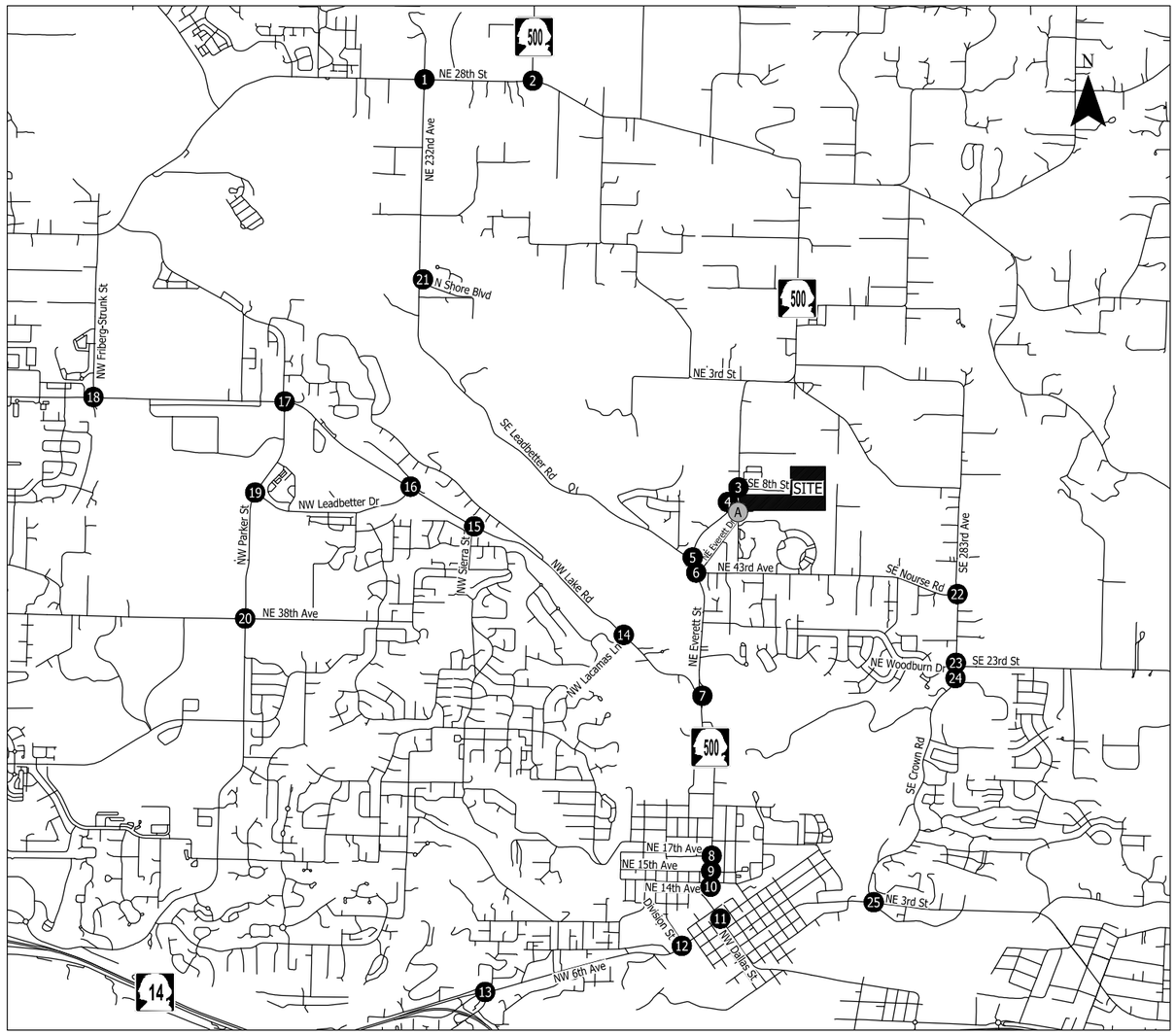
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2030 Background Traffic Conditions
Weekday AM Peak Hour
Camas, Washington

Figure 7

KITTELSON & ASSOCIATES

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1	2	3	4	5
Not a Study Intersection	Not a Study Intersection	CA=WB LOS=C Del=19.9 V/C=0.37 260 25 / 50 41 / 293 75	CA=WB LOS=C Del=15.6 V/C=0.10 273 29 / 15 11 / 353 22	CA=EB LOS=B Del=13.7 V/C=0.28 13 266 / 8 120 / 131 320
6	**7**	**8**	**9**	**10**
LOS=A Del=9.7 V/C=0.61 340 52 / 53 161 / 389 136	CA=EB LOS=A Del=6.8 V/C=0.34 269 337 / 262 371 / 260 359	Not a Study Intersection	Not a Study Intersection	Not a Study Intersection
11	**12**	**13**	**14**	**15**
Not a Study Intersection	Not a Study Intersection	Not a Study Intersection	Not a Study Intersection	CM=NBL LOS=E Del=37.9 V/C=0.43 450 108 / 361 105 / 74 113
16	**17**	**18**	**19**	**20**
Not a Study Intersection	Not a Study Intersection	Not a Study Intersection	Not a Study Intersection	Not a Study Intersection
21	**22**	**23**	**24**	**25**	**A**
CA=EB LOS=B Del=10.1 V/C=0.15 108 14 / 104 9 / 14 19	CA=EB LOS=A Del=9.6 V/C=0.13 17 67 / 11 89 / 64 99	Not a Study Intersection	Not a Study Intersection	Not a Study Intersection	Not an Intersection

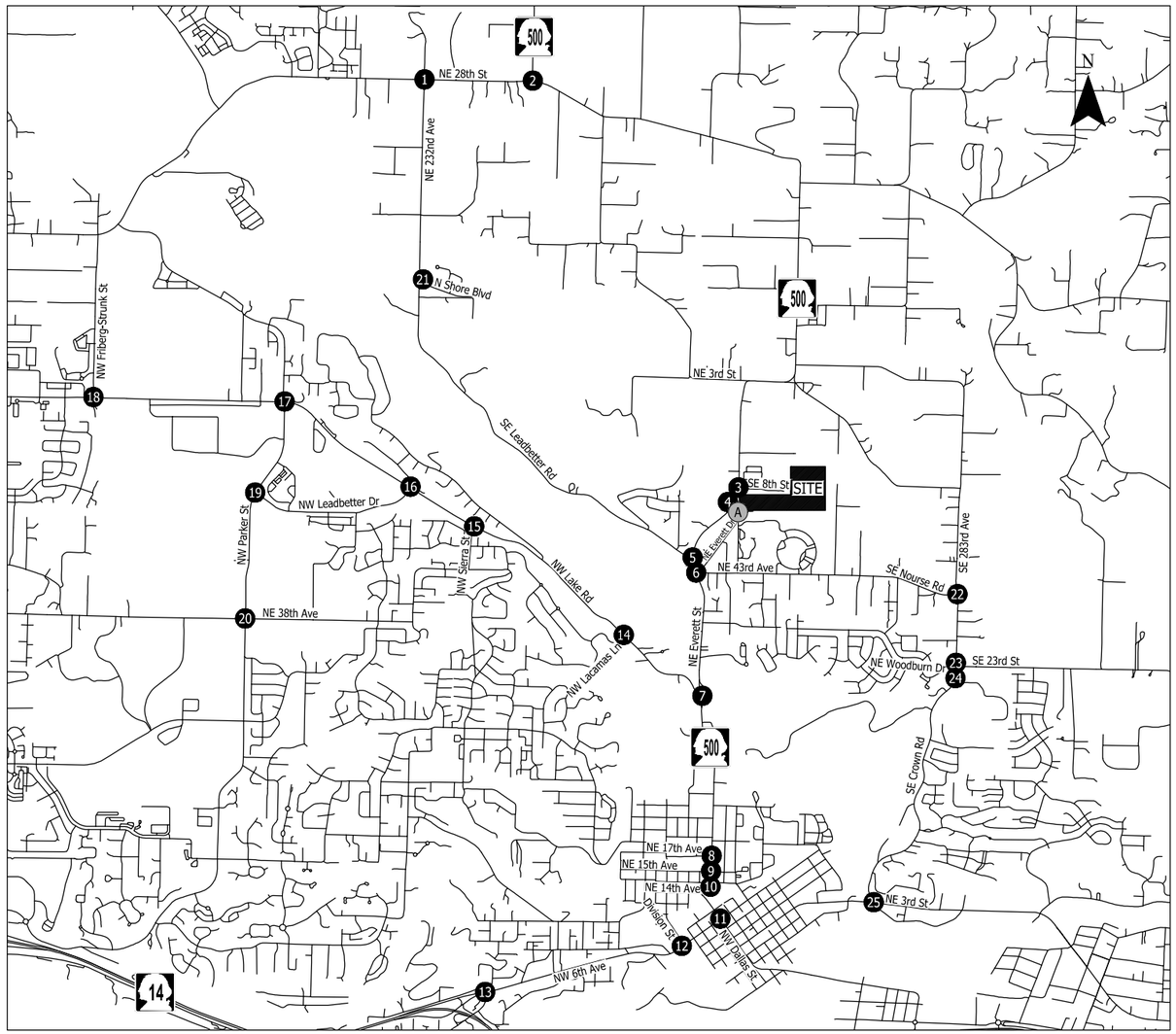
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TWSC = TWO-WAY STOP CONTROL

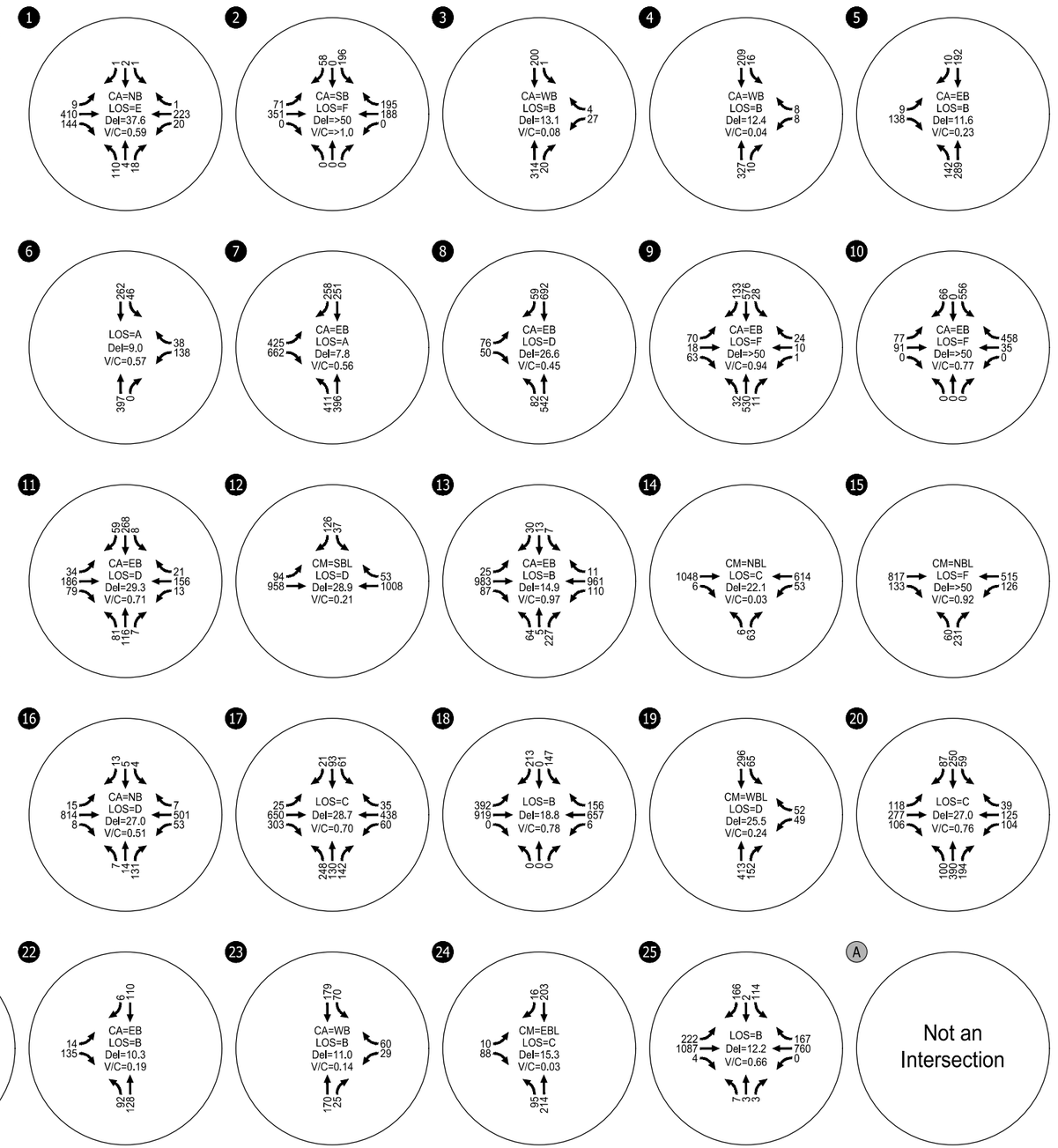
2030 Background Traffic Conditions
Weekday School PM Peak Hour
Camas, Washington

Figure 8

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2030 Background Traffic Conditions
Weekday PM Peak Hour
Camas, Washington

Figure 9

KITTELSON & ASSOCIATES

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Exhibit 7 SUB24-1002

PROPOSED DEVELOPMENT

The two existing single-family homes and their shared driveway on NE Everett Drive will be vacated with the proposed site development. As shown in Figure 2, the site could include approximately 120 detached single-family homes, 88 townhomes, 88 apartment units, and 10,000 square feet of commercial space. No tenants for the commercial space were identified at the time this report was prepared.

Primary vehicular site access is proposed via a new public street (N Rekdahl Street) connection to NE Everett Drive south of SR 500. SE 8th Street has been identified by the City as a desired second vehicular access to the site. The ability to construct a full width SE 8th Street connection to City standards between the western portion of the project site and an off-site connection west to SR 500 is not yet confirmed and may necessitate that SE 8th Street function initially as an emergency only access. As such, the total traffic analysis presented in this report presents operations analysis without the SE 8th Street connection.

Stubbed roadway connections have also been identified on-site to allow for the future extensions of the proposed N Rekdahl Street and SE 8th Street off-site to the east. The preliminary site plan also features space to accommodate a potential future extension of N Webberley Road south of N Rekdahl Street onto the Camas High School property, though no vehicular connection is proposed with site development.

Site frontage improvements will be provided along NE Everett Drive per Camas Municipal Code (CMC) 17.19.040.B.1. The improvements will include a new bicycle and sidewalk facilities along the site frontage. The N Rekdahl Street/NE Everett Drive intersection is assumed to include single lane approaches and stop control on the westbound NE Everett Drive approach for the purposes of this study.

Trip Generation Estimate

The anticipated vehicular trips for the proposed development were calculated based on trip rates contained in *the Trip Generation Manual, 11th Edition* (Reference 4) as shown in Table 5. The residential trip estimates shown in Table 5 reflect fitted equation trip rates while the commercial trip rates were estimated using a combination of average daily trip rates and peak hour fitted equation trip rates for a strip retail plaza. The future commercial building trip rates could be lower if an office tenant is realized in lieu of retail space. The weekday AM and PM peak hour trip rates were obtained directly from the *Trip Generation Manual* while the weekday school PM peak hour rates were obtained by applying a time of day adjustment factor to the daily trip generation for the 2:45-3:45 school PM period using data in the *Trip Generation Manual* appendix related to time of day trip profiles for vehicular trips.

Note that the trip estimates shown in Table 5 and the study intersection operations analysis presented in this report do not include a reduction for the two existing single-family homes present on the project site today. A typical single-family home can be estimated to generate approximately 10 trips per day including one during the weekday AM peak hour and one during the weekday PM peak hour based on trip rates in the *Trip Generation Manual*. While no reduction was made in the site trip generation to account for the existing site trips in this report, credit for the existing uses should be provided when calculating Traffic Impact Fees for the development.

Table 5. Estimated Site Trip Generation

Land Use	ITE Code	Size	Daily Trips	Weekday AM Peak			Weekday School PM Peak			Weekday PM Peak		
				Total	In	Out	Total	In	Out	Total	In	Out
Detached Single-Family Homes	210	120 units	1,193	88	23	65	87	50	37	118	74	44
Multi-Family Low Rise	220	176 units	1,203	77	18	59	71	38	33	96	60	36
Total Residential			2,396	165	41	124	158	88	70	214	134	80
Commercial	822	10,000 sq ft	545	29	17	12	40	20	20	78	39	39
Less 34% pass-by			*(185)*	*(10)*	*(6)*	*(4)*	*(14)*	*(7)*	*(7)*	*(27)*	*(14)*	*(13)*
Net New Commercial			360	19	11	8	26	13	13	51	25	26
TOTAL NET NEW			**2,756**	**184**	**52**	**132**	**184**	**101**	**83**	**265**	**159**	**106**

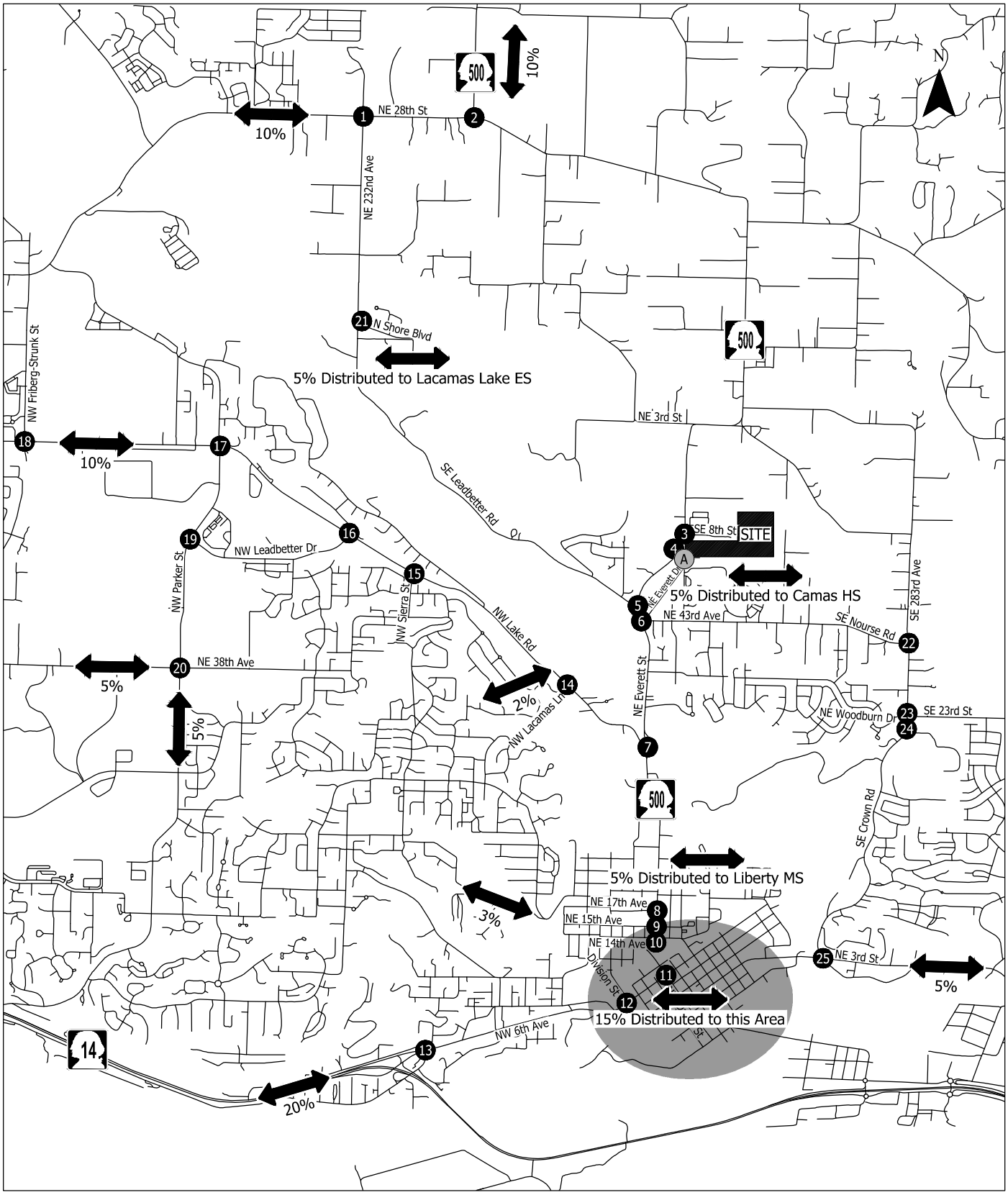
Trip Distribution and Assignment

The project site is located within Transportation Analysis Zone (TAZ) 1792 of the Southwest Washington Regional Transportation Council (RTC) travel demand model. Select zone analyses for TAZ 1792 were obtained from RTC for the 2015 base year and 2040 horizon year to determine a site trip distribution pattern. The 2015 base year select zone assignment was used as the basis for the trip distribution because the transportation network in the 2015 base year reflects what is constructed today versus the 2040 includes planned but not yet constructed streets. The 2015 base model includes 119 households and 327 jobs within TAZ 1792.

Based on the anticipated range of potential future commercial tenants and the site location, this study assumes the site residential land and commercial land uses will have different trip distribution patterns. The retail commercial trips are assumed to be local in nature and not directly represented by the RTC model (as opposed to a regional attraction) given the comparatively small building size and considering the existing commercial retail available in downtown Camas, as well as existing and anticipated retail services to the north and west (including the regional commercial provides near the SE 192nd Avenue corridor in Vancouver).

Figures 10 illustrates the estimated residential trip distribution pattern while Figure 11 shows the estimated commercial retail trip distribution pattern. Figures 12 through 14 summarize the total site-generated trip assignment during each of the three respective peak hour analysis periods. A detailed breakdown of residential trips, net new commercial trips and commercial pass-by trips is provided in Appendix G. For example, within Appendix G, Figure 12 shows the total site-generated weekday AM peak hour trip assignment that is the collective sum of Figure 12A (residential trip assignment), Figure 12B (net new commercial trips) and Figure 12C (commercial pass-by trips).

Note that the pass-by trips were assigned directly to the public street access to NE Everett Drive during the weekday AM peak hour (shown in Figure 12C) while they were assigned as diverted trips from NE Everett Street during the weekday PM School and PM peak hour periods (shown in Figures 13C and 14C, respectively). The pass-by assignment patterns were based on the background traffic volumes along NE Everett Drive and guidance that pass-by trips not exceed 15% of the adjacent street volume as documented in *Multimodal Transportation Impact Analysis for Site Development, a* Recommended Practice, published by ITE in 2023.



Study Intersections

A Site Driveway

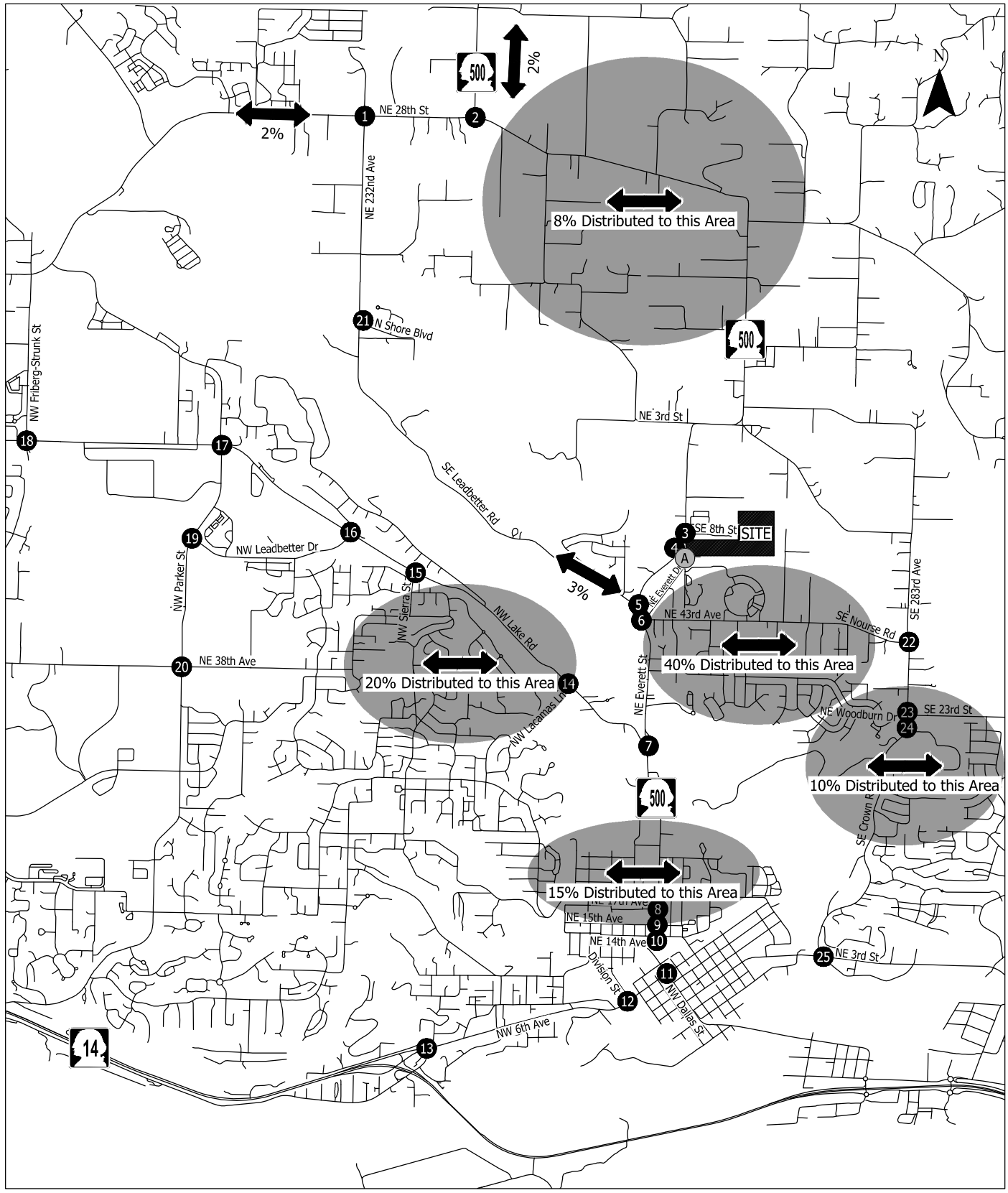
XX% Trip Distribution Percentage

Estimated Residential Site Trip Distribution Pattern Camas, Washington

Figure 10

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Study Intersections

A Site Driveway

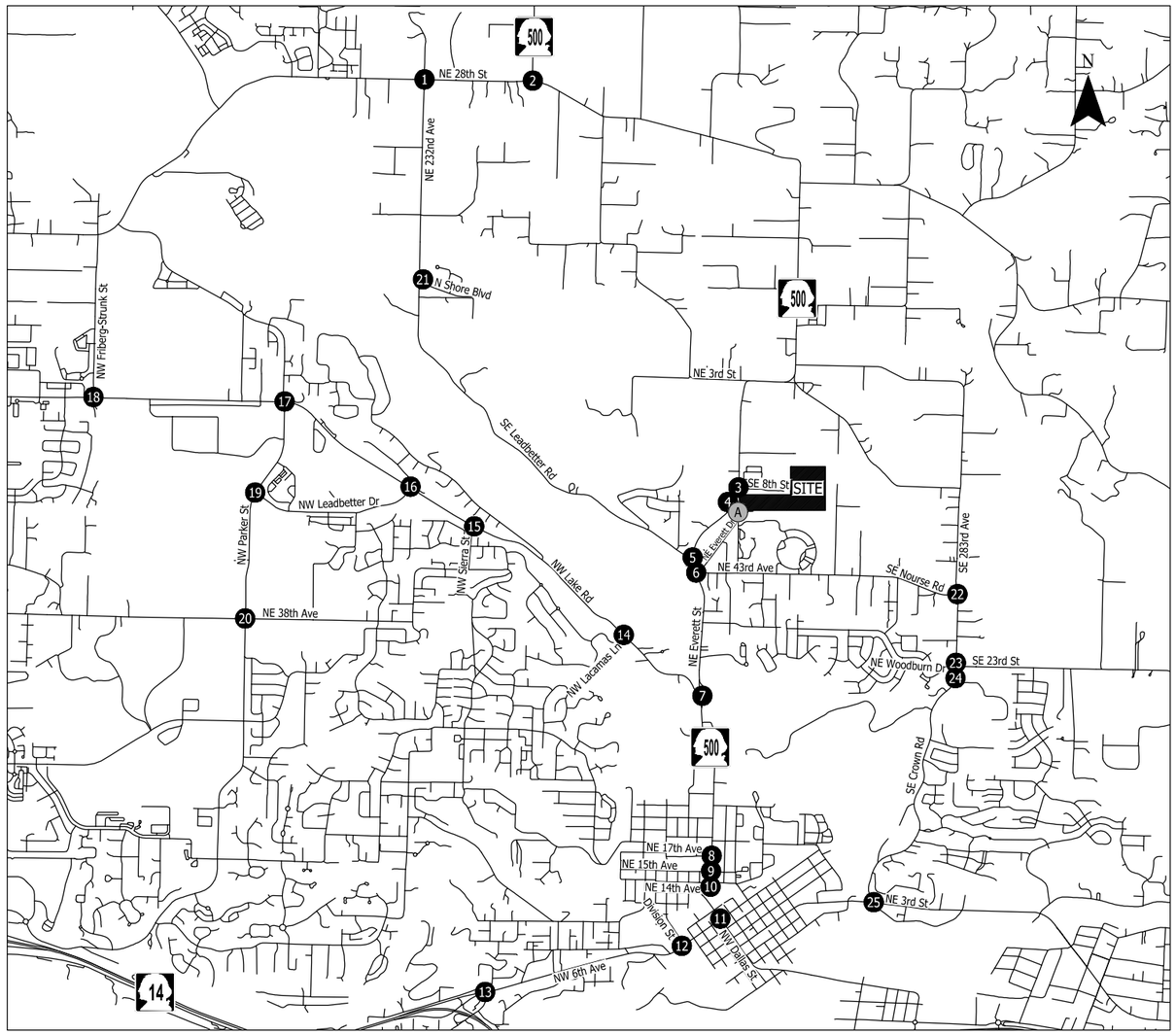
XX% Trip Distribution Percentage

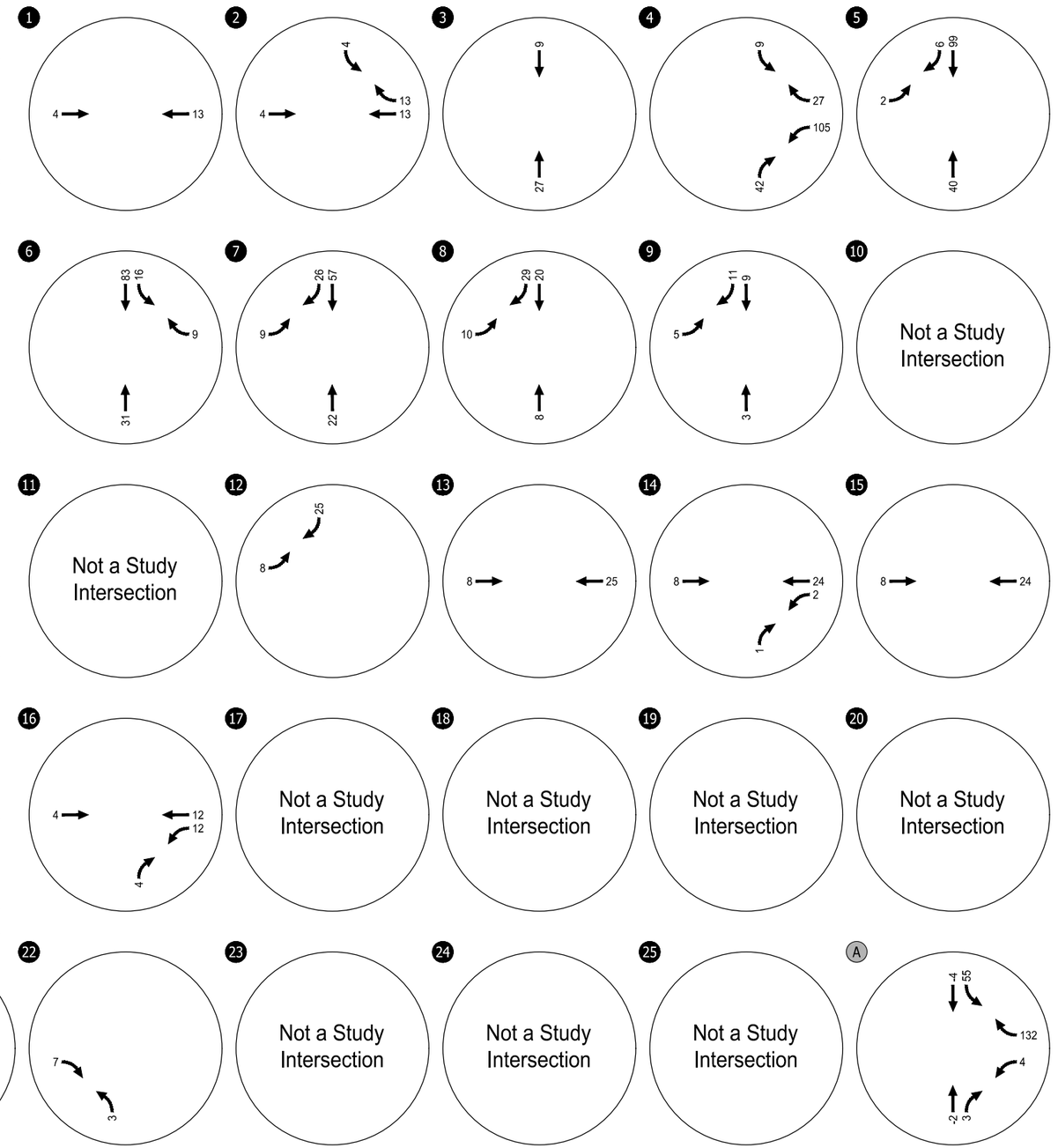
Estimated Commercial Site Trip Distribution Pattern Camas, Washington

Figure 11

KITTELSON & ASSOCIATES

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Note: Negative volumes reflact pass-by trips

(#) Study Intersections

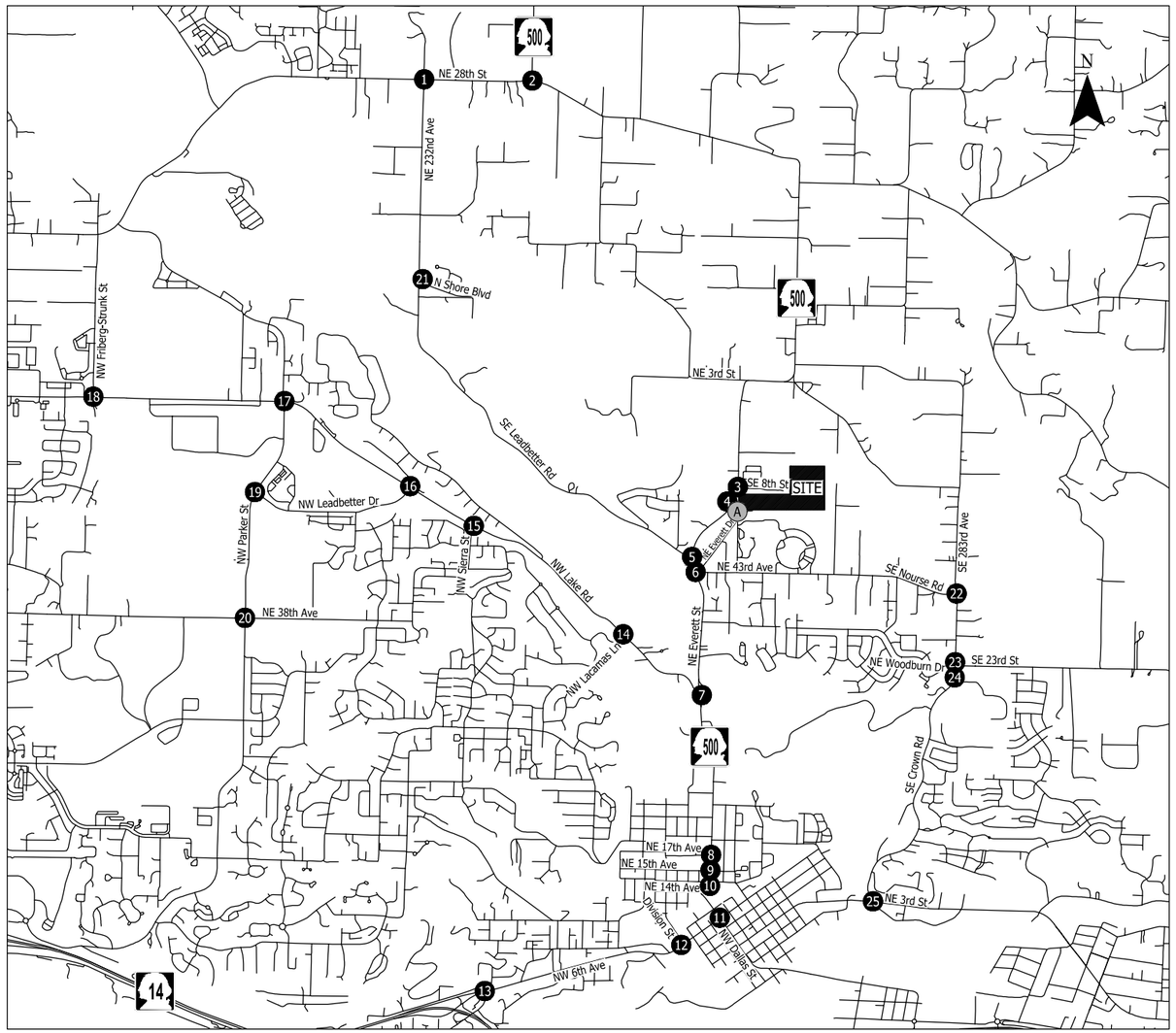
(A) Site Driveway

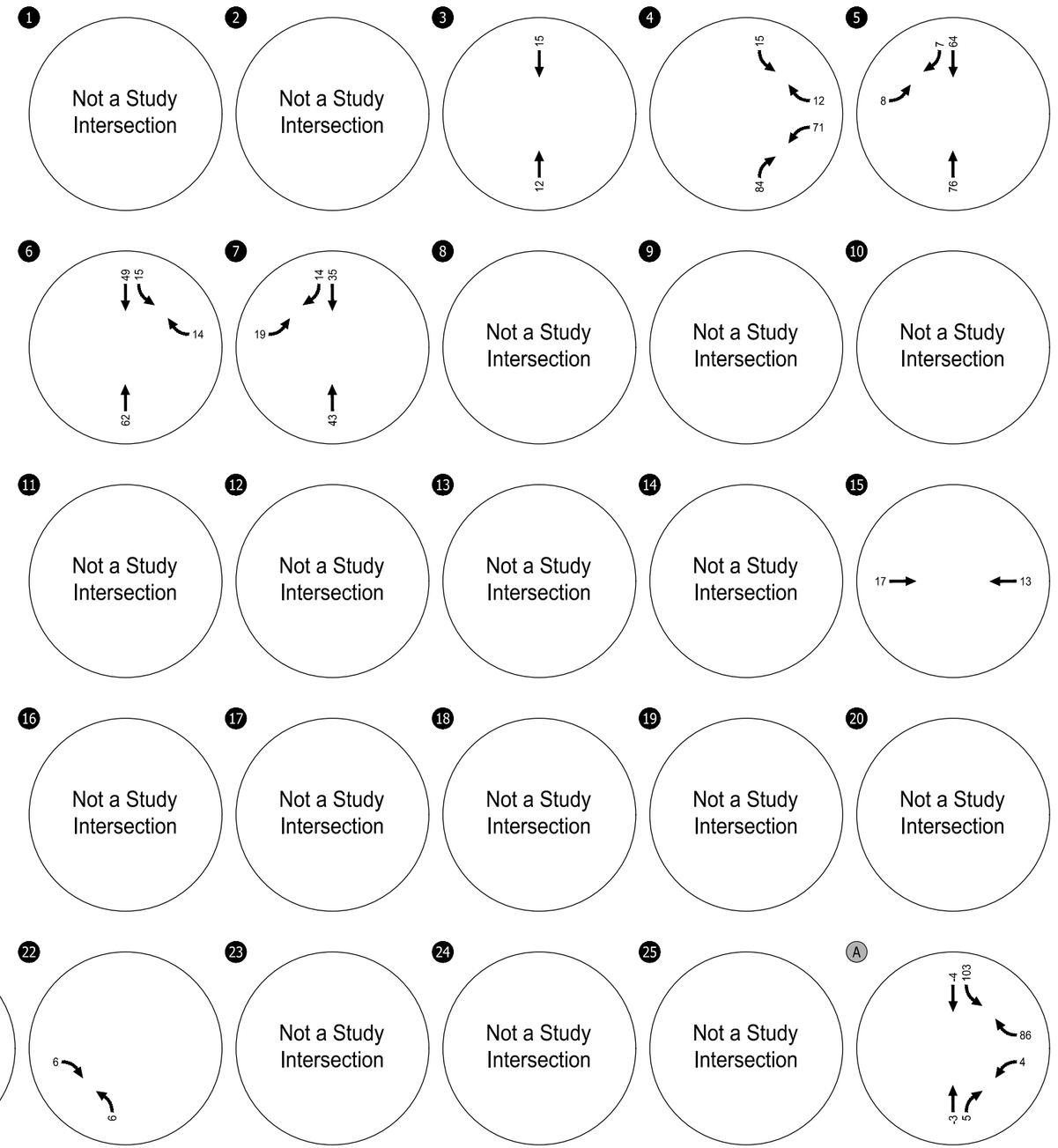
Weekday AM Peak Hour
Site-Generated Trip Assignment
Camas, Washington

Figure
12

KITTELSON & ASSOCIATES

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Note: Negative volumes reflact pass-by trips

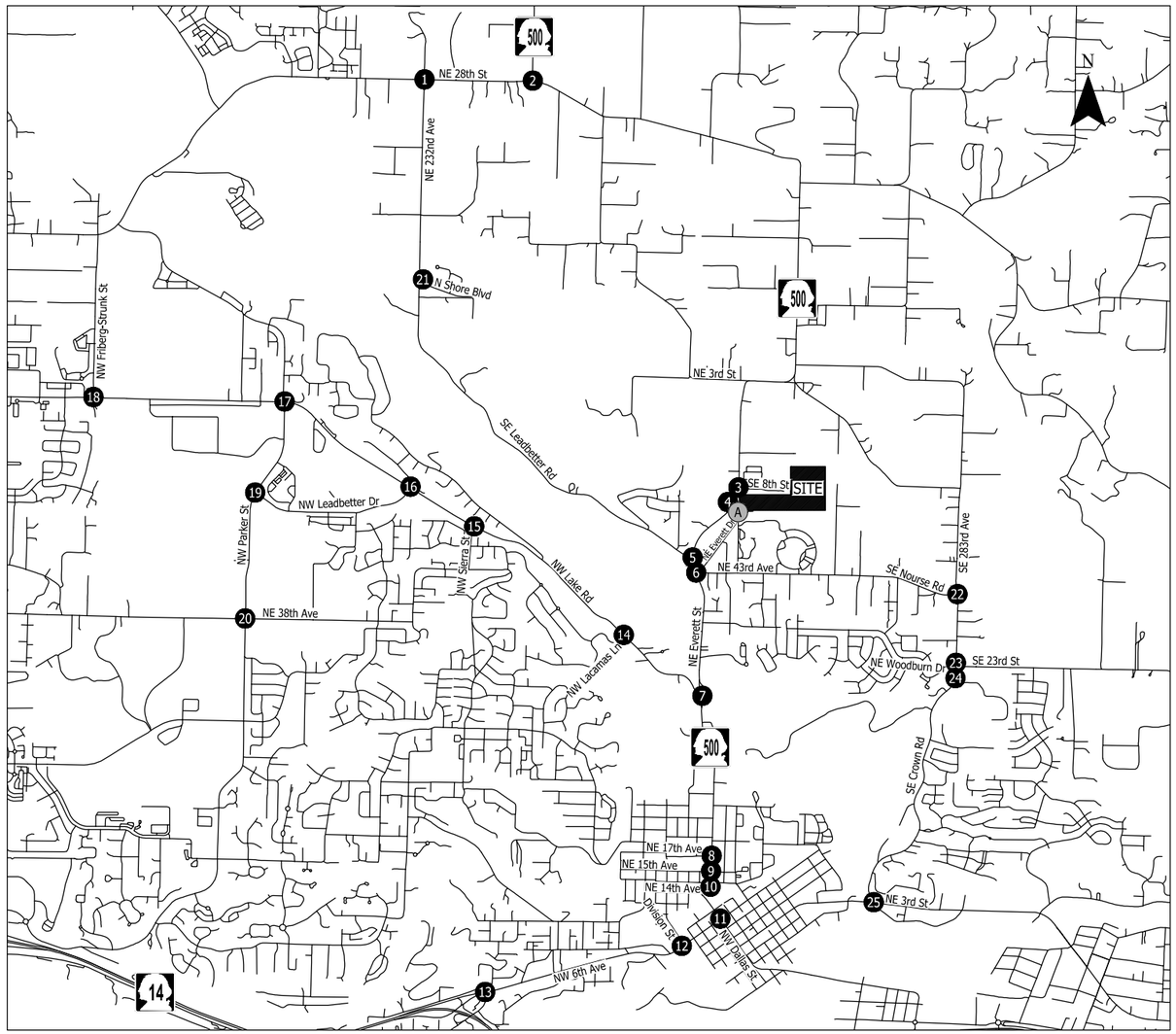
Study Intersections

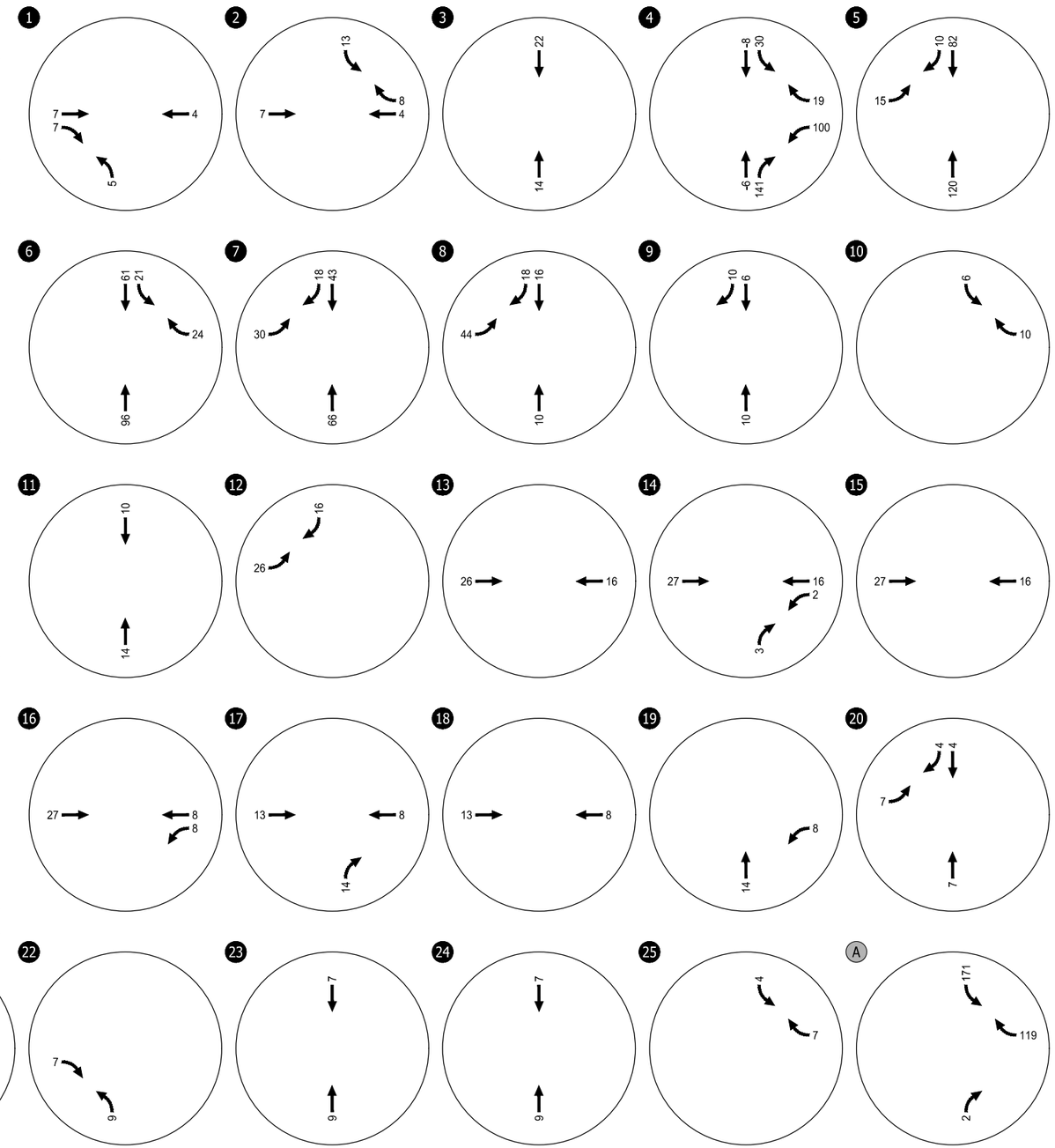
A Site Driveway

Weekday School PM Peak Hour Site-Generated Trip Assignment Camas, Washington

Figure 13

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Note: Negative volumes reflact pass-by trips

Study Intersections

A Site Driveway

Weekday PM Peak Hour Site-Generated Trip Assignment Camas, Washington

Figure 14

KITTELSON & ASSOCIATES

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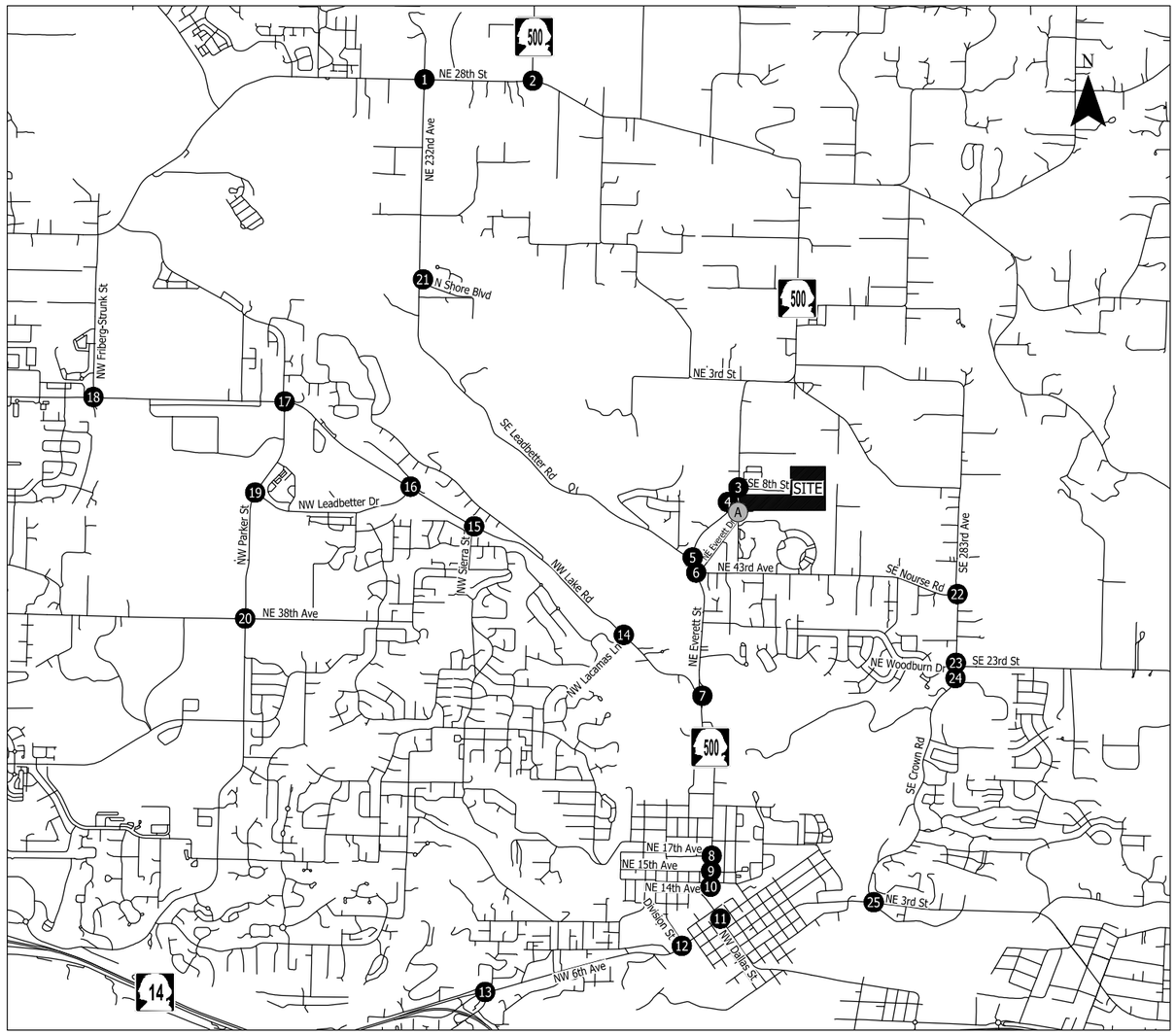
2030 TOTAL TRAFFIC CONDITIONS

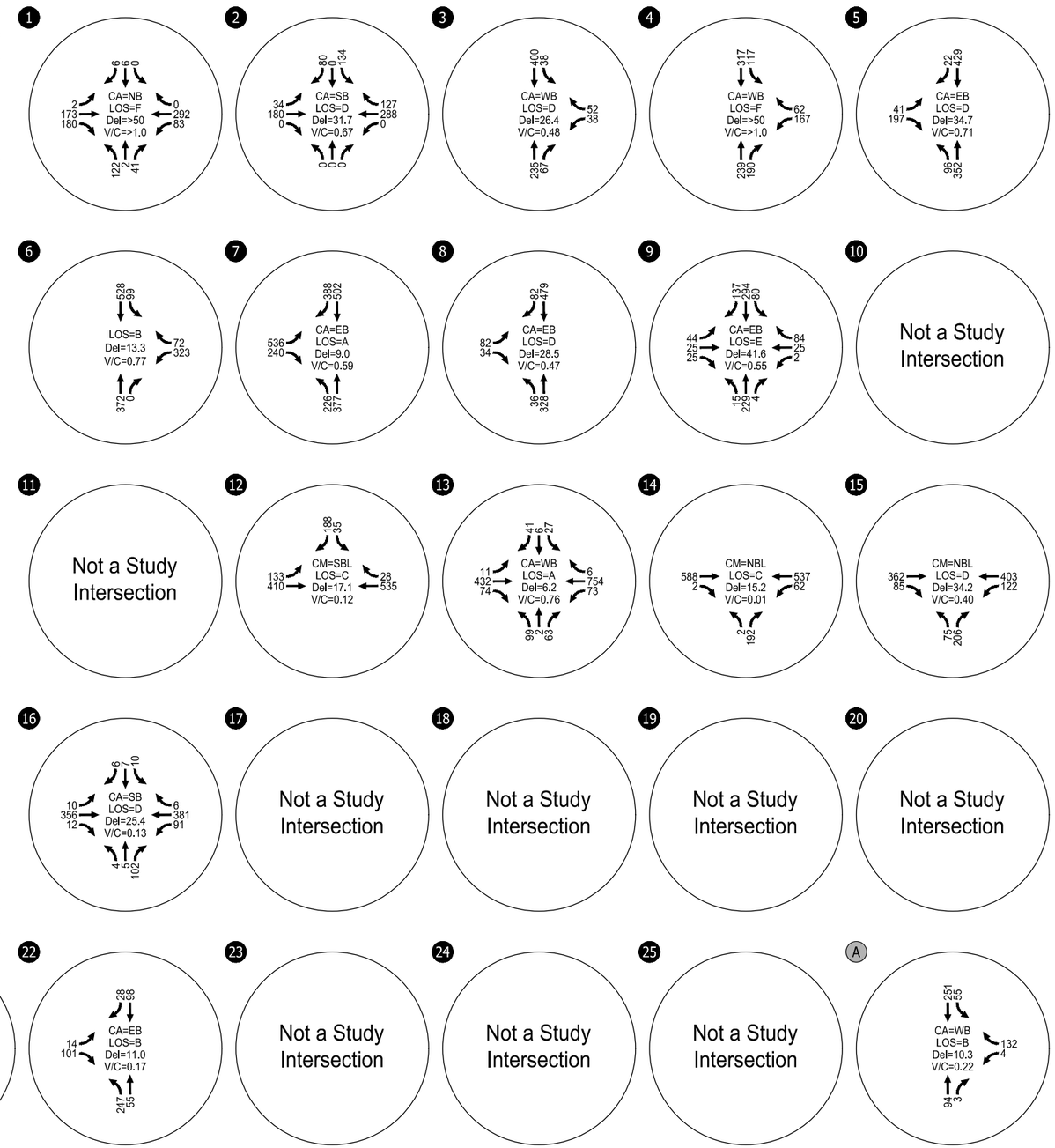
The total traffic conditions analysis forecasts how the study intersections will operate with the traffic associated with full occupancy of the proposed development. The site-generated trips shown in Figures 12-14 were added to the 2030 background traffic volumes reflected in Figures 7-9 to arrive at the 2030 total traffic volumes shown in Figures 15-17. Figures 15-17 also identify the intersection operations under total traffic conditions during the three analysis periods.

Those intersections that did not satisfy the applicable performance metrics under background conditions each are projected to experience an incremental increase in delay/degradation in operations with the addition of site trips. Further, the intersection of NE Everett Street/NE Everett Drive (Intersection #4) is projected to operate over capacity and at LOS F with site buildout and thus will need mitigation in conjunction with site development.

For ease of comparison, Tables 6-8 summarize intersection operations for each of the applicable analysis periods. Operations findings at intersections that don't satisfy the applicable performance requirements are then presented individually including recommended mitigation measures where appropriate. Per the City of Camas *Transportation Impact Study Guidelines*, mitigation measures are to be identified at locations where site traffic contributes to traffic operations that exceed the City's LOS performance standard.

Appendix G contains the year 2030 total traffic analysis worksheets.





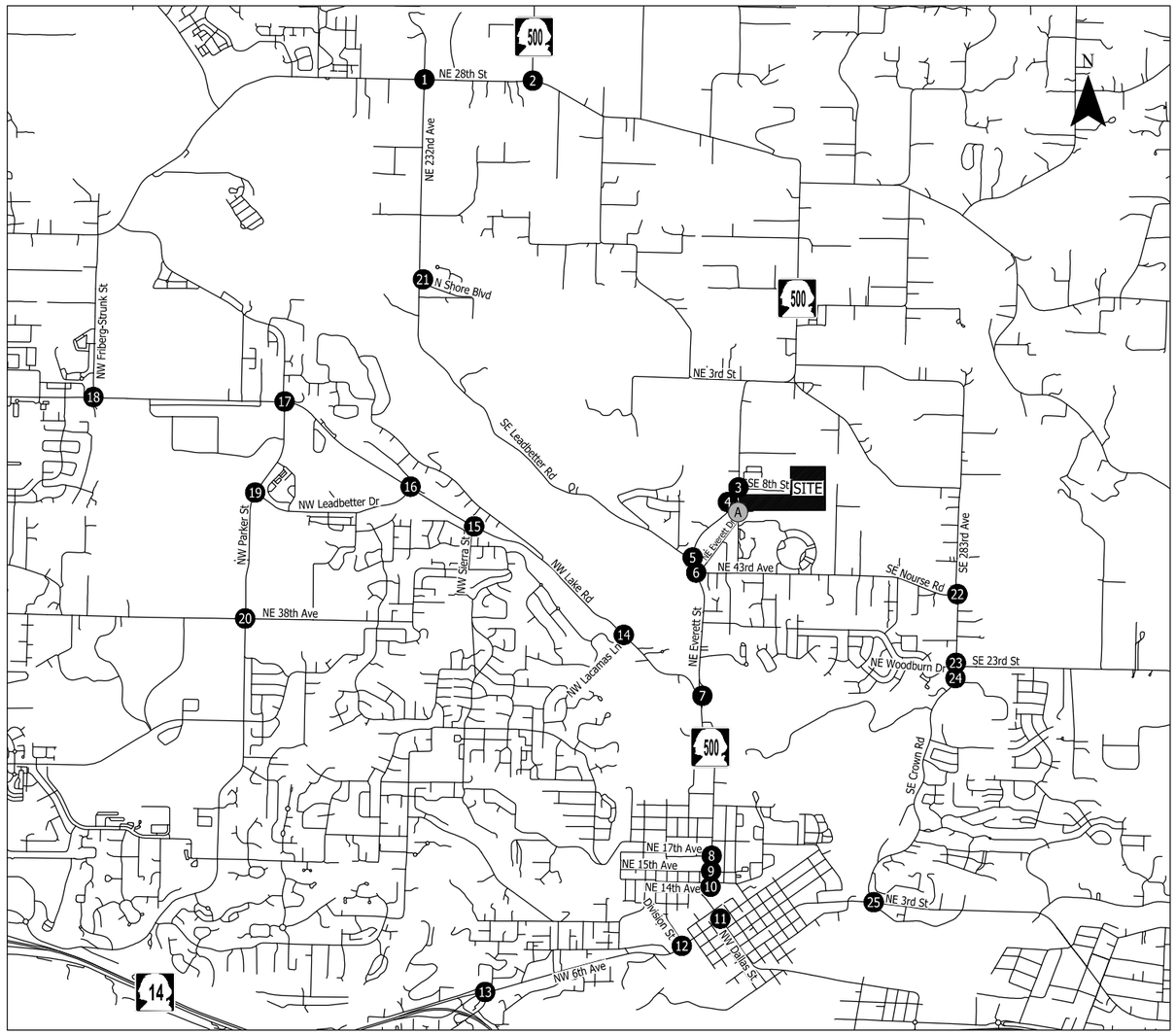
CA = CRITICAL APPROACH (TWSC / ROUNDABOUT)
CM = CRITICAL MOVEMENT (TWSC)
LOS = INTERSECTION LEVEL OF SERVICE (SIGNALIZED) / CRITICAL MOVEMENT LEVEL OF SERVICE (TWSC / ROUNDABOUT)
V/C = VOLUME-TO-CAPACITY RATIO
Del = INTERSECTION AVERAGE CONTROL DELAY (SIGNALIZED) / CRITICAL MOVEMENT CONTROL DELAY (TWSC / ROUNDABOUT)
TWSC = TWO-WAY STOP CONTROL

2030 Total Traffic Conditions
Weekday AM Peak Hour
Camas, Washington

Figure 15

KITTELSON & ASSOCIATES

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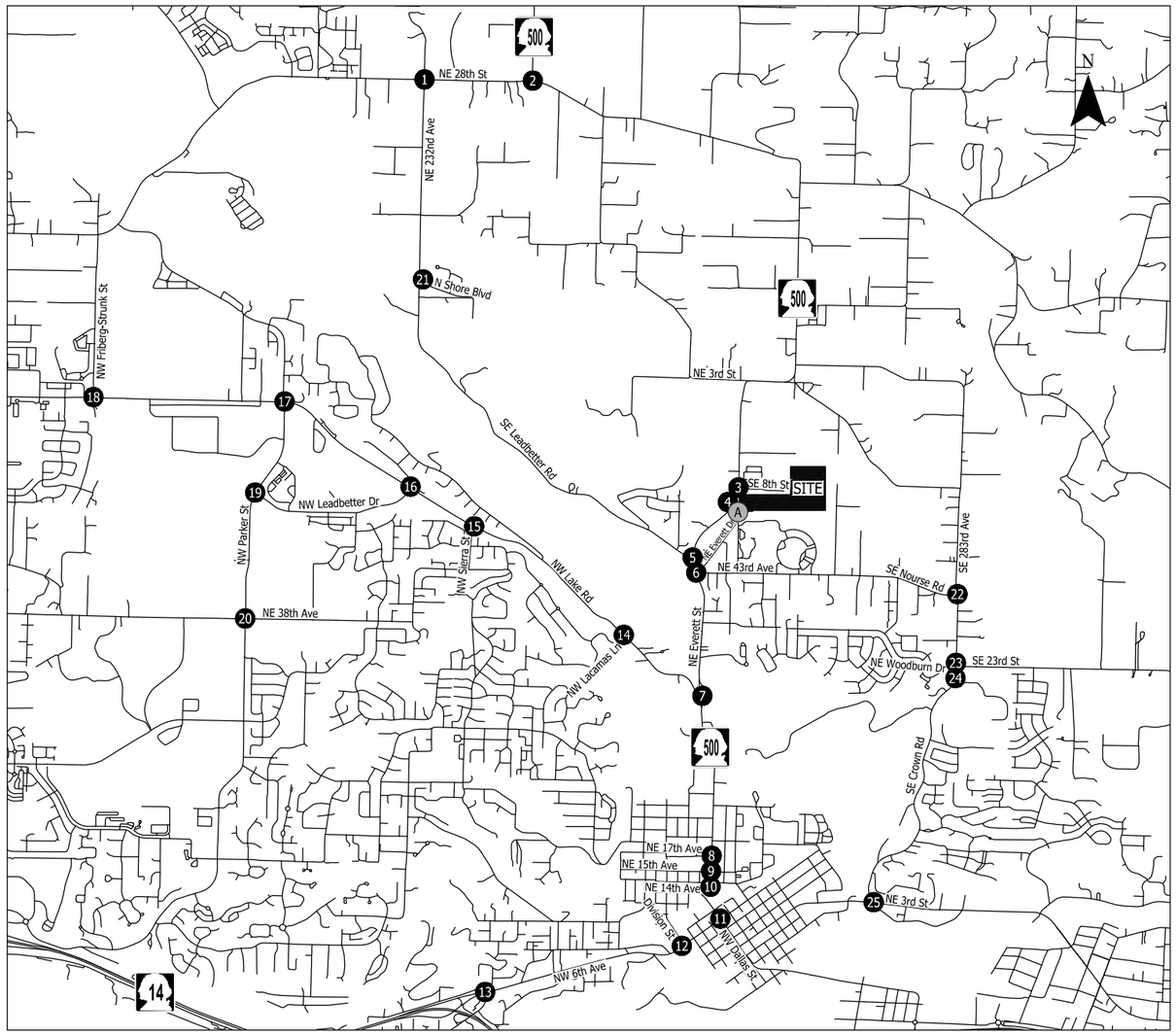
CA = CRITICAL APPROACH (TWSC / ROUNDABOUT)
CM = CRITICAL MOVEMENT (TWSC)
LOS = INTERSECTION LEVEL OF SERVICE (SIGNALIZED) / CRITICAL MOVEMENT LEVEL OF SERVICE (TWSC / ROUNDABOUT)
V/C = VOLUME-TO-CAPACITY RATIO
Del = INTERSECTION AVERAGE CONTROL DELAY (SIGNALIZED) / CRITICAL MOVEMENT CONTROL DELAY (TWSC / ROUNDABOUT)
TWSC = TWO-WAY STOP CONTROL

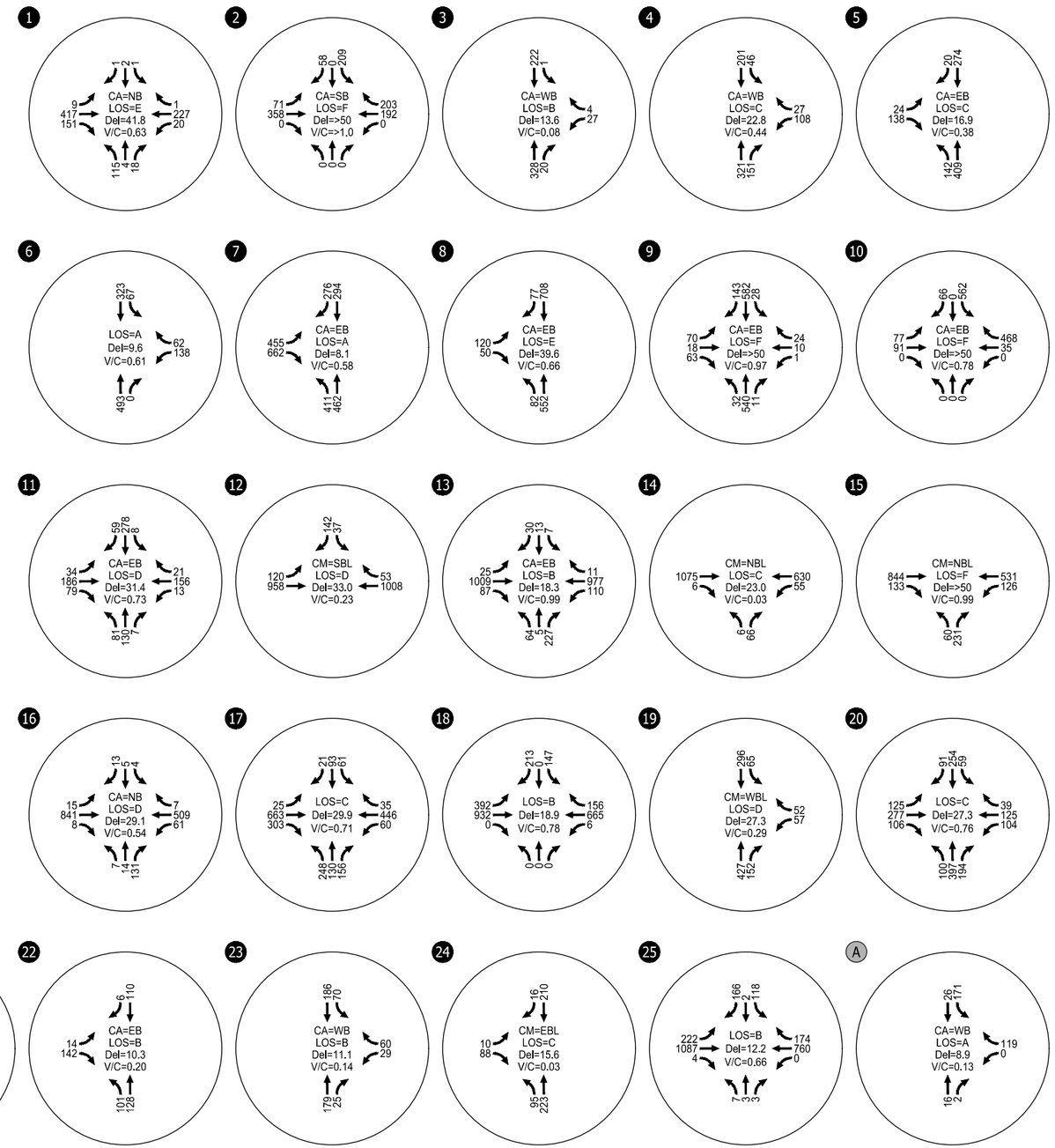
2030 Total Traffic Conditions
Weekday School PM Peak Hour
Camas, Washington

Figure
16

KITTELSON & ASSOCIATES

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CA = CRITICAL APPROACH (TWSC / ROUNDABOUT)
CM = CRITICAL MOVEMENT (TWSC)
LOS = INTERSECTION LEVEL OF SERVICE (SIGNALIZED) / CRITICAL MOVEMENT LEVEL OF SERVICE (TWSC / ROUNDABOUT)
V/C = VOLUME-TO-CAPACITY RATIO
Del = INTERSECTION AVERAGE CONTROL DELAY (SIGNALIZED) / CRITICAL MOVEMENT CONTROL DELAY (TWSC / ROUNDABOUT)
TWSC = TWO-WAY STOP CONTROL

2030 Total Traffic Conditions
Weekday PM Peak Hour
Camas, Washington

Figure
17

KITTELSON & ASSOCIATES

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Table 6. Projected Weekday AM Peak Hour Study Intersection Operations Summary

ID	Study Intersection	Traffic Control	Operating Requirement	Existing Conditions	2030 Background Traffic	2030 Total Traffic
1	NE 232nd Ave/ NE 28th St	TWSC	LOS E	CA = NB LOS D, 30.5 sec V/C = 0.54	**CA = NB** **LOS F, >50 sec** **V/C > 1.0**	**CA = NB** **LOS F, >50 sec** **V/C > 1.0**
2	NE 242nd Avenue (SR 500)/ NE 28th St	TWSC	LOS E	CA = SB LOS C, 18.5 sec V/C = 0.45	CA = SB LOS D, 28.1 sec V/C = 0.63	CA = SB LOS D, 31.7 sec V/C = 0.67
3	NE Everett St/ SE 8th St	TWSC	LOS E	CA = WB LOS C, 18.1 sec V/C = 0.33	CA = WB LOS C, 23.5 sec V/C = 0.45	CA = WB LOS D, 26.4 sec V/C = 0.48
4	NE Everett St/ NE Everett Dr	TWSC	LOS E	CA = WB LOS D, 26.7 sec V/C = 0.43	CA = WB LOS E, 41.2 sec V/C = 0.60	**CA = WB** **LOS F, >50 sec** **V/C >1.0**
5	NE Everett St/ SE Leadbetter Rd	TWSC	LOS E	CA = EB LOS C, 22.7 sec V/C = 0.54	CA = EB LOS C, 22.0 sec V/C = 0.57	CA = EB LOS D, 34.7 sec V/C = 0.71
6	NE Everett St/ NE 43rd Ave	Signalized	LOS E	LOS B, 12.4 sec V/C = 0.69	LOS B, 12.7 sec V/C = 0.71	LOS B, 13.3 sec V/C = 0.77
7	NE Everett St/ NW Lake Rd	Roundabout	LOS E	CA = EB LOS A, 8.5 sec V/C = 0.52	CA = EB LOS A, 8.7 sec V/C = 0.55	CA = EB LOS A, 9.0 sec V/C = 0.59
8	NE Everett St/ NE 17th Ave	TWSC	LOS E	CA = EB LOS B, 22.9 sec V/C = 0.38	CA = EB LOS C, 24.2 sec V/C = 0.39	CA = EB LOS D, 28.5 sec V/C = 0.47
9	NE Everett St/ NE 15th Ave	TWSC	LOS E	CA = EB LOS D, 32.9 sec V/C = 0.46	CA = EB LOS E, 36.0 sec V/C = 0.49	CA = EB LOS E, 41.6 sec V/C = 0.55
12	Division St/ NW 6th Ave	TWSC	LOS D	CM = SBL LOS C, 15.7 sec V/C = 0.04	CM = SBL LOS C, 16.8 sec V/C = 0.12	CM = SBL LOS C, 17.1 sec V/C = 0.12
13	NW Norwood St/ NW 6th Ave	Roundabout	LOS D	CA = WB LOS A, 6.2 sec V/C = 0.73	CA = WB LOS A, 6.2 sec V/C = 0.73	CA = WB LOS A, 6.2 sec V/C = 0.76
14	NW Lacamas Ln/ NW Lake Rd	TWSC	LOS D	CM = NBL LOS B, 14.7 sec V/C = 0.01	CM = NBL LOS B, 14.9 sec V/C = 0.01	CM = NBL LOS C, 15.2 sec V/C = 0.01
15	NW Sierra St/ NW Lake Rd	TWSC	LOS D	CM = NBL LOS D, 30.6 sec V/C = 0.37	CM = NBL LOS D, 32.0 sec V/C = 0.38	CM = NBL LOS D, 34.2 sec V/C = 0.40

ID	Study Intersection	Traffic Control	Operating Requirement	Existing Conditions	2030 Background Traffic	2030 Total Traffic
16	NW Leadbetter Dr/ NW Lake Rd	TWSC	LOS D	CA = SB LOS C, 23.0 sec V/C = 0.11	CA = SB LOS C, 23.6 sec V/C = 0.12	CA = SB LOS D, 25.4 sec V/C = 0.13
21	NW 232nd Ave/ N Shore Blvd	TWSC	LOS D	CA = EB LOS C, 17.9 sec V/C = 0.37	CA = EB LOS D, 30.6 sec V/C = 0.64	CA = EB LOS D, 32.0 sec V/C = 0.67
22	SE 283rd Ave/ SE Nourse Rd	TWSC	LOS D	CA = EB LOS B, 10.8 sec V/C = 0.15	CA = EB LOS = B, 11.0 sec V/C = 0.16	CA = EB LOS B, 11.0 sec V/C = 0.17
A	NE Everett Street/ N Rekdahl Street	TWSC	LOS D	*Not Applicable*	*Not Applicable*	CA = WB LOS B, 10.3 sec V/C = 0.22

Where: TWSC = Two-way Stop Control, LOS = Level of Service, CA = Critical Approach, CM = Critical Movement, V/C = Volume-to-Capacity ratio, NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, L = Left-turn, R = Right-turn

Table 7. Projected Weekday School PM Peak Hour Study Intersection Operations Summary

ID	Study Intersection	Traffic Control	Operating Requirement	Existing Conditions	2030 Background	2030 Total Traffic
3	NE Everett St/ SE 8th St	TWSC	LOS E	CA = WB LOS C, 16.2 sec V/C = 0.29	CA = WB LOS C, 19.9 sec V/C = 0.37	CA = WB LOS C, 21.1 sec V/C = 0.39
4	NE Everett St/ NE Everett Dr	TWSC	LOS E	CA = WB LOS B, 13.8 sec V/C = 0.07	CA = WB LOS C, 15.6 sec V/C = 0.10	CA = WB LOS E, 37.8 sec V/C = 0.61
5	NE Everett St/ SE Leadbetter Rd	TWSC	LOS E	CA = EB LOS B, 12.5 sec V/C = 0.20	CA = EB LOS C, 13.7 sec V/C = 0.28	CA = EB LOS C, 19.2 sec V/C = 0.40
6	NE Everett St/ NE 43rd Ave	Signalized	LOS E	LOS A, 9.3 sec V/C = 0.58	LOS A, 9.7 sec V/C = 0.61	LOS B, 10.3 sec V/C = 0.64
7	NE Everett St/ NW Lake Rd	Roundabout	LOS E	CA = EB LOS A, 6.8 sec V/C = 0.32	CA = EB LOS A, 6.8 sec V/C = 0.34	CA = EB LOS A, 6.9 sec V/C = 0.36
15	NW Sierra St/ NW Lake Rd	TWSC	LOS D	**CM = NBL** **LOS E, 35.4 sec** **V/C = 0.40**	**CM = NBL** **LOS E, 37.9 sec** **V/C = 0.43**	**CM = NBL** **LOS E, 40.7 sec** **V/C = 0.45**
21	NW 232nd Ave/ N Shore Blvd	TWSC	LOS D	CA = EB LOS A, 9.4 sec V/C = 0.07	CA = EB LOS B, 10.1 sec V/C = 0.15	CA = EB LOS B, 10.2 sec V/C = 0.17
22	SE 283rd Ave/ SE Nourse Rd	TWSC	LOS D	CA = EB LOS A, 9.6 sec V/C = 0.12	CA = EB LOS = A, 9.6 sec V/C = 0.13	CA = EB LOS A, 9.7 sec V/C = 0.14
A	NE Everett Street/ N Rekdahl Street	TWSC	LOS D	*Not Applicable*	*Not Applicable*	CA = WB LOS A, 9.1 sec V/C = 0.13

Where: TWSC = Two-way Stop Control, LOS = Level of Service, CA = Critical Approach, CM = Critical Movement, V/C = Volume-to-Capacity ratio, NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, L = Left-turn, R = Right-turn

Table 8. Projected Weekday PM Peak Hour Study Intersection Operations Summary

ID	Study Intersection	Traffic Control	Operating Requirement	Existing Conditions	2030 Background	2030 Total Traffic
1	NE 232nd Ave/ NE 28th St	TWSC	LOS E	CA = NB LOS C, 17.3 sec V/C = 0.21	CA = NB LOS E, 37.6 sec V/C = 0.59	CA = NB LOS E, 41.8 sec V/C =0.63
2	NE 242nd Avenue (SR 500)/ NE 28th St	TWSC	LOS E	CA = SB LOS E, 38.7 sec V/C = 0.73	**CA = SB** **LOS F, >50 sec** **V/C >1.0**	**CA = SB** **LOS F, >50 sec** **V/C >1.0**
3	NE Everett St/ SE 8th St	TWSC	LOS E	CA = WB LOS B, 12.1 sec V/C = 0.07	CA = WB LOS B, 13.1 sec V/C = 0.08	CA = WB LOS B, 13.6 sec V/C = 0.08
4	NE Everett St/ NE Everett Dr	TWSC	LOS E	CA = WB LOS B, 11.6 sec V/C = 0.03	CM = WB LOS A, 12.4 sec V/C = 0.04	CA = WB LOS C, 22.8 sec V/C = 0.44
5	NE Everett St/ SE Leadbetter Rd	TWSC	LOS E	CA = EB LOS B, 10.8 sec V/C = 0.16	CA = EB LOS B, 11.6 sec V/C = 0.23	CA = EB LOS C, 16.9 sec V/C = 0.38
6	NE Everett St/ NE 43rd Ave	Signalized	LOS E	LOS A, 8.8 sec V/C = 0.54	LOS A, 9.0 sec V/C = 0.57	LOS A, 9.6 sec V/C = 0.61
7	NE Everett St/ NW Lake Rd	Roundabout	LOS E	CA = EB LOS A, 7.7 sec V/C = 0.54	CA = EB LOS A, 7.8 sec V/C = 0.56	CA = NB LOS A, 8.1 sec V/C = 0.58
8	NE Everett St/ NE 17th Ave	TWSC	LOS E	CA = EB LOS D, 25.4 sec V/C = 0.44	CA = EB LOS D, 26.6 sec V/C = 0.55	CA = EB LOS E, 39.6 sec V/C = 0.66
9	NE Everett St/ NE 15th Ave	TWSC	LOS E	**CA = EB** **LOS F, >50.0 sec** **V/C = 0.85**	**CA = EB** **LOS F, >50 sec** **V/C = 0.94**	**CA = EB** **LOS F, >50 sec** **V/C = 0.97**
10	NE Everett St/ NE 14th Ave	TWSC	LOS E	CA = EB LOS E, 44.4 sec V/C = 0.70	**CA = EB** **LOS F, >50 sec** **V/C = 0.77**	**CA = EB** **LOS F, >50 sec** **V/C = 0.78**
11	NE Dallas St/ NE 6th Ave	TWSC	LOS D	CA = EB LOS D, 29.2 sec V/C = 0.71	CA = EB LOS D, 29.3 sec V/C = 0.71	CA = EB LOS D, 31.4 sec V/C = 0.73
12	Division St/ NW 6th Ave	TWSC	LOS D	CM = SBL LOS D, 25.3 sec V/C = 0.11	CM = SBL LOS D, 28.9 sec V/C = 0.21	CM = SBL LOS D, 33.0 sec V/C = 0.23
13	NW Norwood St/ NW 6th Ave	Roundabout	LOS D	CA = EB LOS B, 14.6 sec V/C = 0.97	CA = EB LOS B, 14.9 sec V/C = 0.97	CA = EB LOS B, 18.3 sec V/C = 0.99
14	NW Lacamas Ln/ NW Lake Rd	TWSC	LOS D	CM = NBL LOS C, 21.7 sec V/C = 0.03	CM = NBL LOS C, 22.1 sec V/C = 0.03	CM = NBL LOS C, 23.0 sec V/C = 0.03

ID	Study Intersection	Traffic Control	Operating Requirement	Existing Conditions	2030 Background	2030 Total Traffic
15	NW Sierra St/ NW Lake Rd	TWSC	LOS D	**CM = NBL LOS F, >50 sec V/C = 0.85**	**CM = NBL LOS F, >50 sec V/C = 0.92**	**CM = NBL LOS F, >50 sec V/C = 0.99**
16	NW Leadbetter Dr/ NW Lake Rd	TWSC	LOS D	CA = NB LOS D, 26.2 sec V/C = 0.50	CA = NB LOS D, 27.0 sec V/C = 0.51	CA = NB LOS D, 29.1 sec V/C = 0.54
17	NW Parker St/ NW Lake Rd	Signalized	LOS D	LOS C, 27.4 sec V/C = 0.69	LOS C, 28.7 sec V/C = 0.70	LOS C, 29.9 sec V/C = 0.71
18	NW Friberg-Strunk St/NW Lake Rd	Signalized	LOS D	LOS B, 14.6 sec V/C = 0.68	LOS B, 18.8 sec V/C = 0.78	LOS B, 18.9 sec V/C = 0.78
19	NW Parker St/ NW Leadbetter Dr	TWSC	LOS D	CM = WBL LOS C, 23.7 sec V/C = 0.22	CM = WBL LOS D, 25.5 sec V/C = 0.24	CM = WBL LOS D, 27.3 sec V/C = 0.29
20	NW Parker St/ NE 38th Ave	Signalized	LOS D	LOS C, 26.4 sec V/C = 0.75	LOS D, 27.0 sec V/C = 0.76	LOS D, 27.3 sec V/C = 0.76
21	NW 232nd Ave/ N Shore Blvd	TWSC	LOS D	CA = EB LOS A, 9.6 sec V/C = 0.14	CA = EB LOS B, 10.4 sec V/C = 0.23	CA = EB LOS B, 10.7 sec V/C = 0.25
22	SE 283rd Ave/ SE Nourse Rd	TWSC	LOS D	CA = EB LOS B, 10.2 sec V/C = 0.18	CA = EB LOS = B, 10.3 sec V/C = 0.19	CA = EB LOS B, 10.3 sec V/C = 0.20
23	SE 283rd Ave/ SE 23rd St	TWSC	LOS D	CA = WB LOS B, 10.9 sec V/C = 0.13	CA = WB LOS B, 11.0 sec V/C = 0.14	CA = WB LOS B, 11.1 sec V/C = 0.14
24	SE 283rd Ave/ NE Woodburn Dr	TWSC	LOS D	CM = EBL LOS C, 15.0 sec V/C = 0.03	CM = EBL LOS C, 15.3 sec V/C = 0.03	CA = EB LOS C, 15.6 sec V/C = 0.03
25	SE Crown Rd/ NE 3rd Ave	Signalized	LOS D	LOS B, 12.1 sec V/C = 0.65	LOS B, 12.2 sec V/C = 0.66	LOS B, 12.2 sec V/C = 0.66
A	NE Everett Street/ N Rekdahl Street	TWSC	LOS D	*Not Applicable*	*Not Applicable*	CA = WB LOS A, 8.9 sec V/C = 0.13

Where: TWSC = Two-way Stop Control, LOS = Level of Service, CA = Critical Approach, CM = Critical Movement, V/C = Volume-to-Capacity ratio, NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, L = Left-turn, R = Right-turn

Total Traffic Intersection Operations Discussion

Considerations associated with each of the intersections not satisfying the applicable agency performance metrics during one or more of the three peak hour analysis periods are presented below.

NE 232nd Avenue/NE 28th Street (Intersection #1)

The proposed site development is not projected to add any weekday AM peak hour trips to the stop controlled northbound approach and the movement does not meet County standards under background conditions either. Accordingly, no mitigation is recommended in conjunction with the proposed site development per CCC Section 40.350.020.G.1.c.1 (the proposed development adds fewer than five (5) peak hour trips to the failing intersection approach). We note that no site-generated trips that are projected to use the northbound approach at this intersection given they can alternatively reach the intersection traveling westbound on NE 28th Street by first leaving the project site and traveling north on NE Everett Street to travel SR 500 north to NE 28th Street.

NE 242nd Avenue/NE 28th Street (Intersection #2)

Consistent with the background conditions analysis, delay experienced on the southbound stop controlled approach continues to result in LOS F operations (exceed LOS E requirement) during the weekday PM peak hour with a V/C ratio over 1.0. The intersection is projected to continue to operate acceptably during the weekday AM peak hour analysis period.

Implementation of interim all-way stop control at the intersection would provide for acceptable operations during the weekday PM peak hour (southbound approach LOS D with a V/C ratio of 0.82, overall intersection LOS C). In the longer-term, installation of a roundabout or other alternative traffic control device and/or turn lanes may be appropriate. Given the forecast LOS F conditions occur under background conditions and that the proposed development is projected to add 13 southbound left-turns to the intersection during the weekday PM peak hour (32 total site trips are projected to enter the intersection during the PM peak hour), we recommend the Applicant collaborate with WSDOT to determine if implementation of interim all-way stop control or a proportional share financial contribution to a future intersection capacity improvement is appropriate in conjunction with the proposed development.

NE Everett Street/NE Everett Drive (Intersection #4)

The stop controlled westbound approach is projected to operate at LOS F (exceed LOS E requirement) with a V/C ratio over 1.0 during weekday AM and PM peak hour conditions assuming full buildout of the proposed development.

Table 9 below shows the westbound approach operations analysis during the year 2030 weekday AM peak hour with the existing single lane approach and then assuming the addition of a separate interim westbound right-turn lane. As shown in the table, the existing single lane westbound approach operates at an acceptable LOS E through Phase 1 site buildout and transitions to LOS F with Phase 2 site buildout. While at LOS F, the approach operates under capacity through Phase 4A.

Table 9. Weekday AM Peak Hour NE Everett Street/NE Everett Drive Westbound Approach Operations Summary by Development Phase

Development Scenario	Existing Single Lane Approach (Approach Results)			With Separate Left and Right Turn Lanes Westbound (Left-turn Lane Results)		
	LOS	Delay (s)	V/C Ratio	LOS	Delay (s)	V/C Ratio
Phase 1 Only	E	48.4	0.68	F	52.5	0.59
Phases 1-2	F	52.7	0.71	F	56.0	0.62
Phases 1-3	F	57.3	0.75	F	59.7	0.66
Phases 1-4A	F	67.3	0.82	F	67.4	0.72
Phases 1-4	F	161.2	1.17	F	140.2	1.05

If a westbound right-turn lane were added to the intersection, the approach operations improve relative to the existing single lane approach and the westbound left-turn lane becomes the critical movement. Under this scenario, the westbound left-turn movement would be under capacity through development of Phase 4A (up to 88 townhomes)[2] and would transition to an over-capacity condition by buildout of Phase 4B.

The City of Camas has identified the NE Everett Street/NE Everett Drive intersection as a potential future single lane roundabout through the *Everett Street Corridor Analysis.* The Corridor Analysis anticipates that the NE Everett Street/NE Everett Drive intersection may also have a future new collector roadway approach that forms a fourth (west) leg consistent with the *North Shore Subarea Plan Report*[3]. The new collector roadway connection to NE Everett Street would replace the existing Leadbetter Road connection to NE Everett Street.

Reconstruction of the NE Everett Street/NE Everett Drive intersection to a three-approach single lane roundabout (with provisions for a potential future fourth (west) approach) in conjunction with site development would mitigate the site-generated trip impacts and restore the intersection to an acceptable LOS A during the critical weekday AM peak hour. Northbound queues on NE Everett Drive with a single lane roundabout in place would not extend to the proposed N Rekdahl Street connection to NE Everett Drive south of SR 500 (refer to the queuing analysis section of this report for further details). *Appendix H contains the year 2030 phased and mitigated total traffic analysis worksheets.*

From an interim operations perspective, it appears the existing NE Everett Street/NE Everett Drive intersection could operate at LOS E through development of up to 30 townhomes and at LOS F but under capacity with up to 88 townhomes. Provision of separate left and right-turn lanes on the stop controlled westbound approach would add capacity to the overall approach; however the westbound left-turn lane would operate at LOS F. Based on these findings and the assumption of not constructing an interim "throw away" westbound right-turn lane, a roundabout would need to be in place prior to permitting the 39th weekday AM peak hour trip associated with site development (anticipated to be commensurate with the start of Phase 4B site development, reflecting a total of 89 or more townhomes on site).

[2] Phase 1 = 30 townhomes, Phase 2 = 12 townhomes, Phase 3 = 18 townhomes, Phase 4A = 28 townhomes, and Phase 4B = 80 single family detached homes.

[3] Source: City of Camas North Shore Subarea Plan Report

Exhibit 7 SUB24-1002

NE Everett Street/NE 15th Avenue (Intersection #9)

Consistent with forecast background conditions, delay experienced on the eastbound stop controlled approach continues to result in LOS F operations (exceed LOS E requirement) during the weekday PM peak hour (V/C ratio = 0.99). Given the eastbound stop controlled intersection approach is projected to operate near capacity without site trips and that there are intersections further to the north that drivers can use as a route alternative (including but not limited to NE 17th Avenue, NE 19th Avenue and NE 21st Avenue to the north), no inbound site-generated trips are projected to be added to the failing approach. As such, no mitigation is recommended in conjunction with site development.

NE Everett Street/NE 14th Avenue (Intersection #10)

Consistent with forecast background conditions, delay experienced on the eastbound stop controlled approach continues to result in LOS F operations (exceed LOS E requirement) during the weekday PM peak hour (V/C ratio = 0.78). No site-generated trips are projected to use the eastbound approach during the PM peak hour given there are alternative travel routes available eastbound within the downtown urban grid that drivers can use as a route alternative to the project site (including but not limited to NE 17th Avenue, NE 19th Avenue and NE 21st Avenue to the north). As such, no mitigation is recommended in conjunction with site development.

NW Sierra Street/NW Lake Road (Intersection #15)

Consistent with forecast background conditions, delay experienced by the stop controlled northbound left-turn movement results in LOS F operations (exceeds LOS D requirement but with a V/C ratio under 1.0) during the weekday PM peak hour. As noted previously, the City of Camas is currently advancing design plans to construct a roundabout at the intersection but the funding for and timing of the roundabout construction was unknown at the time this report was prepared. Subject to direction from the City of Camas, it may be appropriate for the applicant to financially contribute towards the planned future roundabout through payment of a future Traffic Impact Fee (if the fee methodology incorporates the roundabout cost) or a proportional share mitigation assessment program should the City alternatively choose to implement a cost sharing assessment methodology for the roundabout project (we understand City staff anticipate the future Traffic Impact Fee program will in part fund the planned roundabout).

Alternative SE 8th Street Access Scenario

As previously noted in this report, SE 8th Street has been identified by the City as a desired second vehicular public street access to the site. The ability to construct a full width SE 8th Street connection to City standards between the western portion of the project site and an off-site connection west to NE Everett Street is not yet confirmed and may necessitate that SE 8th Street function initially as secondary and/or emergency only access.

An alternative analysis of total traffic conditions was prepared assuming SE 8th Street is constructed as a two-way public street connection between NE Everett Street and the proposed Camas Woods site to better understand implications of the potential connection. For this analysis, some site-generated trips were routed through the new roadway connection to NE Everett Street in lieu of the previously assumed N Rekdahl Street. Trips to and from the northeast portion of the site were presumed to make use of the SE 8th Street connection in lieu of N Rekdahl Street.

Exhibit 7 SUB24-1002

Modeling of the alternative access scenario resulted in the following initial findings:

- The westbound stop controlled approach to the NE Everett Street/SE 8th Street intersection is projected to operate at LOS F with a V/C ratio of 0.93 during the weekday AM peak hour when westbound traffic demand on SE 8th Street is highest among the three analysis periods.
- Provision of a separate southbound left-turn lane on NE Everett Street at SE 8th Street appears appropriate to consider based on the southbound left-turn volumes (highest during the weekday AM peak hour when trips associated with the existing school on the northeast corner of the intersection occur) and WSDOT *Design Manual* guidance.
- The NE Everett Street/NE Everett Drive intersection would still require a single lane roundabout to operate acceptably with site buildout and the SE 8th Street connection to NE Everett Street.
- From an access management perspective, there is approximately 415 feet between SE 8th Street and SE Everett Drive today measured centerline to centerline. As such, it is unclear if WSDOT would move to restrict one or more turn movements at the NE Everett Street/SE 8th Street upon installation of a single lane roundabout at the NE Everett Street/NE Everett Drive intersection.

Given the turn lane needs and operational impacts introduced at the NE Everett Street/SE 8th Street intersection noted above, the Applicant proposes to not connect SE 8th Street for resident use at the time of site development and instead collaborate with the City to introduce a connection in the future as the property west of Camas Woods on the north side of SE 8th Street is developed.

INTERSECTION QUEUING CONSIDERATIONS

Table 10 summarizes projected queues at the NE Everett Street/SE 8th Street, NE Everett Street/NE Everett Drive, and NE Everett Street/N Rekdahl Street study intersections for existing and projected future traffic conditions[4]. As shown, all the movements are anticipated to experience vehicular queues that can be accommodated within the turn bay lengths at the site driveways as well as the study intersections.

Table 10. Weekday Peak Hour Projected 95th Percentile Queues at Study Intersections

Intersection	Movement	Storage (feet)	95th-percentile Queue (feet)									Adequate Storage Provided?
			AM Peak Hour			School PM Peak Hour			PM Peak Hour			
			EX	BK	TT	EX	BK	TT	EX	BK	TT	
NE Everett Street/ SE 8th Street	SB	>300	25	14	25	25	25	25	25	25	25	Yes
	NBR	80	0	0	0	0	0	0	0	0	0	Yes
	WB	190	50	75	75	50	50	50	25	25	25	Yes
NE Everett Street/ NE Everett Drive with Roundabout	SB	375[1]	N/A	N/A	150	N/A	N/A	75	N/A	N/A	50	Yes
	WB	>165[2]	N/A	N/A	75	N/A	N/A	25	N/A	N/A	25	Yes
	NB	>500	N/A	N/A	125	N/A	N/A	125	N/A	N/A	100	Yes
NE Everett Street/ N Rekdahl Street	WB	75[3]	N/A	N/A	25	N/A	N/A	25	N/A	N/A	25	Yes

Where: EX = 2024 Existing Conditions, BK = 2030 Background Traffic Conditions, TT = 2030 Total Traffic Conditions, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound, L = left-turn, T = Through, R = Right-turn

[1] There is approximately 375 feet between SE 8th Street and NE Everett Drive along NE Everett Street.

[2] Approximate distance to the first paved access driveways on NE Everett Drive east (south) of NE Everett Street. Additional storage is available to the south.

[3] Approximately 75 feet of storage is available between the presumed stop bar westbound on N Rekdahl Street approaching NE Everett Street and the proposed commercial site access on N Rekdahl Street to the east.

TURN LANE NEEDS

The potential need for a southbound left-turn lane on SE Everett Drive was considered at the new N Rekdahl Street intersection. As previously shown, the westbound stop-controlled N Rekdahl Street approach to SE Everett Drive is projected to operate well within City operational parameters. No right or left-turn lane needs were identified using *WSDOT Design Manual* criteria.

[4] Queues were rounded to the nearest 25 feet. Queuing results at the OR 224/OR 212 are excluded recognizing the City/County and ODOT are collaborating on an interim mitigation project at the intersection to add capacity and address queuing that is not accounted for in this analysis.

Exhibit 7 SUB24-1002

INTERSECTION SIGHT DISTANCE

Documentation demonstrating adequate intersection sight distance at the new public street roadways and intersections will be provided by AKS Engineering & Forestry through the site plan application process. We recommend that on-site landscaping, signage, and any new above-ground utilities be appropriately located and maintained to provide adequate intersection sight distance per applicable City requirements.

PROPORTIONATE SHARE CONTRIBUTIONS

The City of Vancouver collects proportionate share fee contributions from all future development that add one or more site-generated trips to an adopted list of intersections that require mitigation. Table 9 provides a summary of the current proportional share fee intersections, the mitigation cost per trip, the estimated number of site-generated trips added based on the current site plan by land use type as well as the corresponding mitigation fee anticipated. We anticipate the final fee amount due will be determined at the time of site plan application and payment will be paid prior to building permit issuance.

Table 11. City of Vancouver Proportionate Share Fee Summary

Mitigation Location	Mitigation Cost/Peak Hour Trip	Commercial		Residential		Total	
		Peak Hour Trips Added	Estimated Mitigation Cost	Peak Hour Trips Added	Estimated Mitigation Cost	Peak Hour Trips Added	Estimated Mitigation Cost
137th Ave: 49th St to Fourth Plain Blvd	$3,000/PM	0	$0	0	$0	0	$0
Fourth Plain Blvd & 152nd Ave Signal	$333/PM	0	$0	0	$0	0	$0
Lieser/St. Helens/MacArthur	$2,000/PM	0	$0	0	$0	0	$0
176th Ave & SE 20th St	$400/PM	0	$0	0	$0	0	$0
192nd Avenue & NE 13th Street	$400/PM	0	$0	12	$4,800	12	$4,800
192nd Ave & SE 34th St	$150/PM	0	$0	0	$0	0	$0
192nd Ave & SR-14 ramps	$2,000/PM	0	$0	0	$0	0	$0
MacArthur & Andresen Roundabout	$2,285/PM	0	$0	0	$0	0	$0
MacArthur & Devine Roundabout	$2,226/PM	0	$0	0	$0	0	$0
Grove St/Columbia House Blvd/SR-14 WB Ramp	$600/AM	0	$0	0	$0	0	$0
NE 172nd Avenue & NE 18th Street	$300/PM	0	$0	0	$0	0	$0
NE 179th Place & NE 18th Street	$900/PM	0	$0	0	$0	0	$0
NE 187th Avenue & NE 18th Street	$1,200/PM	0	$0	0	$0	0	$0
NE 162nd Avenue & NE 9th Street	$1,500/PM	0	$0	0	$0	0	$0
NE 172nd Avenue & NE 9th Street	$4,100/PM	0	$0	0	$0	0	$0
NE 192nd Avenue & NE 9th Street	$1,100/PM	0	$0	0	$0	0	$0
NE 187th Avenue & SE 1st Street	$1,100/PM	0	$0	0	$0	0	$0
Total Proportional Share Cost			$0		$4,800		$4,800

SUMMARY FINDINGS & RECOMMENDATIONS

Based on the transportation impact analysis results, the proposed residential homes and commercial building can be developed while maintaining acceptable operations at the study intersections assuming provision of the recommended mitigation measures in conjunction with site redevelopment.

Findings

- Two study intersections experience performance levels that don't satisfy the applicable City operating parameters today (NE Everett Street/NE 15th Avenue and NW Sierra Street/NW Lake Road).
- By the future opening year 2030, the following study intersections are projected to not satisfy the applicable performance metrics:
  - NE 232nd Avenue/NE 28th Street (Intersection #1): AM peak hour LOS F operations with a V/C >1.0;
  - NE 242nd Avenue/NE 28th Street (Intersection #2): PM peak hour LOS F operations with a V/C >1.0;
  - NE Everett Street/NE 15th Avenue (Intersection #9): PM peak hour LOS F operations with a V/C = 0.94;
  - NE Everett Street/NE 14th Avenue (Intersection #10): PM peak hour LOS F operations with a V/C = 0.77; and
  - NW Sierra Street/NW Lake Road (Intersection #15): School PM peak hour LOS F operations with a V/C = 0.43 and PM peak hour LOS F operations with a V/C = 0.92.
- The proposed development adds one or more site-generated trips to each of the study intersections listed above that do not satisfy the applicable performance metrics prior to site development. The following site development impacts and potential mitigation considerations were identified.
  - NE 232nd Avenue/NE 28th Street (Intersection #1): AM peak hour LOS F operations with a V/C >1.0
    - CCC Section 40.350.020.G.1.c.1 requires a proposed development provide mitigation when five (5) or more peak hour trips are added to a failing intersection approach on a regionally significant intersection.
    - The proposed site development is projected to add no (0) weekday AM peak hour trips to the stop controlled northbound approach when the Clark County LOS standard is not met.
  - NE 242nd Avenue/NE 28th Street (Intersection #2): PM peak hour LOS F operations with a V/C >1.0
    - Implementation of interim all-way stop control at the intersection would provide for acceptable operations during the weekday PM peak hour with site trips added (southbound approach LOS D with a V/C ratio of 0.82, overall intersection LOS C).
    - In the longer-term, installation of a roundabout or other alternative traffic control device and/or turn lanes may be appropriate.
  - NE Everett Street/NE 15th Avenue (Intersection #9): PM peak hour LOS F operations with a V/C = 0.97
    - No inbound site-generated trips are projected to be added to the failing eastbound approach which remains under-capacity.
    - There are intersections further to the north that drivers can use as a route alternative (including but not limited to NE 17th Avenue, NE 19th Avenue and NE 21st Avenue to the north).

- NE Everett Street/NE 14th Avenue (Intersection #10): PM peak hour LOS F operations with a V/C = 0.78
  - No inbound site-generated trips are projected to be added to the failing eastbound approach which remains under-capacity.
  - There are intersections further to the north that drivers can use as a route alternative (including but not limited to NE 17th Avenue, NE 19th Avenue and NE 21st Avenue to the north).
- NW Sierra Street/NW Lake Road (Intersection #15): School PM peak hour LOS F operations with a V/C = 0.45 and PM peak hour LOS F operations with a V/C = 0.99.
  - The City of Camas is currently advancing design plans to construct a roundabout at the intersection but the funding for and timing of the roundabout construction was unknown at the time this report was prepared.
  - It may be appropriate for the Camas Woods development to financially contribute towards the planned future roundabout through payment of a future Traffic Impact Fee methodology that incorporates the roundabout cost or a proportional share mitigation assessment program.

- In addition to addressing the background intersection conditions listed above, the NE Everett Street/NE Everett Drive (Intersection #4) will require mitigation in conjunction with site development.
  - The City of Camas has identified the NE Everett Street/NE Everett Drive intersection as a potential future single lane roundabout through the *Everett Street Corridor Analysis*.
  - Reconstruction of the NE Everett Street/NE Everett Drive intersection to a three-approach single lane roundabout (with provisions for a potential future fourth (west) approach) in conjunction with site development would mitigate the site-generated trip impacts and restore the intersection to an acceptable LOS A during the critical weekday AM peak hour.

- If site access is provided via a SE 8th Street connection to NE Everett Street, the following findings were made:
  - The westbound stop controlled approach to the NE Everett Street/SE 8th Street intersection is projected to operate at LOS F with a V/C ratio of 0.93 during the weekday AM peak hour when westbound traffic demand on SE 8th Street is highest among the three analysis periods.
  - Provision of a separate southbound left-turn lane on NE Everett Street at SE 8th Street appears appropriate to consider based on the southbound left-turn volumes (highest during the weekday AM peak hour when trips associated with the existing school on the northeast corner of the intersection occur) and WSDOT *Design Manual* guidance.
  - The NE Everett Street/NE Everett Drive intersection would still require a single lane roundabout to operate acceptably with site buildout and the SE 8th Street connection to NE Everett Street.
  - From an access management perspective, there is approximately 415 feet between SE 8th Street and SE Everett Drive today measured centerline to centerline. As such, it is unclear if WSDOT would move to restrict one or more turn movements at the NE Everett Street/SE 8th Street upon installation of a single lane roundabout at the NE Everett Street/NE Everett Drive intersection.

- The proposed site development is projected to add 12 weekday PM peak hour trips to the 192nd Avenue/NE 13th Street intersection in the City of Vancouver where proportional share mitigation payments are assessed.

Recommendations

Based on the traffic operations analysis findings, we recommend the following traffic control changes in conjunction with the proposed site development.

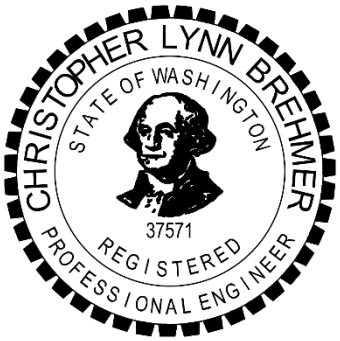
- Subject to City of Camas and WSDOT direction, reconstruct the NE Everett Street/NE Everett Drive intersection to a three-approach single lane roundabout in conjunction with site development (with provisions for a potential future fourth (west) approach).
  - The roundabout should be in place prior to permitting the 39th weekday AM peak hour trip associated with site development (anticipated to be commensurate with the start of Phase 4B site development, reflecting a total of 89 or more 88 townhomes on site).
- Subject to City of Camas direction, make a proportional financial mitigation contribution to the planned City of Camas NW Sierra Street/NW Lake Road roundabout project.
  - Pending City direction, the contribution could be made through payment of a future Traffic Impact Fee methodology that incorporates the roundabout cost or a proportional share mitigation assessment program should the City alternatively choose to implement a cost sharing assessment methodology for the roundabout project (we understand City staff anticipate the future Traffic Impact Fee program will in part fund the planned roundabout).
- Collaborate with WSDOT to identify and implement capacity mitigation at the NE 242nd Avenue/NE 28th Street intersection if required in conjunction with site development.
  - Potential options identified to explore with WSDOT include but are not limited to implementation of interim all-way stop control or payment of a proportional share financial contribution to a future intersection capacity improvement.
- Subject to City of Camas direction, post new STOP (R1-1) signs in accordance with applicable City standards and the *Manual on Uniform Traffic Control Devices* (MUTCD) at the locations listed below when the new roadway approaches are constructed as part of site development:
  - Eastbound on N Rekdahl Street at NE Everett Drive;
  - Southbound on the public street approaches to N Rekdahl Street internal to the project site; and,
  - Northbound and southbound on the public street approaches to SE 8th Street internal to the project site.
- Subject to City of Vancouver concurrence and final residential unit count confirmation, pay $4,800 in proportionate share contributions to the 192nd Avenue/NE 13th Street intersection as identified per City of Vancouver requirements documented in this report.
- Locate and maintain site landscaping, above-ground utilities, and site signage within the site as well as at the site driveways to provide adequate intersection sight distance per applicable City requirements.

Please contact us if you have any questions regarding our analysis findings or recommendations.

Sincerely,
KITTELSON & ASSOCIATES, INC.

Chris Brehmer, PE
Senior Principal Engineer

Julia Kuhn, PE
Senior Principal Engineer



REFERENCES

1. City of Camas. *Transportation Impact Study Guidelines*. June 10, 2019.

2. Transportation Research Board. *Highway Capacity Manual, 7th Edition*. 2022.

3. Washington State Department of Transportation. *WSDOT Design Manual M 22-01.22 – Chapter 320: Traffic Analysis*. October 2023.

4. Institute of Transportation Engineers. *Trip Generation Manual, 11th Edition*. September 2021.

LIST OF APPENDICES

A. Traffic Study Scoping Documentation
B. WSDOT Crash Data
C. Traffic Count Data
D. Existing Conditions Analysis Worksheets
E. In-Process Data
F. Year 2030 Background Traffic Conditions Analysis Worksheets
G. Year 2030 Total Traffic Conditions Analysis Worksheets
H. Year 2030 Phased & Mitigated Total Traffic Conditions Analysis Worksheets

Appendix A: Traffic Study Scoping Documentation

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Portland, OR 97204
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SCOPING MEMORANDUM

June 6, 2024 Project# 30088

To: James E Carothers, PE & Anita Ashton
City of Camas Community Development Engineering
616 NE 4th Avenue
Camas, WA 98607

Dylan Bass, Jason Lugo, & Courtney Sell
Washington State Department of Transportation (WSDOT) Southwest Region
11018 Northeast 51st Circle
Vancouver, WA 98668-1709

From: Chris Brehmer, PE, Russ Doubleday, AICP, & Julia Kuhn, PE, Kittelson & Associates, Inc.

CC: Bryce Hanson, PE, LSIT, AKS Engineering & Forestry, LLC
Andy Swanson & Kevin Miller, Camas Woods LLC

RE: Camas Woods Transportation Impact Study Scoping Request (PA 23-30)

This revised scoping memorandum was prepared to document the project assumptions and methodology associated with preparing a transportation impact study (TIS) for the proposed Camas Woods development in Camas. Details of the TIS assumptions and methodology are documented herein based on preliminary pre-application conference feedback as well as guidance in the City of Camas *Transportation Impact Study Guidelines* and the Washington State Department of Transportation (WSDOT) *Design Manual – Chapter 320 Traffic Analysis*.

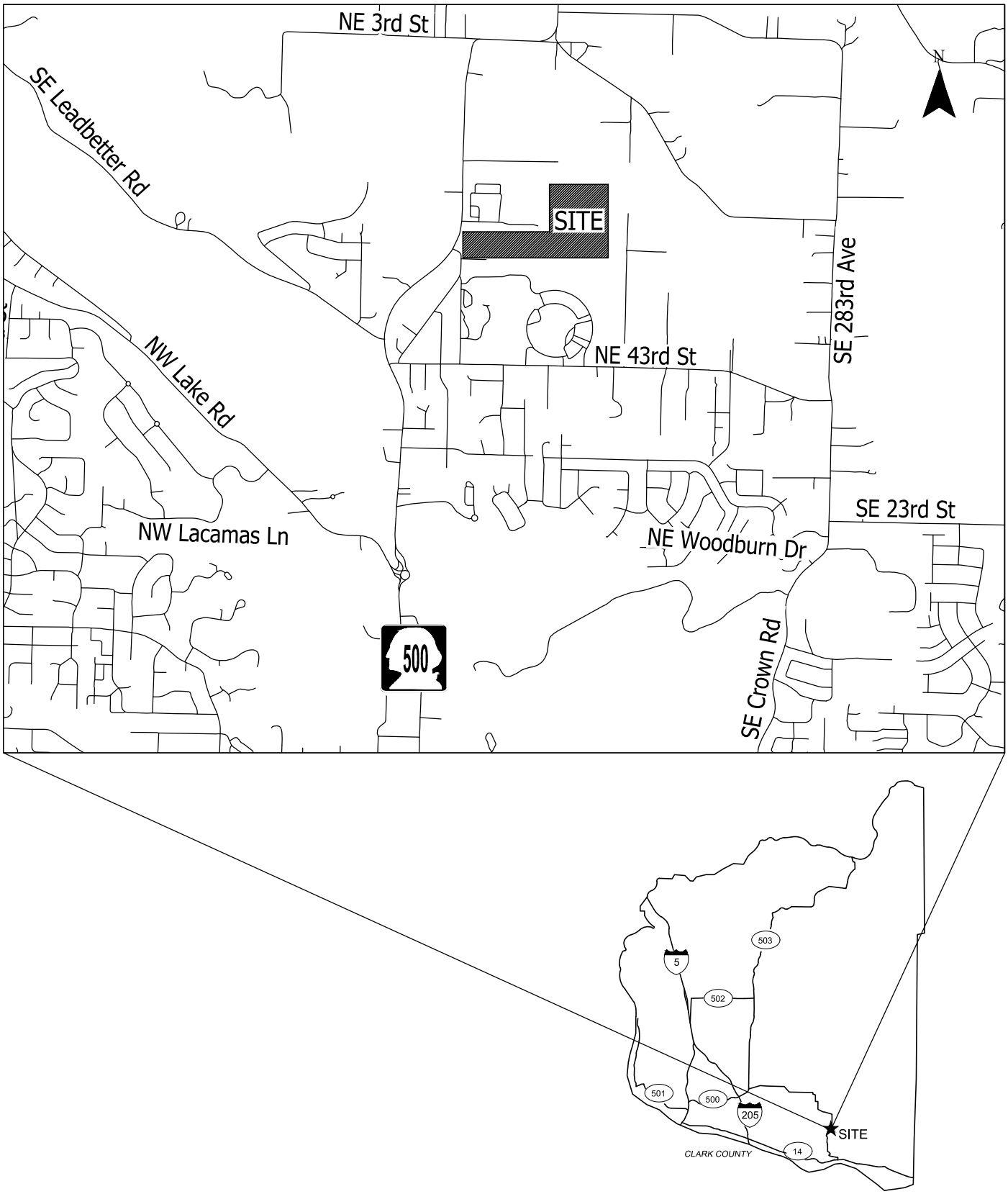
We request that you please review this material and provide us with your comments, suggestions and any questions. We will proceed with the TIS analysis once the path forward has been confirmed.

PROPOSED PROJECT

Camas Woods LLC proposes to develop a 36.37-acre mixed-use project located on the east side of NE Everett Street (State Route 500) and NE Everett Drive generally north of Camas High School. Preliminary site buildout plans indicated that the site could include approximately 120 detached single-family homes, 88 townhomes, 88 apartment units, and 10,000 square feet of commercial space. No tenants for the commercial space are identified at this time.

Figure 1 shows the site vicinity map, and Figure 2 shows a preliminary site plan.

Primary vehicular site access is proposed via a new public street (N Rekdahl Street) connection to NE Everett Drive south of SR 500. SE 8th Street has been identified by the City as a desired second vehicular access to the site. The ability to construct a full width SE 8th Street connection to City standards between the western portion of the project site and an off-site connection west to SR 500 is not yet confirmed and may necessitate that SE 8th Street function initially as secondary and/or emergency only access.

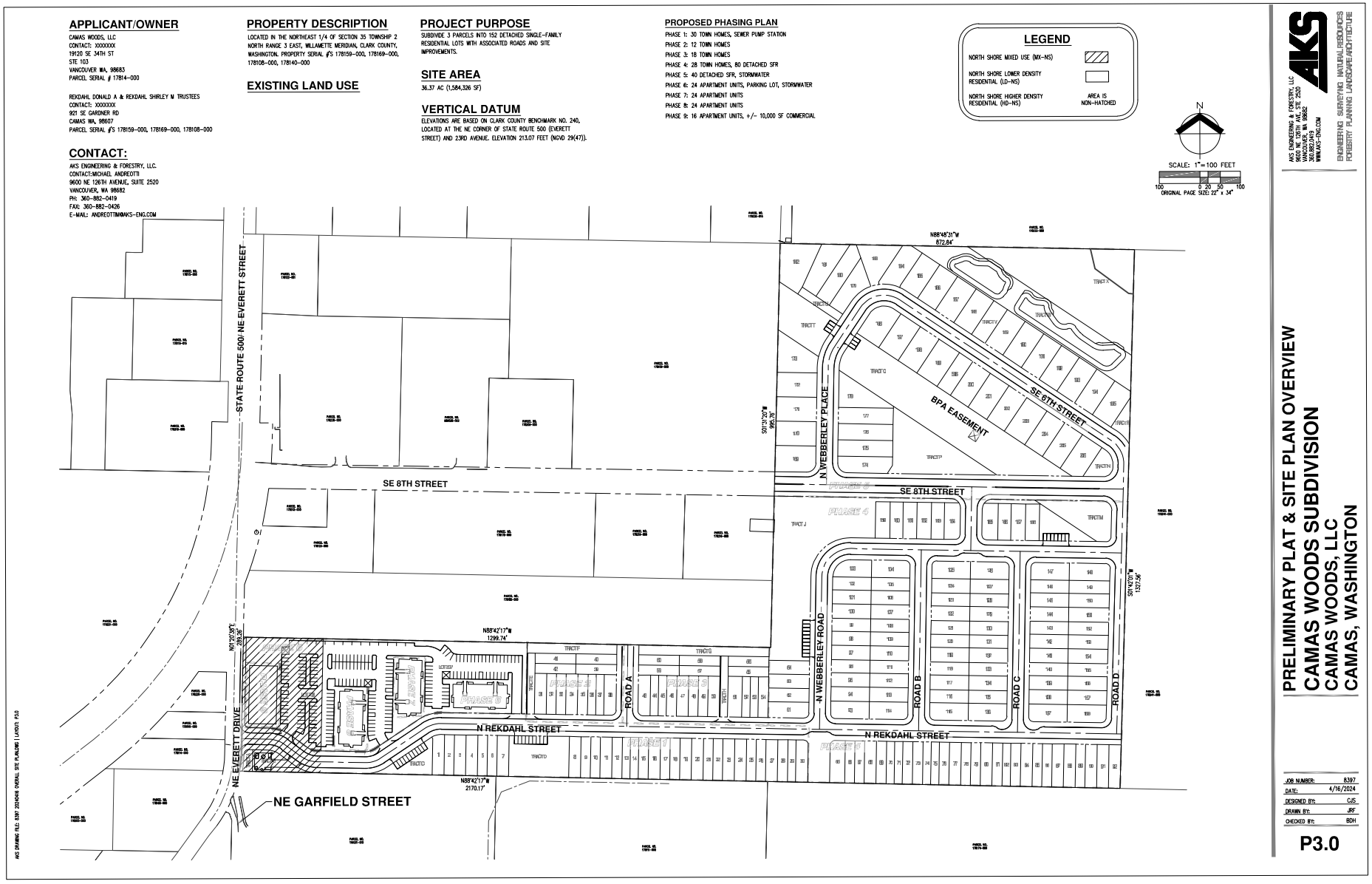


Site Vicinity Map
Camas, Washington

Figure
1

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KITTELSON & ASSOCIATES



RECEIVED FROM AKS ENGINEERING AND FORESTRY, LLC: (APRIL 18, 2024)

Preliminary Site Plan
Camas, Washington

Figure
2

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ESTIMATED TRIP GENERATION

Weekday daily, AM, and PM peak hour vehicle trips for the proposed development were estimated using data from the *Trip Generation Manual, 11th Edition*, published by the Institute of Transportation Engineers (ITE, Reference 1), as summarized in Table 1 below. The residential trip estimates shown in Table 1 reflect fitted equation trip rates while the commercial trip rates were estimated using a combination of average daily trip rates and peak hour fitted equation trip rates for a strip retail plaza. The future commercial building trip rates could be lower if an office tenant is realized in lieu of retail space.

Table 1. Estimated Site Trip Generation

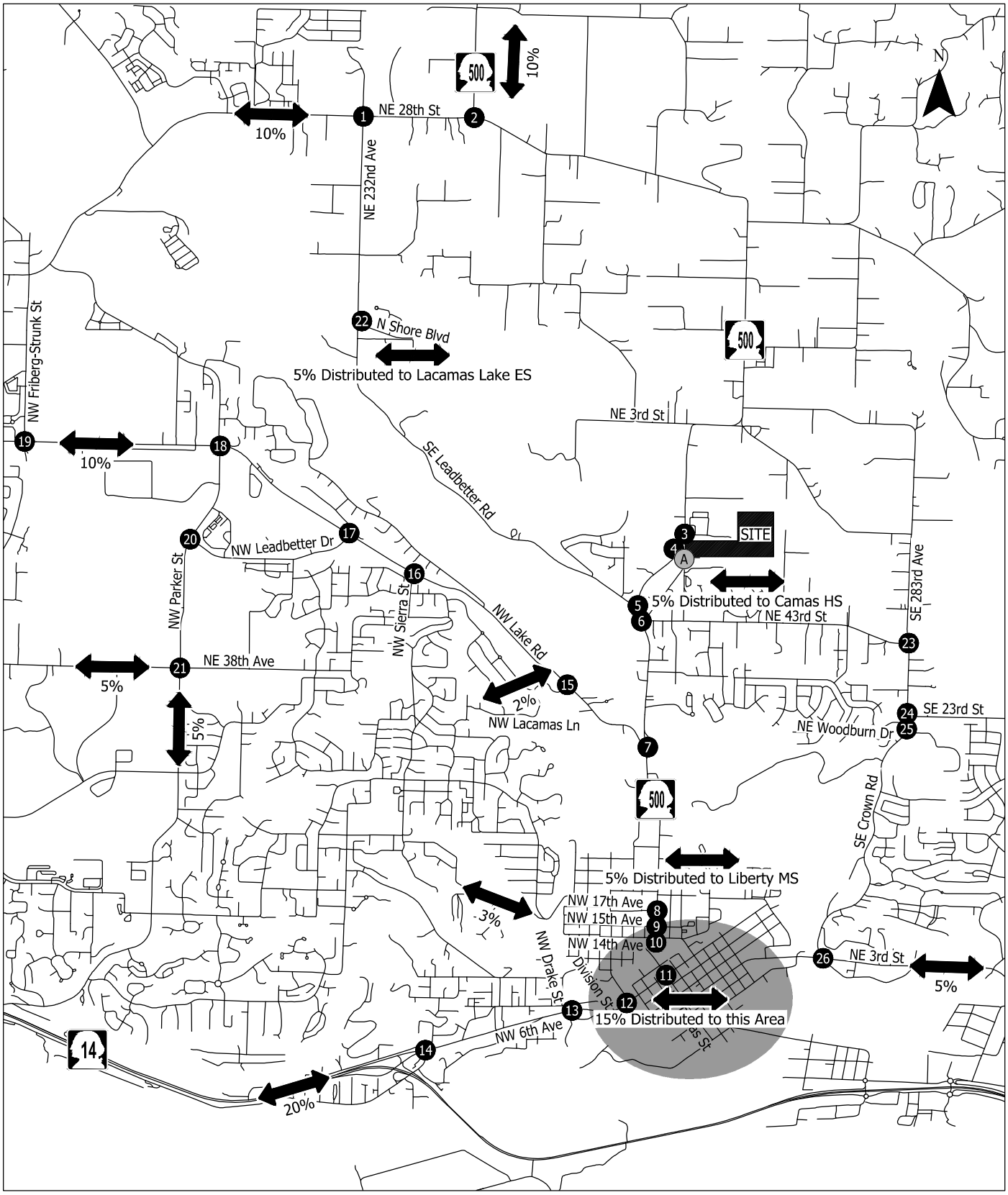
Land Use	ITE Code	Size	Daily Trips	Weekday AM Peak			Weekday School PM Peak			Weekday PM Peak		
				Total	In	Out	Total	In	Out	Total	In	Out
Detached Single-Family Homes	210	120 units	1,193	88	23	65	87	50	37	118	74	44
Apartments/Town Homes	220	176 units	1,203	77	18	59	71	38	33	96	60	36
Commercial	822	10,000 sq ft	545	29	17	12	40	20	20	78	39	39
Less pass-by at 34%			*(185)*	*(10)*	*(6)*	*(4)*	*(14)*	*(7)*	*(7)*	*(27)*	*(14)*	*(13)*
Net New Commercial			360	19	11	8	26	13	13	51	25	26
TOTAL NET NEW			**2,756**	**184**	**52**	**132**	**184**	**101**	**83**	**265**	**159**	**106**

ESTIMATED TRIP DISTRIBUTION PATTERNS

Select zone analysis files for Transportation Analysis Zone (TAZ) 1792 were obtained from the Southwest Washington Regional Transportation Council (RTC) for the 2015 base year and 2040 horizon year to determine a site trip distribution pattern. The 2015 base year select zone assignment was used given the future model assumes road connections that are not yet available. The base model assumes 119 households and 327 jobs within TAZ 1792.

Based on the anticipated range of potential future commercial tenants and the site location, we assume the site residential land and commercial land uses will have different trip distribution patterns. The retail commercial trips are assumed to be local in nature (as opposed to a regional attraction) given the comparatively small building size and considering the existing commercial retail available in downtown Camas, as well as existing and anticipated retail services to the north and west (including the regional commercial provides near the SE 192nd Avenue corridor in Vancouver).

Figure 3 illustrates the estimated trip distribution pattern for site residential trips while Figure 4 shows the expected trip distribution pattern for site commercial trips. Figures 5, 6, and 7 illustrate the corresponding net new site-generated trip assignment to potential study intersections based on the trip estimates in Table 1. Figure 8 illustrates the weekday AM, school PM, and PM peak hour pass-by trip assignments.



Study Intersections

A Site Driveway

Trip Distribution Percentage

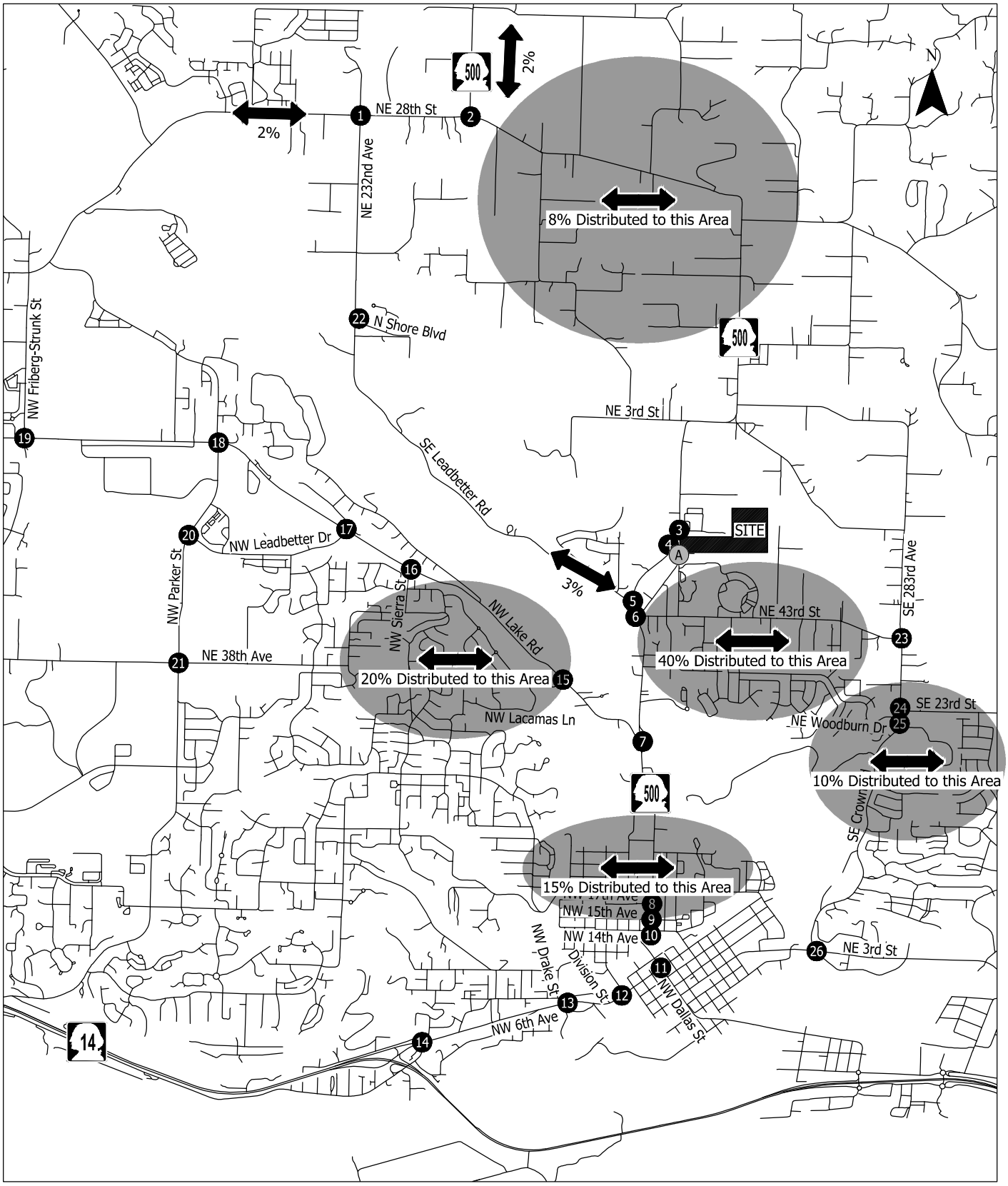
XX%

Estimated Residential Site Trip Distribution Pattern Camas, Washington

Figure 3

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Study Intersections

A Site Driveway

XX% Trip Distribution Percentage

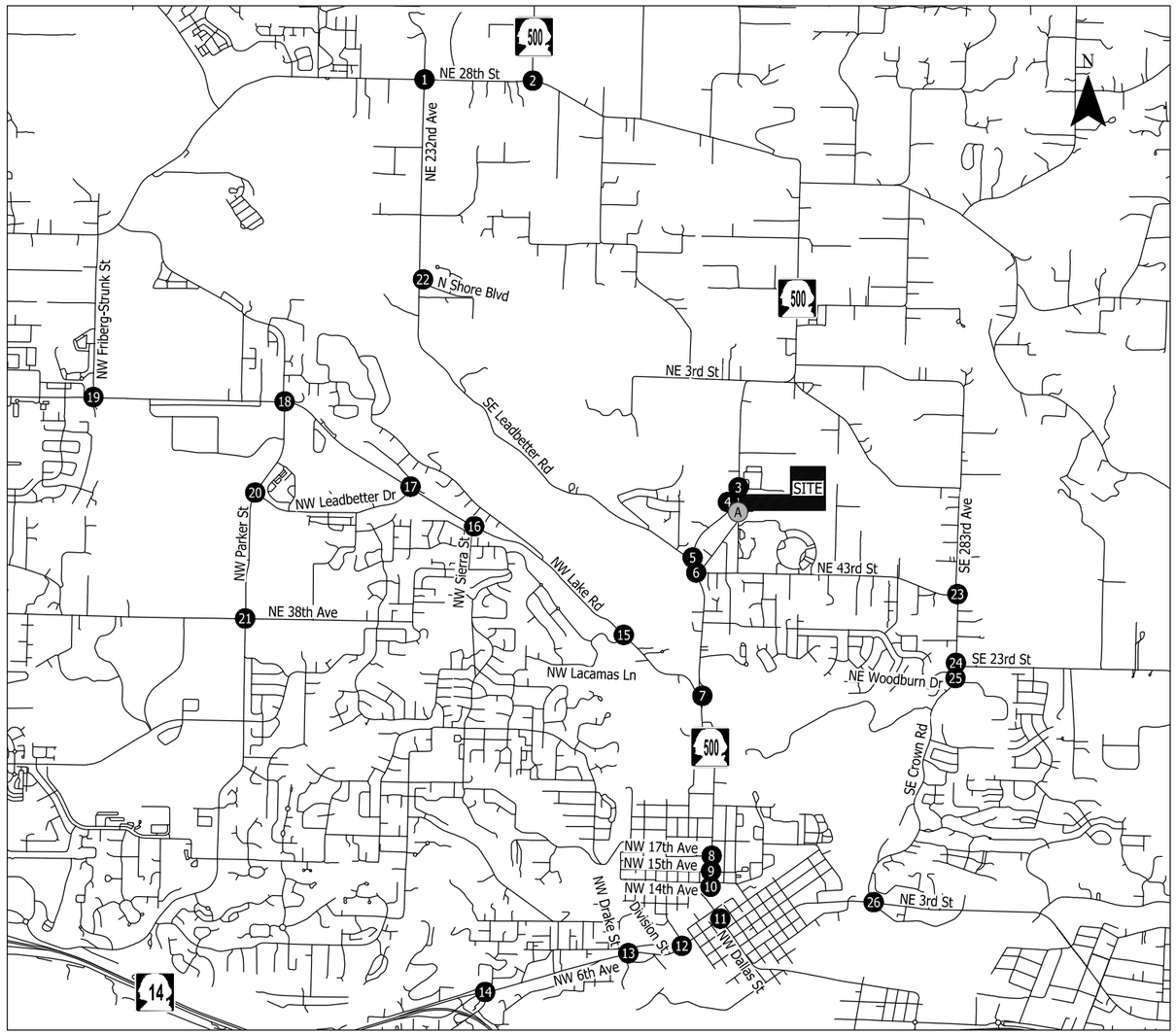
Estimated Commercial Site Trip Distribution Pattern Camas, Washington

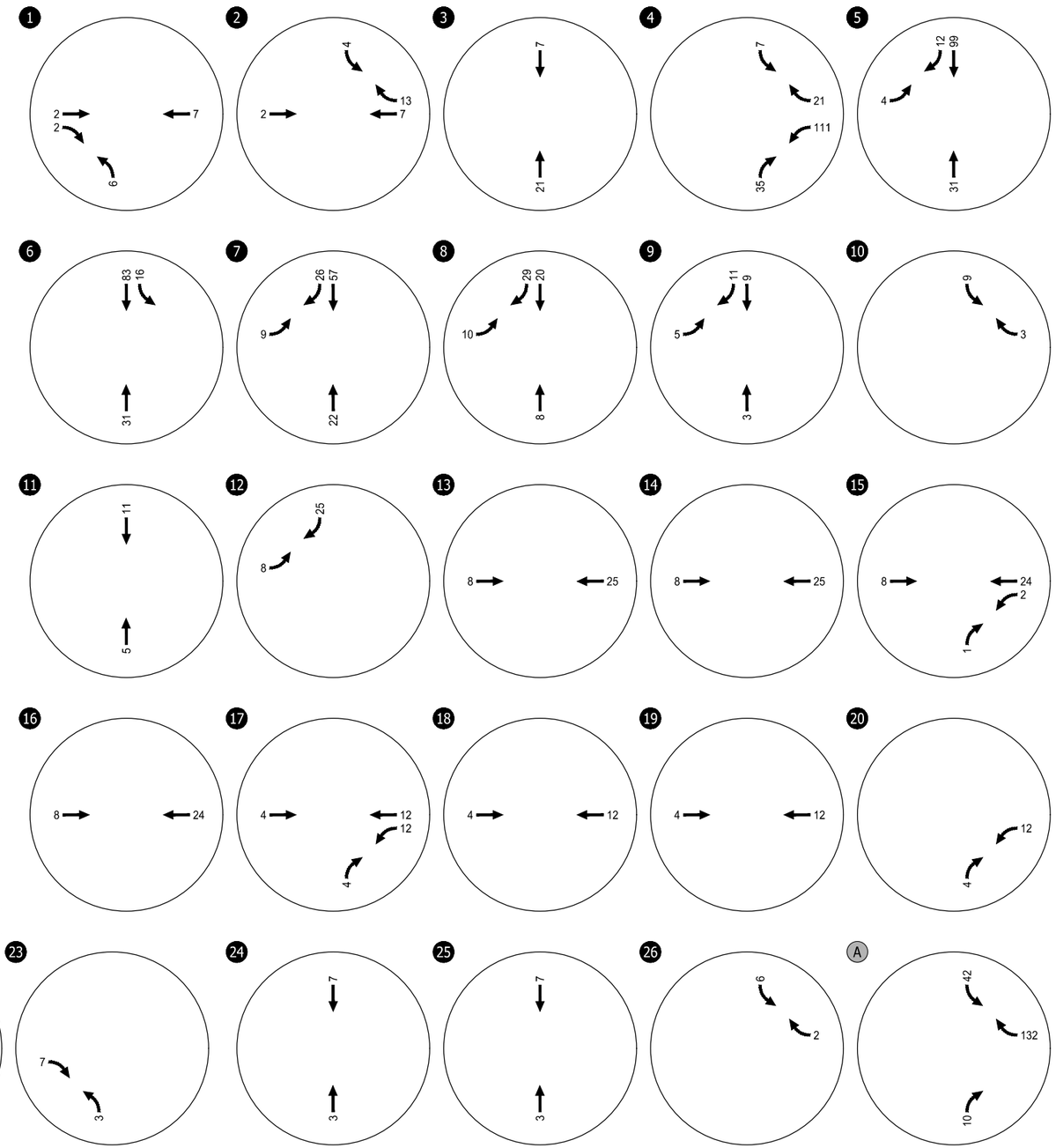
Figure 4

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KITTELSON & ASSOCIATES

Camas Woods *June 2024*





Study Intersections

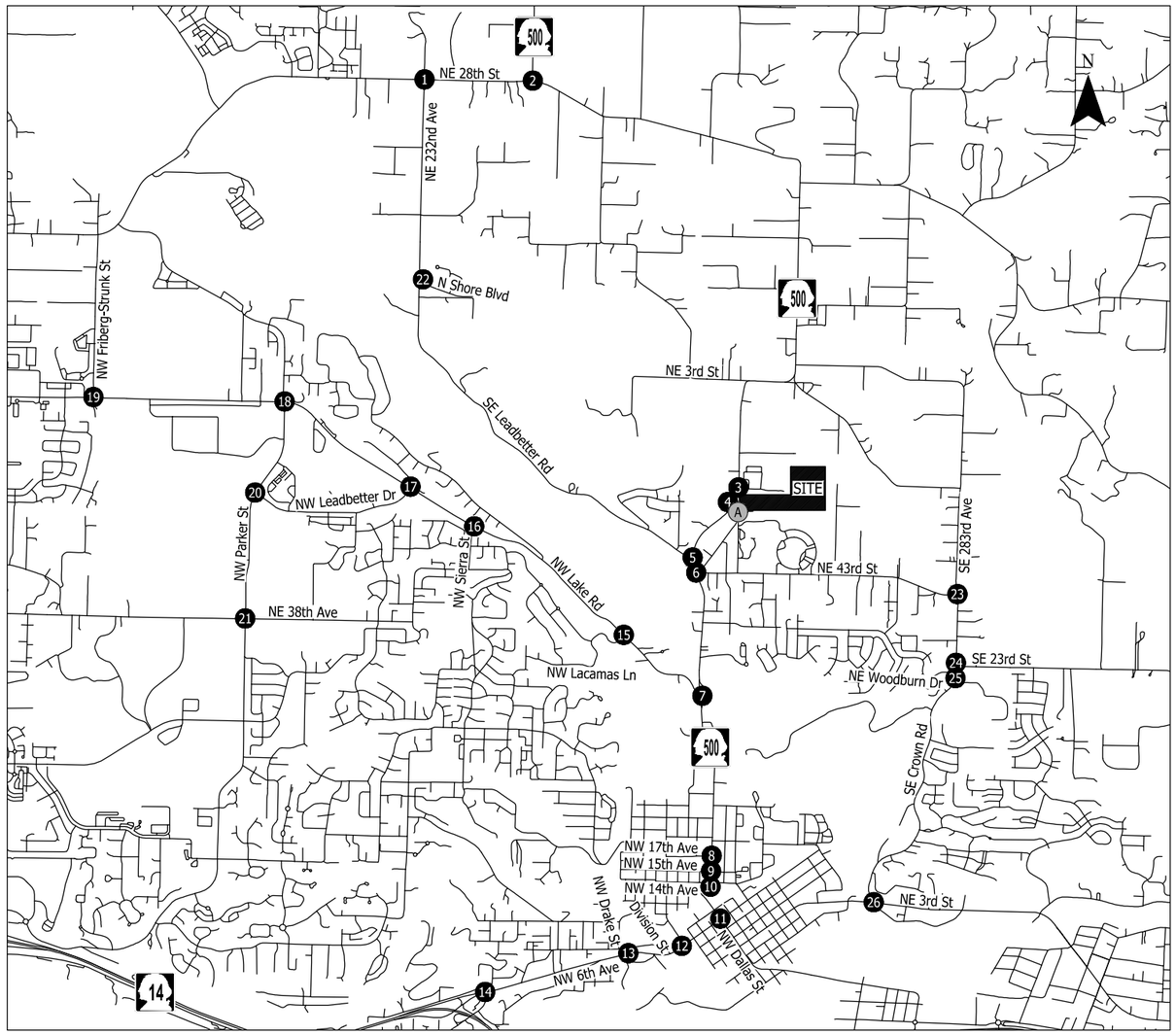
A Site Driveway

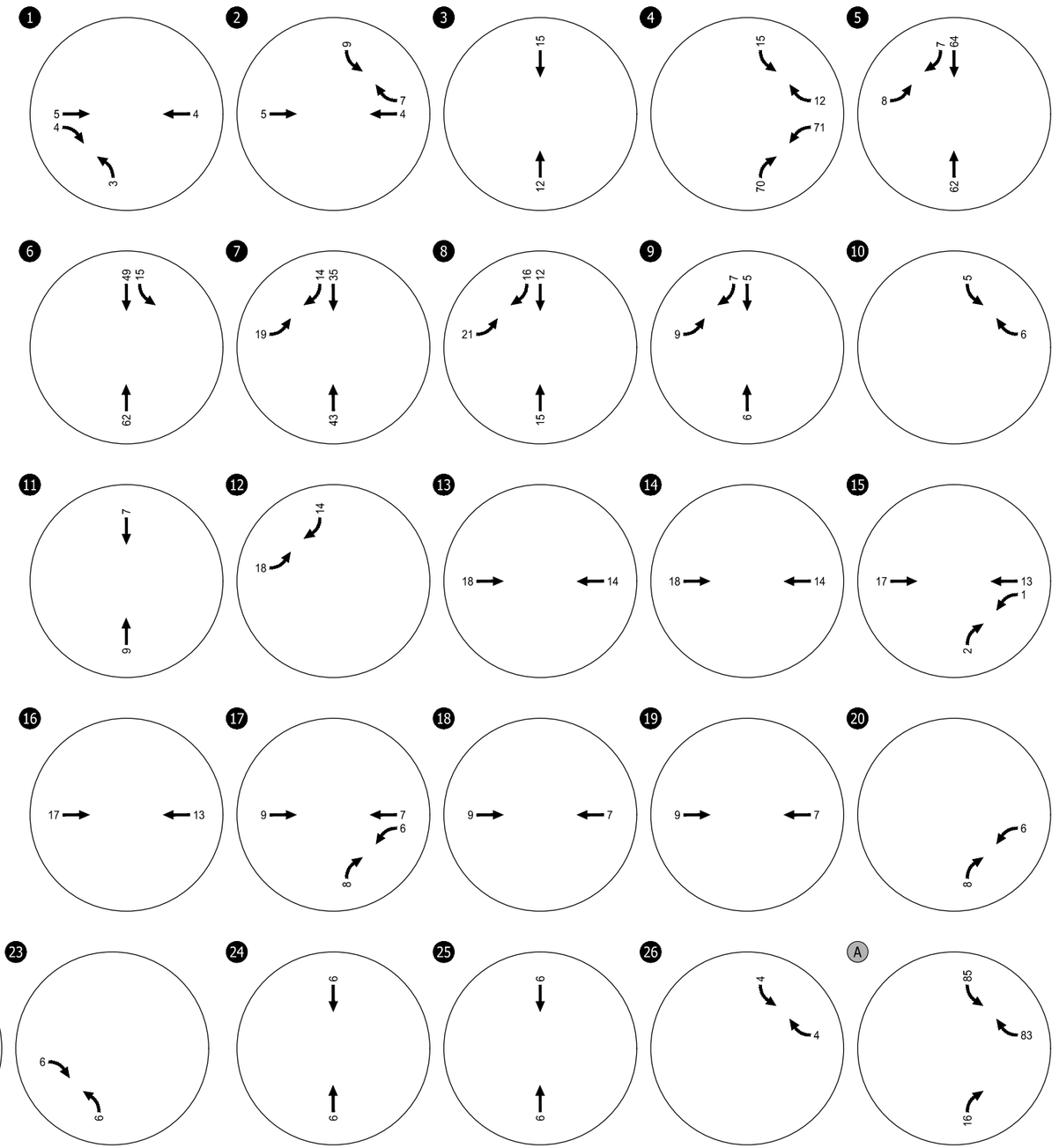
Weekday AM Peak Hour
Net New Site-Generated Trip Assignment
Camas, Washington

Figure
5

H:\30\30088 - Camas Woods\report\figs\30088_figureset.dwg Jun 06, 2024 - 10:41am - rdoubleday Layout Tab: AM Trip Assignment

KITTELSON & ASSOCIATES





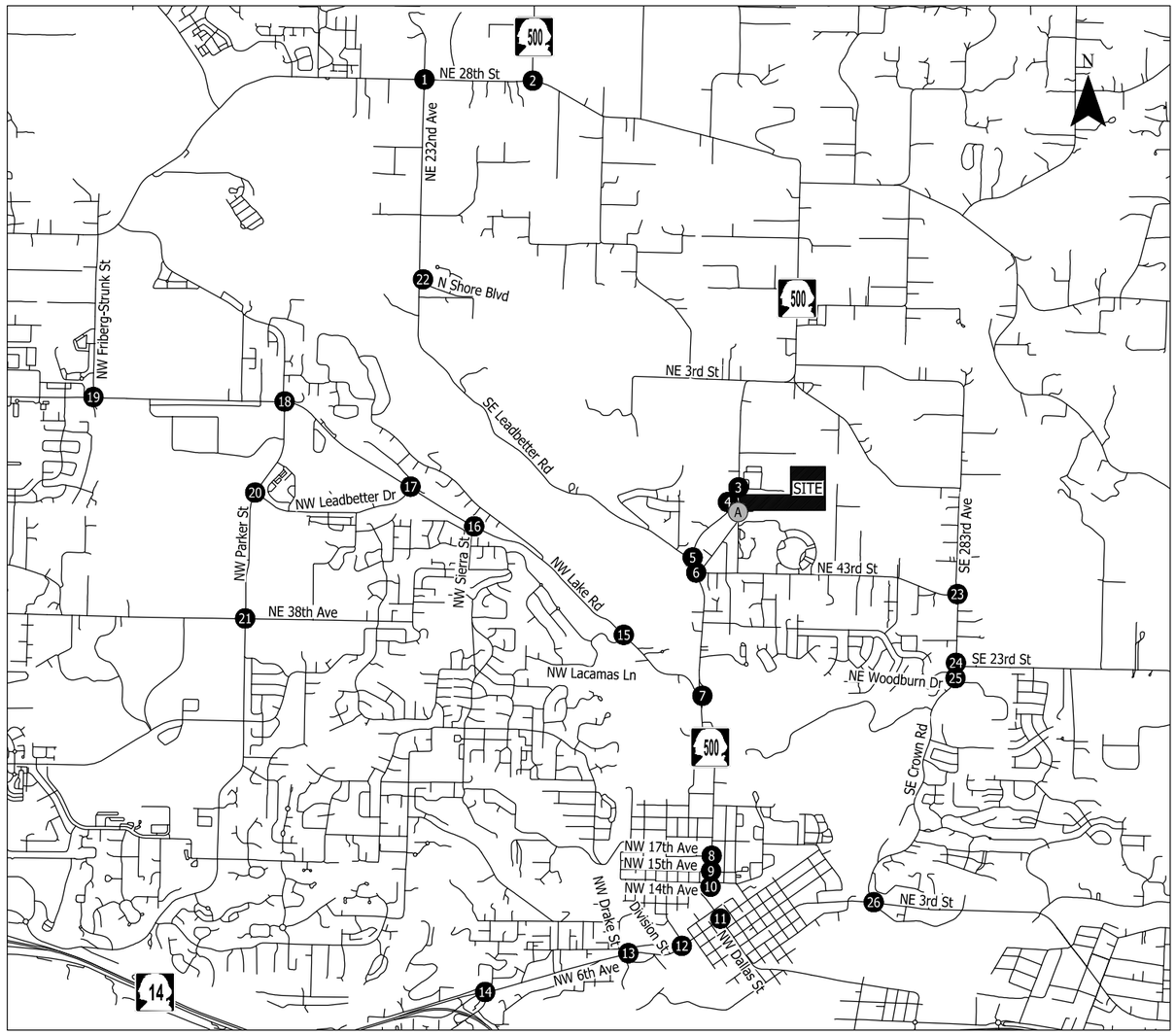
Study Intersections

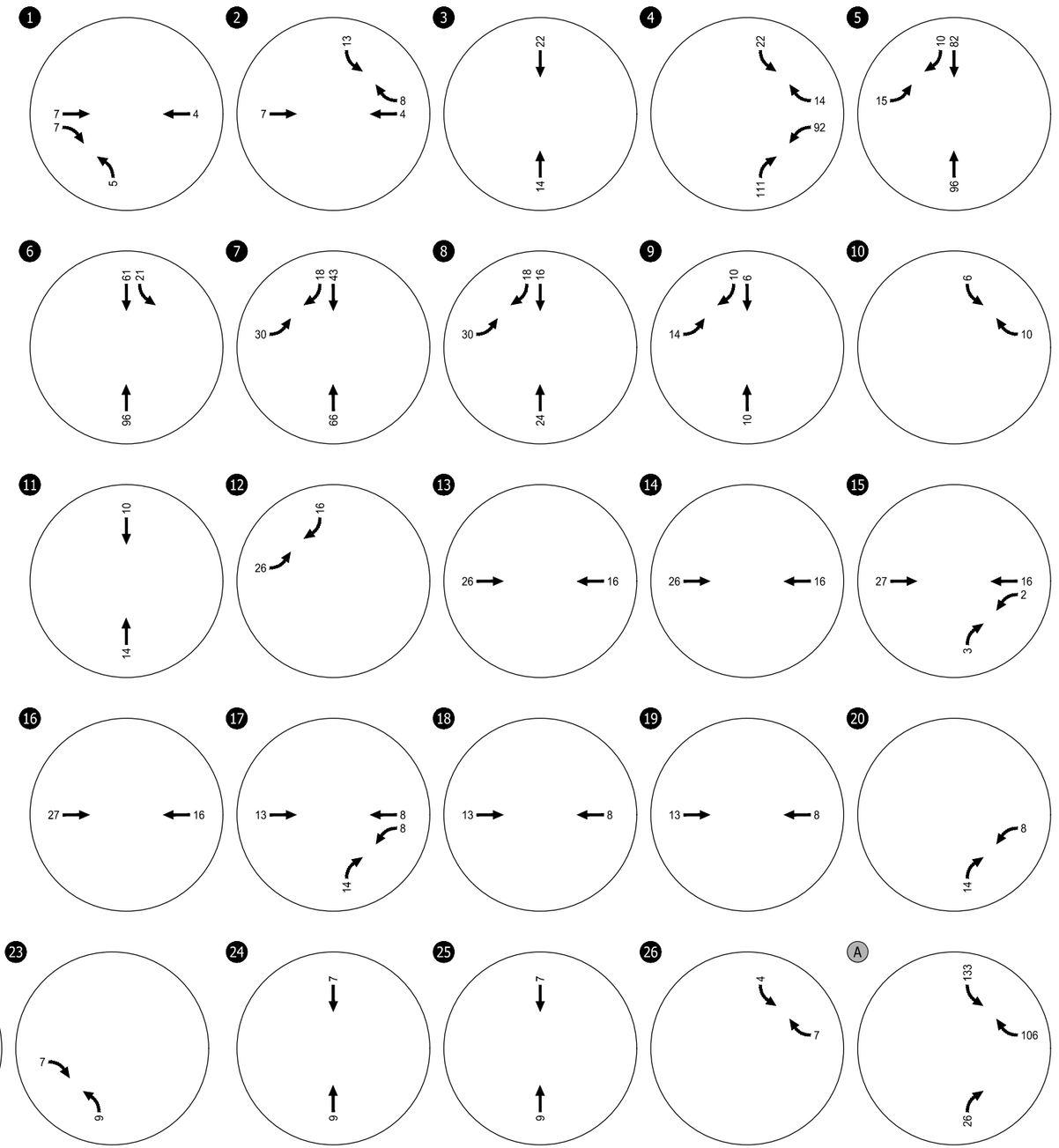
A Site Driveway

Weekday School PM Peak Hour
Net New Site-Generated Trip Assignment
Camas, Washington

Figure
6

H:\30\30088 - Camas Woods\report\figs\30088_figureset.dwg Jun 06, 2024 - 10:43am - rdoubleday Layout Tab: School PM Trip Assignment





Study Intersections

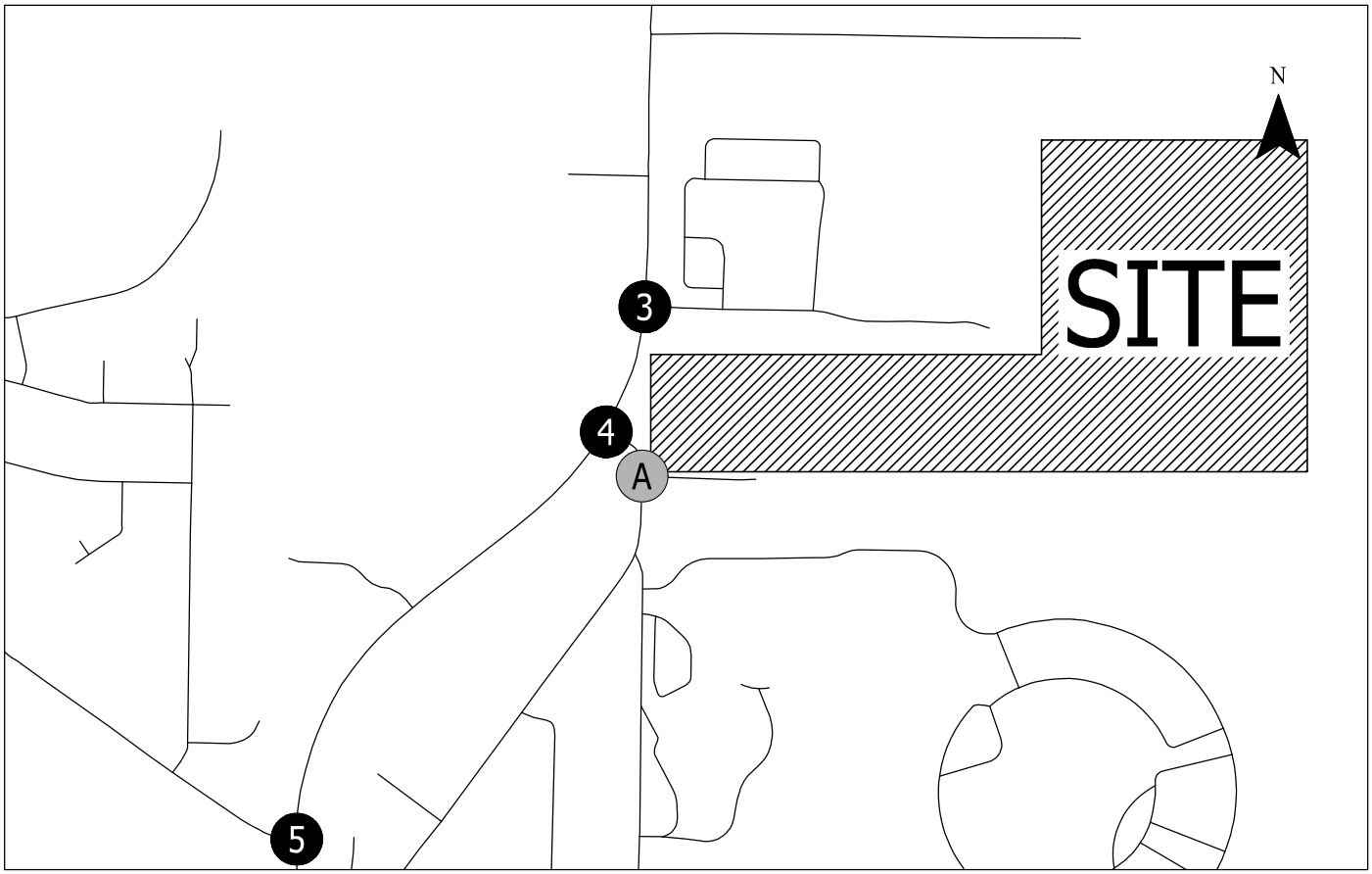
A Site Driveway

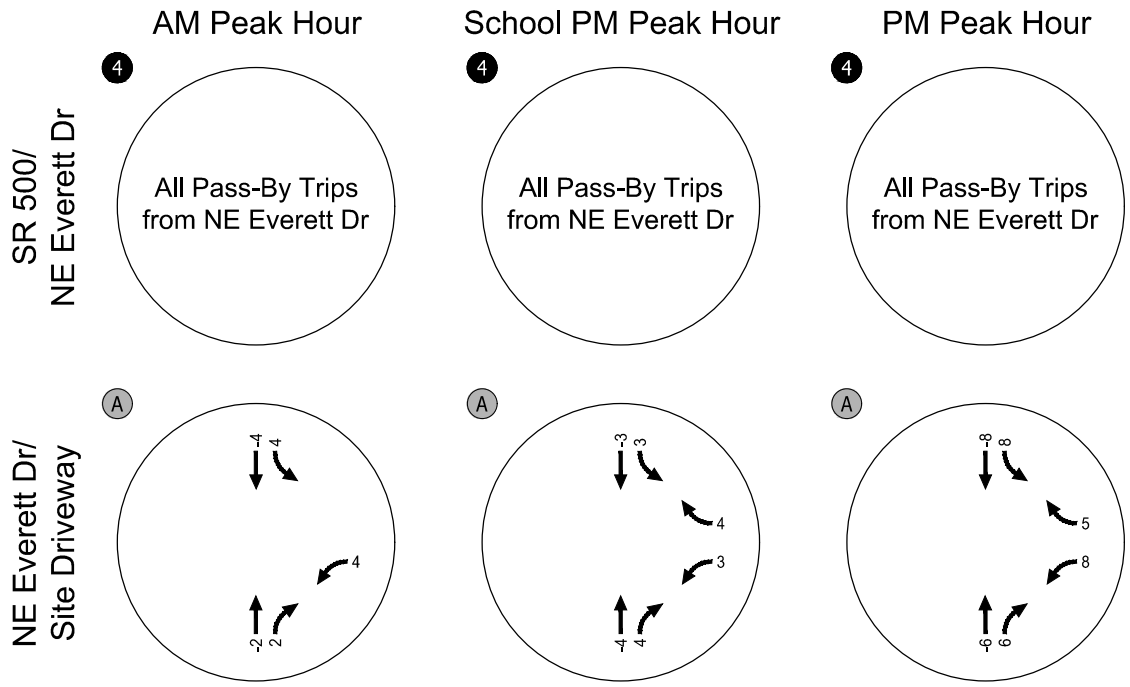
Weekday PM Peak Hour
Net New Site-Generated Trip Assignment
Camas, Washington

Figure
7

H:\30\30088 - Camas Woods\report\figs\30088_figureset.dwg Jun 06, 2024 - 10:45am - rdoubleday Layout Tab: PM Trip Assignment

KITTELSON & ASSOCIATES





Peak Hour Site-Generated
Pass-By Trip Assignments
Camas, Washington

Figure
8

H:\30\30088 - Camas Woods\report\figs\30088_figureset.dwg Jun 06, 2024 - 3:17pm - rdoubleday Layout Tab: Pass-Bys

Exhibit 7 SUB24-1002

The preliminary pass-by trip assignment was prepared considering guidance from the *Multimodal Transportation Impact Analysis for Site Development* ITE Recommended Practice (published by the Institute of Transportation Engineers in 2023) that indicates pass-by trips should not exceed 15 percent of the vehicle traffic volume on a street. Given the volumes along NE Everett Drive today, all pass-by trip assignments are proposed to be assessed as direct from NE Everett Drive.

We note the final trip assignment accessing SR 500 from the site is likely to be modified in the final TIS based on the selected access scenario and refined routing to be detailed based on intersection operations analysis and other considerations.

POTENTIAL STUDY INTERSECTIONS

The City of Camas requires an intersection to be included in a TIS if 20 or more trips are added to the city intersection from the development. WSDOT generally requires WSDOT-maintained intersections be included in a TIS if 25 or more trips are added to the intersection or 10 or more trips are added to State highway approach. Per scoping conversations with WSDOT staff, site-generated trips were tracked for a distance three miles north of the site along SR 500. WSDOT staff determined that the intersections of SR 500/NE 3rd Street and SR 500/NE Robinson Road located north of the project site do not need to be analyzed in the TIS because new roundabouts are scheduled to be constructed and operationally complete by September of 2025 at both locations.

Based on the identified trip thresholds, the preliminary trip distribution pattern and trip assignment outlined above, comments from the pre-application hearing, and subsequent direction to date from WSDOT, the City of Washougal, the City of Vancouver and City of Camas staff, the intersections listed in Table 2 have been identified for potential inclusion in the TIS (subject to final direction by City of Camas staff). We request City staff review and direction as to which intersections need to be addressed in the TIS.

Table 2. Potential Study Intersections and Peak Periods for Analysis

ID	Potential Study Intersection	Traffic Control	Weekday AM Study Intersection	Weekday School PM Study Intersection	Weekday PM Study Intersection
1	NE 232nd Ave/NE 28th St	TWSC	X		X
2	SR 500/NE 28th St	TWSC	X		X
3	SR 500/SE 8th St	TWSC	X	X	X
4	SR 500/NE Everett Dr	TWSC	X	X	X
5	SR 500/SE Leadbetter Rd	TWSC	X	X	X
6	SR 500/NE 43rd Ave	Signalized	X	X	X
7	SR 500/NW Lake Rd	Roundabout	X	X	X
8	SR 500/NE 17th Ave	TWSC	X		X
9	SR 500/NE 15th Ave	TWSC	X		X
10	SR 500/NE 14th Ave	TWSC			X

Exhibit 7 SUB24-1002

ID	Potential Study Intersection	Traffic Control	Weekday AM Study Intersection	Weekday School PM Study Intersection	Weekday PM Study Intersection
11	NE Dallas St/NE 6th Ave	TWSC			
12	Division St/NW 6th Ave	TWSC	X		X
13	NW Drake St/ NW 6th Ave	TWSC	X		X
14	SR 14 On-/Off-Ramps/NW 6th Ave	Roundabout	X		X
15	NW Lacamas Ln/ NW Lake Rd	TWSC	X		X
16	NW Sierra St/ NW Lake Rd	TWSC	X		X
17	NW Leadbetter Dr/ NW Lake Rd	TWSC	X		X
18	NW Parker St/ NW Lake Rd	Signalized			X
19	NW Friberg-Strunk St/ NW Lake Rd	Signalized			X
20	NW Parker St/ NW Leadbetter Dr	TWSC			X
21	NW Parker St/ NE 38th Ave	Signalized			X
22	NW 232nd Ave/ N Shore Blvd	TWSC	X	X	X
23	SE 283rd Ave/ NE 43rd Ave	TWSC	X	X	X
24	SE 283rd Ave/SE 23rd St	TWSC			X
25	SE 283rd Ave/ NE Woodburn Dr	TWSC			X
26	SE Crown Rd/NE 3rd Ave	Signalized			X

Where: TWSC = Two-way Stop Control
X = potential analysis period

ANALYSIS METHODOLOGY

All intersection operations analysis will be completed using Vistro software and the *Highway Capacity Manual, 7th Edition* (HCM – Reference 5) methodologies.

Exhibit 7 SUB24-1002

MOBILITY STANDARDS

The applicable City and WSDOT mobility standards for are described below and summarized in Table 3.

City of Camas

According to the City of Camas' *Transportation Impact Study Guidelines* (Reference 2), a TIS is required when a proposed development generates 200 or more daily vehicle trips. As Table 1 shows, this threshold has been met for this project, triggering a TIS. Camas uses level of service (LOS) for traffic operations. Minor and local streets must meet LOS C standards, and collector and arterial streets must meet LOS D standards. If site traffic contributes to traffic operations that exceed the LOS D standard, then the TIS recommendations need to include mitigations or roadways improvements.

SR 500

Chapter 320 of WSDOT's *Design Manual* (Reference 3) covers traffic impact analysis on state facilities.

The Urban non-National Highway System facilities (non-HSS standard) established by the Southwest Washington Regional Transportation Council (RTC) for Clark County is LOS E and applies to study intersections 1 through 9[1].

Table 3 provides a preliminary summary of applicable mobility standards at the study intersections. We request City review of these operating requirements to confirm whether the identified values are correct (WSDOT has confirmed their requirements).

Table 3. Applicable Mobility Standards

ID	Potential Study Intersection	Traffic Control	Jurisdictional Authority	Facility Designation	Operating Requirement
1	NE 232nd Ave/NE 28th St	TWSC	RTC[1]	Urban HSS	LOS E
2	SR 500/NE 28th St	TWSC	RTC[1]	Urban HSS	LOS E
3	SR 500/SE 8th St	TWSC	RTC[1]	Urban HSS	LOS E
4	SR 500/NE Everett Dr	TWSC	RTC[1]	Urban HSS	LOS E
5	SR 500/ SE Leadbetter Rd	TWSC	RTC[1]	Urban HSS	LOS E
6	SR 500/NE 43rd Ave	Signalized	RTC[1]	Urban HSS	LOS E
7	SR 500/NW Lake Rd	Roundabout	RTC[1]	Urban HSS	LOS E
8	SR 500/NE 17th Ave	TWSC	RTC[1]	Urban HSS	LOS E
9	SR 500/NE 15th Ave	TWSC	RTC[1]	Urban HSS	LOS E
10	SR 500/NE 14th Ave	TWSC	WSDOT	Urban	LOS D

[1] Regional Transportation Planning Organizations (RTPOs) have the authority to set LOS thresholds for non-Highways of Statewide Significance (HSS). The Urban non-HSS standard established by RTC for Clark County is LOS E.

Exhibit 7 SUB24-1002

ID	Potential Study Intersection	Traffic Control	Jurisdictional Authority	Facility Designation	Operating Requirement
11	NE Dallas St/NE 6th Ave	TWSC	City of Camas	City Arterial	LOS D
12	Division St/NW 6th Ave	TWSC	City of Camas	City Arterial	LOS D
13	NW Drake St/ NW 6th Ave	TWSC	City of Camas	City Arterial	LOS D
14	SR 14 On-/Off-Ramps/NW 6th Ave	Roundabout	WSDOT	Urban HSS	LOS D
15	NW Lacamas Ln/NW Lake Rd	TWSC	City of Camas	City Arterial	LOS D
16	NW Sierra St/ NW Lake Rd	TWSC	City of Camas	City Arterial	LOS D
17	NW Leadbetter Dr/NW Lake Rd	TWSC	City of Camas	City Arterial	LOS D
18	NW Parker St/NW Lake Rd	Signalized	City of Camas	City Arterial	LOS D
19	NW Friberg-Strunk St/ NW Lake Rd	Signalized	City of Camas	City Arterial	LOS D
20	NW Parker St/ NW Leadbetter Dr	TWSC	City of Camas	City Arterial	LOS D
21	NW Parker St/ NE 38th Ave	Signalized	City of Camas	City Arterial	LOS D
22	NW 232nd Ave/N Shore Blvd	TWSC	City of Camas	City Arterial	LOS D
23	SE 283rd Ave/NE 43rd St	TWSC	City of Camas	City Arterial	LOS D
24	SE 283rd Ave/SE 23rd St	TWSC	City of Camas	City Arterial	LOS D
25	SE 283rd Ave/NE Woodburn Dr	TWSC	City of Camas	City Arterial	LOS D
26	SE Crown Rd/NE 3rd Ave	Signalized	City of Camas	City Arterial	LOS D

Where: TWSC = Two-way Stop Control
[1]RTPOs have the authority to set LOS thresholds for non-Highways of Statewide Significance (HSS). The Urban non-HSS standard established by RTC for Clark County is LOS E.

STUDY TIME PERIODS

We propose to analyze one-hour peak within the weekday morning (7-9 AM), school PM (2-4 PM) and weekday PM (4-6 PM) commuter peak periods. The following analysis scenarios will be analyzed assuming project buildout by the year 2030:

- Year 2024 existing traffic conditions – weekday AM, weekday school PM, and weekday PM peak hours.

Exhibit 7 SUB24-1002

- Year 2030 background traffic conditions (including background growth and identified in-process developments, but not including any site-generated traffic volumes related to the proposed development) – weekday AM, weekday school PM, and weekday PM peak hours.
- Year 2030 total traffic conditions (including site-generated traffic volumes to the proposed development) – weekday AM, weekday school PM, and weekday PM peak hours.

IN-PROCESS DEVELOPMENTS AND BACKGROUND GROWTH RATES

Based on previous development projects in Camas, we propose to assume a two percent annual background growth rate and request staff concurrence. Additionally, we ask that City and WSDOT staff identify and provide all relevant in-process developments to be included in the background traffic conditions analysis.

NEXT STEPS

We request that staff please review and provide direction on the potential study intersections, intersection analysis periods, trip generation estimates and trip distribution patterns in particular. Please contact us at cbrehmer@kittelson.com or at (503) 535-7433 if you have any questions as you review this material.

REFERENCES

1. Institute of Transportation Engineers. *Trip Generation Manual, 11th Edition*. September 2021.
2. City of Camas. *Transportation Impact Study Guidelines*. June 10, 2019.
3. Washington State Department of Transportation. *WSDOT Design Manual M 22-01.22 – Chapter 320: Traffic Analysis*. October 2023.
4. Kittelson & Associates, Inc. *Traffic Analysis Report – Camas: SR-500/Everett Street Corridor*. September 8, 2023.
5. Transportation Research Board. *Highway Capacity Manual, 7th Edition*. 2022.

Appendix B: WSDOT Crash Data

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of* MULTIPLE INTERSECTIONS IN CLARK COUNTY

01/01/2019 - 12/31/2023 *See 2nd tab below for road info & interchange drawing*

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	MILEPOST	A/B	BLOCK NUMBER	INTERSECTING TRAFFICWAY	CO ONLY INTERSECTING COUNTY ROAD MP	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	SR ONLY HISTORY / SUSPENSE IND	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEHS	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER
City Street	Clark	Camas	DIVISION ST			201	NE 6TH AVE						No	ED76877	07/02/2023	12:19	Suspected Minor Injury	1	0	1	0	1	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Clear
City Street	Clark	Camas	DIVISION ST			0	NE 6TH AVE						No	3766572	04/18/2019	09:00	Possible Injury	1	0	1	1	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Camas	NW 6TH AVE			141	DIVISION ST						No	EB48003	44390	13:34	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Camas	NW 6TH AVE			141	DIVISION ST						No	ED88447	45148	15:58	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Camas	NW 6TH AVE			141	DIVISION ST						No	EB74074	44471	08:00	Possible Injury	1	0	1	0	0	Passenger Car		At Intersection and Related	Overcast
City Street	Clark	Camas	NW 6TH AVE			0	DIVISION ST						No	E880458	43471	19:52	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Overcast
City Street	Clark	Camas	NW 6TH AVE			141	DIVISION ST						No	EE26307	45263	08:07	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Raining
City Street	Clark	Camas	NE 15TH AVE			500			43	F	E	NE EVERETT ST	No	EA41160	06/17/2020	18:45	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Driveway	Clear or Partly Cloudy
City Street	Clark	Camas	NE 232ND AVE			23200	NORTH SHORE BLVD						No	EB92001	11/16/2021	22:54	Unknown	0	0	1	0	0	Passenger Car		At Intersection and Not Related	Clear
City Street	Clark	Camas	NE 3RD AVE			400			200		N	NE CROWN RD	No	ED10834	12/04/2022	13:25	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	Not at Intersection and Not Related	Snowing
City Street	Clark	Camas	NE 3RD AVE			1800			200	F	E	SE CROWN RD	No	EA52590	07/30/2020	12:05	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Driveway	Clear
City Street	Clark	Camas	SE CROWN RD			4221	NE 3RD AVE						No	ED98255	45181	09:50	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Camas	SE CROWN RD			4221	NE 3RD AVE						No	EC49680	44694	23:31	No Apparent Injury	0	0	1	0	0	Passenger Car		At Intersection and Not Related	Raining
City Street	Clark	Camas	SE CROWN RD				NE 3RD AVE						No	E988779	43791	08:42	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Camas	SE CROWN RD			4200			125	F	NW	NE 3RD AVE	No	E933570	43640	20:36	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Not at Intersection and Not Related	Overcast
City Street	Clark	Camas	SE CROWN RD			4221						NE 3RD AVE	No	EB79417	44481	21:38	Suspected Minor Injury	1	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Not at Intersection and Not Related	Raining
City Street	Clark	Camas	SE CROWN RD						200	F	N	NE 3RD AVE	No	EB22839	44303	00:47	Suspected Minor Injury	1	0	1	0	0	Passenger Car		Not at Intersection and Not Related	Clear
City Street	Clark	Camas	SE CROWN RD			4200			113	F	NW	NE 3RD AVE	No	EA17246	43883	02:07	Suspected Minor Injury	1	0	1	0	0	Passenger Car		Not at Intersection and Not Related	Clear
City Street	Clark	Camas	NE 6TH AVE			498	NE DALLAS ST						No	EC33821	03/30/2022	18:09	Possible Injury	1	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Camas	NE 6TH AVE			498	NE DALLAS ST						No	EB07902	02/19/2021	15:13	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Raining
City Street	Clark	Camas	NE 6TH AVE			498	NE DALLAS ST						No	EC60125	06/29/2022	12:42	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear
City Street	Clark	Camas	NE 6TH AVE			498	NE DALLAS ST						No	EA95029	01/01/2021	18:07	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Raining
City Street	Clark	Camas	NE 6TH AVE			498	NE DALLAS ST						No	ED65497	05/24/2023	13:02	Suspected Minor Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Camas	NE 6TH AVE			0	NE DALLAS ST						No	EA00588	01/05/2020	16:59	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Overcast
City Street	Clark	Camas	NE 6TH AVE			0	NE DALLAS ST						No	E886730	01/26/2019	11:27	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Overcast
City Street	Clark	Camas	NE ADAMS ST			0	NE 6TH AVE						No	E904579	03/17/2019	13:45	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Camas	NE ADAMS ST			600	NE 6TH AVE						No	EB81896	10/25/2021	19:11	Possible Injury	1	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Raining
City Street	Clark	Camas	NE LAKE RD						83	F	N	NE EVERETT ST	No	EC95757	10/21/2022	15:40	No Apparent Injury	0	0	1	0	0	Passenger Car		Intersection Related but Not at Intersection	Raining
City Street	Clark	Camas	NE LAKE RD			200			100	F	NE	NE EVERETT ST	No	3874577	10/22/2023	14:52	Suspected Minor Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Driveway	Overcast
City Street	Clark	Camas	NW 38TH AVE				NW PARKER ST						No	ED21294	12/31/2022	14:54	Possible Injury	2	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Overcast
City Street	Clark	Camas	NW PARKER ST			4301	NW 38TH AVE						No	ED25221	44941	23:27	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Clear
City Street	Clark	Camas	NW 6TH AVE			999	NW IVY ST						No	ED59968	05/13/2023	15:58	Possible Injury	1	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Camas	NW 6TH AVE			0	NW IVY ST						No	EA38973	06/01/2020	15:05	Suspected Minor Injury	2	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Camas	NW LAKE RD			1299	NW LACAMAS LN						No	EB29220	05/10/2021	19:03	No Apparent Injury	0	0	1	0	0	Passenger Car		At Intersection and Related	Clear
City Street	Clark	Camas	NW LAKE RD			3500			30	F	NW	NW LACAMAS LN	No	E910457	43563	10:02	Possible Injury	1	0	3	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	Intersection Related but Not at Intersection	Raining
City Street	Clark	Camas	NW LAKE RD			500			100	F	NW	NW LACAMAS LN	No	EA55174	44052	16:28	Dead on Arrival	4	1	2	0	0	Passenger Car	Passenger Car	Not at Intersection and Not Related	Clear
City Street	Clark	Camas	NW LAKE RD			0	NW LARKSPUR ST						No	E982027	11/12/2019	08:49	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Raining
City Street	Clark	Camas	NW LAKE RD			3716	NW PARKER ST						No	EC85934	09/21/2022	08:53	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
City Street	Clark	Camas	NW LAKE RD			3716	NW PARKER ST						No	EB35916	06/03/2021	10:12	Possible Injury	1	0	3	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Camas	NW LAKE RD			3716	NW PARKER ST						No	EC17085	01/26/2022	14:40	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear
City Street	Clark	Camas	NW LAKE RD			3716	NW PARKER ST						No	ED14248	11/16/2022	16:55	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Camas	NW LAKE RD			3600			80	F	E	NW PARKER ST	No	EC92262	44844	11:26	No Apparent Injury	0	0	3	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	Intersection Related but Not at Intersection	Clear
City Street	Clark	Camas	NW PARKER ST				NW LAKE RD						No	EE22702	45246	09:50	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Camas	NW LAKE RD			0	NW SIERRA ST						No	E986961	11/19/2019	19:47	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Camas	NW LAKE RD			4300	NW SIERRA ST						No	EC06334	12/27/2021	21:10	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Snowing
City Street	Clark	Camas	NW LAKE RD			1800			165	F	NW	NW SIERRA ST	No	ED21295	44926	17:41	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	Not at Intersection and Not Related	Clear
City Street	Clark	Camas	NW LAKE RD			2400			83	F	SE	NW LEADBETTER BLVD	No	EC22918	02/13/2022	18:26	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Not at Intersection and Not Related	Clear or Partly Cloudy
City Street	Clark	Camas	NW LAKE RD			2300			139	F	SE	NW LEADBETTER BLVD	No	EA05036	01/15/2020	13:17	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Not at Intersection and Not Related	Overcast
City Street	Clark	Camas	NW PARKER ST			0	NW LEADBETTER DR						No	E954845	08/28/2019	15:26	Suspected Minor Injury	1	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Not Related	Clear
City Street	Clark	Camas	SE 23RD ST			28475	SE 283RD AVE						No	EE22703	11/10/2023	16:33	Suspected Minor Injury	1	0	1	0	0	Motorcycle		At Intersection and Related	Overcast
City Street	Clark	Camas	SE 283RD AVE			0	SE 23RD ST						No	E913207	04/15/2019	08:30	Possible Injury	1	0	1	0	0	Passenger Car		At Intersection and Not Related	Clear or Partly Cloudy
City Street	Clark	Camas	SE 283RD AVE			0	SE 23RD ST						No	EA13156	02/07/2020	20:53	No Apparent Injury	0	0	1	0	0	Passenger Car		At Intersection and Not Related	Clear
City Street	Clark	Camas	SE 283RD AVE			2301	NE WOODBURN DR						No	EA69233	10/04/2020	00:18	Suspected Minor Injury	1	0	1	0	0	Passenger Car		At Intersection and Not Related	Fog or Smog or Smoke
City Street	Clark	Vancouver	NE 202ND AVE			9900	SE 1ST ST						No	E928740	06/08/2019	22:44	Possible Injury	1	0	1	0	0	Passenger Car		At Intersection and Related	Clear or Partly Cloudy
City Street	Clark	Vancouver	SE 1ST ST			20199	NW FRIBERG STRUNK ST						No	ED49006	04/04/2023	14:54	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Not Related	Overcast
City Street	Clark	Vancouver	SE 1ST ST			0	NW FRIBERG STRUNK ST						No	EA42305	06/22/2020	17:38	Suspected Minor Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Clear or Partly Cloudy
County Road	Clark		30860 (Nourse R	1.210									No	EB07239	02/13/2021	00:10	No Apparent Injury	0	0	1	0	0	Truck (Flatbad,Van,etc)		Intersection Related but Not at Intersection	Snowing
County Road	Clark		30860 (Nourse R	1.230			31690 (SE 283rd Avenue)	1.770					No	ED55602	03/29/2023	13:23	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Clear
County Road	Clark		30950	1.97			232nd Ave (Co Rd # 30950, mp 1.940 - 1.980) @ Shore Blvd						No	EC60828	44743	23:30	No Apparent Injury	0	0	1	0	0	Passenger Car		Not at Intersection and Not Related	Clear or Partly Cloudy
County Road	Clark		93350	3.090		232nd Ave	30950	2.890					No	E923671	05/23/2019	16:54	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
County Road	Clark		93350	3.090		232nd Ave	30950	2.890					No	EB42601	06/15/2021	18:31	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Raining
County Road	Clark		93350	3.090		232nd Ave	30950	2.890					No	EA02765	12/20/2019	09:12	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Raining
County Road	Clark		93350	3.090		232nd Ave	30950	2.890					No	EB53840	07/20/2021	15:10	Suspected Minor Injury	3	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear
County Road	Clark		93350	3.090		232nd Ave	30950	2.890					No	EB10619	02/28/2021	16:35	No Apparent Injury	0	0	1	0	1	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Clear
County Road	Clark		93350	3.090		232nd Ave	30950	2.890					No	EB69640	09/01/2021	11:59	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Clear
County Road	Clark		93350	3.090		232nd Ave	30950	2.890					No	ED64349	05/21/2023	16:55	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Overcast
County Road	Clark		93350	3.090		28th street							No	EA84265	11/24/2020	15:25	Possible Injury	2	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	Driveway Related but Not at Driveway	Overcast
State Route	Clark	Camas	500	16.94		SR 500 (aka	Everett Dr, mp 16.91 - 16.96) @ Everett Dr						No	EC39091	04/12/2022	16:39	No Apparent Injury	0	0	1	0	0	Passenger Car		At Intersection and Not Related	Overcast
State Route	Clark	Camas	500	16.95		SR 500 (aka	Everett Dr, mp 16.91 - 16.96) @ Everett Dr						No	EA37248	05/30/2020	14:02	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Not Related	Overcast
State Route	Clark	Camas	500	17.26		SR 500 (aka	Everett St, mp 17.24 - 17.29) @ Leadbetter Rd						No	EC94672	10/17/2022	11:32	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
State Route	Clark	Camas	500	17.26		SR 500 (aka	Everett St, mp 17.24 - 17.29) @ Leadbetter Rd						No	E890891	02/01/2019	16:07	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Raining
State Route	Clark	Camas	500	17.26		SR 500 (aka	Everett St, mp 17.24 - 17.29) @ Leadbetter Rd						No	EC88859	09/29/2022	15:12	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	Not at Intersection and Not Related	Overcast
State Route	Clark	Camas	500	17.26		SR 500 (aka	Everett St, mp 17.24 - 17.29) @ Leadbetter Rd						No	E932712	06/18/2019	16:05	Suspected Serious Injury	1	0	1	0	0	Motorcycle		At Intersection and Not Related	Clear or Partly Cloudy
State Route	Clark	Camas	500	17.32		SR 500 (aka	Everett St, mp 17.30 - 17.35) @ 43rd Ave						No	E932710	06/19/2019	15:42	Possible Injury	1	0	3	0	0	Passenger Car	Passenger Car	Intersection Related but Not at Intersection	Clear or Partly Cloudy
State Route	Clark	Camas	500	17.33		SR 500 (aka	Everett St, mp 17.30 - 17.35) @ 43rd Ave						No	E910458	04/12/2019	18:15	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Clear or Partly Cloudy
State Route	Clark	Camas	500	17.33		SR 500 (aka	Everett St, mp 17.30 - 17.35) @ 43rd Ave						No	EC13028	01/11/2022	08:25	Suspected Minor Injury	3	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Raining
State Route	Clark	Camas	500	17.33		SR 500 (aka	Everett St, mp 17.30 - 17.35) @ 43rd Ave						No	EC02446	12/14/2021	08:40	No Apparent Injury	0	0	1	0	0	Passenger Car		At Intersection and Related	Clear
State Route	Clark	Camas	500	17.9		SR 500 (aka	Everett St, mp 17.88 - 17.99) @ Lake Rd						No	EA87306	44172	08:30	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Not Related	Clear
State Route	Clark	Camas	500	17.9		SR 500 (aka	Everett St, mp 17.88 - 17.99) @ Lake Rd						Yes	E891635	43505	16:24	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
State Route	Clark	Camas	500	17.94		SR 500 (aka	Everett St, mp 17.88 - 17.99) @ Lake Rd						No	EB68144	44449	22:38	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	Circulating Roundabout	Clear
State Route	Clark	Camas	500	17.95		SR 500 (aka	Everett St, mp 17.88 - 17.99) @ Lake Rd						No	ED77972	45116	18:23	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	Entering Roundabout	Clear or Partly Cloudy
State Route	Clark	Camas	500	17.95		SR 500 (aka	Everett St, mp 17.88 - 17.99) @ Lake Rd						Yes	E955631	43707	10:15	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	Not at Intersection and Not Related	Clear or Partly Cloudy

ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	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)
Dry	Daylight	Pedalcyclist Strikes Moving Vehicle	Stopped at Signal or Stop Sign		Vehicle Stopped	Vehicle Stopped			None			
Dry	Daylight	Vehicle going straight hits pedestrian	Going Straight Ahead		Vehicle Stopped	South			Other Contributing Circ Not Listed			
Dry	Daylight	Entering at angle	Making Left Turn	Making Left Turn	North	East	West	North	Did Not Grant RW to Vehicle			None
Dry	Daylight	From same direction - all others	Making U-Turn	Going Straight Ahead	South	South	West	West	Improper U-Turn	Did Not Grant RW to Vehicle	Unknown Distraction	None
Dry	Daylight	Retaining Wall (concrete, rock, brick, etc.)	Making Left Turn		West	North			Other Contributing Circ Not Listed			
Dry	Dark-Street Lights On	From same direction - one right turn - one straight	Making Right Turn	Going Straight Ahead	East	North	East	West	Improper Turn/Merge			Driver Not Distracted
Wet	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped in Roadway	Northwest	East	Vehicle Stopped	Vehicle Stopped	Other Contributing Circ Not Listed	Other Distractions		None
Dry	Daylight	From same direction - one left turn - one straight	Overtaking and Passing	Making Left Turn	East	West	East	South	Improper Passing			Improper Turn/Merge
Dry	Dark-Street Lights On	Linear Curb	Other*		North	West			Operating Recklessly or Aggressively			
Wet	Daylight	From opposite direction - all others	Going Straight Ahead	Going Straight Ahead	North	South	South	North	Operating Defective Equipment			None
Dry	Daylight	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn	West	East	East	Southeast	None			Did Not Grant RW to Vehicle
Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	East	West	Disregard Traffic Sign and Signals			None
Wet	Dark-No Street Lights	Earth Bank or Ledge	Going Straight Ahead		North	South			Exceeding Reas. Safe Speed			
Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	Northwest	South	Northwest	South	Inattention	Follow Too Closely		None
Dry	Daylight	Metal Sign Post	Going Straight Ahead		South	North			Under Influence of Alcohol	Apparently Asleep or Fatigued	Apparently Fatigued	
Wet	Dark-Street Lights On	Earth Bank or Ledge	Going Straight Ahead		North	South			Exceeding Reas. Safe Speed	Overcorrecting / Oversteering		
Sand/Mud/Dirt	Dark-No Street Lights	Other Objects	Going Straight Ahead		North	South			Exceeding Reas. Safe Speed			
Dry	Dark-Street Lights On	Utility Pole	Negotiating a Curve		North	South			Operating Recklessly or Aggressively			
Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South	Did Not Grant RW to Vehicle			None
Wet	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	South	North	Did Not Grant RW to Vehicle			None
Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	South	North	Did Not Grant RW to Vehicle			None
Wet	Dark-Street Lights On	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South	Unknown Distraction			None
Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South	Did Not Grant RW to Vehicle			None
Wet	Dusk	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	North	South	Disregard Traffic Sign and Signals			None
Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	North	South	Did Not Grant RW to Vehicle			None
Dry	Daylight	Entering at angle	Going Straight Ahead	Making Left Turn	West	East	South	West	Did Not Grant RW to Vehicle			Inattention
Wet	Dark-Street Lights On	Concrete Barrier/Jersey Barrier - Face	Making Left Turn		South	West			Under Influence of Alcohol	Improper Turn/Merge		
Wet	Daylight	Roadway Ditch	Making Right Turn		North	West			Unknown Distraction			
Dry	Daylight	Entering at angle	Making U-Turn	Going Straight Ahead	North	South	East	West	Did Not Grant RW to Vehicle	Improper U-Turn		None
Wet	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	West	North	East	West	Did Not Grant RW to Vehicle			None
Wet	Dark-Street Lights On	Linear Curb	Making Left Turn		South	West			Exceeding Stated Speed Limit	Disregard Traffic Sign and Signals		
Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	East	North	East	West	Did Not Grant RW to Vehicle			None
Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	West	North	East	West	Improper Turn/Merge	Distractions Outside Vehicle	Unknown Distraction	None
Dry	Daylight	Linear Curb	Making Left Turn		East	South			Exceeding Reas. Safe Speed	Unknown Distraction		
Wet	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped in Roadway	Northwest	Southeast	Vehicle Stopped	Vehicle Stopped	Inattention	Follow Too Closely		None
Dry	Daylight	From opposite direction - both moving - head-on	Negotiating a Curve	Negotiating a Curve	East	West	West	East	Unknown Distraction			None
Wet	Daylight	Entering at angle	Going Straight Ahead	Starting in Traffic Lane	East	West	North	South	Disregard Stop Sign - Flashing Red	Inattention		None
Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	West	East	Vehicle Stopped	Vehicle Stopped	Other Contributing Circ Not Listed			None
Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	Southeast	Northwest	South	North	Did Not Grant R/W to Non Motorist			None
Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	West	East	Vehicle Stopped	Vehicle Stopped	Follow Too Closely			None
Dry	Dark-Street Lights On	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	West	East	Vehicle Stopped	Vehicle Stopped	Lost in Thought / Day Dreaming			None
Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	East	West	Vehicle Stopped	Vehicle Stopped	Distractions Outside Vehicle	Follow Too Closely		None
Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	South	North	Vehicle Stopped	Vehicle Stopped	Unknown Distraction			None
Dry	Dark-Street Lights On	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	East	West	Vehicle Stopped	Vehicle Stopped	Exceeding Stated Speed Limit			None
Ice	Dark-Street Lights On	Entering at angle	Making Right Turn	Stopped at Signal or Stop Sign	West	South	Vehicle Stopped	Vehicle Stopped	Overcorrecting / Oversteering	Failing to Signal		None
Wet	Dark-Street Lights On	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	Northwest	Southeast	Northwest	Southeast	Lost in Thought / Day Dreaming	Follow Too Closely		None
Dry	Dark-Street Lights On	Vehicle Strikes Deer	Going Straight Ahead		West	East			None			
Dry	Daylight	Vehicle Strikes Deer	Going Straight Ahead		West	East			None			
Dry	Daylight	Tree or Stump (stationary)	Going Straight Ahead		North	South			Distractions Outside Vehicle			
Dry	Daylight	Tree or Stump (stationary)	Making Left Turn		West	West			None			
Wet	Daylight	Vehicle overturned	Going Straight Ahead		South	North			Exceeding Reas. Safe Speed			
Dry	Dark-Street Lights On	Roadway Ditch	Making U-Turn		North	North			Improper U-Turn			
Dry	Dark-Street Lights On	Roadway Ditch	Going Straight Ahead		South	North			Under Influence of Alcohol			
Dry	Dark-Street Lights On	Tree or Stump (stationary)	Going Straight Ahead		North	South			Other Contributing Circ Not Listed	Exceeding Reas. Safe Speed		
Dry	Daylight	From same direction - both going straight - both moving - rear-end	Going Straight Ahead	Going Straight Ahead	West	East	West	East	Exceeding Reas. Safe Speed	Follow Too Closely		None
Dry	Daylight	From opposite direction - one left turn - one straight	Going Straight Ahead	Making Left Turn	East	West	West	North	Unknown Distraction			None
Snow/Slush	Dark-No Street Lights	Vehicle overturned	Going Straight Ahead		West	East			None			
Dry	Daylight	From opposite direction - all others	Making Left Turn	Going Straight Ahead	South	West	West	East	Overcorrecting / Oversteering			None
Dry	Dark-No Street Lights	Roadway Ditch	Going Straight Ahead		North	South			Lost in Thought / Day Dreaming			
Dry	Daylight	From same direction - one left turn - one straight	Going Straight Ahead	Making Left Turn	East	West	East	South	Inattention	Follow Too Closely		None
Wet	Daylight	Entering at angle	Making Right Turn	Stopped at Signal or Stop Sign	West	South	South	West	Exceeding Reas. Safe Speed			None
Wet	Daylight	From same direction - one left turn - one straight	Going Straight Ahead	Making Left Turn	East	West	East	South	Follow Too Closely			None
Dry	Daylight	Entering at angle	Making Left Turn	Going Straight Ahead	South	West	East	West	Did Not Grant RW to Vehicle	Unknown Distraction		None
Dry	Daylight	Vehicle Strikes Pedalcyclist	Going Straight Ahead		East	West			None			
Dry	Daylight	Utility Pole	Going Straight Ahead		East	West			Other Contributing Circ Not Listed			
Dry	Daylight	From same direction - one right turn - one straight	Going Straight Ahead	Making Right Turn	West	East	West	South	Distracted by Adjusting Vehicle Cntrls			None
Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	East	West	Vehicle Stopped	Vehicle Stopped	Follow Too Closely			None
Wet	Daylight	Roadway Ditch	Negotiating a Curve		North	South			Under Influence of Alcohol			
Dry	Daylight	Street Light Pole or Base	Going Straight Ahead		South	North			Unknown Distraction			
Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	Northwest	Southeast	Vehicle Stopped	Vehicle Stopped	Other Distractions			None
Wet	Daylight	Entering at angle	Making Left Turn	Going Straight Ahead	West	North	North	South	Inattention	Did Not Grant RW to Vehicle		None
Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	North	South	North	Vehicle Stopped	Other Contributing Circ Not Listed			None
Dry	Daylight	Vehicle overturned	Going Straight Ahead		North	South			Other Contributing Circ Not Listed			
Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	North	South	Vehicle Stopped	Vehicle Stopped	Unknown Distraction			None
Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	North	East	South	North	Did Not Grant RW to Vehicle			None
Wet	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	North	East	South	North	Did Not Grant RW to Vehicle			None
Ice	Daylight	Traffic Island	Making Left Turn		North	East			None			
Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	South	North	Vehicle Stopped	Vehicle Stopped	Unknown Distraction			None
Snow/Slush	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped at Signal or Stop Sign	North	South	Vehicle Stopped	Vehicle Stopped	Other Contributing Circ Not Listed			None
Dry	Dark-Street Lights On	From same direction - both going straight - both moving - sideswipe	Negotiating a Curve	Negotiating a Curve	West	North	South	North	Improper Turn/Merge			None
Dry	Daylight	Entering at angle	Making Right Turn	Going Straight Ahead	South	Southeast	South	South	Improper Turn/Merge	Other Distractions		None
Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	North	South	North	Vehicle Stopped	Inattention			None

MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	BICYCLIST CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	BICYCLIST CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	BICYCLIST CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	BICYCLIST CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	BICYCLIST CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	BICYCLIST 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
					Physically Impaired						Lane of Primary Trafficway	1151945.25	97940.01
								None			Lane of Primary Trafficway	1151945.69	97941.11
											Lane of Primary Trafficway	1151945.3	97940.01
											Lane of Primary Trafficway	1151945.3	97940.01
											Past the Outside Shoulder of Primary Trafficway	1151945.3	97940.01
											Lane of Primary Trafficway	1151945.7	97941.11
											Lane of Primary Trafficway	1151945.3	97940.01
Failing to Signal											Lane of Primary Trafficway	1152636.1	99721.52
											Outside Shoulder of Primary Trafficway	1145533.9	114197.49
											Lane of Primary Trafficway	1156493.97	99143.3
Unknown Distraction											Lane of Primary Trafficway	1156788.64	98942.36
											Lane of Primary Trafficway	1156590.6	98970.62
											Past the Outside Shoulder of Primary Trafficway	1156590.6	98970.62
											Lane of Primary Trafficway	1156590.6	98970.04
											Past the Outside Shoulder of Primary Trafficway	1156540.3	99086.44
											Past the Outside Shoulder of Primary Trafficway	1156590.6	98970.62
											Past the Outside Shoulder of Primary Trafficway	1156484.9	99151.82
											Past the Outside Shoulder of Primary Trafficway	1156548.4	99075.29
											Lane of Primary Trafficway	1152822.4	98562.26
											Lane of Primary Trafficway	1152822.4	98562.26
											Lane of Primary Trafficway	1152822.4	98562.26
											Lane of Primary Trafficway	1152822.4	98562.26
											Lane of Primary Trafficway	1152822.4	98562.26
											Lane of Primary Trafficway	1152822.55	98562.28
											Lane of Primary Trafficway	1152822.55	98562.26
											Lane of Primary Trafficway	1152160.19	98094.95
											Past the Outside Shoulder of Primary Trafficway	1152159.93	98095.68
											Past the Outside Shoulder of Primary Trafficway	1152350.9	104033.26
											Lane of Primary Trafficway	1151653.42	104544.61
											Lane of Primary Trafficway	1141189.36	105908.28
											Intersecting Trafficway	1141189.4	105908.28
											Lane of Primary Trafficway	1148753.02	97245.99
											Lane of Primary Trafficway	1148752.76	97245.63
											Intersecting Trafficway	1150456.09	105487.5
											Lane of Primary Trafficway	1150436.7	105511.2
											Lane of Primary Trafficway	1150393.6	105566.36
											Lane of Primary Trafficway	1142166.91	111228.57
											Lane of Primary Trafficway	1142143.4	111229.4
											Lane of Primary Trafficway	1142143.4	111229.4
											Lane of Primary Trafficway	1142143.4	111229.4
											Lane of Primary Trafficway	1142143.4	111229.4
											Lane of Primary Trafficway	1142249.8	111201.87
											Lane of Primary Trafficway	1142143.4	111229.4
											Lane of Primary Trafficway	1146793.49	108175.05
											Intersecting Trafficway	1146760.44	108137.26
											Lane of Primary Trafficway	1146646.9	108248.79
											Lane of Primary Trafficway	1145320.74	109050.07
											Lane of Primary Trafficway	1145368.64	109020.49
											Median of Primary Trafficway	1141433.53	108977.71
											Past the Outside Shoulder of Primary Trafficway	1158578.21	104746.99
											Past the Outside Shoulder of Primary Trafficway	1158578.06	104745.55
											Past the Outside Shoulder of Primary Trafficway	1158578.06	104745.56
											Past the Outside Shoulder of Primary Trafficway	1158570.14	104523.97
											Other Location (City/County/Misc. Trafficway)	1137497.64	111285.35
											Lane of Primary Trafficway	1137498.34	111334.8
											Lane of Primary Trafficway	1137496.61	111331.93
											Past the Outside Shoulder of Primary Trafficway	1158488.18	106493.36
											Intersecting Trafficway	1158615.27	106492.62
											Past the Outside Shoulder of Primary Trafficway	1145459.4	114126
											Lane of Primary Trafficway	1145581.43	119082.29
											Intersecting Trafficway	1145581.94	119082.99
											Lane of Primary Trafficway	1145581.43	119082.28
											Lane of Primary Trafficway	1145581.94	119082.99
					Improper Turn/Merge						Lane of Primary Trafficway	1145581.94	119082.99
											Past the Outside Shoulder of Primary Trafficway	1145581.94	119082.99
											Lane of Primary Trafficway	1145581.94	119082.99
											Lane of Primary Trafficway	1145581.94	119082.99
											Intersecting Road Decreasing Milepost	1153134.84	108693.07
											Past Right Shoulder Decreasing Milepost	1153096.05	108634.08
											Intersecting Road Increasing Milepost	1152153.03	107393.23
											Lane 1 Increasing Milepost	1152152.51	107392.16
											Lane 1 Increasing Milepost	1152149.21	107358.3
											Lane 1 Increasing Milepost	1152152.51	107392.16
											Lane 1 Increasing Milepost	1152191.18	107091.59
											Lane 1 Decreasing Milepost	1152219.24	107017.71
											Lane 1 Decreasing Milepost	1152219.53	107017.48
											Decreasing Other Location	1152219.53	107017.48
											Lane 1 Decreasing Milepost	1152315.3	104189.31
											Lane 1 Increasing Milepost	1152323.8	104194.06
											Lane 1 Decreasing Milepost	1152480.7	104025.76
											Lane 1 Increasing Milepost	1152377	103948.01
											Lane 1 Increasing Milepost	1152333.1	103944.59

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of* MULTIPLE INTERSECTIONS IN CLARK COUNTY

01/01/2019 - 12/31/2023 *See 2nd tab below for road info & interchange drawing*

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	MILEPOST	A/B	BLOCK NUMBER	INTERSECTING TRAFFICWAY	CO ONLY INTERSECTING COUNTY ROAD MP	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	SR ONLY HISTORY / SUSPENSE IND	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER
State Route	Clark	Camas	500	17.96		SR 500 (aka Everett St, mp 17.88 - 17.99) @ Lake Rd							No	EE12985	45222	17:36	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	Entering Roundabout	Clear
State Route	Clark	Camas	500	18.73		SR 500 (aka Everett St, mp 18.73 - 18.77) @ 15th Ave							No	EB24372	44308	15:53	No Apparent Injury	0	0	1	0	0	Passenger Car		Not at Intersection and Not Related	Clear
State Route	Clark	Camas	500	18.75		SR 500 (aka Everett St, mp 18.73 - 18.77) @ 15th Ave							No	EE31626	45237	16:17	Suspected Minor Injury	1	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Overcast
State Route	Clark	Camas	500	18.80		SR 500 (aka Everett St / 14th Ave, mp 18.78 - 18.82) @ 14th Ave							No	EB68471	09/16/2021	16:22	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	School Bus	At Intersection and Related	Clear or Partly Cloudy
State Route	Clark	Camas	500	18.80		SR 500 (aka Everett St / 14th Ave, mp 18.78 - 18.82) @ 14th Ave							No	EC10091	01/06/2022	17:26	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
State Route	Clark	Camas	500	18.80		SR 500 (aka Everett St / 14th Ave, mp 18.78 - 18.82) @ 14th Ave							No	EC28645	03/01/2022	05:30	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Raining
State Route	Clark	Camas	500	18.80		SR 500 (aka Everett St / 14th Ave, mp 18.78 - 18.82) @ 14th Ave							No	EB52359	07/27/2021	16:59	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Clear
State Route	Clark	Camas	500	19.00		SR 500 (aka Garfield St, mp 18.98 - 19.02) @ 6th Ave							No	EB31079	05/16/2021	19:36	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
State Route	Clark	Camas	500	19.00		SR 500 (aka Garfield St, mp 18.98 - 19.02) @ 6th Ave							No	ED55224	04/27/2023	12:12	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
State Route	Clark	Camas	500	19.00		SR 500 (aka Garfield St, mp 18.98 - 19.02) @ 6th Ave							No	EC08918	12/06/2021	19:29	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Raining
State Route	Clark	Camas	500	19.00		SR 500 (aka Garfield St, mp 18.98 - 19.02) @ 6th Ave							No	EC76602	08/22/2022	17:43	Possible Injury	2	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Not Related	Clear or Partly Cloudy
State Route	Clark	Camas	500	19.00		SR 500 (aka Garfield St, mp 18.98 - 19.02) @ 6th Ave							No	E944036	07/19/2019	08:35	Possible Injury	1	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
State Route	Clark	Camas	500	19.00		SR 500 (aka Garfield St, mp 18.98 - 19.02) @ 6th Ave							No	EA34905	05/10/2020	23:25	Possible Injury	1	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy
State Route	Clark	Camas	500	19.00		SR 500 (aka Garfield St, mp 18.98 - 19.02) @ 6th Ave							No	EB16684	03/24/2021	08:50	Possible Injury	1	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Raining
State Route	Clark	Camas	500	19.00		SR 500 (aka Garfield St, mp 18.98 - 19.02) @ 6th Ave							No	EB72278	09/26/2021	15:44	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Overcast
State Route	Clark	Camas	500	19.00		SR 500 (aka Garfield St, mp 18.98 - 19.02) @ 6th Ave							No	E921912	05/16/2019	10:25	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy
State Route	Clark	Camas	500	19.00		SR 500 (aka Garfield St, mp 18.98 - 19.02) @ 6th Ave							No	EA15561	02/13/2020	16:53	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Overcast
State Route	Clark	Camas	014LX01240	0.00		SR 014LX01240 (aka 6th Ave, mp 0.00 - 0.04) @ SR 14 EB & WB on-off ramps							No	EC60826	04/10/2022	13:01	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	Entering Roundabout	Raining
State Route	Clark	Camas	014LX01240	0.00		SR 014LX01240 (aka 6th Ave, mp 0.00 - 0.04) @ SR 14 EB & WB on-off ramps							No	EC22917	02/12/2022	22:53	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Circulating Roundabout	Clear
State Route	Clark	Camas	014LX01240	0.01		SR 014LX01240 (aka 6th Ave, mp 0.00 - 0.04) @ SR 14 EB & WB on-off ramps							No	E906272	03/07/2019	16:45	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	Entering Roundabout	Clear or Partly Cloudy
State Route	Clark	Camas	014LX01240	0.01		SR 014LX01240 (aka 6th Ave, mp 0.00 - 0.04) @ SR 14 EB & WB on-off ramps							No	E997605	12/15/2019	14:34	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	Exiting Roundabout	Clear
State Route	Clark	Camas	014LX01240	0.01		SR 014LX01240 (aka 6th Ave, mp 0.00 - 0.04) @ SR 14 EB & WB on-off ramps							No	ED72453	06/20/2023	15:23	No Apparent Injury	0	0	1	0	0	Passenger Car		Entering Roundabout	Overcast
State Route	Clark	Camas	014LX01240	0.01		SR 014LX01240 (aka 6th Ave, mp 0.00 - 0.04) @ SR 14 EB & WB on-off ramps							No	EA50351	07/12/2020	16:43	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Exiting Roundabout	Clear
State Route	Clark	Camas	014P101203	0.45		SR 014P101203 (SR 014 EB off-ramp, mp 0.43 - 0.47) @ SR 014LX01240 (aka 6th Ave, mp 0.00 - 0.04							No	EE24998	11/28/2023	11:02	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	Roundabout Related but not at Roundabout	Clear
State Route	Clark		500	13.84		SR 500 (aka 242nd Ave / Dresser Rd, mp 13.82 - 13.86) @ 28th St (Co Rd # 93350, mp 3.580 - 3.600							No	E961000	09/04/2019	11:57	Possible Injury	2	0	2	0	0	Passenger Car	Truck Tractor & Semi-Trailer	At Intersection and Related	Clear or Partly Cloudy
State Route	Clark		500	13.84		SR 500 (aka 242nd Ave / Dresser Rd, mp 13.82 - 13.86) @ 28th St (Co Rd # 93350, mp 3.580 - 3.600							No	EB87073	11/06/2021	15:55	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Driveway within Major Intersection	Raining
State Route	Clark		500	13.84		SR 500 (aka 242nd Ave / Dresser Rd, mp 13.82 - 13.86) @ 28th St (Co Rd # 93350, mp 3.580 - 3.600							No	ED77436	07/04/2023	16:05	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy
State Route	Clark		500	13.85		SR 500 (aka 242nd Ave / Dresser Rd, mp 13.82 - 13.86) @ 28th St (Co Rd # 93350, mp 3.580 - 3.600							No	EB67310	09/03/2021	08:40	Suspected Minor Injury	1	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Not at Intersection and Not Related	Clear
State Route	Clark		500	16.12		SR 500 (267th Ave / 3rd St, mp 16.11 - 16.15) @ Robinson Rd (Co Rd # 32020, mp 0.990 - 1.010)							No	EB68977	09/16/2021	23:07	Possible Injury	1	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Not at Intersection and Not Related	Clear
State Route	Clark		500	16.12		SR 500 (267th Ave / 3rd St, mp 16.11 - 16.15) @ Robinson Rd (Co Rd # 32020, mp 0.990 - 1.010)							No	EE33213	12/14/2023	22:20	Unknown	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Not at Intersection and Not Related	Clear
State Route	Clark		500	16.13		SR 500 (267th Ave / 3rd St, mp 16.11 - 16.15) @ Robinson Rd (Co Rd # 32020, mp 0.990 - 1.010)							No	ED36011	02/13/2023	19:00	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Raining
State Route	Clark		500	16.13		SR 500 (267th Ave / 3rd St, mp 16.11 - 16.15) @ Robinson Rd (Co Rd # 32020, mp 0.990 - 1.010)							No	E953998	08/24/2019	13:56	Suspected Serious Injury	1	0	2	0	0	Passenger Car	Motorcycle	At Intersection and Not Related	Clear
State Route	Clark		500	16.14		SR 500 (267th Ave / 3rd St, mp 16.11 - 16.15) @ Robinson Rd (Co Rd # 32020, mp 0.990 - 1.010)							No	EC09402	01/04/2022	13:28	No Apparent Injury	0	0	1	0	0	Passenger Car		At Intersection and Not Related	Raining
State Route	Clark		500	16.14		SR 500 (267th Ave / 3rd St, mp 16.11 - 16.15) @ Robinson Rd (Co Rd # 32020, mp 0.990 - 1.010)							No	E987858	11/23/2019	23:37	No Apparent Injury	0	0	1	0	0	Passenger Car		At Intersection and Not Related	Overcast
State Route	Clark		500	16.17		SR 500 (aka 3rd St / 267th Ave, mp 16.15 - 16.19) @ 3rd St (Co Rd # 32080, mp 0.01 - 0.03)							No	EB80591	10/16/2021	13:50	No Apparent Injury	0	0	2	0	0	Passenger Car	Motorcycle	Intersection Related but Not at Intersection	Clear
State Route	Clark		500	16.35		SR 500 (aka 3rd St / Everett Ave, mp 16.34 - 16.38) @ 3rd St (Co Rd # 30990, mp 0.000 - 0.020)							No	E957701	08/04/2019	20:34	Suspected Minor Injury	1	0	3	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Not at Intersection and Not Related	Clear or Partly Cloudy
State Route	Clark		500	16.35		SR 500 (aka 3rd St / Everett Ave, mp 16.34 - 16.38) @ 3rd St (Co Rd # 30990, mp 0.000 - 0.020)							No	EB85006	10/22/2021	19:30	No Apparent Injury	0	0	1	0	0	Passenger Car		Not at Intersection and Not Related	Raining
State Route	Clark		500	16.36		SR 500 (aka 3rd St / Everett Ave, mp 16.34 - 16.38) @ 3rd St (Co Rd # 30990, mp 0.000 - 0.020)							No	ED51725	04/12/2023	17:53	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Not Related	Clear
State Route	Clark		500	16.36		SR 500 (aka 3rd St / Everett Ave, mp 16.34 - 16.38) @ 3rd St (Co Rd # 30990, mp 0.000 - 0.020)							No	EA79205	10/28/2020	22:10	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Not Related	Clear
State Route	Clark		500	16.36		SR 500 (aka 3rd St / Everett Ave, mp 16.34 - 16.38) @ 3rd St (Co Rd # 30990, mp 0.000 - 0.020)							No	EC75152	08/17/2022	19:00	No Apparent Injury	0	0	1	0	0	Passenger Car		At Intersection and Not Related	Clear
State Route	Clark		500	16.37		SR 500 (aka 3rd St / Everett Ave, mp 16.34 - 16.38) @ 3rd St (Co Rd # 30990, mp 0.000 - 0.020)							No	EC43692	04/29/2022	04:00	Suspected Minor Injury	1	0	1	0	0	Passenger Car		Not at Intersection and Not Related	Clear
State Route	Clark		500	16.38		SR 500 (aka 3rd St / Everett Ave, mp 16.34 - 16.38) @ 3rd St (Co Rd # 30990, mp 0.000 - 0.020)							No	E939015	07/09/2019	17:45	No Apparent Injury	0	0	1	0	0	Passenger Car		Not at Intersection and Not Related	Clear or Partly Cloudy
State Route	Clark		500	16.38		SR 500 (aka 3rd St / Everett Ave, mp 16.34 - 16.38) @ 3rd St (Co Rd # 30990, mp 0.000 - 0.020)							No	E984670	11/17/2019	12:50	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Not at Intersection and Not Related	Raining

ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	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)
Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	North	North	North	Vehicle Stopped	Follow Too Closely			None
Dry	Daylight	Tree or Stump (stationary)	Going Straight Ahead		North	South			Other Contributing Circ Not Listed			
Wet	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	East	South	South	Did Not Grant RW to Vehicle			None
Dry	Daylight	Entering at angle	Starting in Traffic Lane	Making Left Turn	East	West	South	East	Did Not Grant RW to Vehicle			None
Wet	Dark-Street Lights On	From same direction - both going straight - one stopped - rear-end	Stopped in Roadway	Going Straight Ahead	Vehicle Stopped	Vehicle Stopped	North	South	None			Follow Too Closely
Wet	Dark-Street Lights On	One parked--one moving	Making Left Turn	Legally Parked, Unoccupied	North	East			Exceeding Stated Speed Limit			None
Dry	Daylight	Fire Hydrant	Going Straight Ahead		North	South			None			
Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	South	North	Disregard Traffic Sign and Signals			None
Dry	Daylight	Entering at angle	Going Straight Ahead	Starting in Traffic Lane	South	North	West	East	None			Did Not Grant RW to Vehicle
Wet	Dark-Street Lights Off	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	South	North	Disregard Traffic Sign and Signals			None
Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped in Roadway	East	West	East	Vehicle Stopped	Follow Too Closely			None
Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	South	North	Did Not Grant RW to Vehicle			None
Dry	Dark-Street Lights On	Entering at angle	Going Straight Ahead	Going Straight Ahead	Southwest	Northeast	Southeast	Northwest	Apparently Asleep or Fatigued			None
Wet	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South	Did Not Grant RW to Vehicle			None
Dry	Daylight	Entering at angle	Starting in Traffic Lane	Going Straight Ahead	Southwest	Northeast	Northwest	Southeast	Did Not Grant RW to Vehicle			None
Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	South	North	Did Not Grant RW to Vehicle			None
Wet	Dusk	Entering at angle	Making Left Turn	Going Straight Ahead	Southwest	Northwest	Southeast	Northwest	Did Not Grant RW to Vehicle			None
Wet	Daylight	Entering at angle	Negotiating a Curve	Overtaking and Passing	South	North	East	West	None			Other Contributing Circ Not Listed
Dry	Dark-Street Lights On	Metal Sign Post	Going Straight Ahead		Northeast	Southwest			Under Influence of Alcohol	Exceeding Reas. Safe Speed		
Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East	None			Inattention
Dry	Daylight	From same direction - one right turn - one straight	Going Straight Ahead	Making Right Turn	West	East	West	East	Under Influence of Alcohol			None
Dry	Daylight	Metal Sign Post	Going Straight Ahead		West	East			Apparently Ill			
Dry	Daylight	Vehicle Strikes Deer	Other*		West	East			None			
Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Negotiating a Curve	Stopped for Traffic	West	East	Vehicle Stopped	Vehicle Stopped	Exceeding Reas. Safe Speed			None
Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	East	West	Under Influence of Drugs			None
Wet	Daylight	Entering at angle	Starting in Traffic Lane	Going Straight Ahead	North	South	East	West	Did Not Grant RW to Vehicle			None
Dry	Daylight	Entering at angle	Starting in Traffic Lane	Making Left Turn	West	East	West	North	Improper Turn/Merge			None
Dry	Daylight	Tree or Stump (stationary)	Going Straight Ahead		East	West			Under Influence of Drugs			
Dry	Dark - Unknown Lightin	Utility Pole	Negotiating a Curve		East	West			Under Influence of Drugs	Unknown Distraction		
Dry	Dark-No Street Lights	Utility Pole	Negotiating a Curve		East	West			Unknown Distraction			
Wet	Dark-Street Lights On	Entering at angle	Going Straight Ahead	Making Left Turn	East	West	East	West	Did Not Grant RW to Vehicle			None
Dry	Daylight	From opposite direction - one left turn - one straight	Going Straight Ahead	Going Straight Ahead	West	East	East	West	Inattention	Did Not Grant RW to Vehicle		None
Wet	Daylight	Metal Sign Post	Going Straight Ahead		North	South			None			
Wet	Dark-Street Lights On	Metal Sign Post	Going Straight Ahead		West	East			Under Influence of Alcohol	Exceeding Reas. Safe Speed		
Dry	Daylight	From same direction - both going straight - both moving - rear-end	Slowing	Going Straight Ahead	West	East	West	East	Other Contributing Circ Not Listed			Other Contributing Circ Not Listed
Dry	Dusk	Mailbox	Going Straight Ahead		East	West			Under Influence of Alcohol			
Wet	Dark-No Street Lights	Roadway Ditch	Negotiating a Curve		South	East			Under Influence of Alcohol	Exceeding Reas. Safe Speed		
Dry	Daylight	From same direction - both going straight - both moving - rear-end	Going Straight Ahead	Slowing	West	East	West	East	Follow Too Closely			Operating Recklessly or Aggressively
Dry	Dark-No Street Lights	Metal Sign Post	Going Straight Ahead		East	West			Under Influence of Alcohol			
Dry	Daylight	Roadway Ditch	Going Straight Ahead		East	South			Exceeding Reas. Safe Speed			
Unknown	Dawn	Metal Sign Post	Negotiating a Curve		East	West			Exceeding Reas. Safe Speed	Unknown Distraction		
Wet	Daylight	Earth Bank or Ledge	Going Straight Ahead		North	South			Operating Defective Equipment			
Wet	Daylight	Roadway Ditch	Going Straight Ahead		East	West			Exceeding Reas. Safe Speed			

MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 3 (UNIT 2)	BICYCLIST CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	BICYCLIST CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	BICYCLIST CONTRIBUTING CIRCUMSTANCE 3 (UNIT 1)	BICYCLIST CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	BICYCLIST CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	BICYCLIST 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
											Lane 1 Decreasing Milepost	1152423.3	103881.17
											Past Right Shoulder Decreasing Milepost	1152594.1	99832.65
											Lane 1 Increasing Milepost	1152593.8	99723.39
											Lane 1 Decreasing Milepost	1152590.11	99454.29
											Lane 1 Increasing Milepost	1152590.11	99454.29
											Past Right Shoulder Increasing Milepost	1152590.11	99454.29
											Past Right Shoulder Increasing Milepost	1152587.2	99453.43
											Lane 1 Decreasing Milepost	1153491.84	99031.82
Distractions Outside Vehicle											Lane 1 Decreasing Milepost	1153491.84	99031.82
											Lane 1 Decreasing Milepost	1153478.99	99045.75
											Lane 2 Decreasing Milepost	1153478.99	99045.75
											Lane 1 Increasing Milepost	1153487.94	99030.26
											Lane 1 Decreasing Milepost	1153478.99	99045.75
											Lane 1 Increasing Milepost	1153491.84	99031.82
											Left Turn Lane Increasing Milepost	1153491.84	99031.82
											Lane 1 Decreasing Milepost	1153489.18	99027.44
											Lane 1 Decreasing Milepost	1153490.77	99032.3
											Lane 2 LX Decreasing Milepost	1147068.9	96783.3
											Past Left Shoulder LX Decreasing Milepost	1147074.77	96784.55
											Lane 1 LX Increasing Milepost (Prior to 2002 Impact Location Code was not lane specific)	1147075.53	96756.71
											Lane 1 LX Increasing Milepost (Prior to 2002 Impact Location Code was not lane specific)	1147075.88	96756.77
											Increasing Other Location	1147063.58	96768.16
											Intersecting Road Increasing Milepost	1147076.64	96761.6
											Lane 1 Off Ramp Increasing Milepost Side of Mainline	1146958.27	96727.71
											Lane 1 Decreasing Milepost	1148229.61	119051.46
											Lane 1 Increasing Milepost	1148221.08	119048
											Lane 1 Increasing Milepost	1148221.08	119048
											Past Right Shoulder Decreasing Milepost	1148293.99	119032.97
											Past Right Shoulder Increasing Milepost	1154640.88	111913.1
											Past Right Shoulder Decreasing Milepost	1154643.74	111899.88
											Lane 1 Decreasing Milepost	1154629.31	111857.27
											Lane 1 Decreasing Milepost	1154626.73	111845.94
											Past Right Shoulder Decreasing Milepost	1154600.51	111788.93
											Past Right Shoulder Decreasing Milepost	1154596.58	111797.7
											Lane 1 Decreasing Milepost	1154476.17	111703.95
											Past Right Shoulder Increasing Milepost	1153508.98	111714.59
											Past Right Shoulder Increasing Milepost	1153485.97	111712.3
											Lane 1 Decreasing Milepost	1153463.61	111686.8
											Past Right Shoulder Increasing Milepost	1153463.61	111686.8
											Past Right Shoulder Decreasing Milepost	1153465.36	111687.85
											Past Right Shoulder Increasing Milepost	1153430.82	111654.23
											Past Right Shoulder Increasing Milepost	1153413.18	111605.46
											Past Right Shoulder Decreasing Milepost	1153420.63	111628.52

Appendix C: Traffic Count Data

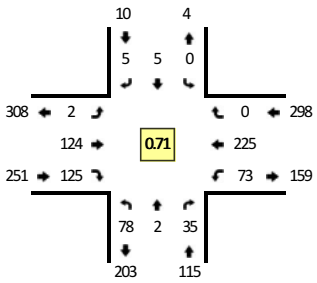
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

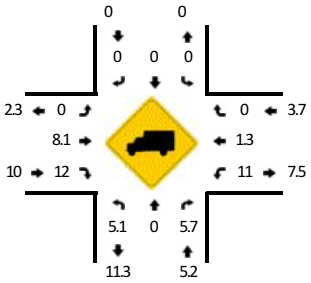
LOCATION: NE 232nd Ave -- NE 28th St
CITY/STATE: Fern Prairie, WA

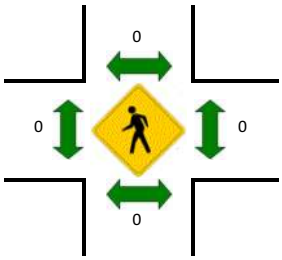
QC JOB #: 16591696
DATE: Wed, May 15 2024

Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

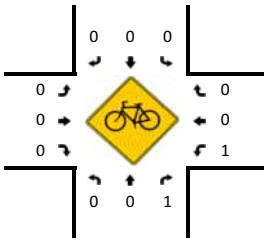


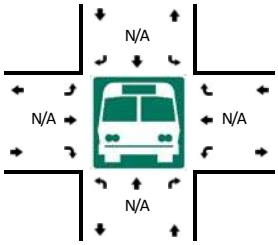




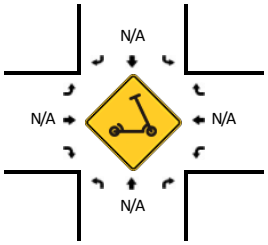












5-Min Count Period Beginning At	NE 232nd Ave (Northbound)				NE 232nd Ave (Southbound)				NE 28th St (Eastbound)				NE 28th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	0	0	0	0	0	0	0	0	5	5	0	0	16	0	0	30	
7:05 AM	5	0	0	0	0	0	0	0	0	4	3	0	0	11	0	0	23	
7:10 AM	5	0	1	0	0	0	0	0	0	5	4	0	1	20	0	0	36	
7:15 AM	4	0	0	0	0	0	0	0	0	6	2	0	0	14	0	0	26	
7:20 AM	6	0	1	0	0	0	0	0	1	7	0	0	2	19	0	0	36	
7:25 AM	6	0	2	0	0	0	1	0	0	2	8	0	3	8	0	0	30	
7:30 AM	2	0	0	0	0	1	1	0	0	9	6	0	3	26	0	0	48	
7:35 AM	3	0	0	0	0	0	0	0	0	11	9	0	6	17	0	0	46	
7:40 AM	5	0	2	0	0	0	0	0	0	4	7	0	7	18	0	0	43	
7:45 AM	4	0	6	0	0	0	1	0	0	15	14	0	18	21	0	0	79	
7:50 AM	10	0	1	0	0	1	1	0	0	10	18	0	13	15	0	0	69	
7:55 AM	12	0	9	0	0	1	1	0	0	12	14	0	12	27	0	0	88	554
8:00 AM	14	0	9	0	0	0	0	0	0	12	12	0	6	14	0	0	67	591
8:05 AM	8	0	3	0	0	1	0	0	1	22	11	0	0	13	0	0	59	627
8:10 AM	7	1	3	0	0	1	1	0	0	8	5	0	4	23	0	0	53	644
8:15 AM	3	0	2	0	0	0	0	0	0	8	13	0	1	21	0	0	48	666
8:20 AM	4	0	0	0	0	0	0	0	1	6	8	0	2	19	0	0	40	670
8:25 AM	6	1	0	0	0	0	0	0	0	7	8	0	1	11	0	0	34	674
8:30 AM	1	0	1	0	0	0	0	0	0	10	7	0	4	15	1	0	39	665
8:35 AM	4	0	1	0	0	0	0	0	0	15	6	0	0	14	0	0	40	659
8:40 AM	8	0	1	0	0	0	0	0	0	9	10	0	0	15	0	0	43	659
8:45 AM	5	0	1	0	0	0	0	0	0	6	7	0	2	11	0	0	32	612
8:50 AM	3	0	0	0	0	0	0	0	0	12	6	0	0	16	0	0	37	580
8:55 AM	4	0	1	0	0	0	0	0	1	19	6	0	1	10	0	0	42	534

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	104	0	64	0	0	8	12	0	0	148	184	0	172	252	0	0	944
Heavy Trucks	4	0	4		0	0	0		0	8	12		12	4	0		44
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	4		0	0	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

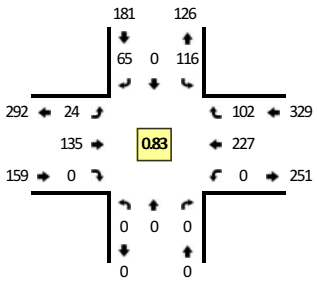
Type of peak hour being reported: Intersection Peak

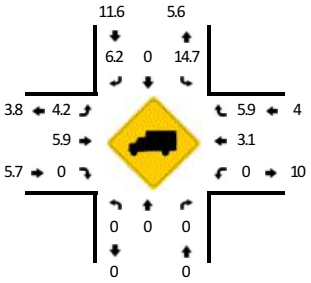
Method for determining peak hour: Total Entering Volume

LOCATION: NE 242nd Ave -- NE 28th St
CITY/STATE: Camas, WA

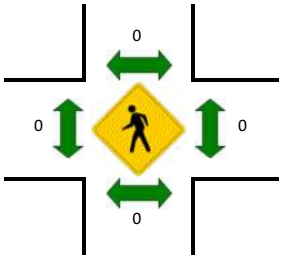
QC JOB #: 16591601
DATE: Wed, May 15 2024

Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

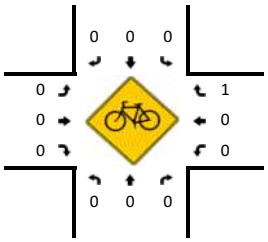


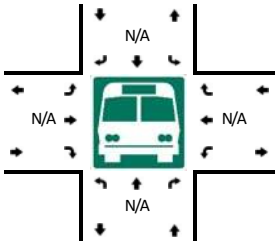


TRUE DATA TO IMPROVE MOBILITY

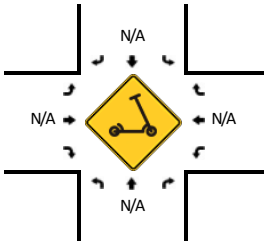












5-Min Count Period Beginning At	NE 242nd Ave (Northbound)				NE 242nd Ave (Southbound)				NE 28th St (Eastbound)				NE 28th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	5	0	3	0	0	4	0	0	0	12	7	0	31	
7:05 AM	0	0	0	0	2	0	3	0	1	4	0	0	0	12	8	0	30	
7:10 AM	0	0	0	0	3	0	8	0	0	5	0	0	0	13	5	0	34	
7:15 AM	0	0	0	0	9	0	2	0	0	6	0	0	0	10	9	0	36	
7:20 AM	0	0	0	0	6	0	6	0	3	6	0	0	0	15	7	0	43	
7:25 AM	0	0	0	0	8	0	4	0	1	2	0	0	0	10	11	0	36	
7:30 AM	0	0	0	0	14	0	3	0	1	9	0	0	0	24	8	0	59	
7:35 AM	0	0	0	0	9	0	5	0	1	8	0	0	0	18	13	0	54	
7:40 AM	0	0	0	0	8	0	10	0	1	7	0	0	0	26	12	0	64	
7:45 AM	0	0	0	0	6	0	11	0	3	13	0	0	0	20	10	0	63	
7:50 AM	0	0	0	0	18	0	11	0	3	12	0	0	0	21	1	0	66	
7:55 AM	0	0	0	0	10	0	4	0	6	14	0	0	0	30	9	0	73	589
8:00 AM	0	0	0	0	10	0	2	0	3	15	0	0	0	13	6	0	49	607
8:05 AM	0	0	0	0	7	0	3	0	0	20	0	0	0	16	5	0	51	628
8:10 AM	0	0	0	0	10	0	6	0	2	18	0	0	0	16	7	0	59	653
8:15 AM	0	0	0	0	8	0	5	0	3	6	0	0	0	17	7	0	46	663
8:20 AM	0	0	0	0	8	0	4	0	1	6	0	0	0	13	10	0	42	662
8:25 AM	0	0	0	0	8	0	1	0	0	7	0	0	0	13	14	0	43	669
8:30 AM	0	0	0	0	7	0	4	0	1	7	0	0	0	13	2	0	34	644
8:35 AM	0	0	0	0	8	0	4	0	4	5	0	0	0	9	5	0	35	625
8:40 AM	0	0	0	0	17	0	6	0	2	10	0	0	0	8	8	0	51	612
8:45 AM	0	0	0	0	6	0	4	0	1	8	0	0	0	9	5	0	33	582
8:50 AM	0	0	0	0	9	0	3	0	1	12	0	0	0	13	6	0	44	560
8:55 AM	0	0	0	0	11	0	6	0	2	18	0	0	0	9	5	0	51	538

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	136	0	104	0	48	156	0	0	0	284	80	0	808
Heavy Trucks	0	0	0		20	0	0		4	8	0		0	4	8		44
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	4		4
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

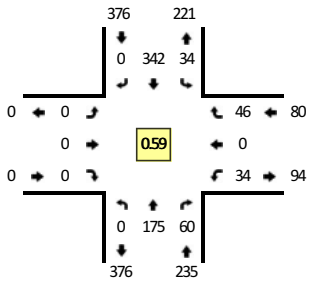
Type of peak hour being reported: Intersection Peak

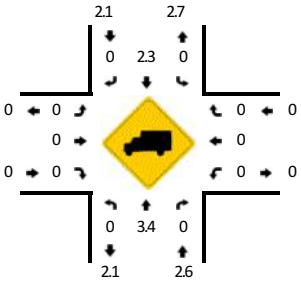
Method for determining peak hour: Total Entering Volume

LOCATION: SE Everett Rd -- SE 8th St
CITY/STATE: Camas, WA

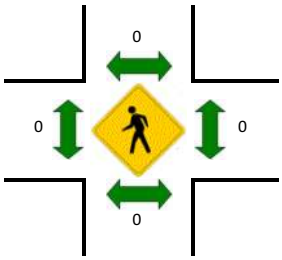
QC JOB #: 16591607
DATE: Wed, May 15 2024

Peak-Hour: 7:50 AM -- 8:50 AM
Peak 15-Min: 8:05 AM -- 8:20 AM

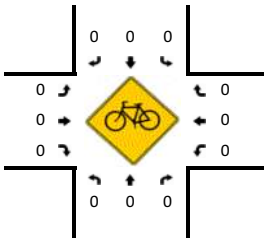


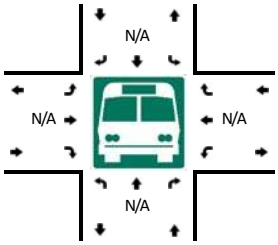


TRUE DATA TO IMPROVE MOBILITY

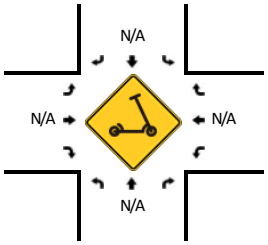












5-Min Count Period Beginning At	SE Everett Rd (Northbound)				SE Everett Rd (Southbound)				SE 8th St (Eastbound)				SE 8th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	9	0	0	0	11	0	0	0	0	0	0	1	0	1	0	22	
7:05 AM	0	4	0	0	1	15	0	0	0	0	0	0	0	0	0	0	20	
7:10 AM	0	7	0	0	0	14	0	0	0	0	0	0	0	0	1	0	22	
7:15 AM	0	4	2	0	0	8	0	0	0	0	0	0	1	0	1	0	16	
7:20 AM	0	3	1	0	1	15	0	0	0	0	0	0	0	0	0	0	20	
7:25 AM	0	8	1	0	0	9	0	0	0	0	0	0	0	0	1	0	19	
7:30 AM	0	9	2	0	1	12	0	0	0	0	0	0	0	0	1	0	25	
7:35 AM	0	7	6	0	2	18	0	0	0	0	0	0	0	0	1	0	34	
7:40 AM	0	9	2	0	1	24	0	0	0	0	0	0	0	0	1	0	37	
7:45 AM	0	9	0	0	3	18	0	0	0	0	0	0	1	0	0	0	31	
7:50 AM	0	12	0	0	1	25	0	0	0	0	0	0	0	0	1	0	39	
7:55 AM	0	13	7	0	3	31	0	0	0	0	0	0	0	0	1	0	55	340
8:00 AM	0	16	5	0	2	27	0	0	0	0	0	0	8	0	3	0	61	379
8:05 AM	0	32	16	0	8	26	0	0	0	0	0	0	3	0	8	0	93	452
8:10 AM	0	22	14	0	11	43	0	0	0	0	0	0	7	0	14	0	111	541
8:15 AM	0	10	5	0	5	43	0	0	0	0	0	0	11	0	14	0	88	613
8:20 AM	0	9	2	0	0	30	0	0	0	0	0	0	3	0	3	0	47	640
8:25 AM	0	10	1	0	1	21	0	0	0	0	0	0	1	0	1	0	35	656
8:30 AM	0	9	1	0	1	30	0	0	0	0	0	0	1	0	1	0	43	674
8:35 AM	0	17	1	0	1	24	0	0	0	0	0	0	0	0	0	0	43	683
8:40 AM	0	15	6	0	0	19	0	0	0	0	0	0	0	0	0	0	40	686
8:45 AM	0	10	2	0	1	23	0	0	0	0	0	0	0	0	0	0	36	691
8:50 AM	0	6	6	0	1	14	0	0	0	0	0	0	0	0	0	0	27	679
8:55 AM	0	11	4	0	1	9	0	0	0	0	0	0	0	0	2	0	27	651

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	256	140	0	96	448	0	0	0	0	0	0	84	0	144	0	1168
Heavy Trucks	0	4	0		0	12	0		0	0	0		0	0	0		16
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

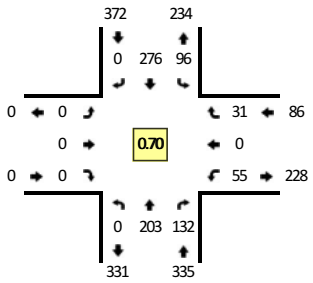
Type of peak hour being reported: Intersection Peak

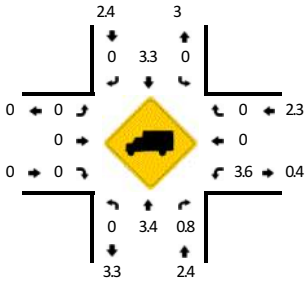
Method for determining peak hour: Total Entering Volume

LOCATION: SE Everett St -- NE Everett Dr
CITY/STATE: Camas, WA

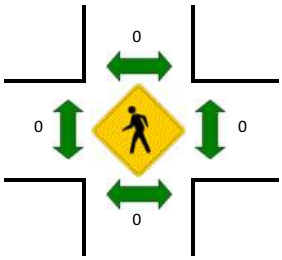
QC JOB #: 16591609
DATE: Wed, May 15 2024

Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 8:05 AM -- 8:20 AM

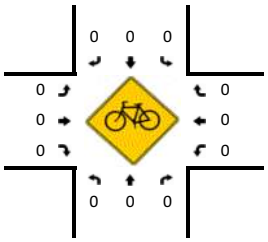


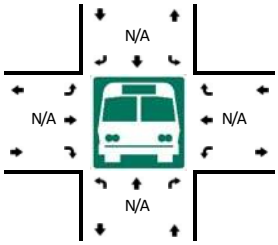


TRUE DATA TO IMPROVE MOBILITY

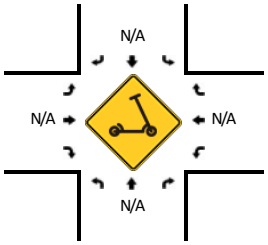












5-Min Count Period Beginning At	SE Everett St (Northbound)				SE Everett St (Southbound)				NE Everett Dr (Eastbound)				NE Everett Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	7	3	0	3	10	0	0	0	0	0	0	9	0	2	0	34	
7:05 AM	0	4	1	0	0	15	0	0	0	0	0	0	1	0	0	0	21	
7:10 AM	0	8	0	0	2	12	0	0	0	0	0	0	1	0	0	0	23	
7:15 AM	0	5	1	0	1	8	0	0	0	0	0	0	1	0	0	0	16	
7:20 AM	0	3	0	0	5	11	0	0	0	0	0	0	1	0	0	0	20	
7:25 AM	0	9	3	0	1	7	0	0	0	0	0	0	1	0	0	0	21	
7:30 AM	0	10	6	0	0	13	0	0	0	0	0	0	2	0	1	0	32	
7:35 AM	0	11	2	0	3	15	0	0	0	0	0	0	0	0	2	0	33	
7:40 AM	0	10	10	0	3	20	0	0	0	0	0	0	1	0	1	0	45	
7:45 AM	0	8	7	0	5	14	0	0	0	0	0	0	9	0	2	0	45	
7:50 AM	0	9	3	0	4	22	0	0	0	0	0	0	3	0	4	0	45	
7:55 AM	0	20	9	0	8	22	0	0	0	0	0	0	1	0	1	0	61	396
8:00 AM	0	16	7	0	8	25	0	0	0	0	0	0	1	0	3	0	60	422
8:05 AM	0	45	18	0	9	22	0	0	0	0	0	0	0	0	4	0	98	499
8:10 AM	0	34	13	0	9	40	0	0	0	0	0	0	2	0	2	0	100	576
8:15 AM	0	13	9	0	9	48	0	0	0	0	0	0	4	0	1	0	84	644
8:20 AM	0	8	12	0	8	24	0	0	0	0	0	0	4	0	3	0	59	683
8:25 AM	0	9	13	0	8	13	0	0	0	0	0	0	4	0	2	0	49	711
8:30 AM	0	6	13	0	13	17	0	0	0	0	0	0	9	0	4	0	62	741
8:35 AM	0	17	20	0	13	12	0	0	0	0	0	0	8	0	2	0	72	780
8:40 AM	0	18	8	0	2	17	0	0	0	0	0	0	10	0	3	0	58	793
8:45 AM	0	8	2	0	4	18	0	0	0	0	0	0	8	0	4	0	44	792
8:50 AM	0	13	1	0	3	12	0	0	0	0	0	0	1	0	0	0	30	777
8:55 AM	0	14	0	0	0	9	0	0	0	0	0	0	0	0	0	0	23	739

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	368	160	0	108	440	0	0	0	0	0	0	24	0	28	0	1128
Heavy Trucks	0	4	4		0	12	0		0	0	0		4	0	0		24
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

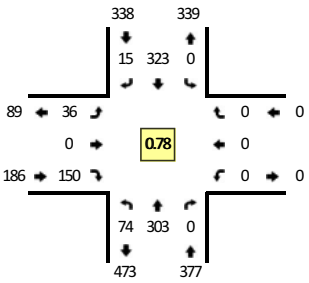
Type of peak hour being reported: Intersection Peak

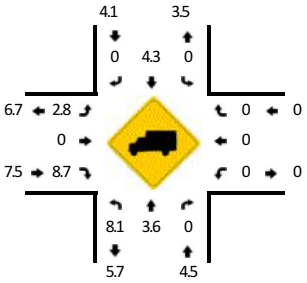
Method for determining peak hour: Total Entering Volume

LOCATION: SE Everett St -- SE Leadbetter Rd
CITY/STATE: Camas, WA

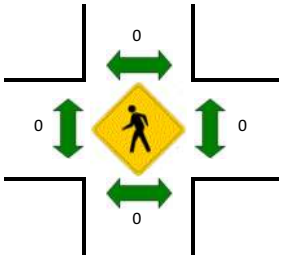
QC JOB #: 16591672
DATE: Wed, May 15 2024

Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

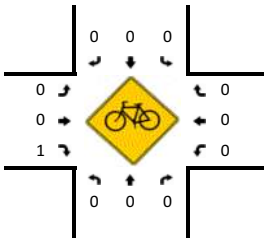


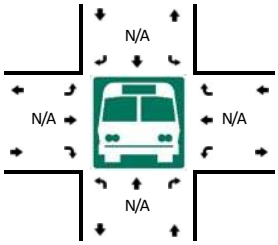


TRUE DATA TO IMPROVE MOBILITY

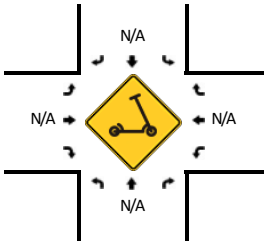












5-Min Count Period Beginning At	SE Everett St (Northbound)				SE Everett St (Southbound)				SE Leadbetter Rd (Eastbound)				SE Leadbetter Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	6	9	0	0	0	19	0	0	1	0	1	0	0	0	0	0	36	
7:05 AM	7	5	0	0	0	15	1	0	0	0	3	0	0	0	0	0	31	
7:10 AM	9	8	0	0	0	15	0	0	0	0	0	0	0	0	0	0	32	
7:15 AM	7	6	0	0	0	8	0	0	0	0	4	0	0	0	0	0	25	
7:20 AM	9	5	0	0	0	12	0	0	1	0	2	0	0	0	0	0	29	
7:25 AM	5	8	0	0	0	8	0	0	0	0	2	0	0	0	0	0	23	
7:30 AM	0	15	0	0	0	16	1	0	0	0	13	0	0	0	0	0	45	
7:35 AM	13	13	0	0	0	13	1	0	1	0	5	0	0	0	0	0	46	
7:40 AM	6	18	0	0	0	17	2	0	0	0	12	0	0	0	0	0	55	
7:45 AM	18	12	0	0	0	22	2	0	3	0	13	0	0	0	0	0	70	
7:50 AM	9	13	0	0	0	23	2	0	0	0	11	0	0	0	0	0	58	
7:55 AM	5	26	0	0	0	22	1	0	3	0	24	0	0	0	0	0	81	531
8:00 AM	3	27	0	0	0	26	1	0	5	0	26	0	0	0	0	0	88	583
8:05 AM	6	59	0	0	0	20	1	0	2	0	15	0	0	0	0	0	103	655
8:10 AM	3	40	0	0	0	41	0	0	5	0	9	0	0	0	0	0	98	721
8:15 AM	5	20	0	0	0	48	3	0	2	0	9	0	0	0	0	0	87	783
8:20 AM	6	18	0	0	0	31	1	0	3	0	13	0	0	0	0	0	72	826
8:25 AM	2	18	0	0	0	19	1	0	4	0	7	0	0	0	0	0	51	854
8:30 AM	3	20	0	0	0	22	0	0	3	0	9	0	0	0	0	0	57	866
8:35 AM	8	25	0	0	0	21	2	0	5	0	7	0	0	0	0	0	68	888
8:40 AM	6	25	0	0	0	28	1	0	1	0	7	0	0	0	0	0	68	901
8:45 AM	2	8	0	0	0	25	1	0	0	0	10	0	0	0	0	0	46	877
8:50 AM	6	15	0	0	0	14	1	0	2	0	10	0	0	0	0	0	48	867
8:55 AM	3	13	0	0	0	9	0	0	1	0	9	0	0	0	0	0	35	821

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	504	0	0	0	348	8	0	48	0	200	0	0	0	0	0	1156
Heavy Trucks	4	12	0		0	4	0		0	0	8		0	0	0		28
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

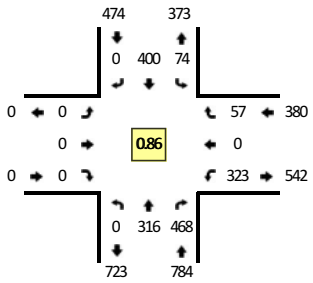
Type of peak hour being reported: Intersection Peak

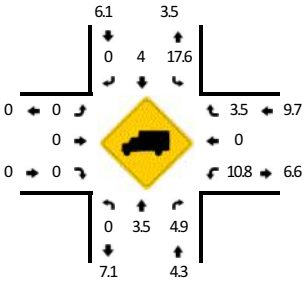
Method for determining peak hour: Total Entering Volume

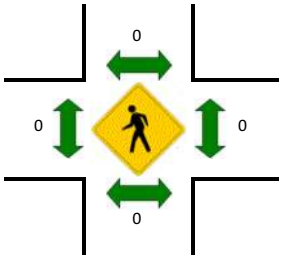
LOCATION: NE Everett St -- NE 43rd Ave
CITY/STATE: Camas, WA

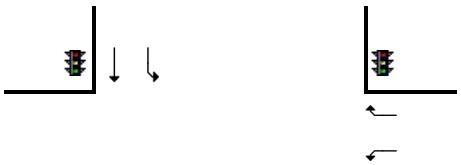
QC JOB #: 16591615
DATE: Wed, May 15 2024

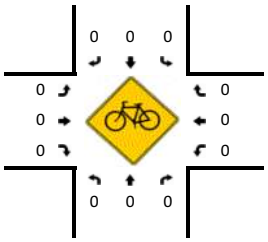
Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 8:05 AM -- 8:20 AM

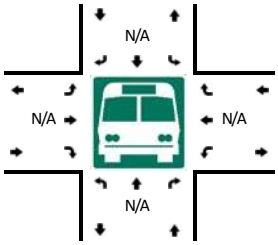




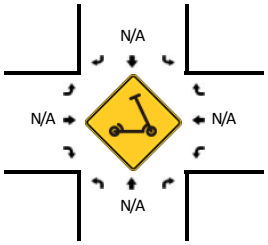












5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				NE 43rd Ave (Eastbound)				NE 43rd Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	13	13	0	3	15	0	0	0	0	0	0	14	0	3	0	61	
7:05 AM	0	10	12	0	0	16	0	0	0	0	0	0	8	0	3	0	49	
7:10 AM	0	11	6	0	0	16	0	0	0	0	0	0	10	0	4	0	47	
7:15 AM	0	11	14	0	2	6	0	0	0	0	0	0	12	0	2	0	47	
7:20 AM	0	11	9	0	3	13	0	0	0	0	0	0	18	0	3	0	57	
7:25 AM	0	11	13	0	0	9	0	0	0	0	0	0	7	0	2	0	42	
7:30 AM	0	14	21	0	2	23	0	0	0	0	0	0	16	0	2	0	78	
7:35 AM	0	23	33	0	3	20	0	0	0	0	0	0	23	0	8	0	110	
7:40 AM	0	20	47	0	5	24	0	0	0	0	0	0	27	0	4	0	127	
7:45 AM	0	18	37	0	5	22	0	0	0	0	0	0	37	0	9	0	128	
7:50 AM	0	15	28	0	2	39	0	0	0	0	0	0	15	0	7	0	106	
7:55 AM	0	25	25	0	8	35	0	0	0	0	0	0	11	0	4	0	108	960
8:00 AM	0	29	30	0	12	44	0	0	0	0	0	0	13	0	5	0	133	1032
8:05 AM	0	57	49	0	8	26	0	0	0	0	0	0	24	0	8	0	172	1155
8:10 AM	0	33	50	0	7	41	0	0	0	0	0	0	21	0	6	0	158	1266
8:15 AM	0	21	41	0	16	42	0	0	0	0	0	0	23	0	5	0	148	1367
8:20 AM	0	20	47	0	9	35	0	0	0	0	0	0	27	0	3	0	141	1451
8:25 AM	0	20	51	0	2	25	0	0	0	0	0	0	35	0	1	0	134	1543
8:30 AM	0	22	39	0	2	27	0	0	0	0	0	0	40	0	1	0	131	1596
8:35 AM	0	29	44	0	0	29	0	0	0	0	0	0	41	0	4	0	147	1633
8:40 AM	0	27	27	0	3	35	0	0	0	0	0	0	36	0	4	0	132	1638
8:45 AM	0	12	19	0	2	32	0	0	0	0	0	0	31	0	0	0	96	1606
8:50 AM	0	18	11	0	2	23	0	0	0	0	0	0	13	0	2	0	69	1569
8:55 AM	0	15	17	0	0	15	0	0	0	0	0	0	3	0	1	0	51	1512

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	444	560	0	124	436	0	0	0	0	0	0	272	0	76	0	1912
Heavy Trucks	0	16	24		20	0	0		0	0	0		20	0	0		80
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

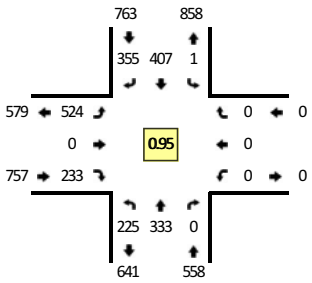
Type of peak hour being reported: Intersection Peak

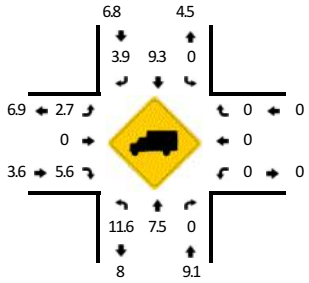
Method for determining peak hour: Total Entering Volume

LOCATION: NE Everett St -- NW Lake Rd
CITY/STATE: Camas, WA

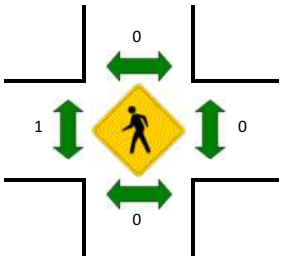
QC JOB #: 16591617
DATE: Wed, May 15 2024

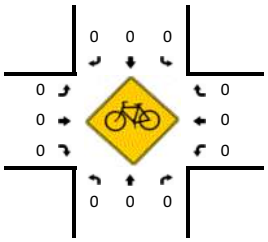
Peak-Hour: 7:40 AM -- 8:40 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

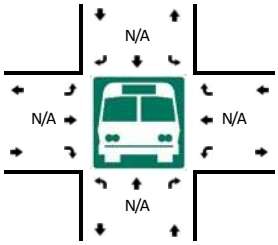


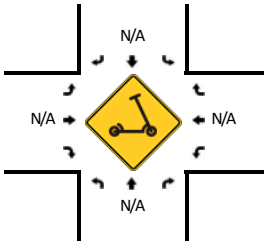


TRUE DATA TO IMPROVE MOBILITY









5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	9	10	0	0	0	22	12	0	12	0	6	0	0	0	0	0	71	
7:05 AM	8	14	0	0	0	14	16	0	8	0	9	0	0	0	0	0	69	
7:10 AM	13	8	0	0	0	16	12	0	8	0	11	0	0	0	0	0	68	
7:15 AM	18	12	0	0	0	12	15	0	13	0	9	0	0	0	0	0	79	
7:20 AM	8	13	0	0	0	21	15	0	9	0	6	0	0	0	0	0	72	
7:25 AM	14	13	0	0	0	17	11	0	16	0	12	0	0	0	0	0	83	
7:30 AM	12	18	0	0	0	23	16	1	23	0	9	0	0	0	0	0	102	
7:35 AM	11	23	0	0	0	23	20	0	30	0	9	0	0	0	0	0	116	
7:40 AM	13	23	0	0	0	32	24	0	50	0	16	0	0	0	0	0	158	
7:45 AM	15	34	0	0	0	27	36	0	28	0	18	0	0	0	0	0	158	
7:50 AM	18	22	0	1	0	38	30	0	29	0	27	0	0	0	0	0	165	
7:55 AM	32	19	0	0	0	32	24	0	43	0	17	0	0	0	0	0	167	1308
8:00 AM	26	39	0	0	0	34	21	0	46	0	17	0	0	0	0	0	183	1420
8:05 AM	17	30	0	0	0	26	34	1	62	0	20	0	0	0	0	0	190	1541
8:10 AM	15	38	0	0	0	28	32	0	42	0	21	0	0	0	0	0	176	1649
8:15 AM	15	32	0	0	0	37	33	0	38	0	19	0	0	0	0	0	174	1744
8:20 AM	12	23	0	0	0	41	27	0	44	0	17	0	0	0	0	0	164	1836
8:25 AM	22	26	0	0	0	34	31	0	44	0	22	0	0	0	0	0	179	1932
8:30 AM	21	22	0	0	0	37	25	0	54	0	17	0	0	0	0	0	176	2006
8:35 AM	18	25	0	0	0	41	38	0	44	0	22	0	0	0	0	0	188	2078
8:40 AM	18	20	0	0	0	43	33	0	24	0	20	0	0	0	0	0	158	2078
8:45 AM	15	21	0	0	0	45	35	0	10	0	26	0	0	0	0	0	152	2072
8:50 AM	18	30	0	0	0	33	24	0	14	0	40	0	0	0	0	0	159	2066
8:55 AM	25	24	0	0	0	21	5	0	19	0	29	0	0	0	0	0	123	2022

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	232	428	0	0	0	352	348	4	600	0	232	0	0	0	0	0	2196
Heavy Trucks	20	16	0		0	16	8		8	0	12		0	0	0		80
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

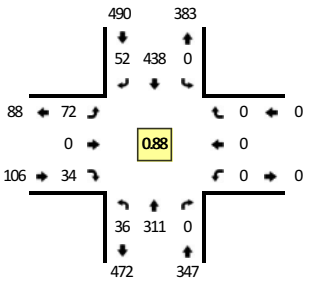
Type of peak hour being reported: Intersection Peak

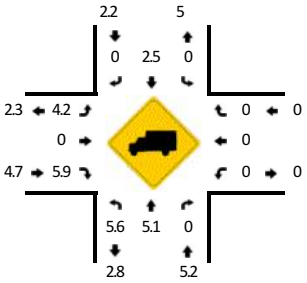
Method for determining peak hour: Total Entering Volume

LOCATION: NE Everett St -- NE 17th Ave
CITY/STATE: Camas, WA

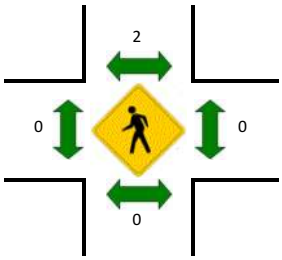
QC JOB #: 16591675
DATE: Wed, May 15 2024

Peak-Hour: 7:55 AM -- 8:55 AM
Peak 15-Min: 8:40 AM -- 8:55 AM

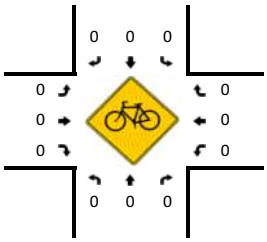


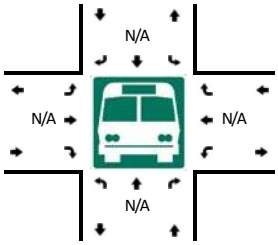


TRUE DATA TO IMPROVE MOBILITY

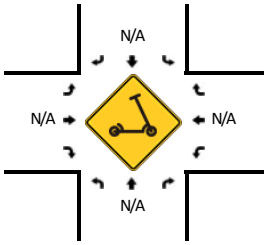












5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				NE 17th Ave (Eastbound)				NE 17th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	14	0	0	0	11	2	0	2	0	2	0	0	0	0	0	31	
7:05 AM	1	15	0	0	0	17	3	0	1	0	0	0	0	0	0	0	37	
7:10 AM	2	10	0	0	0	14	2	0	3	0	2	0	0	0	0	0	33	
7:15 AM	2	15	0	0	0	19	5	0	6	0	0	0	0	0	0	0	47	
7:20 AM	5	9	0	0	0	11	3	0	9	0	4	0	0	0	0	0	41	
7:25 AM	3	14	0	0	0	20	5	0	8	0	0	0	0	0	0	0	50	
7:30 AM	1	16	0	0	0	17	4	0	8	0	0	0	0	0	0	0	46	
7:35 AM	4	22	0	0	0	17	4	0	3	0	2	0	0	0	0	0	52	
7:40 AM	2	19	0	0	0	25	3	0	9	0	0	0	0	0	0	0	58	
7:45 AM	4	23	0	0	0	27	3	0	10	0	2	0	0	0	0	0	69	
7:50 AM	8	29	0	0	0	26	6	0	2	0	6	0	0	0	0	0	77	
7:55 AM	9	29	0	0	0	35	4	0	5	0	1	0	0	0	0	0	83	624
8:00 AM	0	32	0	0	0	32	6	0	7	0	5	0	0	0	0	0	82	675
8:05 AM	1	29	0	0	0	23	5	0	7	0	3	0	0	0	0	0	68	706
8:10 AM	1	31	0	0	0	32	7	0	10	0	1	0	0	0	0	0	82	755
8:15 AM	4	23	0	0	0	31	5	0	10	0	3	0	0	0	0	0	76	784
8:20 AM	7	17	0	0	0	39	3	0	8	0	2	0	0	0	0	0	76	819
8:25 AM	0	19	0	0	0	41	1	0	6	0	1	0	0	0	0	0	68	837
8:30 AM	2	21	0	0	0	29	3	0	5	0	6	0	0	0	0	0	66	857
8:35 AM	2	26	0	0	0	35	3	0	6	0	1	0	0	0	0	0	73	878
8:40 AM	3	29	0	0	0	37	5	0	1	0	2	0	0	0	0	0	77	897
8:45 AM	2	24	0	0	0	51	2	0	4	0	2	0	0	0	0	0	85	913
8:50 AM	5	31	0	0	0	53	8	0	3	0	7	0	0	0	0	0	107	943
8:55 AM	5	29	0	0	0	36	1	0	2	0	1	0	0	0	0	0	74	934

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	40	336	0	0	0	564	60	0	32	0	44	0	0	0	0	0	1076
Heavy Trucks	0	8	0		0	8	0		0	0	4		0	0	0		20
Buses																	
Pedestrians		0				8				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

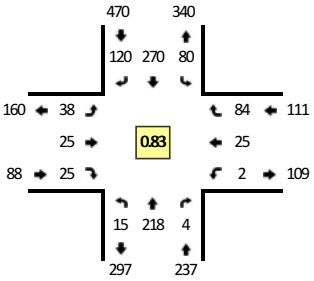
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

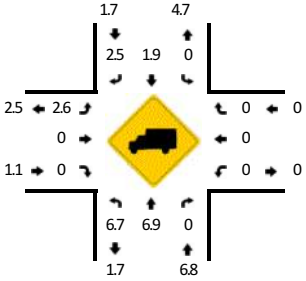
LOCATION: NE Everett St -- NW 15th Ave
CITY/STATE: Camas, WA

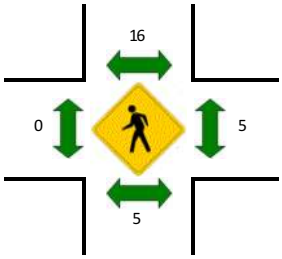
QC JOB #: 16591678
DATE: Wed, May 15 2024

Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:40 AM -- 8:55 AM

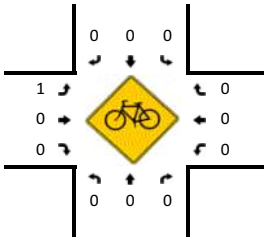


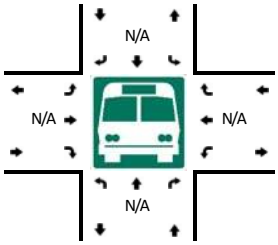




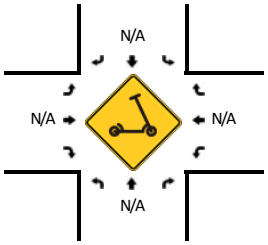












5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				NW 15th Ave (Eastbound)				NW 15th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	9	0	0	0	9	4	0	4	1	1	0	0	0	0	0	28	
7:05 AM	0	14	0	0	1	11	6	0	1	0	1	0	0	0	1	0	35	
7:10 AM	0	11	1	0	0	9	7	0	2	0	0	0	0	0	0	0	30	
7:15 AM	0	13	0	0	0	8	9	0	2	0	2	0	0	0	0	0	34	
7:20 AM	0	13	0	0	0	10	7	0	1	0	2	0	0	0	1	0	34	
7:25 AM	1	13	0	0	1	12	5	0	3	2	0	0	0	0	0	0	37	
7:30 AM	4	16	0	0	0	13	5	0	0	0	1	0	0	1	0	0	40	
7:35 AM	1	23	0	0	1	12	7	0	2	0	3	0	0	0	1	0	50	
7:40 AM	0	16	0	0	3	11	11	0	3	1	0	0	0	2	3	0	50	
7:45 AM	2	18	1	0	5	16	7	0	4	2	1	0	0	1	5	0	62	
7:50 AM	1	27	0	0	12	16	5	0	4	6	1	0	1	3	9	0	85	
7:55 AM	1	27	1	0	15	14	7	0	0	2	1	0	0	3	9	0	80	565
8:00 AM	0	14	1	0	7	18	11	0	2	2	2	0	0	5	14	0	76	613
8:05 AM	4	21	0	0	2	13	10	0	8	1	4	0	0	1	3	0	67	645
8:10 AM	1	21	0	0	3	18	9	0	6	2	2	0	0	1	4	0	67	682
8:15 AM	1	18	0	0	4	24	6	0	4	1	3	0	0	3	3	0	67	715
8:20 AM	1	17	0	0	5	18	20	0	3	2	1	0	0	2	3	0	72	753
8:25 AM	1	18	0	0	6	26	11	0	3	0	1	0	1	1	0	0	68	784
8:30 AM	2	19	0	0	4	22	8	0	2	1	0	0	0	2	3	0	63	807
8:35 AM	0	17	0	0	12	20	6	0	2	4	1	0	1	0	8	0	71	828
8:40 AM	3	21	1	0	7	20	11	0	1	3	5	0	0	1	10	0	83	861
8:45 AM	1	14	2	0	10	30	11	0	4	3	1	0	0	4	9	0	89	888
8:50 AM	0	18	0	0	15	34	11	0	1	4	2	0	0	2	14	0	101	904
8:55 AM	1	20	0	0	5	27	6	0	2	2	3	0	0	3	13	0	82	906

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	16	212	12	0	128	336	132	0	24	40	32	0	0	28	132	0	1092
Heavy Trucks	0	4	0		0	12	0		0	0	0		0	0	0		16
Buses																	
Pedestrians		4				16				0				4			24
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

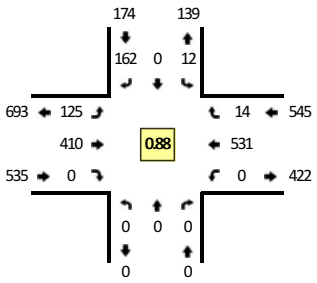
Type of peak hour being reported: Intersection Peak

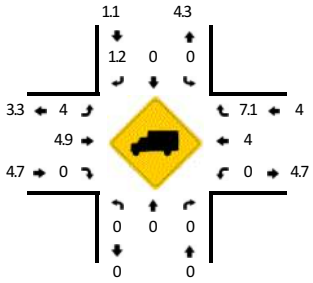
Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- NW 6th Ave
CITY/STATE: Camas, WA

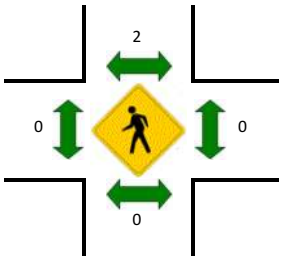
QC JOB #: 16591625
DATE: Wed, May 15 2024

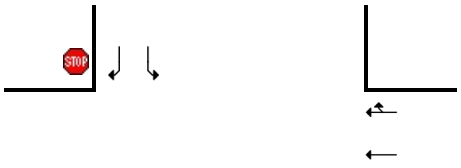
Peak-Hour: 7:55 AM -- 8:55 AM
Peak 15-Min: 8:40 AM -- 8:55 AM

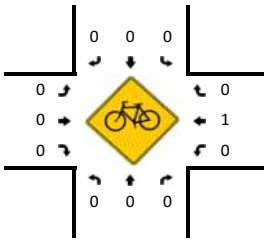


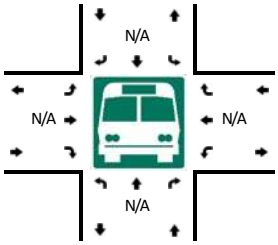


TRUE DATA TO IMPROVE MOBILITY

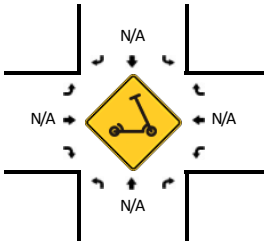












5-Min Count Period Beginning At	Division St (Northbound)				Division St (Southbound)				NW 6th Ave (Eastbound)				NW 6th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	1	0	11	0	3	25	0	0	0	28	1	0	69	
7:05 AM	0	0	0	0	0	0	10	0	3	30	0	0	0	41	1	0	85	
7:10 AM	0	0	0	0	2	0	16	0	0	19	0	0	0	44	1	0	82	
7:15 AM	0	0	0	0	0	0	10	0	9	26	0	0	0	44	0	0	89	
7:20 AM	0	0	0	0	2	0	11	0	5	25	0	0	0	43	0	0	86	
7:25 AM	0	0	0	0	0	0	10	0	11	31	0	0	0	39	0	0	91	
7:30 AM	0	0	0	0	1	0	10	0	6	27	0	0	0	39	3	0	86	
7:35 AM	0	0	0	0	2	0	21	0	5	30	0	0	0	53	0	0	111	
7:40 AM	0	0	0	0	1	0	15	0	12	41	0	0	0	47	0	0	116	
7:45 AM	0	0	0	0	0	0	16	0	9	27	0	0	0	40	4	0	96	
7:50 AM	0	0	0	0	1	0	19	0	5	35	0	0	0	28	1	0	89	
7:55 AM	0	0	0	0	0	0	12	0	8	36	0	0	0	60	0	0	116	1116
8:00 AM	0	0	0	0	0	0	8	0	10	30	0	0	0	49	3	0	100	1147
8:05 AM	0	0	0	0	3	0	22	0	14	26	0	0	0	32	2	0	99	1161
8:10 AM	0	0	0	0	3	0	12	0	6	31	0	0	0	50	1	0	103	1182
8:15 AM	0	0	0	0	1	0	10	0	12	33	0	0	0	43	0	0	99	1192
8:20 AM	0	0	0	0	0	0	13	0	7	30	0	0	0	50	1	0	101	1207
8:25 AM	0	0	0	0	1	0	9	0	10	28	0	0	0	37	1	0	86	1202
8:30 AM	0	0	0	0	1	0	21	0	10	41	0	0	0	35	2	0	110	1226
8:35 AM	0	0	0	0	0	0	7	0	6	28	0	0	0	44	0	0	85	1200
8:40 AM	0	0	0	0	2	0	13	0	16	49	0	0	0	43	1	0	124	1208
8:45 AM	0	0	0	0	1	0	15	0	10	40	0	0	0	40	2	0	108	1220
8:50 AM	0	0	0	0	0	0	20	0	16	38	0	0	0	48	1	0	123	1254
8:55 AM	0	0	0	0	0	0	13	0	8	32	0	0	0	54	3	0	110	1248

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	12	0	192	0	168	508	0	0	0	524	16	0	1420
Heavy Trucks	0	0	0		0	0	4		8	36	0		0	16	4		68
Buses																	
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

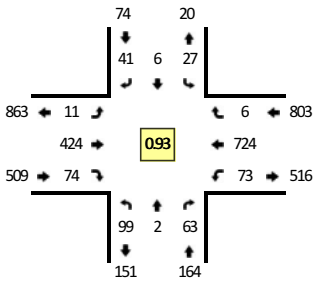
Type of peak hour being reported: Intersection Peak

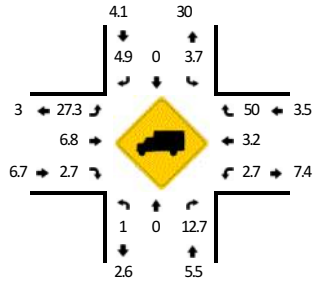
Method for determining peak hour: Total Entering Volume

LOCATION: NW Norwood St -- NW 6th Ave
CITY/STATE: Camas, WA

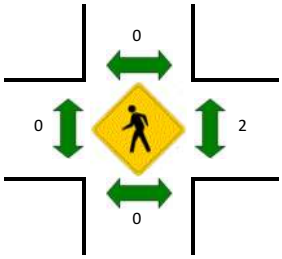
QC JOB #: 16591629
DATE: Wed, May 15 2024

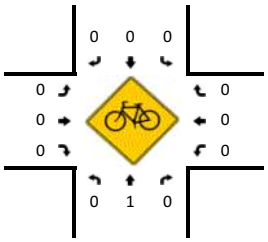
Peak-Hour: 7:35 AM -- 8:35 AM
Peak 15-Min: 7:35 AM -- 7:50 AM

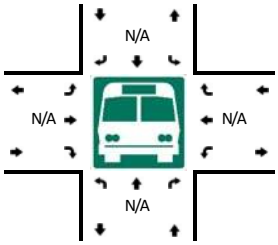


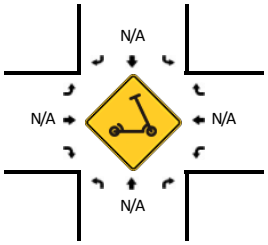


TRUE DATA TO IMPROVE MOBILITY









5-Min Count Period Beginning At	NW Norwood St (Northbound)				NW Norwood St (Southbound)				NW 6th Ave (Eastbound)				NW 6th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	5	0	4	0	1	0	2	0	3	22	4	0	4	37	0	0	82	
7:05 AM	11	0	2	0	0	0	0	0	0	26	2	0	4	50	0	0	95	
7:10 AM	8	0	6	0	1	1	5	0	0	18	7	0	5	63	0	0	114	
7:15 AM	6	0	1	0	1	1	4	0	0	32	6	0	6	52	0	0	109	
7:20 AM	11	0	4	0	0	2	1	0	1	29	10	0	5	57	0	0	120	
7:25 AM	8	0	6	0	1	0	1	0	1	42	6	0	3	48	0	1	117	
7:30 AM	10	0	5	0	0	0	6	0	1	29	5	0	8	60	1	0	125	
7:35 AM	10	0	7	0	2	0	5	0	0	33	2	0	5	70	1	2	137	
7:40 AM	6	0	4	0	5	0	4	0	2	35	6	0	8	73	0	0	143	
7:45 AM	13	0	4	0	0	0	2	0	1	40	10	0	5	60	0	0	135	
7:50 AM	12	0	4	1	1	1	5	0	2	32	12	0	7	54	1	0	132	
7:55 AM	5	1	14	0	1	2	1	1	1	26	7	0	5	61	1	0	126	1435
8:00 AM	5	0	5	0	4	1	6	0	0	39	4	0	6	62	0	0	132	1485
8:05 AM	11	0	7	0	2	1	1	0	0	33	5	0	5	56	1	0	122	1512
8:10 AM	7	0	4	0	2	0	2	0	1	36	4	0	3	66	0	0	125	1523
8:15 AM	9	0	3	0	3	0	3	0	1	35	4	0	8	54	0	1	121	1535
8:20 AM	5	0	5	0	4	0	2	0	1	33	8	0	8	55	0	0	121	1536
8:25 AM	7	1	3	0	1	1	6	0	0	38	6	0	7	50	1	0	121	1540
8:30 AM	8	0	3	0	1	0	4	0	2	44	6	0	3	63	1	0	135	1550
8:35 AM	9	0	3	0	0	0	2	0	3	41	6	0	4	50	0	0	118	1531
8:40 AM	4	0	9	0	2	0	6	0	2	52	6	0	6	52	1	0	140	1528
8:45 AM	11	0	3	0	1	1	1	0	1	57	8	0	4	54	0	0	141	1534
8:50 AM	7	0	5	0	1	0	1	0	0	49	7	0	7	53	2	0	132	1534
8:55 AM	10	0	5	0	0	1	1	0	0	33	5	0	4	61	0	0	120	1528

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	116	0	60	0	28	0	44	0	12	432	72	0	72	812	4	8	1660
Heavy Trucks	0	0	12		0	0	4		0	32	0		4	24	0		76
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

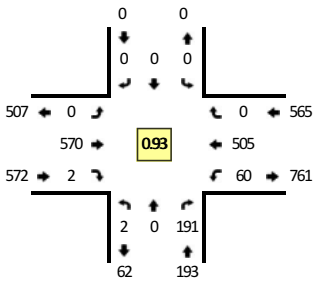
Type of peak hour being reported: Intersection Peak

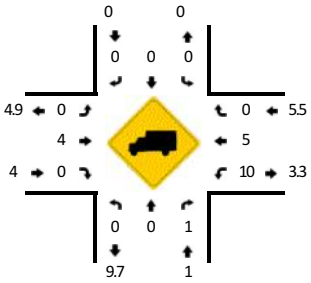
Method for determining peak hour: Total Entering Volume

LOCATION: NW Lacamas Ln -- NW Lake Rd
CITY/STATE: Camas, WA

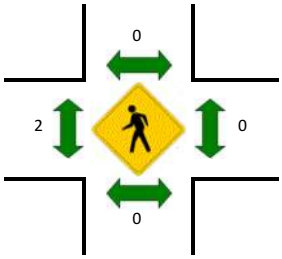
QC JOB #: 16591684
DATE: Wed, May 15 2024

Peak-Hour: 7:40 AM -- 8:40 AM
Peak 15-Min: 8:05 AM -- 8:20 AM

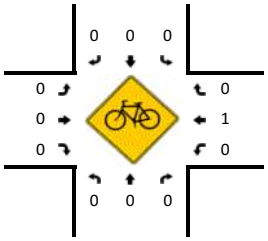


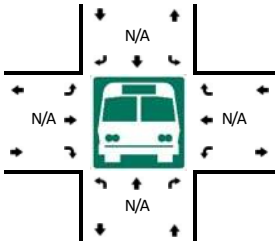


TRUE DATA TO IMPROVE MOBILITY

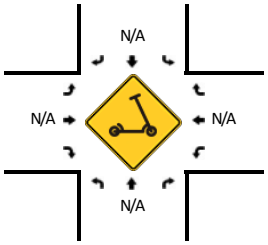












5-Min Count Period Beginning At	NW Lacamas Ln (Northbound)				NW Lacamas Ln (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	1	0	0	0	0	0	0	12	0	0	1	17	0	0	31	
7:05 AM	0	0	2	0	0	0	0	0	0	14	0	0	4	20	0	0	40	
7:10 AM	0	0	3	0	0	0	0	0	0	19	0	0	2	22	0	0	46	
7:15 AM	0	0	2	0	0	0	0	0	0	18	0	0	4	28	0	0	52	
7:20 AM	0	0	5	0	0	0	0	0	0	17	1	0	1	27	0	0	51	
7:25 AM	0	0	2	0	0	0	0	0	0	23	0	0	1	19	0	0	45	
7:30 AM	2	0	8	0	0	0	0	0	0	26	0	0	1	27	0	0	64	
7:35 AM	0	0	11	0	0	0	0	0	0	31	0	0	4	24	0	0	70	
7:40 AM	0	0	23	0	0	0	0	0	0	42	0	0	4	37	0	0	106	
7:45 AM	1	0	12	0	0	0	0	0	0	37	0	0	2	42	0	0	94	
7:50 AM	0	0	13	0	0	0	0	0	0	50	0	0	11	43	0	0	117	
7:55 AM	0	0	11	0	0	0	0	0	0	50	0	0	8	45	0	0	114	830
8:00 AM	0	0	17	0	0	0	0	0	0	40	0	0	5	41	0	0	103	902
8:05 AM	0	0	24	0	0	0	0	0	0	61	0	0	5	45	0	0	135	997
8:10 AM	1	0	13	0	0	0	0	0	0	43	0	0	4	46	0	0	107	1058
8:15 AM	0	0	8	0	0	0	0	0	0	61	0	0	6	42	0	0	117	1123
8:20 AM	0	0	16	0	0	0	0	0	0	42	1	0	4	30	0	0	93	1165
8:25 AM	0	0	19	0	0	0	0	0	0	50	0	0	3	43	0	0	115	1235
8:30 AM	0	0	22	0	0	0	0	0	0	41	1	0	3	40	0	0	107	1278
8:35 AM	0	0	13	0	0	0	0	0	0	53	0	0	5	51	0	0	122	1330
8:40 AM	0	0	7	0	0	0	0	0	0	37	0	0	7	39	0	0	90	1314
8:45 AM	1	0	4	0	0	0	0	0	0	36	0	0	7	46	0	0	94	1314
8:50 AM	0	0	7	0	0	0	0	0	0	48	0	0	4	42	0	0	101	1298
8:55 AM	1	0	6	0	0	0	0	0	0	34	2	0	3	25	0	0	71	1255

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	0	180	0	0	0	0	0	0	660	0	0	60	532	0	0	1436
Heavy Trucks	0	0	4		0	0	0		0	16	0		0	12	0		32
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

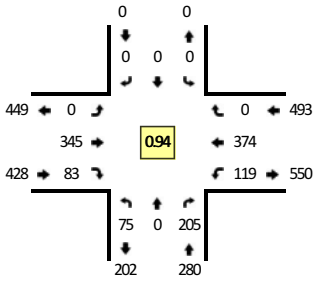
Type of peak hour being reported: Intersection Peak

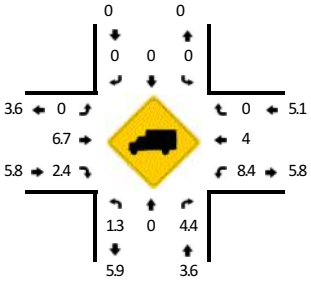
Method for determining peak hour: Total Entering Volume

LOCATION: NW Sierra St -- NW Lake Rd
CITY/STATE: Camas, WA

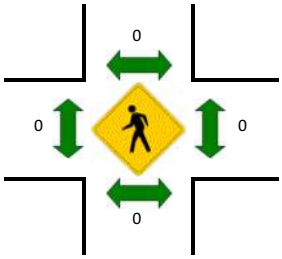
QC JOB #: 16591639
DATE: Wed, May 15 2024

Peak-Hour: 7:50 AM -- 8:50 AM
Peak 15-Min: 8:05 AM -- 8:20 AM

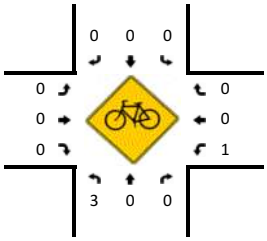


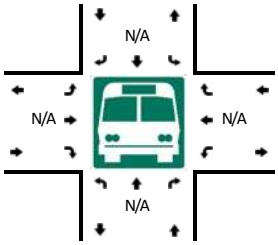


TRUE DATA TO IMPROVE MOBILITY

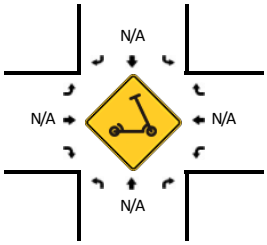












5-Min Count Period Beginning At	NW Sierra St (Northbound)				NW Sierra St (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	8	0	5	0	0	0	0	0	0	7	2	0	3	6	0	0	31	
7:05 AM	2	0	7	0	0	0	0	0	0	11	7	0	6	18	0	0	51	
7:10 AM	6	0	8	0	0	0	0	0	0	10	4	0	10	13	0	0	51	
7:15 AM	2	0	8	0	0	0	0	0	0	11	0	0	7	15	0	0	43	
7:20 AM	6	0	7	0	0	0	0	0	0	9	7	0	5	27	0	0	61	
7:25 AM	12	0	10	0	0	0	0	0	0	11	3	0	2	14	0	0	52	
7:30 AM	4	0	11	0	0	0	0	0	0	13	5	0	7	15	0	0	55	
7:35 AM	4	0	20	0	0	0	0	0	0	19	2	0	2	30	0	0	77	
7:40 AM	5	0	12	0	0	0	0	0	0	20	6	0	9	26	0	0	78	
7:45 AM	6	0	20	0	0	0	0	0	0	21	4	0	10	26	0	0	87	
7:50 AM	10	0	15	0	0	0	0	0	0	31	5	0	11	30	0	0	102	
7:55 AM	8	0	16	0	0	0	0	0	0	30	5	0	11	32	0	0	102	790
8:00 AM	5	0	19	0	0	0	0	0	0	26	8	0	6	34	0	0	98	857
8:05 AM	13	0	21	0	0	0	0	0	0	32	3	0	8	33	0	0	110	916
8:10 AM	1	0	16	0	0	0	0	0	0	31	9	0	7	38	0	0	102	967
8:15 AM	3	0	20	0	0	0	0	0	0	38	7	0	7	32	0	0	107	1031
8:20 AM	5	0	15	0	0	0	0	0	0	25	8	0	12	27	0	0	92	1062
8:25 AM	7	0	21	0	0	0	0	0	0	29	5	0	6	28	0	0	96	1106
8:30 AM	8	0	27	0	0	0	0	0	0	24	4	0	11	32	0	0	106	1157
8:35 AM	6	0	15	0	0	0	0	0	0	24	6	0	13	29	0	0	93	1173
8:40 AM	3	0	9	0	0	0	0	0	0	23	12	0	8	32	0	0	87	1182
8:45 AM	6	0	11	0	0	0	0	0	0	32	11	0	19	27	0	0	106	1201
8:50 AM	5	0	14	0	0	0	0	0	0	27	13	0	7	35	0	0	101	1200
8:55 AM	3	0	5	0	0	0	0	0	0	35	16	0	6	24	0	0	89	1187

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	68	0	228	0	0	0	0	0	0	404	76	0	88	412	0	0	1276
Heavy Trucks	0	0	20		0	0	0		0	8	8		4	16	0		56
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	4	0	0		0	0	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

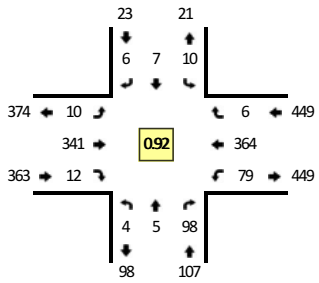
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

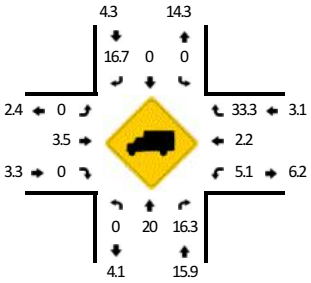
LOCATION: NW Leadbetter Dr -- NW Lake Rd
CITY/STATE: Camas, WA

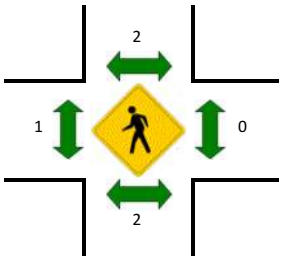
QC JOB #: 16591641
DATE: Wed, May 15 2024

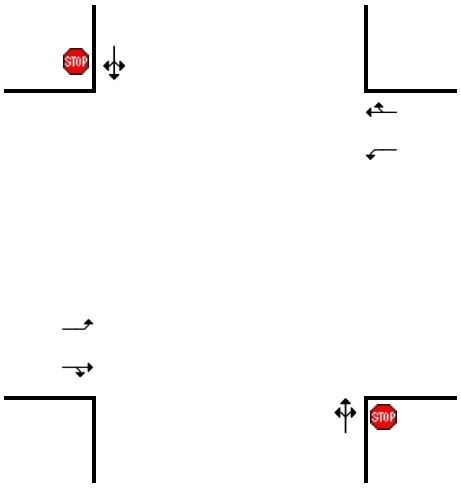
Peak-Hour: 8:00 AM -- 9:00 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

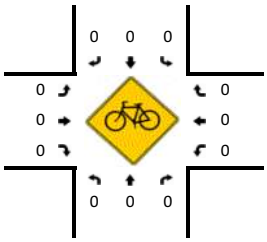


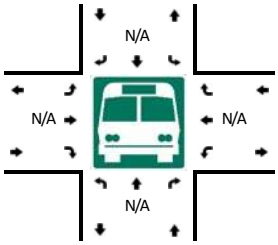


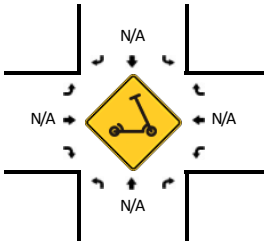












5-Min Count Period Beginning At	NW Leadbetter Dr (Northbound)				NW Leadbetter Dr (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	0	1	0	1	0	0	0	0	10	0	0	1	10	0	0	24	
7:05 AM	0	0	1	0	0	0	0	0	1	15	0	0	5	18	0	0	40	
7:10 AM	0	2	1	0	0	1	0	0	0	13	0	0	3	17	0	0	37	
7:15 AM	0	0	2	0	0	1	0	0	0	8	0	0	6	10	1	0	28	
7:20 AM	1	0	1	0	3	1	0	0	0	11	0	0	5	29	1	0	52	
7:25 AM	0	0	4	0	0	1	2	0	1	10	0	0	7	20	1	0	46	
7:30 AM	0	0	6	0	6	0	1	0	0	9	1	0	1	15	1	0	40	
7:35 AM	0	0	7	0	0	3	1	0	1	13	2	0	9	26	0	0	62	
7:40 AM	0	0	10	0	0	1	1	0	1	19	1	0	8	26	0	0	67	
7:45 AM	0	0	5	0	3	1	0	0	0	20	3	0	10	21	0	0	63	
7:50 AM	1	0	11	0	3	1	3	0	0	20	2	0	13	25	0	0	79	
7:55 AM	0	0	11	0	0	0	0	0	1	22	3	0	11	27	0	0	75	613
8:00 AM	3	3	11	0	0	2	1	0	0	23	2	0	10	33	0	0	88	677
8:05 AM	0	0	15	0	0	0	0	0	1	30	0	0	6	40	2	0	94	731
8:10 AM	0	0	8	0	0	0	1	0	1	23	0	0	8	31	1	0	73	767
8:15 AM	0	0	15	0	1	0	0	0	0	28	0	0	5	30	1	0	80	819
8:20 AM	0	0	5	0	1	0	2	0	0	27	0	0	5	24	1	0	65	832
8:25 AM	0	0	7	0	2	0	0	0	1	25	0	0	10	29	0	0	74	860
8:30 AM	0	1	7	0	0	1	0	0	1	20	0	0	8	31	1	0	70	890
8:35 AM	0	1	2	0	1	1	0	0	0	25	2	0	6	28	0	0	66	894
8:40 AM	1	0	5	0	1	3	0	0	1	29	0	0	7	34	0	0	81	908
8:45 AM	0	0	8	0	4	0	0	0	1	36	4	0	8	24	0	0	85	930
8:50 AM	0	0	7	0	0	0	1	0	2	30	3	0	2	32	0	0	77	928
8:55 AM	0	0	8	0	0	0	1	0	2	45	1	0	4	28	0	0	89	942

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	12	136	0	0	8	8	0	8	304	8	0	96	416	12	0	1020
Heavy Trucks	0	4	0		0	0	4		0	4	0		4	12	4		32
Buses																	
Pedestrians		0				8				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

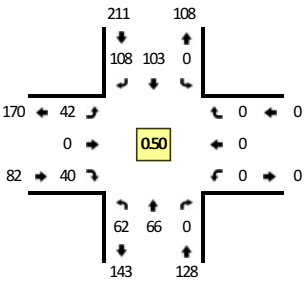
Type of peak hour being reported: Intersection Peak

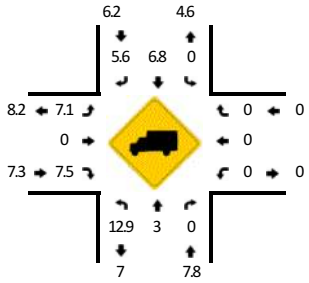
Method for determining peak hour: Total Entering Volume

LOCATION: NE 232nd Ave -- N Shore Blvd
CITY/STATE: Camas, WA

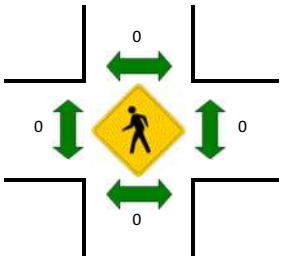
QC JOB #: 16591693
DATE: Wed, May 15 2024

Peak-Hour: 7:25 AM -- 8:25 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

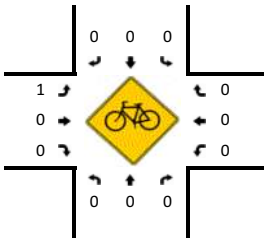


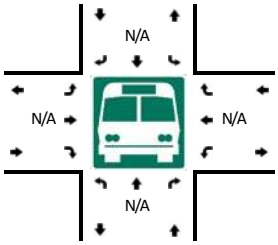


TRUE DATA TO IMPROVE MOBILITY

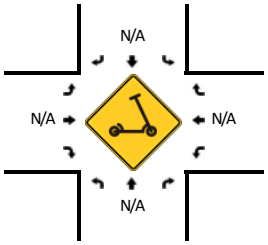












5-Min Count Period Beginning At	NE 232nd Ave (Northbound)				NE 232nd Ave (Southbound)				N Shore Blvd (Eastbound)				N Shore Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	1	3	0	1	0	3	0	0	0	0	0	8	
7:05 AM	0	0	0	0	0	2	3	0	5	0	2	0	0	0	0	0	12	
7:10 AM	0	0	0	0	0	2	3	0	4	0	1	0	0	0	0	0	10	
7:15 AM	0	0	0	0	0	0	2	0	5	0	2	0	0	0	0	0	9	
7:20 AM	0	0	0	0	0	2	1	0	1	0	3	0	0	0	0	0	7	
7:25 AM	0	0	0	0	0	4	6	0	6	0	2	0	0	0	0	0	18	
7:30 AM	0	0	0	0	0	4	7	0	1	0	2	0	0	0	0	0	14	
7:35 AM	0	0	0	0	0	2	10	0	2	0	1	0	0	0	0	0	15	
7:40 AM	1	2	0	0	0	8	10	0	5	0	7	0	0	0	0	0	33	
7:45 AM	8	10	0	0	0	24	6	0	2	0	7	0	0	0	0	0	57	
7:50 AM	17	13	0	0	0	21	7	0	8	0	10	0	0	0	0	0	76	
7:55 AM	20	14	0	0	0	26	10	0	0	0	7	0	0	0	0	0	77	336
8:00 AM	11	19	0	0	0	10	10	0	2	0	1	0	0	0	0	0	53	381
8:05 AM	2	6	0	0	0	2	4	0	2	0	1	0	0	0	0	0	17	386
8:10 AM	1	1	0	0	0	1	19	0	6	0	1	0	0	0	0	0	29	405
8:15 AM	1	1	0	0	0	0	13	0	2	0	1	0	0	0	0	0	18	414
8:20 AM	1	0	0	0	0	1	6	0	6	0	0	0	0	0	0	0	14	421
8:25 AM	0	0	0	0	0	0	12	0	4	0	0	0	0	0	0	0	16	419
8:30 AM	1	0	0	0	0	0	2	0	2	0	1	0	0	0	0	0	6	411
8:35 AM	1	1	0	0	0	1	9	0	5	0	0	0	0	0	0	0	17	413
8:40 AM	0	0	0	0	0	1	9	0	6	0	0	0	0	0	0	0	16	396
8:45 AM	1	0	0	0	0	0	11	0	6	0	0	0	0	0	0	0	18	357
8:50 AM	0	0	0	0	0	0	8	0	5	0	0	0	0	0	0	0	13	294
8:55 AM	0	0	0	0	0	0	4	0	3	0	0	0	0	0	0	0	7	224

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	180	148	0	0	0	284	92	0	40	0	96	0	0	0	0	0	840
Heavy Trucks	28	4	0		0	12	4		0	0	0		0	0	0		48
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

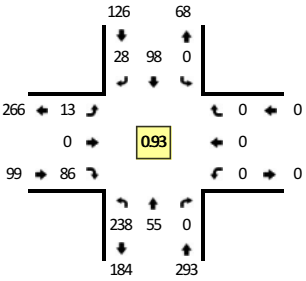
Type of peak hour being reported: Intersection Peak

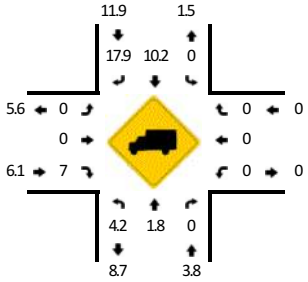
Method for determining peak hour: Total Entering Volume

LOCATION: SE 283rd Ave -- SE 15th St
CITY/STATE: Camas, WA

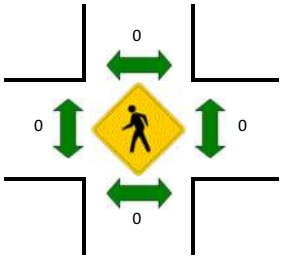
QC JOB #: 16591647
DATE: Wed, May 15 2024

Peak-Hour: 7:40 AM -- 8:40 AM
Peak 15-Min: 8:10 AM -- 8:25 AM

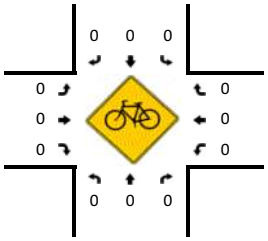


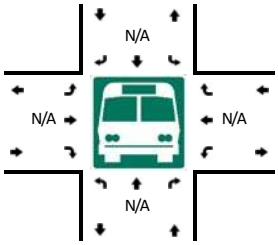


TRUE DATA TO IMPROVE MOBILITY

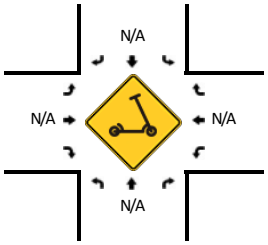












5-Min Count Period Beginning At	SE 283rd Ave (Northbound)				SE 283rd Ave (Southbound)				SE 15th St (Eastbound)				SE 15th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	5	0	0	0	3	0	0	1	0	3	0	0	0	0	0	13	
7:05 AM	5	1	0	0	0	2	1	0	0	0	2	0	0	0	0	0	11	
7:10 AM	6	1	0	0	0	6	0	0	0	0	0	0	0	0	0	0	13	
7:15 AM	9	5	0	0	0	4	0	0	2	0	3	0	0	0	0	0	23	
7:20 AM	7	5	0	0	0	8	0	0	0	0	4	0	0	0	0	0	24	
7:25 AM	7	5	0	0	0	2	4	0	0	0	6	0	0	0	0	0	24	
7:30 AM	9	6	0	0	0	2	1	0	2	0	2	0	0	0	0	0	22	
7:35 AM	8	6	0	0	0	8	1	0	1	0	4	0	0	0	0	0	28	
7:40 AM	16	3	0	0	0	9	1	0	1	0	4	0	0	0	0	0	34	
7:45 AM	20	3	0	0	0	6	4	0	0	0	11	0	0	0	0	0	44	
7:50 AM	12	7	0	0	0	7	3	0	5	0	10	0	0	0	0	0	44	
7:55 AM	17	6	0	0	0	12	1	0	2	0	11	0	0	0	0	0	49	329
8:00 AM	17	9	0	0	0	5	1	0	1	0	8	0	0	0	0	0	41	357
8:05 AM	27	7	0	0	0	8	4	0	0	0	3	0	0	0	0	0	49	395
8:10 AM	28	6	0	0	0	6	2	0	0	0	6	0	0	0	0	0	48	430
8:15 AM	15	1	0	0	0	10	2	0	1	0	7	0	0	0	0	0	36	443
8:20 AM	23	5	0	0	0	13	4	0	1	0	10	0	0	0	0	0	56	475
8:25 AM	18	4	0	0	0	10	2	0	0	0	8	0	0	0	0	0	42	493
8:30 AM	26	2	0	0	0	7	1	0	0	0	4	0	0	0	0	0	40	511
8:35 AM	19	2	0	0	0	5	3	0	2	0	4	0	0	0	0	0	35	518
8:40 AM	12	1	0	0	0	9	1	0	1	0	6	0	0	0	0	0	30	514
8:45 AM	5	7	0	0	0	9	2	0	2	0	13	0	0	0	0	0	38	508
8:50 AM	2	10	0	0	0	10	1	0	2	0	4	0	0	0	0	0	29	493
8:55 AM	6	4	0	0	0	7	1	0	0	0	3	0	0	0	0	0	21	465

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	264	48	0	0	0	116	32	0	8	0	92	0	0	0	0	0	560
Heavy Trucks	24	4	0		0	20	8		0	0	0		0	0	0		56
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

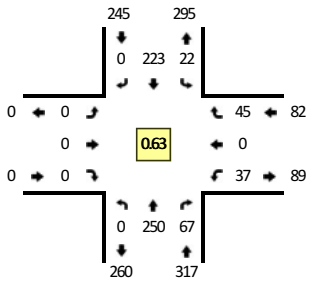
Type of peak hour being reported: Intersection Peak

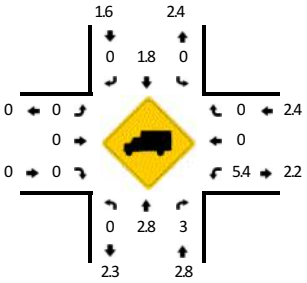
Method for determining peak hour: Total Entering Volume

LOCATION: SE Everett Rd -- SE 8th St
CITY/STATE: Camas, WA

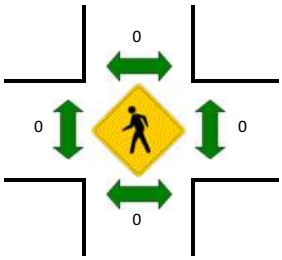
QC JOB #: 16591652
DATE: Wed, May 15 2024

Peak-Hour: 2:50 PM -- 3:50 PM
Peak 15-Min: 3:10 PM -- 3:25 PM

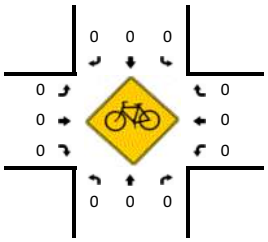


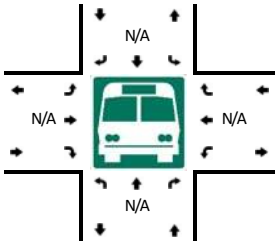


TRUE DATA TO IMPROVE MOBILITY

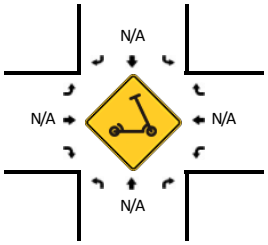












5-Min Count Period Beginning At	SE Everett Rd (Northbound)				SE Everett Rd (Southbound)				SE 8th St (Eastbound)				SE 8th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	0	10	1	0	0	7	0	0	0	0	0	0	0	0	0	0	18	
2:05 PM	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	18	
2:10 PM	0	12	1	0	0	14	0	0	0	0	0	0	0	0	0	0	27	
2:15 PM	0	14	0	0	0	10	0	0	0	0	0	0	1	0	0	0	25	
2:20 PM	0	18	0	0	0	12	0	0	0	0	0	0	2	0	0	0	32	
2:25 PM	0	18	0	0	0	13	0	0	0	0	0	0	0	0	0	0	31	
2:30 PM	0	11	1	0	0	12	0	0	0	0	0	0	0	0	1	0	25	
2:35 PM	0	20	2	0	0	8	0	0	0	0	0	0	0	0	0	0	30	
2:40 PM	0	13	0	0	0	8	0	0	0	0	0	0	0	0	1	0	22	
2:45 PM	0	11	3	0	1	11	0	0	0	0	0	0	0	0	1	0	27	
2:50 PM	0	18	6	0	1	15	0	0	0	0	0	0	2	0	0	0	42	
2:55 PM	0	20	9	0	5	8	0	0	0	0	0	0	1	0	0	0	43	340
3:00 PM	0	17	17	0	4	13	0	0	0	0	0	0	3	0	1	0	55	377
3:05 PM	0	23	12	0	5	17	0	0	0	0	0	0	1	0	1	0	59	418
3:10 PM	0	23	5	0	3	21	0	0	0	0	0	0	7	0	20	0	79	470
3:15 PM	0	25	3	0	1	46	0	0	0	0	0	0	12	0	20	0	107	552
3:20 PM	0	28	6	0	1	31	0	0	0	0	0	0	1	0	1	0	68	588
3:25 PM	0	21	3	0	0	10	0	0	0	0	0	0	2	0	1	0	37	594
3:30 PM	0	22	1	0	0	12	0	0	0	0	0	0	2	0	0	0	37	606
3:35 PM	0	13	3	0	0	13	0	0	0	0	0	0	0	0	0	0	29	605
3:40 PM	0	26	2	0	2	18	0	0	0	0	0	0	4	0	1	0	53	636
3:45 PM	0	14	0	0	0	19	0	0	0	0	0	0	2	0	0	0	35	644
3:50 PM	0	17	2	0	0	19	0	0	0	0	0	0	3	0	1	0	42	644
3:55 PM	0	17	0	0	2	13	0	0	0	0	0	0	2	0	1	0	35	636

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	304	56	0	20	392	0	0	0	0	0	0	80	0	164	0	1016
Heavy Trucks	0	8	8		0	8	0		0	0	0		0	0	0		24
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

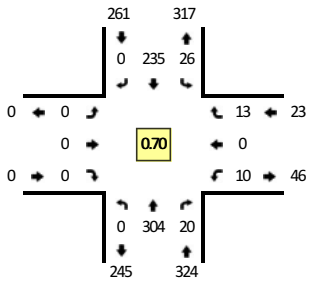
Type of peak hour being reported: Intersection Peak

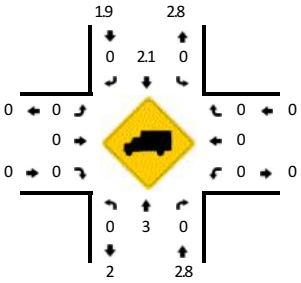
Method for determining peak hour: Total Entering Volume

LOCATION: SE Everett St -- NE Everett Dr
CITY/STATE: Camas, WA

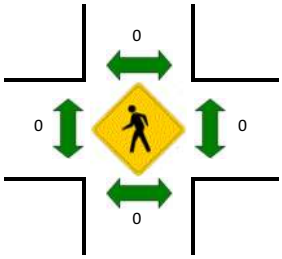
QC JOB #: 16591653
DATE: Wed, May 15 2024

Peak-Hour: 2:50 PM -- 3:50 PM
Peak 15-Min: 3:10 PM -- 3:25 PM

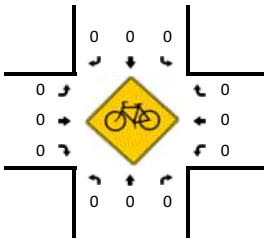


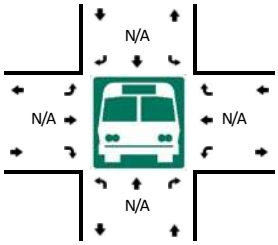


TRUE DATA TO IMPROVE MOBILITY

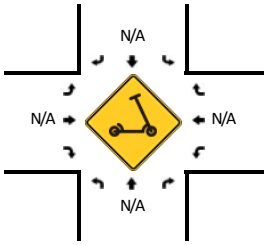












5-Min Count Period Beginning At	SE Everett St (Northbound)				SE Everett St (Southbound)				NE Everett Dr (Eastbound)				NE Everett Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	0	10	1	0	1	5	0	0	0	0	0	0	2	0	1	0	20	
2:05 PM	0	8	0	0	0	10	0	0	0	0	0	0	1	0	1	0	20	
2:10 PM	0	13	0	0	0	13	0	0	0	0	0	0	0	0	0	0	26	
2:15 PM	0	15	2	0	0	12	0	0	0	0	0	0	0	0	0	0	29	
2:20 PM	0	18	0	0	1	13	0	0	0	0	0	0	0	0	0	0	32	
2:25 PM	0	18	0	0	0	12	0	0	0	0	0	0	0	0	0	0	30	
2:30 PM	0	12	0	0	0	13	0	0	0	0	0	0	0	0	0	0	25	
2:35 PM	0	21	0	0	0	9	0	0	0	0	0	0	0	0	1	0	31	
2:40 PM	0	13	0	0	0	8	0	0	0	0	0	0	0	0	0	0	21	
2:45 PM	0	13	0	0	0	10	0	0	0	0	0	0	0	0	1	0	24	
2:50 PM	0	21	1	0	0	18	0	0	0	0	0	0	0	0	3	0	43	
2:55 PM	0	28	1	0	0	9	0	0	0	0	0	0	0	0	1	0	39	340
3:00 PM	0	34	2	0	0	16	0	0	0	0	0	0	3	0	1	0	56	376
3:05 PM	0	32	3	0	2	16	0	0	0	0	0	0	1	0	1	0	55	411
3:10 PM	0	27	3	0	2	24	0	0	0	0	0	0	1	0	1	0	58	443
3:15 PM	0	29	3	0	12	48	0	0	0	0	0	0	0	0	0	0	92	506
3:20 PM	0	31	2	0	5	26	0	0	0	0	0	0	1	0	2	0	67	541
3:25 PM	0	23	2	0	2	11	0	0	0	0	0	0	1	0	1	0	40	551
3:30 PM	0	23	0	0	2	12	0	0	0	0	0	0	0	0	1	0	38	564
3:35 PM	0	14	0	0	0	12	0	0	0	0	0	0	1	0	1	0	28	561
3:40 PM	0	28	2	0	0	23	0	0	0	0	0	0	1	0	1	0	55	595
3:45 PM	0	14	1	0	1	20	0	0	0	0	0	0	1	0	0	0	37	608
3:50 PM	0	18	0	0	0	21	0	0	0	0	0	0	1	0	1	0	41	606
3:55 PM	0	15	1	0	0	16	0	0	0	0	0	0	1	0	1	0	34	601

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	348	32	0	76	392	0	0	0	0	0	0	8	0	12	0	868
Heavy Trucks	0	16	0		0	8	0		0	0	0		0	0	0		24
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

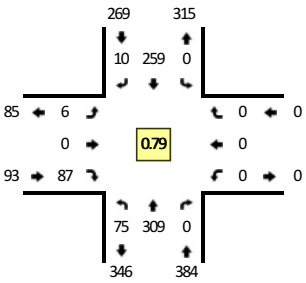
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

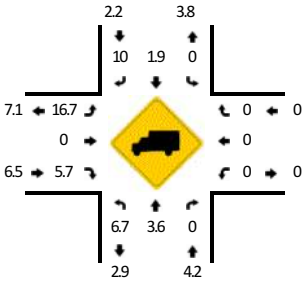
LOCATION: SE Everett St -- SE Leadbetter Rd
CITY/STATE: Camas, WA

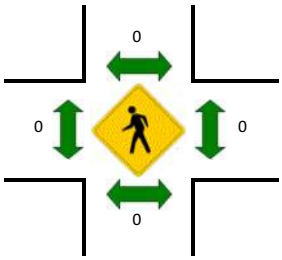
QC JOB #: 16591674
DATE: Wed, May 15 2024

Peak-Hour: 2:50 PM -- 3:50 PM
Peak 15-Min: 3:10 PM -- 3:25 PM

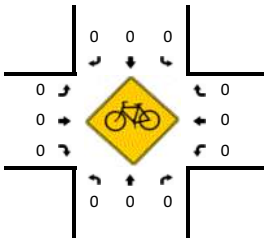


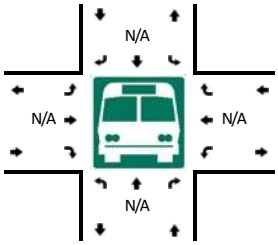




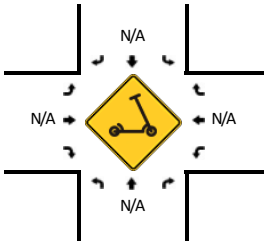












5-Min Count Period Beginning At	SE Everett St (Northbound)				SE Everett St (Southbound)				SE Leadbetter Rd (Eastbound)				SE Leadbetter Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	7	11	0	0	0	6	1	0	0	0	4	0	0	0	0	0	29	
2:05 PM	5	10	0	0	0	11	1	0	0	0	13	0	0	0	0	0	40	
2:10 PM	5	17	0	0	0	11	1	0	0	0	14	0	0	0	0	0	48	
2:15 PM	4	16	0	0	0	12	0	0	0	0	7	0	0	0	0	0	39	
2:20 PM	8	15	0	0	0	13	0	0	1	0	9	0	0	0	0	0	46	
2:25 PM	6	18	0	0	0	16	0	0	0	0	8	0	0	0	0	0	48	
2:30 PM	4	13	0	0	0	13	0	0	0	0	3	0	0	0	0	0	33	
2:35 PM	8	20	0	0	0	10	0	0	0	0	7	0	0	0	0	0	45	
2:40 PM	2	12	0	0	0	9	0	0	0	0	6	0	0	0	0	0	29	
2:45 PM	6	13	0	0	0	8	2	0	0	0	9	0	0	0	0	0	38	
2:50 PM	6	22	0	0	0	17	1	0	0	0	10	0	0	0	0	0	56	
2:55 PM	4	34	0	0	0	8	1	0	0	0	4	0	0	0	0	0	51	502
3:00 PM	8	38	0	0	0	22	2	0	2	0	7	0	0	0	0	0	79	552
3:05 PM	7	35	0	0	0	17	0	0	0	0	5	0	0	0	0	0	64	576
3:10 PM	5	26	0	0	0	23	0	0	1	0	5	0	0	0	0	0	60	588
3:15 PM	4	30	0	0	0	48	2	0	0	0	5	0	0	0	0	0	89	638
3:20 PM	5	24	0	0	0	40	2	0	1	0	14	0	0	0	0	0	86	678
3:25 PM	7	20	0	0	0	16	0	0	0	0	6	0	0	0	0	0	49	679
3:30 PM	7	22	0	0	0	10	0	0	2	0	8	0	0	0	0	0	49	695
3:35 PM	3	11	0	0	0	12	1	0	0	0	7	0	0	0	0	0	34	684
3:40 PM	10	29	0	0	0	22	1	0	0	0	7	0	0	0	0	0	69	724
3:45 PM	9	18	0	0	0	24	0	0	0	0	9	0	0	0	0	0	60	746
3:50 PM	5	16	0	0	0	20	2	0	0	0	10	0	0	0	0	0	53	743
3:55 PM	11	15	0	0	0	19	0	0	1	0	5	0	0	0	0	0	51	743

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	56	320	0	0	0	444	16	0	8	0	96	0	0	0	0	0	940
Heavy Trucks	0	12	0		0	8	0		0	0	4		0	0	0		24
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

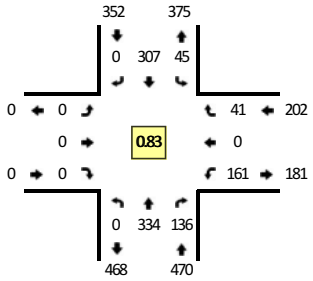
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: NE Everett St -- NE 43rd Ave
CITY/STATE: Camas, WA

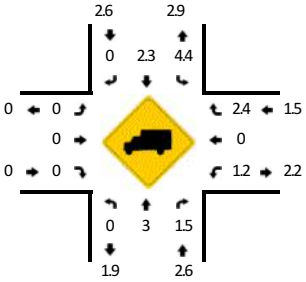
QC JOB #: 16591656
DATE: Wed, May 15 2024

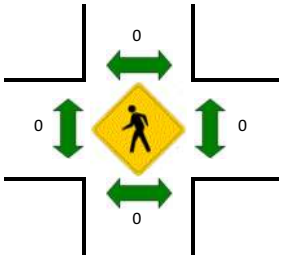
Peak-Hour: 3:00 PM -- 4:00 PM
Peak 15-Min: 3:10 PM -- 3:25 PM

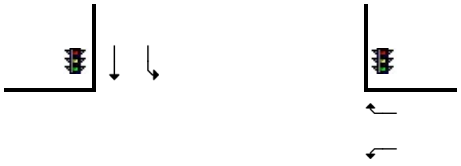


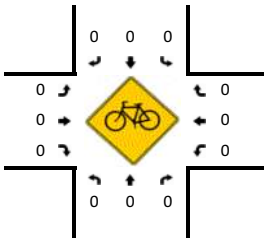


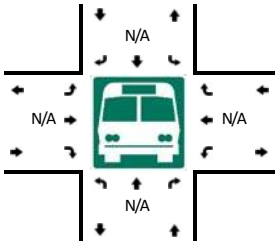
TRUE DATA TO IMPROVE MOBILITY



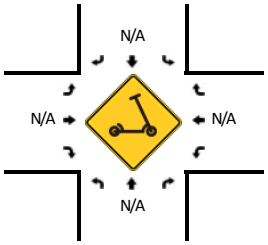












5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				NE 43rd Ave (Eastbound)				NE 43rd Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	0	18	13	0	1	11	0	0	0	0	0	0	8	0	1	0	52	
2:05 PM	0	13	6	0	2	21	0	0	0	0	0	0	6	0	2	0	50	
2:10 PM	0	24	11	0	1	23	0	0	0	0	0	0	9	0	0	0	68	
2:15 PM	0	18	7	0	2	18	0	0	0	0	0	0	12	0	1	0	58	
2:20 PM	0	22	11	0	0	23	0	0	0	0	0	0	4	0	1	0	61	
2:25 PM	0	24	4	0	2	20	0	0	0	0	0	0	9	0	0	0	59	
2:30 PM	0	16	8	0	4	13	0	0	0	0	0	0	8	0	1	0	50	
2:35 PM	0	26	16	0	0	14	0	0	0	0	0	0	10	0	2	0	68	
2:40 PM	0	13	6	0	0	17	0	0	0	0	0	0	12	0	2	0	50	
2:45 PM	0	18	12	0	3	14	0	0	0	0	0	0	13	0	3	0	63	
2:50 PM	0	23	10	0	1	23	0	0	0	0	0	0	9	0	3	0	69	
2:55 PM	0	33	13	0	1	11	0	0	0	0	0	0	9	0	5	0	72	720
3:00 PM	0	37	10	0	2	27	0	0	0	0	0	0	10	0	9	0	95	763
3:05 PM	0	40	12	0	3	19	0	0	0	0	0	0	11	0	4	0	89	802
3:10 PM	0	27	9	0	4	22	0	0	0	0	0	0	11	0	3	0	76	810
3:15 PM	0	31	16	0	9	45	0	0	0	0	0	0	13	0	3	0	117	869
3:20 PM	0	32	13	0	7	47	0	0	0	0	0	0	15	0	1	0	115	923
3:25 PM	0	23	14	0	3	15	0	0	0	0	0	0	11	0	2	0	68	932
3:30 PM	0	27	7	0	1	18	0	0	0	0	0	0	15	0	3	0	71	953
3:35 PM	0	12	10	0	1	15	0	0	0	0	0	0	14	0	2	0	54	939
3:40 PM	0	36	10	0	2	25	0	0	0	0	0	0	13	0	4	0	90	979
3:45 PM	0	25	12	0	8	27	0	0	0	0	0	0	21	0	4	0	97	1013
3:50 PM	0	17	13	0	2	28	0	0	0	0	0	0	16	0	3	0	79	1023
3:55 PM	0	27	10	0	3	19	0	0	0	0	0	0	11	0	3	0	73	1024

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	360	152	0	80	456	0	0	0	0	0	0	156	0	28	0	1232
Heavy Trucks	0	12	0		4	8	0		0	0	0		0	0	0		24
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

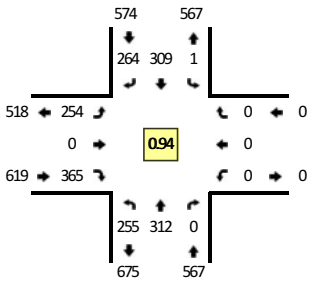
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

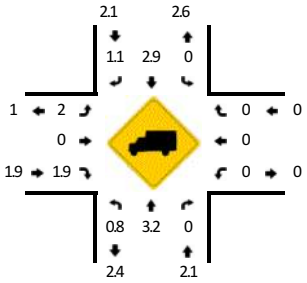
LOCATION: NE Everett St -- NW Lake Rd
CITY/STATE: Camas, WA

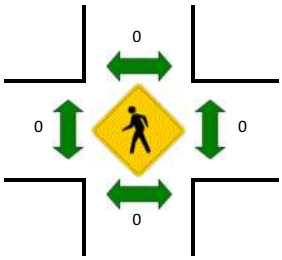
QC JOB #: 16591657
DATE: Wed, May 15 2024

Peak-Hour: 3:00 PM -- 4:00 PM
Peak 15-Min: 3:45 PM -- 4:00 PM

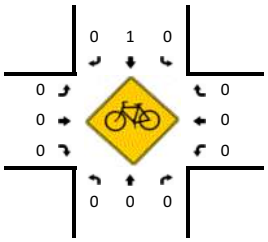


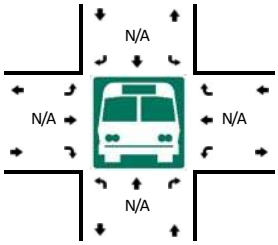




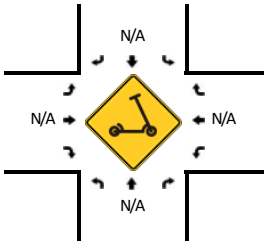












5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	28	11	0	0	0	16	11	0	18	0	28	0	0	0	0	0	112	
2:05 PM	12	18	0	0	0	20	14	0	16	0	38	0	0	0	0	0	118	
2:10 PM	19	23	0	1	0	17	16	0	12	0	25	0	0	0	0	0	113	
2:15 PM	22	16	0	0	0	19	16	1	12	0	20	0	0	0	0	0	106	
2:20 PM	13	19	0	0	0	14	16	0	15	0	34	0	0	0	0	0	111	
2:25 PM	7	25	0	0	0	18	14	0	13	0	26	0	0	0	0	0	103	
2:30 PM	19	19	0	0	0	18	22	0	20	0	29	0	0	0	0	0	127	
2:35 PM	25	24	0	0	0	19	11	0	19	0	24	0	0	0	0	0	122	
2:40 PM	13	14	0	1	0	14	14	0	11	0	34	0	0	0	0	0	101	
2:45 PM	24	21	0	0	0	23	12	0	27	0	36	0	0	0	0	0	143	
2:50 PM	16	18	0	0	0	22	14	0	22	0	38	0	0	0	0	0	130	
2:55 PM	25	32	0	0	0	19	16	0	30	0	26	0	0	0	0	0	148	1434
3:00 PM	22	37	0	1	0	11	26	0	18	0	25	0	0	0	0	0	140	1462
3:05 PM	23	28	0	0	0	29	17	0	25	0	28	0	0	0	0	0	150	1494
3:10 PM	24	28	0	0	0	26	10	0	24	0	30	0	0	0	0	0	142	1523
3:15 PM	18	21	0	0	0	27	34	0	27	0	32	0	0	0	0	0	159	1576
3:20 PM	19	27	0	0	0	27	35	0	28	0	20	0	0	0	0	0	156	1621
3:25 PM	19	12	0	0	0	27	21	0	32	0	29	0	0	0	0	0	140	1658
3:30 PM	16	24	0	0	0	21	20	0	10	0	29	0	0	0	0	0	120	1651
3:35 PM	26	22	0	0	0	17	17	0	14	0	44	0	0	0	0	0	140	1669
3:40 PM	24	33	0	0	0	30	16	0	18	0	23	0	0	0	0	0	144	1712
3:45 PM	19	25	0	0	0	28	21	0	19	0	32	0	0	0	0	0	144	1713
3:50 PM	21	29	0	0	0	28	27	0	17	0	34	0	0	0	0	0	156	1739
3:55 PM	23	26	0	0	0	38	20	1	22	0	39	0	0	0	0	0	169	1760

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	252	320	0	0	0	376	272	4	232	0	420	0	0	0	0	0	1876
Heavy Trucks	4	8	0		0	8	4		4	0	4		0	0	0		32
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

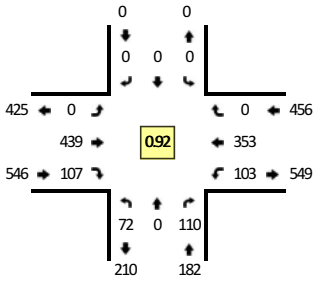
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

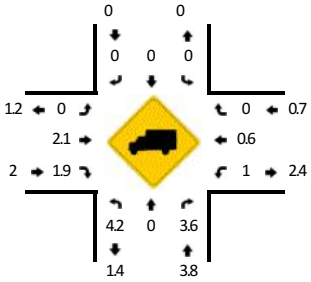
LOCATION: NW Sierra St -- NW Lake Rd
CITY/STATE: Camas, WA

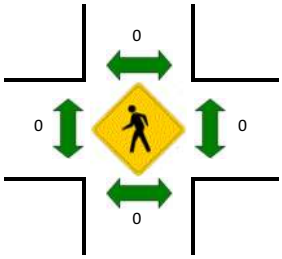
QC JOB #: 16591667
DATE: Wed, May 15 2024

Peak-Hour: 3:00 PM -- 4:00 PM
Peak 15-Min: 3:45 PM -- 4:00 PM

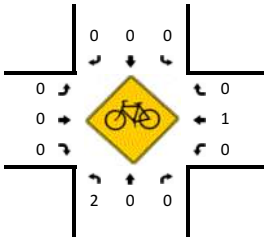


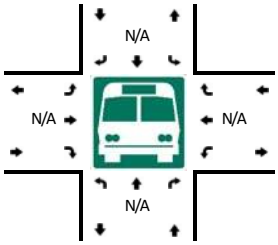




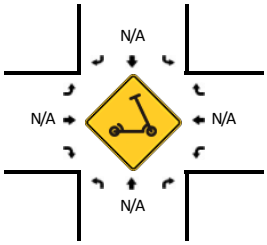












5-Min Count Period Beginning At	NW Sierra St (Northbound)				NW Sierra St (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	7	0	7	0	0	0	0	0	0	44	4	0	13	22	0	0	97	
2:05 PM	6	0	8	0	0	0	0	0	0	32	11	0	5	25	0	0	87	
2:10 PM	7	0	5	0	0	0	0	0	0	20	3	0	1	22	0	0	58	
2:15 PM	5	0	8	0	0	0	0	0	0	35	10	0	9	27	0	0	94	
2:20 PM	6	0	12	0	0	0	0	0	0	34	9	0	5	30	0	0	96	
2:25 PM	14	0	9	0	0	0	0	0	0	31	6	0	2	17	0	0	79	
2:30 PM	4	0	10	0	0	0	0	0	0	37	6	0	6	25	0	0	88	
2:35 PM	3	0	7	0	0	0	0	0	0	32	9	0	9	24	0	0	84	
2:40 PM	9	0	8	0	0	0	0	0	0	28	5	0	7	28	0	0	85	
2:45 PM	9	0	13	0	0	0	0	0	0	53	9	0	4	19	0	0	107	
2:50 PM	11	0	9	0	0	0	0	0	0	29	10	0	9	31	0	0	99	
2:55 PM	5	0	12	0	0	0	0	0	0	27	10	0	9	22	0	0	85	1059
3:00 PM	4	0	8	0	0	0	0	0	0	38	4	0	6	29	0	0	89	1051
3:05 PM	3	0	8	0	0	0	0	0	0	32	9	0	14	34	0	0	100	1064
3:10 PM	3	0	11	0	0	0	0	0	0	45	8	0	9	23	0	0	99	1105
3:15 PM	8	0	7	0	0	0	0	0	0	40	9	0	8	22	0	0	94	1105
3:20 PM	9	0	12	0	0	0	0	0	0	37	10	0	9	39	0	0	116	1125
3:25 PM	5	0	10	0	0	0	0	0	0	29	6	0	13	27	0	0	90	1136
3:30 PM	4	0	3	0	0	0	0	0	0	34	13	0	4	22	0	0	80	1128
3:35 PM	7	0	12	0	0	0	0	0	0	38	13	0	9	32	0	0	111	1155
3:40 PM	6	0	6	0	0	0	0	0	0	35	3	0	5	27	0	0	82	1152
3:45 PM	3	0	7	0	0	0	0	0	0	30	4	0	10	31	0	0	85	1130
3:50 PM	7	0	12	0	0	0	0	0	0	35	11	0	11	30	0	0	106	1137
3:55 PM	13	0	14	0	0	0	0	0	0	46	17	0	5	37	0	0	132	1184

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	92	0	132	0	0	0	0	0	0	444	128	0	104	392	0	0	1292
Heavy Trucks	0	0	4		0	0	0		0	12	4		0	0	0		20
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	4	0	0		0	0	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

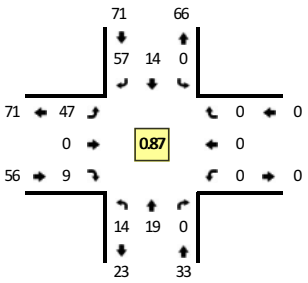
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

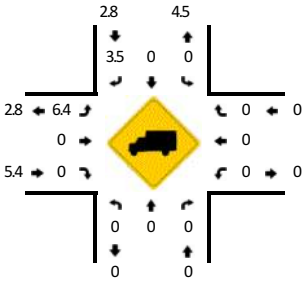
LOCATION: NE 232nd Ave -- N Shore Blvd
CITY/STATE: Camas, WA

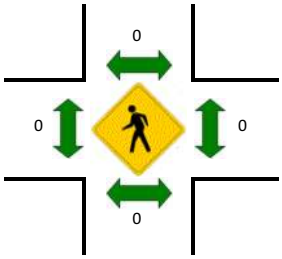
QC JOB #: 16591695
DATE: Wed, May 15 2024

Peak-Hour: 2:00 PM -- 3:00 PM
Peak 15-Min: 2:00 PM -- 2:15 PM

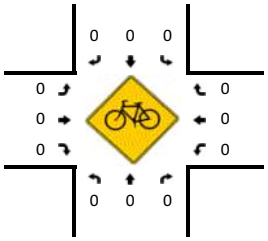


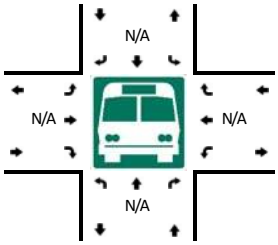
TRUE DATA TO IMPROVE MOBILITY



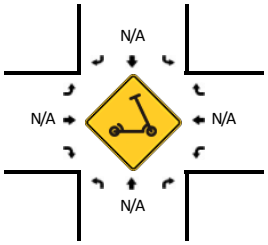












5-Min Count Period Beginning At	NE 232nd Ave (Northbound)				NE 232nd Ave (Southbound)				N Shore Blvd (Eastbound)				N Shore Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	3	1	0	0	0	1	1	0	4	0	3	0	0	0	0	0	13	
2:05 PM	3	3	0	0	0	2	5	0	3	0	0	0	0	0	0	0	16	
2:10 PM	4	0	0	0	0	2	4	0	6	0	1	0	0	0	0	0	17	
2:15 PM	0	1	0	0	0	4	6	0	2	0	0	0	0	0	0	0	13	
2:20 PM	0	4	0	0	0	0	4	0	3	0	0	0	0	0	0	0	11	
2:25 PM	2	0	0	0	0	1	5	0	7	0	0	0	0	0	0	0	15	
2:30 PM	1	2	0	0	0	1	5	0	2	0	1	0	0	0	0	0	12	
2:35 PM	0	1	0	0	0	0	1	0	6	0	0	0	0	0	0	0	8	
2:40 PM	1	2	0	0	0	1	10	0	4	0	1	0	0	0	0	0	19	
2:45 PM	0	3	0	0	0	0	5	0	3	0	0	0	0	0	0	0	11	
2:50 PM	0	2	0	0	0	1	8	0	2	0	2	0	0	0	0	0	15	
2:55 PM	0	0	0	0	0	1	3	0	5	0	1	0	0	0	0	0	10	160
3:00 PM	0	1	0	0	0	0	6	0	2	0	0	0	0	0	0	0	9	156
3:05 PM	0	1	0	0	0	1	8	0	4	0	1	0	0	0	0	0	15	155
3:10 PM	1	0	0	0	0	1	2	0	6	0	0	0	0	0	0	0	10	148
3:15 PM	1	0	0	0	0	0	4	0	2	0	1	0	0	0	0	0	8	143
3:20 PM	0	1	0	0	0	0	2	0	9	0	1	0	0	0	0	0	13	145
3:25 PM	0	0	0	0	0	0	8	0	6	0	0	0	0	0	0	0	14	144
3:30 PM	1	0	0	0	0	0	2	0	8	0	0	0	0	0	0	0	11	143
3:35 PM	1	0	0	0	0	0	8	0	5	0	0	0	0	0	0	0	14	149
3:40 PM	2	0	0	0	0	0	9	0	7	0	1	0	0	0	0	0	19	149
3:45 PM	1	1	0	0	0	0	5	0	10	0	0	0	0	0	0	0	17	155
3:50 PM	1	0	0	0	0	0	7	0	7	0	0	0	0	0	0	0	15	155
3:55 PM	1	0	0	0	0	0	3	0	8	0	0	0	0	0	0	0	12	157

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	40	16	0	0	0	20	40	0	52	0	16	0	0	0	0	0	184
Heavy Trucks	0	0	0		0	0	4		4	0	0		0	0	0		8
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

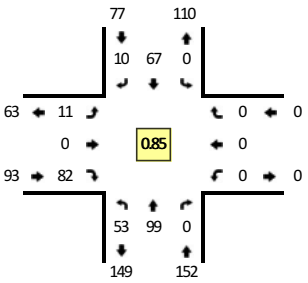
Type of peak hour being reported: Intersection Peak

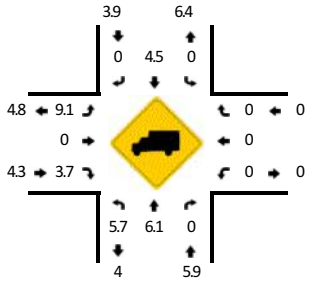
Method for determining peak hour: Total Entering Volume

LOCATION: SE 283rd Ave -- SE 15th St
CITY/STATE: Camas, WA

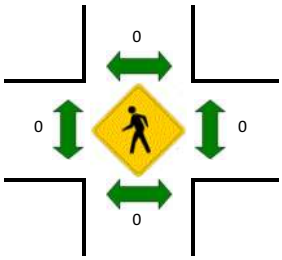
QC JOB #: 16591671
DATE: Wed, May 15 2024

Peak-Hour: 2:35 PM -- 3:35 PM
Peak 15-Min: 2:55 PM -- 3:10 PM

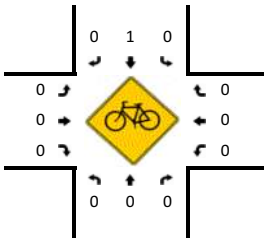


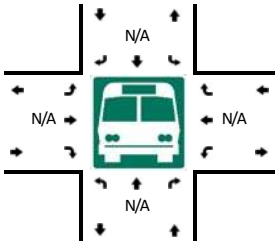


TRUE DATA TO IMPROVE MOBILITY

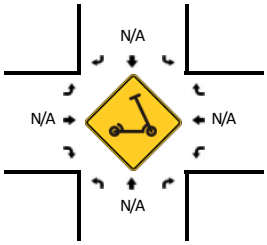












5-Min Count Period Beginning At	SE 283rd Ave (Northbound)				SE 283rd Ave (Southbound)				SE 15th St (Eastbound)				SE 15th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	6	4	0	0	0	5	1	0	1	0	5	0	0	0	0	0	22	
2:05 PM	1	9	0	0	0	2	1	0	0	0	6	0	0	0	0	0	19	
2:10 PM	4	4	0	0	0	4	0	0	0	0	3	0	0	0	0	0	15	
2:15 PM	7	6	0	0	0	8	1	0	1	0	3	0	0	0	0	0	26	
2:20 PM	3	10	0	0	0	5	0	0	0	0	3	0	0	0	0	0	21	
2:25 PM	2	10	0	0	0	4	1	0	1	0	4	0	0	0	0	0	22	
2:30 PM	4	0	0	0	0	7	0	0	1	0	5	0	0	0	0	0	17	
2:35 PM	3	9	0	0	0	3	0	0	0	0	5	0	0	0	0	0	20	
2:40 PM	1	9	0	0	0	5	0	0	2	0	7	0	0	0	0	0	24	
2:45 PM	6	5	0	0	0	7	1	0	2	0	2	0	0	0	0	0	23	
2:50 PM	2	6	0	0	0	4	1	0	0	0	6	0	0	0	0	0	19	
2:55 PM	11	10	0	0	0	1	2	0	0	0	7	0	0	0	0	0	31	259
3:00 PM	6	11	0	0	0	5	0	0	0	0	6	0	0	0	0	0	28	265
3:05 PM	6	12	0	0	0	8	1	0	1	0	8	0	0	0	0	0	36	282
3:10 PM	2	5	0	0	0	5	2	0	1	0	2	0	0	0	0	0	17	284
3:15 PM	4	7	0	0	0	11	1	0	1	0	6	0	0	0	0	0	30	288
3:20 PM	2	4	0	0	0	10	0	0	0	0	21	0	0	0	0	0	37	304
3:25 PM	3	9	0	0	0	5	2	0	2	0	4	0	0	0	0	0	25	307
3:30 PM	7	12	0	0	0	3	0	0	2	0	8	0	0	0	0	0	32	322
3:35 PM	1	5	0	0	0	7	1	0	2	0	2	0	0	0	0	0	18	320
3:40 PM	2	5	0	0	0	8	0	0	0	0	4	0	0	0	0	0	19	315
3:45 PM	2	6	0	0	0	7	2	0	1	0	11	0	0	0	0	0	29	321
3:50 PM	3	4	0	0	0	0	0	0	0	0	13	0	0	0	0	0	20	322
3:55 PM	0	6	0	0	0	6	1	0	0	0	4	0	0	0	0	0	17	308

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	92	132	0	0	0	56	12	0	4	0	84	0	0	0	0	0	380
Heavy Trucks	0	0	0		0	4	0		0	0	4		0	0	0		8
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	4	0		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

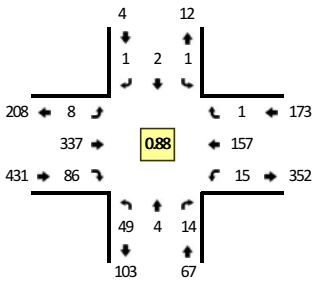
Type of peak hour being reported: Intersection Peak

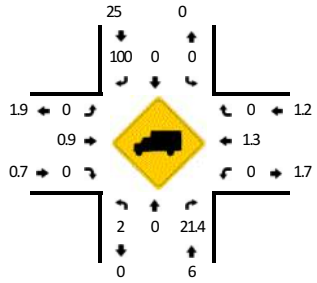
Method for determining peak hour: Total Entering Volume

LOCATION: NE 232nd Ave -- NE 28th St
CITY/STATE: Fern Prairie, WA

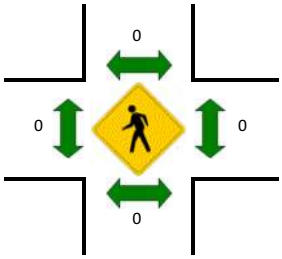
QC JOB #: 16591697
DATE: Wed, May 15 2024

Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

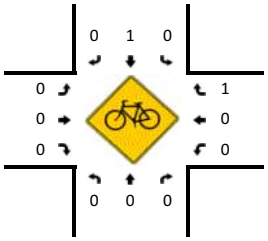


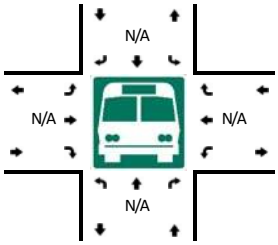


TRUE DATA TO IMPROVE MOBILITY

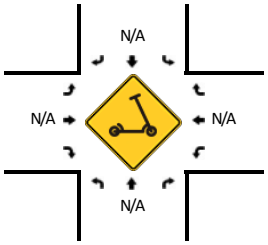












5-Min Count Period Beginning At	NE 232nd Ave (Northbound)				NE 232nd Ave (Southbound)				NE 28th St (Eastbound)				NE 28th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	6	0	2	0	0	0	0	0	0	1	0	0	2	6	0	0	17	
4:05 PM	6	0	0	0	0	0	0	0	0	18	6	0	0	12	0	0	42	
4:10 PM	6	0	3	0	0	0	0	0	2	30	7	0	0	15	0	0	63	
4:15 PM	9	0	0	0	0	0	0	0	0	26	6	0	0	10	0	0	51	
4:20 PM	2	0	2	0	0	0	3	0	0	1	1	0	0	15	0	0	24	
4:25 PM	3	0	0	0	0	0	0	0	0	31	7	0	0	14	0	0	55	
4:30 PM	8	0	1	0	0	0	0	0	1	26	5	0	1	12	0	0	54	
4:35 PM	3	0	0	0	0	0	0	0	0	20	6	0	2	20	0	0	51	
4:40 PM	6	0	3	0	0	1	0	0	1	11	3	0	4	11	0	0	40	
4:45 PM	7	0	0	0	0	0	1	0	0	11	7	0	1	13	0	0	40	
4:50 PM	4	0	3	0	0	0	0	0	0	2	0	0	2	13	0	0	24	
4:55 PM	4	0	1	0	0	0	0	0	0	40	16	0	0	6	0	0	67	528
5:00 PM	3	0	0	0	0	0	0	0	0	21	3	0	3	13	0	0	43	554
5:05 PM	13	4	5	0	0	0	0	0	0	28	4	0	0	13	0	0	67	579
5:10 PM	1	0	1	0	1	1	0	0	1	40	17	0	0	12	0	0	74	590
5:15 PM	5	0	0	0	0	0	0	0	0	17	3	0	6	19	0	0	50	589
5:20 PM	6	0	1	0	0	0	1	0	1	32	10	0	1	10	0	0	62	627
5:25 PM	5	0	0	0	0	1	0	0	0	5	2	1	2	19	0	0	35	607
5:30 PM	2	0	0	0	0	0	0	0	0	43	10	0	0	5	0	0	60	613
5:35 PM	1	0	0	0	0	0	0	0	4	56	9	0	0	11	0	0	81	643
5:40 PM	3	0	2	0	0	0	0	0	1	16	2	0	0	17	0	0	41	644
5:45 PM	4	0	0	0	0	0	0	0	0	24	3	0	0	16	0	0	47	651
5:50 PM	2	0	4	0	0	0	0	0	0	15	7	0	3	16	1	0	48	675
5:55 PM	7	0	1	0	0	0	0	0	0	26	8	0	3	10	0	0	55	663

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	76	16	24	0	4	4	0	0	4	340	96	0	24	176	0	0	764
Heavy Trucks	4	0	8		0	0	0		0	4	0		0	0	0		16
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

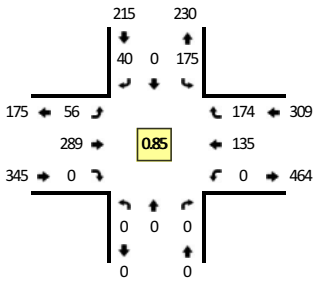
Type of peak hour being reported: Intersection Peak

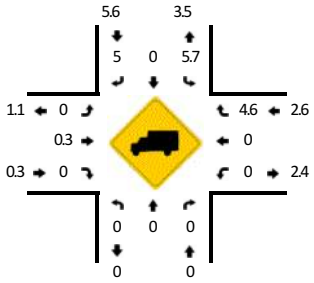
Method for determining peak hour: Total Entering Volume

LOCATION: NE 242nd Ave -- NE 28th St
CITY/STATE: Camas, WA

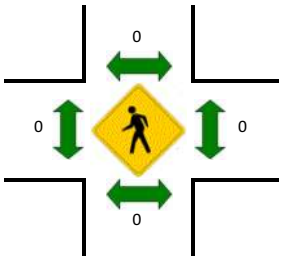
QC JOB #: 16591602
DATE: Wed, May 15 2024

Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

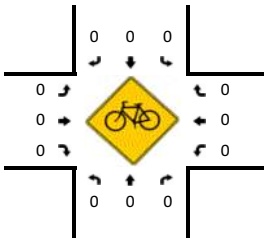


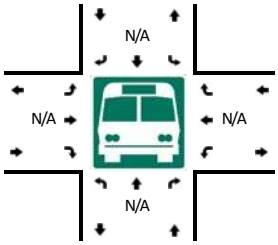


TRUE DATA TO IMPROVE MOBILITY

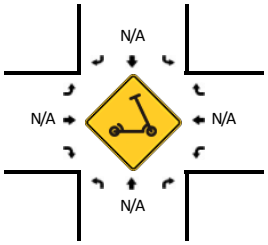












5-Min Count Period Beginning At	NE 242nd Ave (Northbound)				NE 242nd Ave (Southbound)				NE 28th St (Eastbound)				NE 28th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	15	0	1	0	3	2	0	0	0	4	14	0	39	
4:05 PM	0	0	0	0	10	0	3	0	5	7	0	0	0	11	13	0	49	
4:10 PM	0	0	0	0	13	0	2	0	6	31	0	0	0	11	19	0	82	
4:15 PM	0	0	0	0	6	0	2	0	3	11	0	0	0	9	6	0	37	
4:20 PM	0	0	0	0	11	0	2	0	2	12	0	0	0	12	7	0	46	
4:25 PM	0	0	0	0	7	0	1	0	7	24	0	0	0	14	11	0	64	
4:30 PM	0	0	0	0	9	0	6	0	6	19	0	0	0	11	16	0	67	
4:35 PM	0	0	0	0	15	0	5	0	3	15	0	0	0	15	13	0	66	
4:40 PM	0	0	0	0	13	0	4	0	4	13	0	0	0	12	16	0	62	
4:45 PM	0	0	0	0	10	0	1	0	1	9	0	0	0	11	6	0	38	
4:50 PM	0	0	0	0	18	0	4	0	3	3	0	0	0	10	17	0	55	
4:55 PM	0	0	0	0	12	0	1	0	1	28	0	0	0	5	19	0	66	671
5:00 PM	0	0	0	0	20	0	1	0	5	20	0	0	0	15	16	0	77	709
5:05 PM	0	0	0	0	16	0	4	0	8	33	0	0	0	11	17	0	89	749
5:10 PM	0	0	0	0	14	0	3	0	9	29	0	0	0	15	19	0	89	756
5:15 PM	0	0	0	0	17	0	4	0	1	5	0	0	0	13	17	0	57	776
5:20 PM	0	0	0	0	19	0	6	0	8	35	0	0	0	8	18	0	94	824
5:25 PM	0	0	0	0	10	0	8	0	1	1	0	0	0	9	10	0	39	799
5:30 PM	0	0	0	0	15	0	2	0	11	36	0	0	0	4	14	0	82	814
5:35 PM	0	0	0	0	11	0	1	0	5	46	0	0	0	10	14	0	87	835
5:40 PM	0	0	0	0	26	0	3	0	1	21	0	0	0	17	11	0	79	852
5:45 PM	0	0	0	0	5	0	3	0	4	20	0	0	0	12	8	0	52	866
5:50 PM	0	0	0	0	10	0	4	0	2	15	0	0	0	16	11	0	58	869
5:55 PM	0	0	0	0	11	0	1	0	4	21	0	0	0	10	9	0	56	859

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	200	0	32	0	88	328	0	0	0	164	208	0	1020
Heavy Trucks	0	0	0		12	0	4		0	0	0		0	0	4		20
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

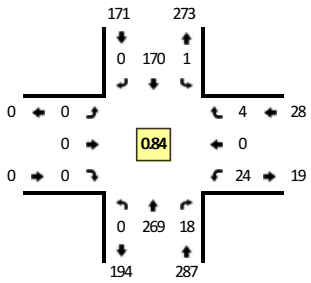
Type of peak hour being reported: Intersection Peak

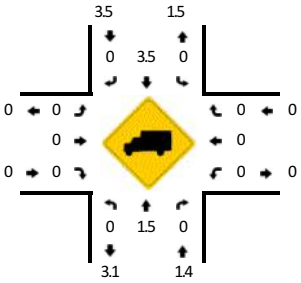
Method for determining peak hour: Total Entering Volume

LOCATION: SE Everett Rd -- SE 8th St
CITY/STATE: Camas, WA

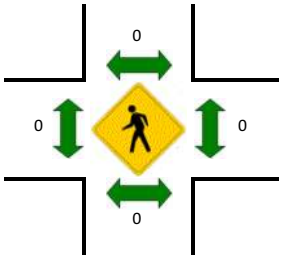
QC JOB #: 16591608
DATE: Wed, May 15 2024

Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:25 PM -- 5:40 PM

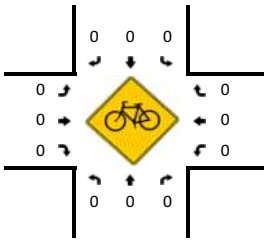


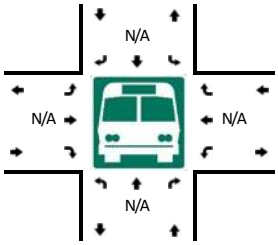


TRUE DATA TO IMPROVE MOBILITY

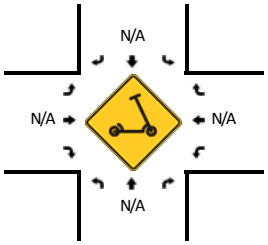












5-Min Count Period Beginning At	SE Everett Rd (Northbound)				SE Everett Rd (Southbound)				SE 8th St (Eastbound)				SE 8th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	22	0	0	0	9	0	0	0	0	0	0	0	0	0	0	31	
4:05 PM	0	29	0	0	0	15	0	0	0	0	0	0	2	0	2	0	48	
4:10 PM	0	16	3	0	0	18	0	0	0	0	0	0	1	0	0	0	38	
4:15 PM	0	14	0	0	0	15	0	0	0	0	0	0	1	0	0	0	30	
4:20 PM	0	14	0	0	0	13	0	0	0	0	0	0	1	0	0	0	28	
4:25 PM	0	17	0	0	0	18	0	0	0	0	0	0	3	0	1	0	39	
4:30 PM	0	15	1	0	1	6	0	0	0	0	0	0	1	0	0	0	24	
4:35 PM	0	14	1	0	1	15	0	0	0	0	0	0	0	0	0	0	31	
4:40 PM	0	13	0	0	0	14	0	0	0	0	0	0	1	0	0	0	28	
4:45 PM	0	6	2	0	0	13	0	0	0	0	0	0	2	0	0	0	23	
4:50 PM	0	24	0	0	0	14	0	0	0	0	0	0	0	0	1	0	39	
4:55 PM	0	20	0	0	0	12	0	0	0	0	0	0	2	0	0	0	34	393
5:00 PM	0	24	1	0	0	9	0	0	0	0	0	0	1	0	0	0	35	397
5:05 PM	0	21	2	0	0	12	0	0	0	0	0	0	2	0	0	0	37	386
5:10 PM	0	22	1	0	0	10	0	0	0	0	0	0	2	0	0	0	35	383
5:15 PM	0	16	2	0	0	14	0	0	0	0	0	0	2	0	0	0	34	387
5:20 PM	0	24	1	0	0	17	0	0	0	0	0	0	1	0	1	0	44	403
5:25 PM	0	24	2	0	0	13	0	0	0	0	0	0	0	0	0	0	39	403
5:30 PM	0	25	3	0	1	19	0	0	0	0	0	0	1	0	0	0	49	428
5:35 PM	0	29	3	0	0	15	0	0	0	0	0	0	9	0	0	0	56	453
5:40 PM	0	18	1	0	0	13	0	0	0	0	0	0	4	0	1	0	37	462
5:45 PM	0	22	2	0	0	22	0	0	0	0	0	0	0	0	1	0	47	486
5:50 PM	0	16	2	0	1	13	0	0	0	0	0	0	1	0	0	0	33	480
5:55 PM	0	17	1	0	0	12	0	0	0	0	0	0	0	0	0	0	30	476

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	312	32	0	4	188	0	0	0	0	0	0	40	0	0	0	576
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

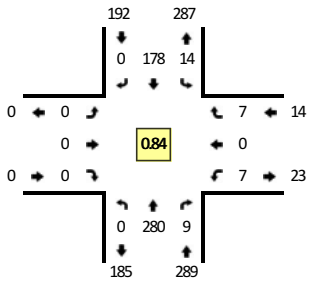
Type of peak hour being reported: Intersection Peak

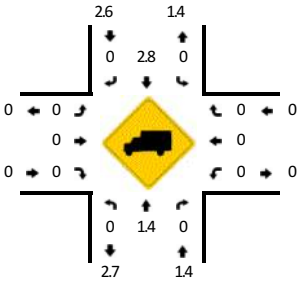
Method for determining peak hour: Total Entering Volume

LOCATION: SE Everett St -- NE Everett Dr
CITY/STATE: Camas, WA

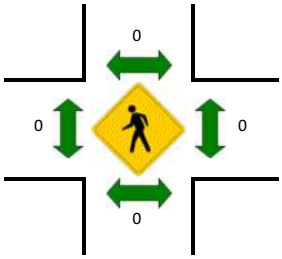
QC JOB #: 16591610
DATE: Wed, May 15 2024

Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:25 PM -- 5:40 PM

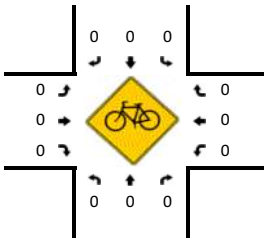


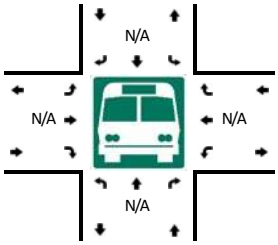


TRUE DATA TO IMPROVE MOBILITY

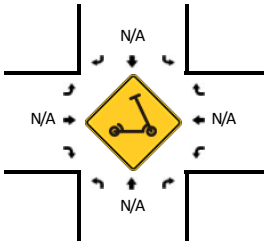












5-Min Count Period Beginning At	SE Everett St (Northbound)				SE Everett St (Southbound)				NE Everett Dr (Eastbound)				NE Everett Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	19	0	0	0	9	0	0	0	0	0	0	0	0	3	0	31	
4:05 PM	0	28	1	0	1	16	0	0	0	0	0	0	2	0	1	0	49	
4:10 PM	0	16	1	0	1	19	0	0	0	0	0	0	2	0	3	0	42	
4:15 PM	0	14	1	0	1	14	0	0	0	0	0	0	1	0	0	0	31	
4:20 PM	0	14	0	0	0	14	0	0	0	0	0	0	1	0	0	0	29	
4:25 PM	0	16	2	0	1	21	0	0	0	0	0	0	0	0	1	0	41	
4:30 PM	0	15	0	0	1	6	0	0	0	0	0	0	1	0	1	0	24	
4:35 PM	0	15	1	0	1	14	0	0	0	0	0	0	0	0	0	0	31	
4:40 PM	0	13	0	0	1	14	0	0	0	0	0	0	1	0	0	0	29	
4:45 PM	0	8	1	0	0	15	0	0	0	0	0	0	0	0	0	0	24	
4:50 PM	0	24	2	0	1	12	0	0	0	0	0	0	1	0	0	0	40	
4:55 PM	0	19	1	0	2	13	0	0	0	0	0	0	1	0	1	0	37	408
5:00 PM	0	25	0	0	1	9	0	0	0	0	0	0	1	0	0	0	36	413
5:05 PM	0	22	0	0	0	14	0	0	0	0	0	0	0	0	1	0	37	401
5:10 PM	0	22	0	0	0	12	0	0	0	0	0	0	0	0	1	0	35	394
5:15 PM	0	17	1	0	0	15	0	0	0	0	0	0	0	0	1	0	34	397
5:20 PM	0	26	0	0	2	16	0	0	0	0	0	0	0	0	0	0	44	412
5:25 PM	0	25	0	0	2	12	0	0	0	0	0	0	2	0	0	0	41	412
5:30 PM	0	27	3	0	0	20	0	0	0	0	0	0	0	0	1	0	51	439
5:35 PM	0	33	0	0	2	20	0	0	0	0	0	0	1	0	0	0	56	464
5:40 PM	0	18	0	0	1	18	0	0	0	0	0	0	1	0	1	0	39	474
5:45 PM	0	22	2	0	3	17	0	0	0	0	0	0	0	0	1	0	45	495
5:50 PM	0	19	2	0	1	12	0	0	0	0	0	0	2	0	0	0	36	491
5:55 PM	0	17	0	0	2	12	0	0	0	0	0	0	0	0	0	0	31	485

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	340	12	0	16	208	0	0	0	0	0	0	12	0	4	0	592
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

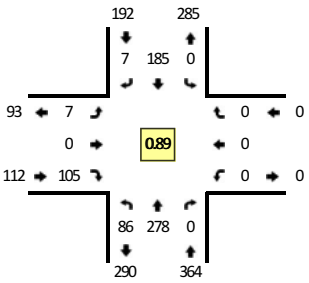
Type of peak hour being reported: Intersection Peak

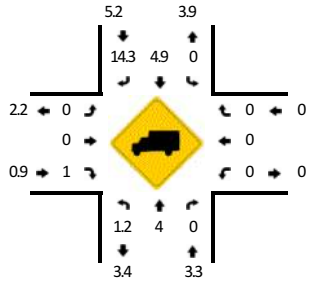
Method for determining peak hour: Total Entering Volume

LOCATION: SE Everett St -- SE Leadbetter Rd
CITY/STATE: Camas, WA

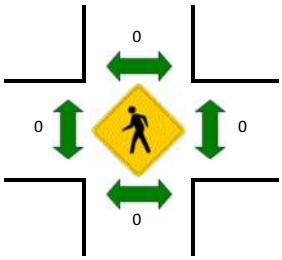
QC JOB #: 16591673
DATE: Wed, May 15 2024

Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:25 PM -- 5:40 PM

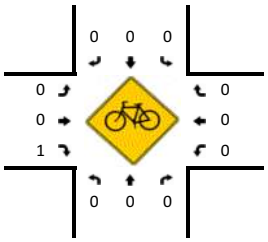


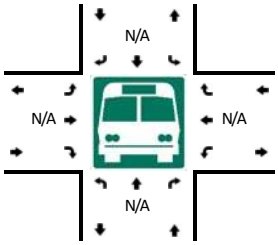


TRUE DATA TO IMPROVE MOBILITY

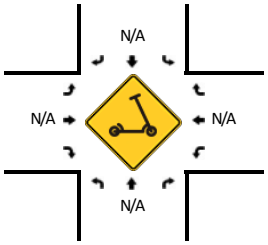












5-Min Count Period Beginning At	SE Everett St (Northbound)				SE Everett St (Southbound)				SE Leadbetter Rd (Eastbound)				SE Leadbetter Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	5	19	0	0	0	10	0	0	0	0	8	0	0	0	0	0	42	
4:05 PM	6	30	0	0	0	17	1	0	0	0	7	0	0	0	0	0	61	
4:10 PM	9	13	0	0	0	22	1	0	0	0	5	0	0	0	0	0	50	
4:15 PM	8	15	0	0	0	14	1	0	0	0	10	0	0	0	0	0	48	
4:20 PM	5	13	0	0	0	16	1	0	0	0	6	0	0	0	0	0	41	
4:25 PM	11	18	0	0	0	18	0	0	0	0	4	0	0	0	0	0	51	
4:30 PM	5	13	0	0	0	8	0	0	1	0	12	0	0	0	0	0	39	
4:35 PM	9	15	0	0	0	13	1	0	0	0	7	0	0	0	0	0	45	
4:40 PM	7	13	0	0	0	17	0	0	0	0	7	0	0	0	0	0	44	
4:45 PM	6	12	0	0	0	16	0	0	1	0	10	0	0	0	0	0	45	
4:50 PM	11	25	0	0	0	12	1	0	0	0	6	0	0	0	0	0	55	
4:55 PM	8	21	0	0	0	14	0	0	0	0	4	0	0	0	0	0	47	568
5:00 PM	18	18	0	0	0	11	1	0	1	0	15	0	0	0	0	0	64	590
5:05 PM	7	24	0	0	0	14	0	0	0	0	8	0	0	0	0	0	53	582
5:10 PM	3	22	0	0	0	13	2	0	1	0	5	0	0	0	0	0	46	578
5:15 PM	8	16	0	0	0	15	1	0	2	0	18	0	0	0	0	0	60	590
5:20 PM	4	23	0	0	0	14	0	0	1	0	12	0	0	0	0	0	54	603
5:25 PM	4	28	0	0	0	16	1	0	1	0	6	0	0	0	0	0	56	608
5:30 PM	6	28	0	0	0	19	0	0	0	0	6	0	0	0	0	0	59	628
5:35 PM	5	33	0	0	0	21	0	0	0	0	13	0	0	0	0	0	72	655
5:40 PM	5	19	0	0	0	18	0	0	1	0	9	0	0	0	0	0	52	663
5:45 PM	7	21	0	0	0	18	1	0	0	0	3	0	0	0	0	0	50	668
5:50 PM	8	22	0	0	0	12	2	0	0	0	9	0	0	0	0	0	53	666
5:55 PM	7	16	0	0	0	13	2	0	0	0	9	0	0	0	0	0	47	666

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	60	356	0	0	0	224	4	0	4	0	100	0	0	0	0	0	748
Heavy Trucks	0	4	0		0	0	4		0	0	0		0	0	0		8
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

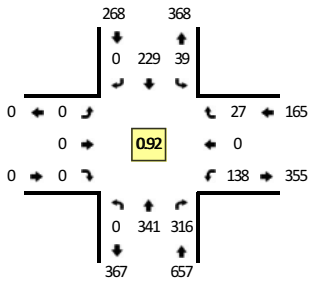
Type of peak hour being reported: Intersection Peak

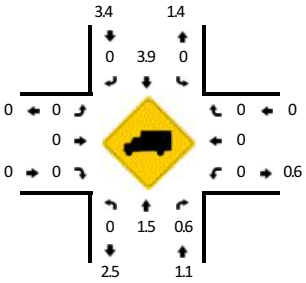
Method for determining peak hour: Total Entering Volume

LOCATION: NE Everett St -- NE 43rd Ave
CITY/STATE: Camas, WA

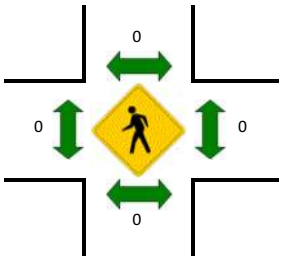
QC JOB #: 16591616
DATE: Wed, May 15 2024

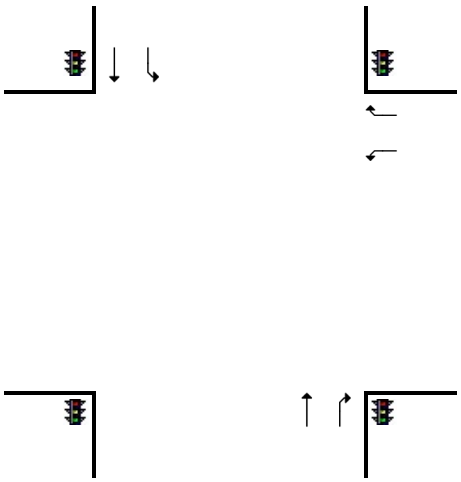
Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:25 PM -- 5:40 PM

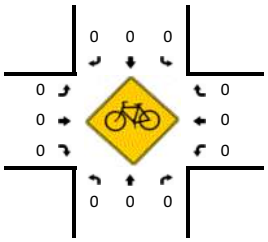


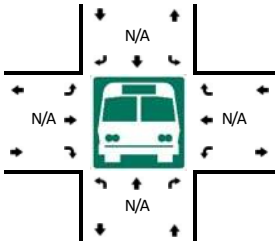


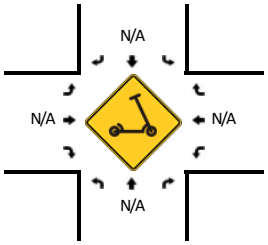
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				NE 43rd Ave (Eastbound)				NE 43rd Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	23	16	0	1	15	0	0	0	0	0	0	8	0	1	0	64	
4:05 PM	0	32	15	0	2	20	0	0	0	0	0	0	16	0	2	0	87	
4:10 PM	0	21	12	0	3	23	0	0	0	0	0	0	15	0	1	0	75	
4:15 PM	0	20	6	0	2	22	0	0	0	0	0	0	18	0	3	0	71	
4:20 PM	0	20	16	0	2	20	0	0	0	0	0	0	13	0	1	0	72	
4:25 PM	0	25	10	0	1	16	0	0	0	0	0	0	9	0	3	0	64	
4:30 PM	0	20	14	0	5	18	0	0	0	0	0	0	5	0	1	0	63	
4:35 PM	0	21	9	0	1	15	0	0	0	0	0	0	17	0	2	0	65	
4:40 PM	0	17	16	0	4	19	0	0	0	0	0	0	5	0	3	0	64	
4:45 PM	0	17	16	0	2	23	0	0	0	0	0	0	18	0	2	0	78	
4:50 PM	0	31	32	0	2	14	0	0	0	0	0	0	11	0	4	0	94	
4:55 PM	0	30	29	0	2	16	0	0	0	0	0	0	9	0	2	0	88	885
5:00 PM	0	33	25	0	4	20	0	0	0	0	0	0	12	0	4	0	98	919
5:05 PM	0	28	23	0	2	19	0	0	0	0	0	0	13	0	2	0	87	919
5:10 PM	0	25	19	0	2	12	0	0	0	0	0	0	13	0	2	0	73	917
5:15 PM	0	21	28	0	6	22	0	0	0	0	0	0	17	0	2	0	96	942
5:20 PM	0	24	22	0	5	19	0	0	0	0	0	0	14	0	3	0	87	957
5:25 PM	0	29	27	0	4	19	0	0	0	0	0	0	8	0	3	0	90	983
5:30 PM	0	33	24	0	1	19	0	0	0	0	0	0	13	0	1	0	91	1011
5:35 PM	0	38	36	0	6	26	0	0	0	0	0	0	7	0	2	0	115	1061
5:40 PM	0	26	20	0	3	25	0	0	0	0	0	0	12	0	0	0	86	1083
5:45 PM	0	23	31	0	2	18	0	0	0	0	0	0	9	0	2	0	85	1090
5:50 PM	0	28	28	0	0	20	0	0	0	0	0	0	11	0	3	0	90	1086
5:55 PM	0	22	24	0	2	18	0	0	0	0	0	0	16	0	1	0	83	1081

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	400	348	0	44	256	0	0	0	0	0	0	112	0	24	0	1184
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

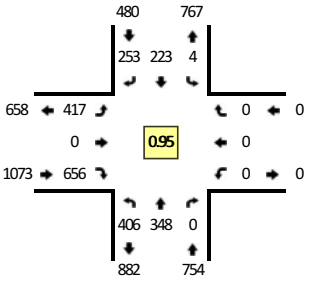
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

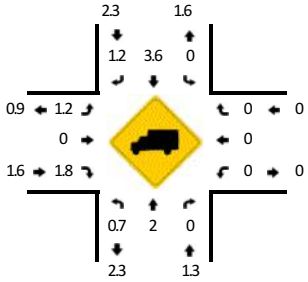
LOCATION: NE Everett St -- NW Lake Rd
CITY/STATE: Camas, WA

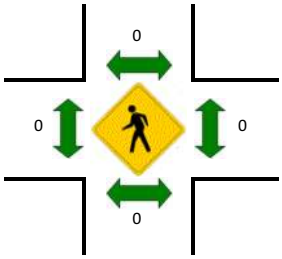
QC JOB #: 16591618
DATE: Wed, May 15 2024

Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

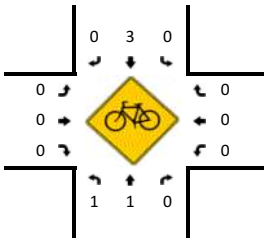


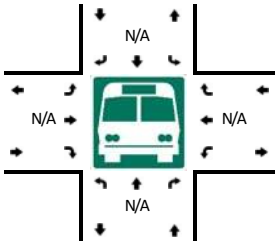




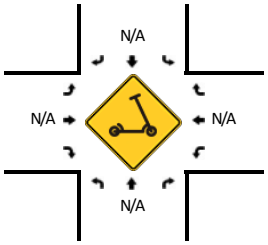












5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	25	35	0	0	0	18	12	0	11	0	38	0	0	0	0	0	139	
4:05 PM	34	42	0	0	0	19	14	0	18	0	38	0	0	0	0	0	165	
4:10 PM	20	20	0	0	0	30	16	1	18	0	31	0	0	0	0	0	136	
4:15 PM	30	14	0	1	0	24	30	0	16	0	35	0	0	0	0	0	150	
4:20 PM	32	22	0	0	0	19	24	0	26	0	35	0	0	0	0	0	158	
4:25 PM	25	28	0	0	0	14	19	0	18	0	42	0	0	0	0	0	146	
4:30 PM	31	26	0	0	0	17	15	1	12	0	33	1	0	0	0	0	136	
4:35 PM	23	21	0	0	0	18	19	0	17	0	48	0	0	0	0	0	146	
4:40 PM	35	19	0	0	0	18	17	0	26	0	52	0	0	0	0	0	167	
4:45 PM	32	22	0	0	0	28	20	0	20	0	60	1	0	0	0	0	183	
4:50 PM	36	25	0	1	0	16	15	0	36	0	51	1	0	0	0	0	181	
4:55 PM	34	33	0	0	0	19	17	0	42	0	61	0	0	0	0	0	206	1913
5:00 PM	33	29	0	0	0	22	26	1	29	0	48	0	0	0	0	0	188	1962
5:05 PM	34	33	0	0	0	12	21	0	35	0	61	0	0	0	0	0	196	1993
5:10 PM	43	21	0	1	0	17	20	0	30	0	63	0	0	0	0	0	195	2052
5:15 PM	38	22	0	1	0	21	24	0	35	0	51	0	0	0	0	0	192	2094
5:20 PM	32	40	0	0	0	21	23	0	34	0	67	0	0	0	0	0	217	2153
5:25 PM	26	28	0	0	0	22	16	0	35	0	63	0	0	0	0	0	190	2197
5:30 PM	23	34	0	0	0	13	29	0	32	0	53	0	0	0	0	0	184	2245
5:35 PM	38	37	0	0	0	18	17	0	42	0	43	0	0	0	0	0	195	2294
5:40 PM	32	21	0	0	0	20	25	2	35	0	41	1	0	0	0	0	177	2304
5:45 PM	34	25	0	0	0	22	20	1	30	0	54	0	0	0	0	0	186	2307
5:50 PM	24	30	0	0	0	17	18	0	36	0	46	0	0	0	0	0	171	2297
5:55 PM	27	24	0	0	0	24	25	0	36	0	50	0	0	0	0	0	186	2277

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	452	332	0	8	0	236	268	0	396	0	724	0	0	0	0	0	2416
Heavy Trucks	4	0	0		0	20	8		8	0	28		0	0	0		68
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	4	0		0	12	0		0	0	0		0	0	0		16
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

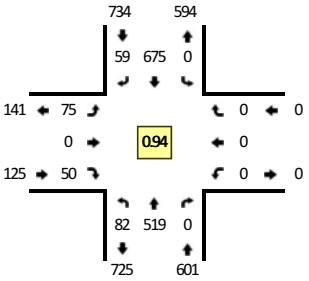
Type of peak hour being reported: Intersection Peak

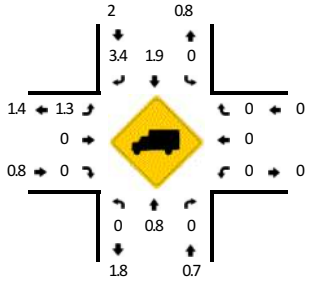
Method for determining peak hour: Total Entering Volume

LOCATION: NE Everett St -- NE 17th Ave
CITY/STATE: Camas, WA

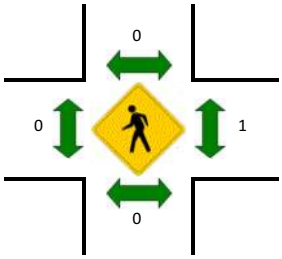
QC JOB #: 16591676
DATE: Wed, May 15 2024

Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 4:55 PM -- 5:10 PM

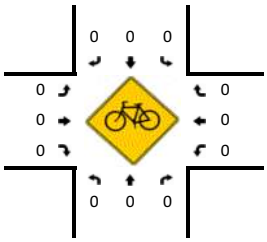


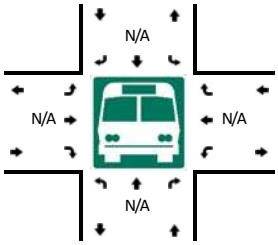


TRUE DATA TO IMPROVE MOBILITY

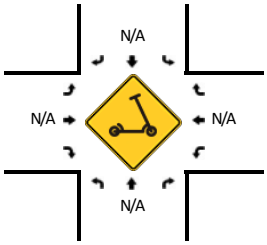












5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				NE 17th Ave (Eastbound)				NE 17th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	37	0	0	0	52	3	0	11	0	2	0	0	0	0	0	108	
4:05 PM	1	39	0	0	0	39	9	0	8	0	5	0	0	0	0	0	101	
4:10 PM	5	30	0	0	0	45	7	0	3	0	1	0	0	0	0	0	91	
4:15 PM	8	33	0	0	0	47	3	0	4	0	7	0	0	0	0	0	102	
4:20 PM	4	43	0	0	0	43	2	0	1	0	3	0	0	0	0	0	96	
4:25 PM	5	31	0	0	0	53	5	0	4	0	2	0	0	0	0	0	100	
4:30 PM	1	36	0	0	0	39	7	0	8	0	2	0	0	0	0	0	93	
4:35 PM	2	31	0	0	0	43	9	0	5	0	1	0	0	0	0	0	91	
4:40 PM	6	37	0	0	0	52	4	0	5	0	2	0	0	0	0	0	106	
4:45 PM	8	46	0	0	0	64	4	0	5	0	5	0	0	0	0	0	132	
4:50 PM	7	40	0	0	0	59	7	0	6	0	3	0	0	0	0	0	122	
4:55 PM	7	42	0	0	0	57	2	0	2	0	3	0	0	0	0	0	113	1255
5:00 PM	10	61	0	0	0	53	3	0	5	0	4	0	0	0	0	0	136	1283
5:05 PM	11	50	0	0	0	58	5	0	7	0	8	0	0	0	0	0	139	1321
5:10 PM	4	38	0	0	0	53	9	0	6	0	3	0	0	0	0	0	113	1343
5:15 PM	11	41	0	0	0	47	4	0	8	0	6	0	0	0	0	0	117	1358
5:20 PM	2	47	0	0	0	55	5	0	12	0	6	0	0	0	0	0	127	1389
5:25 PM	6	33	0	0	0	63	8	0	2	0	2	0	0	0	0	0	114	1403
5:30 PM	5	39	0	0	0	59	6	0	10	0	6	0	0	0	0	0	125	1435
5:35 PM	5	45	0	0	0	55	2	0	7	0	2	0	0	0	0	0	116	1460
5:40 PM	3	33	0	0	0	46	5	0	10	0	2	0	0	0	0	0	99	1453
5:45 PM	5	30	0	0	0	50	6	0	7	0	4	0	0	0	0	0	102	1423
5:50 PM	6	41	0	0	0	49	6	0	3	0	6	0	0	0	0	0	111	1412
5:55 PM	13	30	0	0	0	39	4	0	2	0	2	0	0	0	0	0	90	1389

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	112	612	0	0	0	672	40	0	56	0	60	0	0	0	0	0	1552
Heavy Trucks	0	16	0		0	12	0		0	0	0		0	0	0		28
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

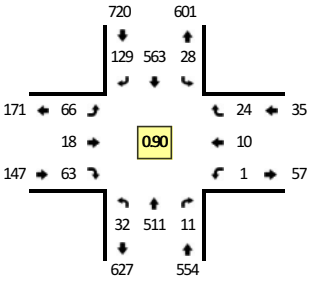
Type of peak hour being reported: Intersection Peak

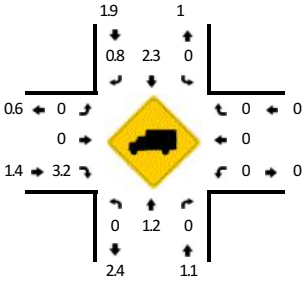
Method for determining peak hour: Total Entering Volume

LOCATION: NE Everett St -- NW 15th Ave
CITY/STATE: Camas, WA

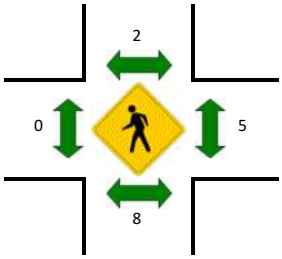
QC JOB #: 16591679
DATE: Wed, May 15 2024

Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 4:55 PM -- 5:10 PM

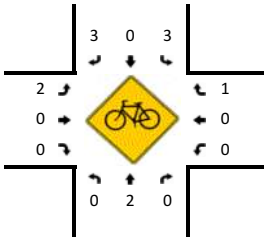


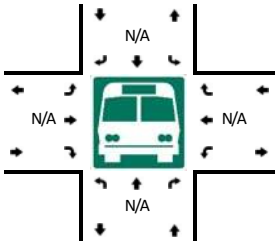


TRUE DATA TO IMPROVE MOBILITY

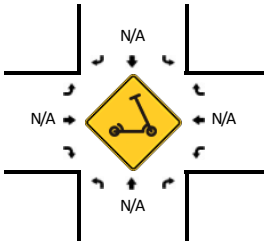












5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				NW 15th Ave (Eastbound)				NW 15th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	31	1	0	4	38	14	0	4	4	6	0	1	0	5	0	108	
4:05 PM	0	29	1	0	3	36	7	0	2	1	0	0	0	3	8	0	90	
4:10 PM	3	34	0	0	3	36	7	0	1	0	3	0	0	0	1	0	88	
4:15 PM	1	36	1	0	2	41	7	0	4	2	4	0	0	1	0	0	99	
4:20 PM	1	44	2	0	2	31	11	0	4	0	4	0	0	0	1	0	100	
4:25 PM	2	29	0	0	3	44	9	0	4	0	3	0	1	2	1	0	98	
4:30 PM	4	35	0	0	0	34	6	0	3	0	2	0	0	0	0	0	84	
4:35 PM	3	28	1	0	4	33	5	0	5	1	3	0	0	0	1	0	84	
4:40 PM	4	38	1	0	3	46	7	0	6	1	5	0	0	0	1	0	112	
4:45 PM	0	43	1	0	2	61	11	0	5	2	3	0	0	0	3	0	131	
4:50 PM	2	44	1	0	2	53	4	0	4	1	3	0	0	0	2	0	116	
4:55 PM	6	41	1	0	1	54	8	0	4	0	10	0	0	0	4	0	129	1239
5:00 PM	3	58	0	0	2	36	9	0	8	2	10	0	0	0	4	0	132	1263
5:05 PM	3	53	1	0	3	53	13	0	5	2	2	0	0	4	3	0	142	1315
5:10 PM	4	31	1	0	3	38	10	0	6	1	4	0	0	1	3	0	102	1329
5:15 PM	4	50	1	0	3	41	10	0	4	2	6	0	0	0	0	0	121	1351
5:20 PM	1	41	1	0	2	40	17	0	5	1	7	0	0	1	2	0	118	1369
5:25 PM	1	32	1	0	4	42	21	0	6	2	7	0	1	3	0	0	120	1391
5:30 PM	3	39	1	0	3	52	12	0	5	2	5	0	0	1	2	0	125	1432
5:35 PM	1	41	1	0	0	47	7	0	8	2	1	0	0	0	0	0	108	1456
5:40 PM	0	30	1	0	1	39	11	0	4	2	4	0	0	1	2	0	95	1439
5:45 PM	2	34	1	0	2	45	5	0	2	4	0	0	0	2	0	0	97	1405
5:50 PM	4	37	1	0	5	43	10	0	8	1	3	0	1	0	1	0	114	1403
5:55 PM	1	37	0	0	5	26	5	0	3	1	3	0	0	1	3	0	85	1359

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	608	8	0	24	572	120	0	68	16	88	0	0	16	44	0	1612
Heavy Trucks	0	20	0		0	8	0		0	0	8		0	0	0		36
Buses																	
Pedestrians		12				0				0				0			12
Bicycles	0	0	0		0	0	4		4	0	0		0	0	0		8
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

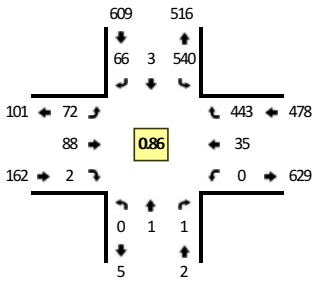
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

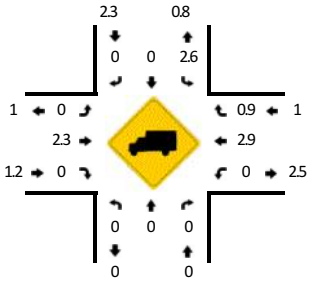
LOCATION: NE Everett St -- NE 14th Ave
CITY/STATE: Camas, WA

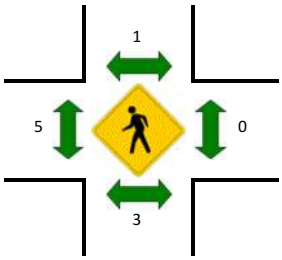
QC JOB #: 16591620
DATE: Wed, May 15 2024

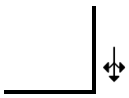
Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 4:50 PM -- 5:05 PM

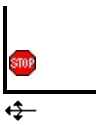


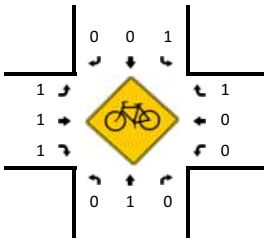
TRUE DATA TO IMPROVE MOBILITY

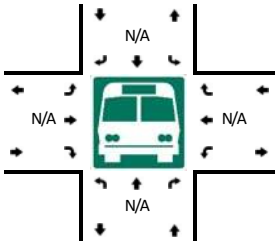


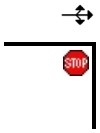


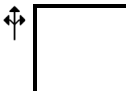


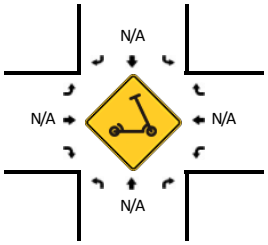












5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				NE 14th Ave (Eastbound)				NE 14th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	39	0	5	0	4	2	0	0	0	0	23	0	73	
4:05 PM	0	0	0	0	26	0	8	0	8	2	0	0	0	0	24	0	68	
4:10 PM	0	0	0	0	30	0	6	0	5	1	0	0	0	1	26	0	69	
4:15 PM	0	0	0	0	39	0	3	0	8	2	0	0	0	1	27	0	80	
4:20 PM	0	0	0	0	26	0	8	0	8	2	0	0	0	0	36	0	80	
4:25 PM	0	0	0	0	44	0	4	0	1	1	0	0	0	4	25	0	79	
4:30 PM	0	0	0	0	33	0	7	0	9	2	0	0	0	1	30	0	82	
4:35 PM	0	0	0	0	32	0	5	0	1	2	0	0	0	2	32	0	74	
4:40 PM	0	0	0	0	46	0	5	0	3	10	0	0	0	4	32	0	100	
4:45 PM	0	0	0	0	55	0	5	0	6	10	0	0	0	2	38	0	116	
4:50 PM	0	0	0	0	53	0	7	0	7	14	0	0	0	5	38	0	124	
4:55 PM	0	0	0	0	54	1	7	0	4	10	0	0	0	4	42	0	122	1067
5:00 PM	0	0	1	0	31	0	6	0	7	13	0	0	0	5	54	0	117	1111
5:05 PM	0	0	0	0	48	0	5	0	6	5	0	0	0	3	44	0	111	1154
5:10 PM	0	0	0	0	35	1	5	0	6	1	0	0	0	6	27	0	81	1166
5:15 PM	0	0	0	0	43	0	3	0	7	9	0	0	0	1	44	0	107	1193
5:20 PM	0	0	0	0	40	0	5	0	8	4	0	0	0	2	31	0	90	1203
5:25 PM	0	1	0	0	43	1	10	0	3	8	1	0	0	1	28	0	96	1220
5:30 PM	0	0	0	0	49	0	5	0	7	3	0	0	0	1	31	0	96	1234
5:35 PM	0	0	0	0	43	0	3	0	8	1	1	0	0	1	34	0	91	1251
5:40 PM	0	0	0	0	36	1	2	0	8	2	0	0	0	2	23	0	74	1225
5:45 PM	0	0	0	0	42	0	5	0	9	6	0	0	0	1	30	0	93	1202
5:50 PM	0	0	0	0	42	0	5	0	7	2	1	0	0	3	31	0	91	1169
5:55 PM	0	0	0	0	29	0	3	0	4	3	0	0	0	1	35	0	75	1122

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	4	0	552	4	80	0	72	148	0	0	0	56	536	0	1452
Heavy Trucks	0	0	0		12	0	0		0	0	0		0	0	8		20
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	4	0		0	0	0		4	0	0		0	0	4		12
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

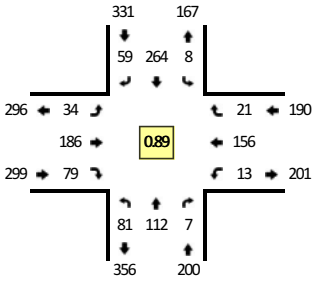
Type of peak hour being reported: Intersection Peak

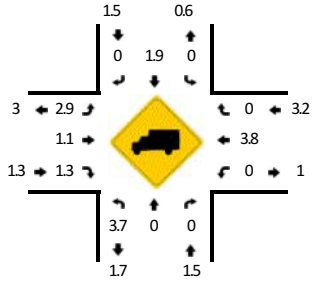
Method for determining peak hour: Total Entering Volume

LOCATION: NE Dallas St -- NE 6th Ave
CITY/STATE: Camas, WA

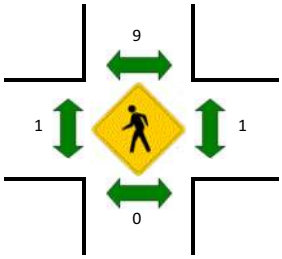
QC JOB #: 16591682
DATE: Wed, May 15 2024

Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 4:40 PM -- 4:55 PM

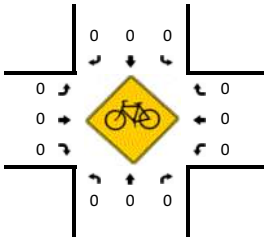


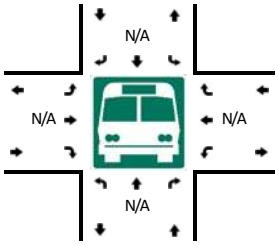


TRUE DATA TO IMPROVE MOBILITY

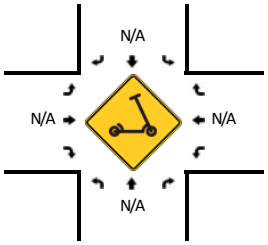












5-Min Count Period Beginning At	NE Dallas St (Northbound)				NE Dallas St (Southbound)				NE 6th Ave (Eastbound)				NE 6th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	7	0	0	0	9	8	0	3	7	4	0	0	12	0	0	54	
4:05 PM	5	15	1	0	0	12	7	0	3	6	1	0	0	6	0	0	56	
4:10 PM	6	15	0	0	0	10	5	0	0	12	3	0	0	6	0	0	57	
4:15 PM	3	9	1	0	0	12	5	0	5	23	8	0	0	11	0	0	77	
4:20 PM	4	9	0	0	1	10	4	0	3	14	7	0	1	6	0	0	59	
4:25 PM	3	10	0	0	1	16	4	0	3	16	11	0	0	13	0	0	77	
4:30 PM	3	10	2	0	1	12	3	0	2	14	6	0	0	10	1	0	64	
4:35 PM	5	2	0	0	0	7	6	0	3	12	11	0	1	15	2	0	64	
4:40 PM	3	11	1	0	0	19	7	0	1	21	7	0	0	18	2	0	90	
4:45 PM	12	12	1	0	0	23	5	0	1	15	8	0	1	20	0	0	98	
4:50 PM	13	8	0	0	1	16	5	0	3	11	9	0	1	25	5	0	97	
4:55 PM	11	15	0	0	0	18	6	0	3	9	2	0	3	10	4	0	81	874
5:00 PM	6	11	2	0	2	18	4	0	2	15	9	0	0	18	2	0	89	909
5:05 PM	7	11	0	0	2	27	4	0	1	13	7	0	1	8	0	0	81	934
5:10 PM	6	6	0	0	3	30	3	0	5	15	7	0	1	10	0	0	86	963
5:15 PM	6	6	2	0	0	27	2	0	4	18	5	0	1	7	2	0	80	966
5:20 PM	5	14	0	0	0	30	6	0	2	22	1	0	0	7	0	0	87	994
5:25 PM	5	7	0	0	0	29	4	0	4	16	7	0	4	8	1	0	85	1002
5:30 PM	2	9	1	0	0	20	7	0	5	19	6	0	0	10	3	0	82	1020
5:35 PM	1	16	0	0	0	11	0	0	4	9	4	0	1	7	0	0	53	1009
5:40 PM	3	8	2	0	0	12	1	0	5	8	1	0	0	14	1	0	55	974
5:45 PM	0	8	0	0	1	7	4	0	7	8	3	0	0	5	1	0	44	920
5:50 PM	2	8	0	0	0	9	6	0	3	8	0	0	2	13	0	0	51	874
5:55 PM	2	6	1	0	0	5	2	0	0	6	0	0	0	9	1	0	32	825

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	112	124	8	0	4	232	68	0	20	188	96	0	8	252	28	0	1140
Heavy Trucks	4	0	0		0	8	0		0	4	0		0	0	0		16
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/28/2024 9:06 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

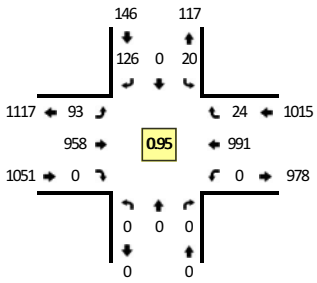
Type of peak hour being reported: Intersection Peak

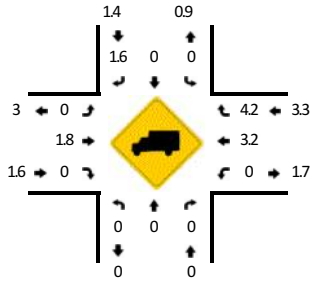
Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- NW 6th Ave
CITY/STATE: Camas, WA

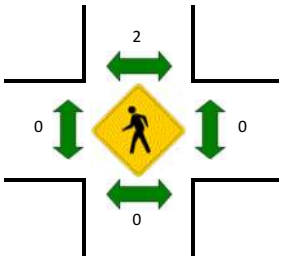
QC JOB #: 16591626
DATE: Wed, May 15 2024

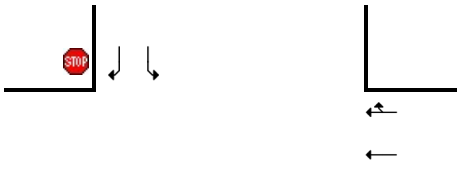
Peak-Hour: 4:25 PM -- 5:25 PM
Peak 15-Min: 4:50 PM -- 5:05 PM

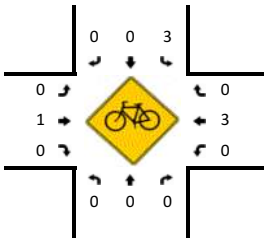


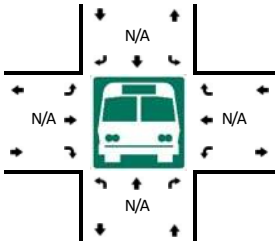


TRUE DATA TO IMPROVE MOBILITY

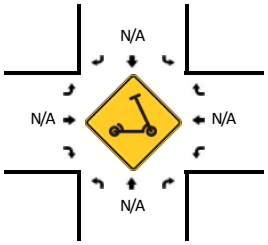












5-Min Count Period Beginning At	Division St (Northbound)				Division St (Southbound)				NW 6th Ave (Eastbound)				NW 6th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	7	0	8	56	0	0	0	47	1	0	119	
4:05 PM	0	0	0	0	0	0	13	0	12	59	0	0	0	49	8	0	141	
4:10 PM	0	0	0	0	1	0	6	0	6	91	0	0	0	48	2	0	154	
4:15 PM	0	0	0	0	3	0	9	0	10	83	0	0	0	50	0	0	155	
4:20 PM	0	0	0	0	1	0	5	0	5	91	0	0	0	74	4	0	180	
4:25 PM	0	0	0	0	0	0	6	0	8	90	0	0	0	71	3	0	178	
4:30 PM	0	0	0	0	0	0	9	0	8	101	0	0	0	68	5	0	191	
4:35 PM	0	0	0	0	0	0	11	0	5	81	0	0	0	79	1	0	177	
4:40 PM	0	0	0	0	1	0	14	0	4	89	0	0	0	78	0	0	186	
4:45 PM	0	0	0	0	2	0	10	0	10	62	0	0	0	79	1	0	164	
4:50 PM	0	0	0	0	3	0	8	0	7	84	0	0	0	95	3	0	200	
4:55 PM	0	0	0	0	2	0	11	0	4	73	0	0	0	102	1	0	193	2038
5:00 PM	0	0	0	0	1	0	8	0	6	75	0	0	0	97	3	0	190	2109
5:05 PM	0	0	0	0	1	0	15	0	3	66	0	0	0	96	2	0	183	2151
5:10 PM	0	0	0	0	3	0	14	0	6	52	0	0	0	103	1	0	179	2176
5:15 PM	0	0	0	0	3	0	9	0	12	93	0	0	0	69	1	0	187	2208
5:20 PM	0	0	0	0	4	0	11	0	20	92	0	0	0	54	3	0	184	2212
5:25 PM	0	0	0	0	6	0	12	0	17	94	0	0	0	41	1	0	171	2205
5:30 PM	0	0	0	0	3	0	7	0	17	83	0	0	0	45	4	0	159	2173
5:35 PM	0	0	0	0	3	0	9	0	15	67	0	0	0	32	3	0	129	2125
5:40 PM	0	0	0	0	3	0	6	0	9	60	0	0	0	53	3	0	134	2073
5:45 PM	0	0	0	0	3	0	9	0	11	58	0	0	0	43	1	0	125	2034
5:50 PM	0	0	0	0	1	0	8	0	14	52	0	0	0	49	0	0	124	1958
5:55 PM	0	0	0	0	1	0	4	0	11	43	0	0	0	40	4	0	103	1868

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	24	0	108	0	68	928	0	0	0	1176	28	0	2332
Heavy Trucks	0	0	0		0	0	0		0	12	0		0	36	0		48
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		8	0	0		0	0	0		0	0	0		8
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

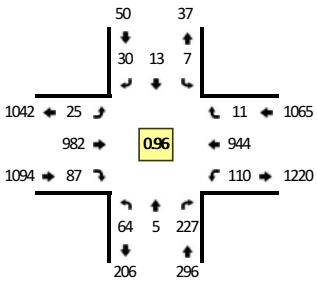
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

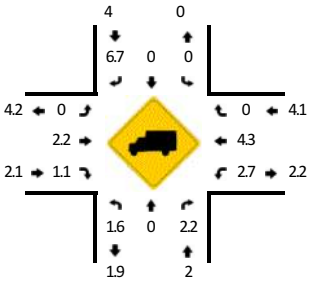
LOCATION: NW Norwood St -- NW 6th Ave
CITY/STATE: Camas, WA

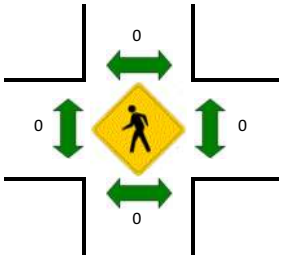
QC JOB #: 16591630
DATE: Wed, May 15 2024

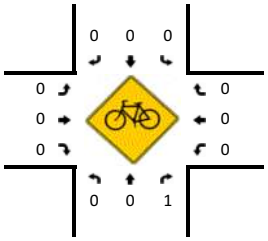
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

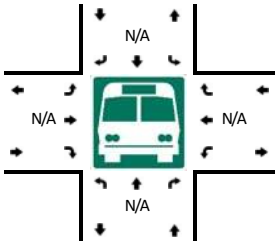


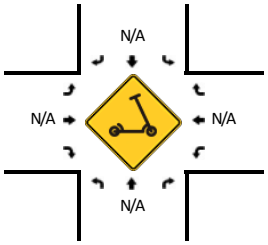
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	NW Norwood St (Northbound)				NW Norwood St (Southbound)				NW 6th Ave (Eastbound)				NW 6th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	6	0	5	0	1	0	3	0	5	68	6	0	7	38	1	0	140	
4:05 PM	6	0	12	0	0	2	0	0	2	76	13	0	6	51	1	0	169	
4:10 PM	3	0	11	0	1	1	1	0	2	84	9	0	7	55	0	0	174	
4:15 PM	2	2	10	0	1	1	1	0	3	86	7	0	7	53	0	1	174	
4:20 PM	5	0	12	0	0	2	1	0	0	89	7	0	8	67	0	1	192	
4:25 PM	5	1	12	0	1	1	1	0	3	91	3	0	5	69	1	0	193	
4:30 PM	5	0	10	0	1	0	2	0	1	90	3	0	9	76	1	0	198	
4:35 PM	9	0	16	0	1	2	3	0	1	85	5	1	10	57	0	0	190	
4:40 PM	0	1	20	0	1	3	1	0	2	87	9	0	7	82	3	1	217	
4:45 PM	3	0	20	0	0	2	4	0	1	86	4	0	15	76	0	0	211	
4:50 PM	7	1	24	0	2	1	2	0	0	81	2	1	12	83	1	0	217	
4:55 PM	6	0	26	0	1	1	0	0	1	84	6	0	6	89	2	0	222	2297
5:00 PM	9	0	19	0	0	0	1	0	3	81	8	1	5	78	2	0	207	2364
5:05 PM	8	0	22	0	0	1	3	0	2	81	17	0	3	81	0	1	219	2414
5:10 PM	4	2	19	0	0	1	4	0	2	78	7	0	8	83	2	0	210	2450
5:15 PM	4	1	20	0	0	2	3	0	3	74	9	0	10	80	0	1	207	2483
5:20 PM	3	0	13	0	1	0	5	0	4	75	11	1	8	84	0	0	205	2496
5:25 PM	6	0	18	0	0	0	2	0	1	80	6	0	13	75	0	1	202	2505
5:30 PM	5	0	17	0	0	1	0	0	4	76	8	0	13	48	0	2	174	2481
5:35 PM	5	0	8	0	1	0	2	0	6	68	13	0	4	38	3	3	151	2442
5:40 PM	10	2	11	0	1	0	2	0	3	60	9	0	7	40	1	0	146	2371
5:45 PM	1	1	10	0	1	0	4	0	6	47	7	0	5	36	3	0	121	2281
5:50 PM	6	0	8	0	2	1	2	0	0	57	8	0	7	46	0	0	137	2201
5:55 PM	8	0	10	0	1	0	2	0	0	45	9	0	7	37	0	0	119	2098

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	64	4	280	0	12	16	24	0	8	1004	48	4	132	992	12	0	2600
Heavy Trucks	0	0	12		0	0	0		0	12	0		4	40	0		68
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

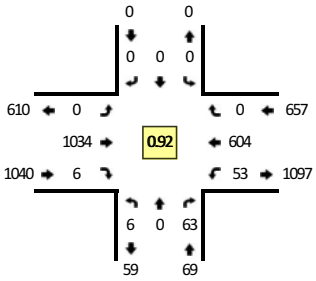
Type of peak hour being reported: Intersection Peak

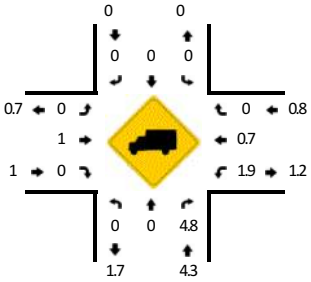
Method for determining peak hour: Total Entering Volume

LOCATION: NW Lacamas Ln -- NW Lake Rd
CITY/STATE: Camas, WA

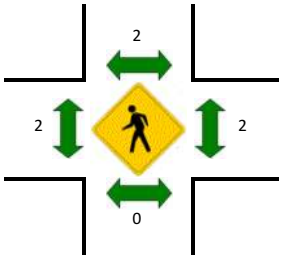
QC JOB #: 16591685
DATE: Wed, May 15 2024

Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

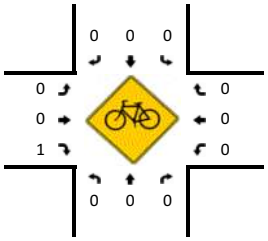


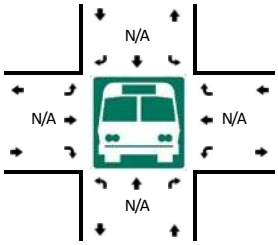


TRUE DATA TO IMPROVE MOBILITY

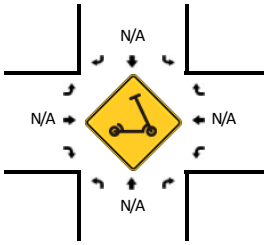












5-Min Count Period Beginning At	NW Lacamas Ln (Northbound)				NW Lacamas Ln (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	5	0	0	0	0	0	0	48	0	0	3	36	0	0	92	
4:05 PM	0	0	3	0	0	0	0	0	0	53	1	0	2	45	0	0	104	
4:10 PM	1	0	2	0	0	0	0	0	0	46	0	0	4	37	0	0	90	
4:15 PM	0	0	1	0	0	0	0	0	0	53	1	0	5	45	0	0	105	
4:20 PM	2	0	3	0	0	0	0	0	0	53	0	0	4	55	0	0	117	
4:25 PM	0	0	0	0	0	0	0	0	0	65	1	0	6	39	0	0	111	
4:30 PM	1	0	1	0	0	0	0	0	0	48	0	0	0	43	0	0	93	
4:35 PM	0	0	1	0	0	0	0	0	0	56	0	0	1	39	0	0	97	
4:40 PM	1	0	7	0	0	0	0	0	0	75	0	0	4	55	0	0	142	
4:45 PM	1	0	5	0	0	0	0	0	0	78	0	0	3	46	0	0	133	
4:50 PM	0	0	5	0	0	0	0	0	0	86	0	0	7	44	0	0	142	
4:55 PM	0	0	8	0	0	0	0	0	0	94	0	0	4	41	0	0	147	1373
5:00 PM	0	0	3	0	0	0	0	0	0	73	0	0	5	55	0	0	136	1417
5:05 PM	3	0	5	0	0	0	0	0	0	96	2	0	3	47	0	0	156	1469
5:10 PM	0	0	3	0	0	0	0	0	0	85	0	0	4	64	0	0	156	1535
5:15 PM	1	0	7	0	0	0	0	0	0	96	0	0	4	45	0	0	153	1583
5:20 PM	0	0	6	0	0	0	0	0	0	91	2	0	4	70	0	0	173	1639
5:25 PM	1	0	3	0	0	0	0	0	0	97	1	0	5	43	0	0	150	1678
5:30 PM	1	0	4	0	0	0	0	0	0	86	0	0	5	43	0	0	139	1724
5:35 PM	0	0	7	0	0	0	0	0	0	77	0	0	4	41	0	0	129	1756
5:40 PM	0	0	5	0	0	0	0	0	0	83	1	0	4	49	0	0	142	1756
5:45 PM	0	0	7	0	0	0	0	0	0	70	0	0	4	62	0	0	143	1766
5:50 PM	1	0	11	0	0	0	0	0	0	64	1	0	1	38	0	0	116	1740
5:55 PM	0	0	6	0	0	0	0	0	0	84	1	0	9	48	0	0	148	1741

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	0	64	0	0	0	0	0	0	1088	8	0	48	716	0	0	1928
Heavy Trucks	0	0	0		0	0	0		0	24	0		0	16	0		40
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

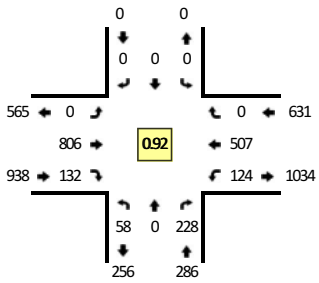
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

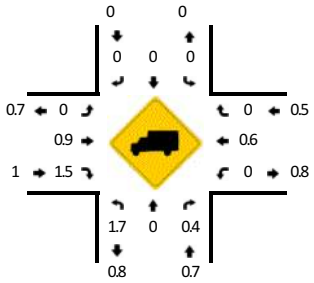
LOCATION: NW Sierra St -- NW Lake Rd
CITY/STATE: Camas, WA

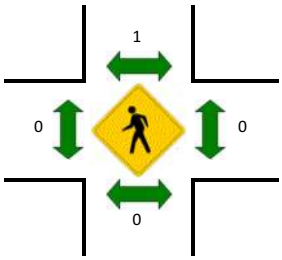
QC JOB #: 16591640
DATE: Wed, May 15 2024

Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

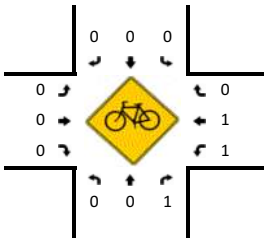


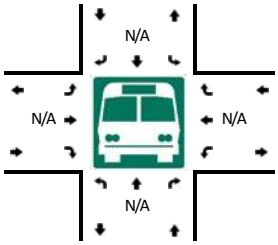
TRUE DATA TO IMPROVE MOBILITY



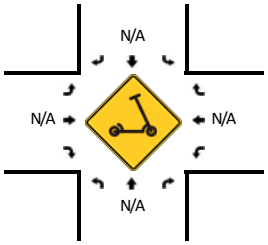












5-Min Count Period Beginning At	NW Sierra St (Northbound)				NW Sierra St (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	0	10	0	0	0	0	0	0	29	9	0	9	20	0	0	81	
4:05 PM	4	0	13	0	0	0	0	0	0	42	11	0	4	36	0	0	110	
4:10 PM	3	0	11	0	0	0	0	0	0	38	10	0	14	33	0	0	109	
4:15 PM	7	0	9	0	0	0	0	0	0	46	8	0	3	27	0	0	100	
4:20 PM	4	0	16	0	0	0	0	0	0	42	10	0	12	50	0	0	134	
4:25 PM	8	0	11	0	0	0	0	0	0	39	8	0	7	39	0	0	112	
4:30 PM	8	0	14	0	0	0	0	0	0	38	9	0	7	31	0	0	107	
4:35 PM	8	0	11	0	0	0	0	0	0	52	5	0	4	35	0	0	115	
4:40 PM	8	0	24	0	0	0	0	0	0	45	8	0	9	42	0	0	136	
4:45 PM	7	0	17	0	0	0	0	0	0	65	4	0	6	37	0	0	136	
4:50 PM	3	0	13	0	0	0	0	0	0	72	11	0	10	43	0	0	152	
4:55 PM	6	0	17	0	0	0	0	0	0	67	5	0	9	30	0	0	134	1426
5:00 PM	5	0	14	0	0	0	0	0	0	77	11	0	4	44	0	0	155	1500
5:05 PM	6	0	21	0	0	0	0	0	0	71	14	0	13	43	0	0	168	1558
5:10 PM	5	0	21	0	0	0	0	0	0	63	9	0	12	54	0	0	164	1613
5:15 PM	5	0	19	0	0	0	0	0	0	81	12	0	10	41	0	0	168	1681
5:20 PM	8	0	25	0	0	0	0	0	0	64	13	0	12	51	0	0	173	1720
5:25 PM	6	0	25	0	0	0	0	0	0	73	11	0	8	39	0	0	162	1770
5:30 PM	2	0	25	0	0	0	0	0	0	59	11	0	10	36	0	0	143	1806
5:35 PM	7	0	19	0	0	0	0	0	0	58	10	0	9	35	0	0	138	1829
5:40 PM	2	0	13	0	0	0	0	0	0	67	10	0	13	39	0	0	144	1837
5:45 PM	3	0	16	0	0	0	0	0	0	54	15	0	14	52	0	0	154	1855
5:50 PM	11	0	14	0	0	0	0	0	0	53	20	0	7	31	0	0	136	1839
5:55 PM	6	0	18	0	0	0	0	0	0	56	13	0	8	42	0	0	143	1848

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	72	0	260	0	0	0	0	0	0	832	136	0	136	584	0	0	2020
Heavy Trucks	0	0	4		0	0	0		0	12	4		0	12	0		32
Buses																	
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

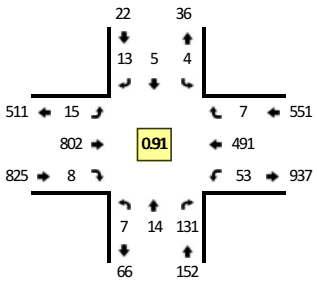
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

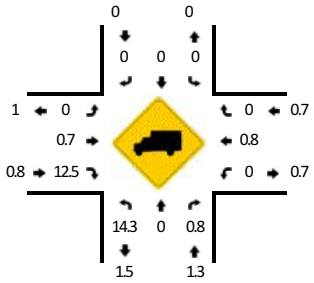
LOCATION: NW Leadbetter Dr -- NW Lake Rd
CITY/STATE: Camas, WA

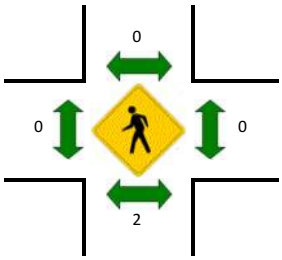
QC JOB #: 16591642
DATE: Wed, May 15 2024

Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

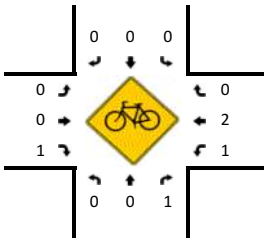


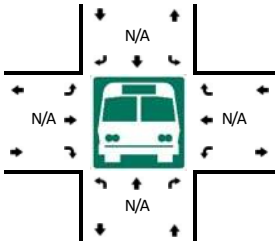
TRUE DATA TO IMPROVE MOBILITY



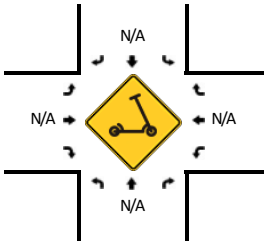












5-Min Count Period Beginning At	NW Leadbetter Dr (Northbound)				NW Leadbetter Dr (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	1	2	0	0	0	0	0	3	37	0	0	1	24	3	0	71	
4:05 PM	0	2	3	0	0	0	3	0	0	48	0	0	6	32	0	0	94	
4:10 PM	1	1	0	0	1	0	0	0	2	55	0	0	1	35	0	0	96	
4:15 PM	0	1	5	0	1	0	0	0	0	40	0	0	1	35	0	0	83	
4:20 PM	0	3	3	0	0	0	1	0	1	50	0	0	4	40	2	0	104	
4:25 PM	0	0	5	0	2	1	3	0	6	42	0	0	6	47	0	0	112	
4:30 PM	0	0	4	0	0	1	3	0	3	43	0	0	4	35	0	0	93	
4:35 PM	0	4	11	0	0	1	0	0	2	43	0	0	1	37	0	0	99	
4:40 PM	0	0	7	0	1	0	2	0	1	53	1	0	4	49	0	0	118	
4:45 PM	0	3	10	0	0	0	2	0	1	55	0	0	4	39	0	0	114	
4:50 PM	1	0	17	0	1	1	2	0	1	71	0	0	4	38	0	0	136	
4:55 PM	0	0	16	0	0	1	0	0	1	57	1	0	5	35	1	0	117	1237
5:00 PM	1	2	12	0	0	0	1	0	1	74	0	0	4	45	1	0	141	1307
5:05 PM	2	2	9	0	0	0	2	0	1	71	0	0	4	37	0	0	128	1341
5:10 PM	0	0	13	0	0	0	1	0	1	64	0	0	5	60	0	0	144	1389
5:15 PM	1	0	18	0	0	1	1	0	1	70	1	0	1	38	0	0	132	1438
5:20 PM	0	0	15	0	0	1	1	0	2	70	1	0	9	50	1	0	150	1484
5:25 PM	0	1	8	0	0	0	1	0	0	71	1	0	5	41	1	0	129	1501
5:30 PM	1	0	5	0	0	0	2	0	2	68	1	0	2	30	1	0	112	1520
5:35 PM	0	3	4	0	0	0	1	0	3	62	1	0	3	39	1	0	117	1538
5:40 PM	1	3	9	0	0	1	0	0	0	63	1	0	2	36	1	0	117	1537
5:45 PM	0	3	5	0	3	0	1	0	2	61	1	0	9	42	0	0	127	1550
5:50 PM	3	1	8	0	1	1	1	0	0	64	0	0	5	41	1	0	126	1540
5:55 PM	0	1	5	0	1	0	0	0	2	58	1	0	5	39	1	0	113	1536

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	0	184	0	0	8	12	0	16	816	8	0	60	592	4	0	1704
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	12	0		20
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		4	4	0		8
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

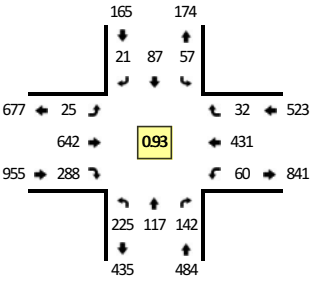
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

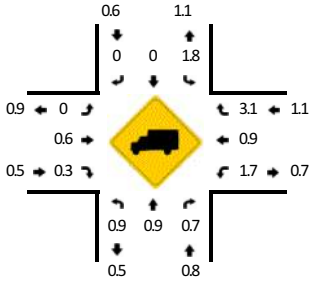
LOCATION: NW Parker St -- NW Lake Rd
CITY/STATE: Camas, WA

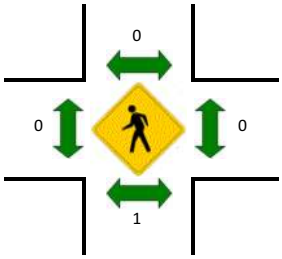
QC JOB #: 16591688
DATE: Wed, May 15 2024

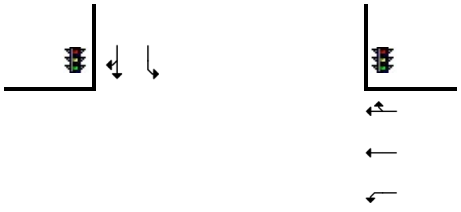
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

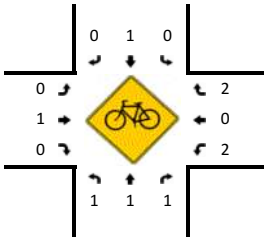


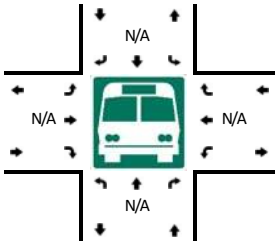
TRUE DATA TO IMPROVE MOBILITY



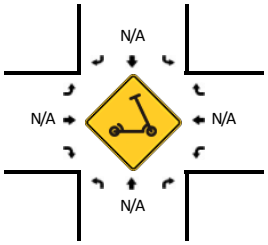












5-Min Count Period Beginning At	NW Parker St (Northbound)				NW Parker St (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	16	12	5	0	2	8	1	0	2	29	5	0	4	25	3	0	112	
4:05 PM	9	8	3	0	0	4	0	0	2	49	11	0	0	26	3	0	115	
4:10 PM	10	7	6	0	6	4	3	0	4	42	13	0	4	37	1	0	137	
4:15 PM	16	12	4	0	3	10	3	0	0	41	9	0	2	22	3	0	125	
4:20 PM	14	11	5	0	6	4	1	0	2	40	10	0	4	37	3	0	137	
4:25 PM	10	8	5	0	1	8	1	0	4	43	9	0	6	41	3	0	139	
4:30 PM	16	13	6	0	8	4	2	0	3	38	14	0	3	31	1	0	139	
4:35 PM	13	9	9	0	1	11	4	0	5	39	17	0	3	37	0	0	148	
4:40 PM	17	6	6	0	3	7	2	0	1	42	20	0	3	37	2	0	146	
4:45 PM	17	5	12	0	4	10	2	0	3	46	12	0	9	39	1	0	160	
4:50 PM	15	6	5	0	6	9	0	0	0	63	18	0	2	35	2	0	161	
4:55 PM	11	3	11	0	3	3	0	0	1	40	14	0	5	28	3	0	122	1641
5:00 PM	11	10	12	0	8	3	0	0	3	65	24	0	0	42	2	0	180	1709
5:05 PM	30	10	12	0	6	10	0	0	0	54	15	0	6	35	1	0	179	1773
5:10 PM	22	8	12	0	7	6	1	0	2	47	22	0	6	48	3	0	184	1820
5:15 PM	16	11	12	0	4	8	2	0	2	59	26	0	7	38	2	0	187	1882
5:20 PM	21	15	15	0	7	5	3	0	2	53	30	0	5	38	5	0	199	1944
5:25 PM	24	6	9	0	3	9	2	0	3	56	28	0	3	37	4	0	184	1989
5:30 PM	19	13	11	0	4	9	1	0	2	53	24	0	3	30	1	0	170	2020
5:35 PM	16	6	12	0	7	9	1	0	2	56	23	0	4	34	3	0	173	2045
5:40 PM	14	8	8	0	2	14	2	0	3	56	40	0	5	33	3	0	188	2087
5:45 PM	21	8	9	0	4	1	4	0	2	48	13	0	7	35	0	0	152	2079
5:50 PM	14	13	14	0	4	3	3	0	1	50	27	0	9	26	4	0	168	2086
5:55 PM	17	9	16	0	1	10	2	0	3	45	16	0	5	35	4	0	163	2127

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	236	136	156	0	72	76	24	0	24	636	312	0	72	496	40	0	2280
Heavy Trucks	0	0	4		4	0	0		0	4	0		0	12	0		24
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

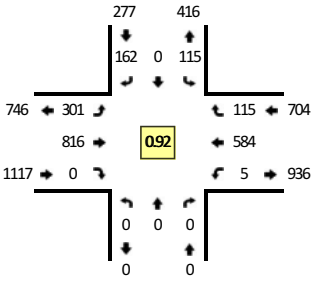
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

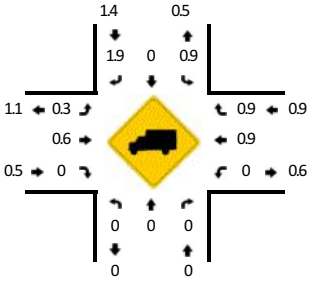
LOCATION: NW Friberg-Strunk St -- NW Lake Rd
CITY/STATE: Vancouver, WA

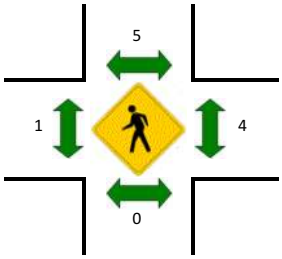
QC JOB #: 16591691
DATE: Wed, May 15 2024

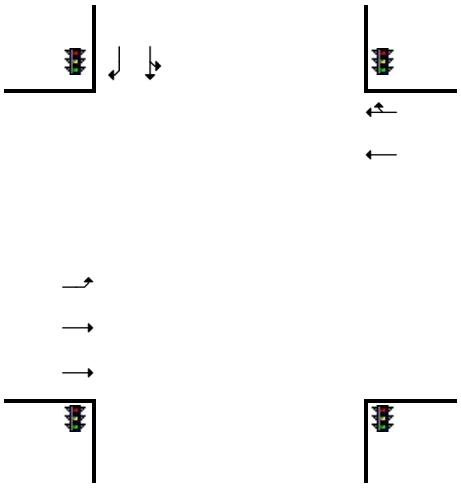
Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

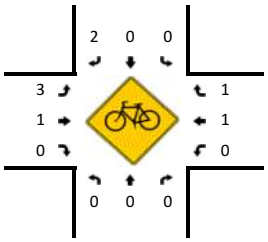


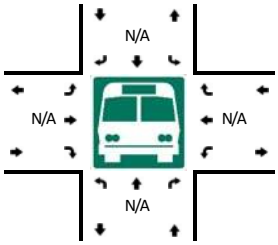
TRUE DATA TO IMPROVE MOBILITY

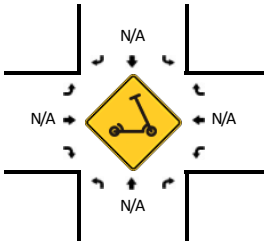












5-Min Count Period Beginning At	NW Friberg-Strunk St (Northbound)				NW Friberg-Strunk St (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	6	0	15	0	21	40	0	0	0	53	9	0	144	
4:05 PM	0	0	0	0	7	0	20	0	30	38	0	0	0	24	8	0	127	
4:10 PM	0	0	0	0	10	0	8	0	20	40	0	0	0	50	6	0	134	
4:15 PM	0	0	0	0	7	0	18	0	19	46	0	0	0	27	11	0	128	
4:20 PM	0	0	0	0	11	0	10	0	23	44	0	0	0	40	15	1	144	
4:25 PM	0	0	0	0	8	0	8	0	21	40	0	0	0	38	9	0	124	
4:30 PM	0	0	0	0	4	0	10	0	26	55	0	0	0	36	7	0	138	
4:35 PM	0	0	0	0	9	0	7	0	17	41	0	0	0	39	12	0	125	
4:40 PM	0	0	0	0	4	0	16	0	27	53	0	0	0	43	12	0	155	
4:45 PM	0	0	0	0	5	0	13	0	27	61	0	0	0	41	11	0	158	
4:50 PM	0	0	0	0	7	0	20	0	29	65	0	0	0	46	13	0	180	
4:55 PM	0	0	0	0	5	0	11	0	23	59	0	0	0	38	2	0	138	1695
5:00 PM	0	0	0	0	10	0	11	0	24	61	0	0	0	43	3	1	153	1704
5:05 PM	0	0	0	0	7	0	21	0	29	63	0	0	0	59	13	2	194	1771
5:10 PM	0	0	0	0	6	0	13	0	19	71	0	0	0	54	12	0	175	1812
5:15 PM	0	0	0	0	10	0	8	0	25	84	0	0	0	58	12	2	199	1883
5:20 PM	0	0	0	0	18	0	13	0	28	68	0	0	0	46	14	0	187	1926
5:25 PM	0	0	0	0	11	0	17	0	21	67	0	0	0	44	16	0	176	1978
5:30 PM	0	0	0	0	5	0	13	0	31	74	0	0	0	48	8	0	179	2019
5:35 PM	0	0	0	0	18	0	11	0	19	55	0	0	0	48	9	0	160	2054
5:40 PM	0	0	0	0	8	0	7	0	30	81	0	0	0	52	6	0	184	2083
5:45 PM	0	0	0	0	10	0	17	0	23	68	0	0	0	48	7	0	173	2098
5:50 PM	0	0	0	0	10	0	13	0	30	53	0	0	0	49	7	0	162	2080
5:55 PM	0	0	0	0	3	0	10	0	17	44	0	0	0	51	8	0	133	2075

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	92	0	168	0	292	872	0	0	0	684	148	16	2272
Heavy Trucks	0	0	0		0	0	8		0	0	0		0	12	0		20
Buses																	
Pedestrians		0				4				4				0			8
Bicycles	0	0	0		0	0	4		0	0	0		0	4	0		8
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

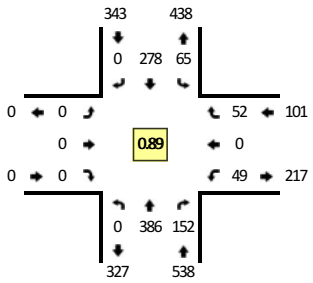
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

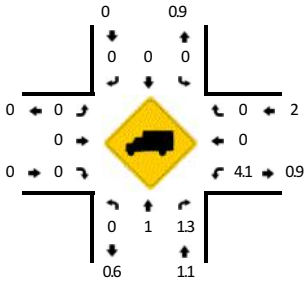
LOCATION: NW Parker St -- NW Leadbetter Dr
CITY/STATE: Camas, WA

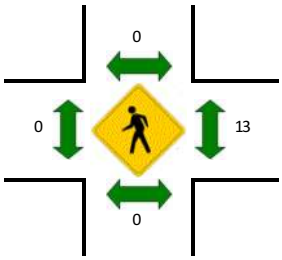
QC JOB #: 16591644
DATE: Wed, May 15 2024

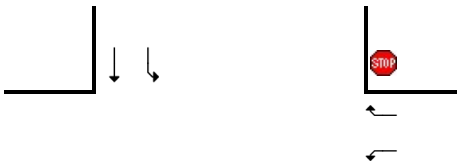
Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 5:05 PM -- 5:20 PM

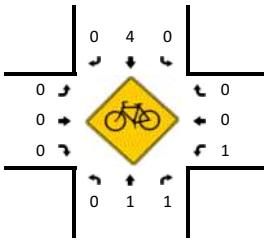


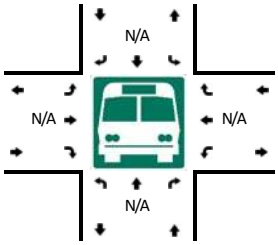




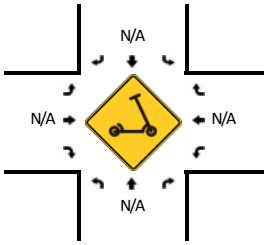












5-Min Count Period Beginning At	NW Parker St (Northbound)				NW Parker St (Southbound)				NW Leadbetter Dr (Eastbound)				NW Leadbetter Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	27	5	0	1	19	0	0	0	0	0	0	4	0	1	0	57	
4:05 PM	0	13	3	0	5	17	0	0	0	0	0	0	4	0	2	0	44	
4:10 PM	0	22	4	0	3	14	0	0	0	0	0	0	2	0	2	0	47	
4:15 PM	0	32	4	0	2	20	0	0	0	0	0	0	2	0	5	0	65	
4:20 PM	0	27	10	0	1	18	0	0	0	0	0	0	4	0	5	0	65	
4:25 PM	0	30	2	0	2	21	0	0	0	0	0	0	6	0	5	0	66	
4:30 PM	0	37	8	0	5	29	0	0	0	0	0	0	4	0	3	0	86	
4:35 PM	0	28	13	0	6	15	0	0	0	0	0	0	4	0	5	0	71	
4:40 PM	0	30	9	0	6	32	0	0	0	0	0	0	2	0	9	0	88	
4:45 PM	0	27	18	0	2	25	0	0	0	0	0	0	7	0	7	0	86	
4:50 PM	0	27	17	0	2	28	0	0	0	0	0	0	3	0	5	0	82	
4:55 PM	0	19	14	0	2	14	0	0	0	0	0	0	3	0	5	0	57	814
5:00 PM	0	32	7	0	8	12	0	0	0	0	0	0	3	0	1	0	63	820
5:05 PM	0	38	12	0	8	21	0	0	0	0	0	0	3	0	4	0	86	862
5:10 PM	0	41	15	0	6	33	0	0	0	0	0	0	2	0	2	0	99	914
5:15 PM	0	37	14	0	5	26	0	0	0	0	0	0	6	0	2	0	90	939
5:20 PM	0	34	15	0	7	17	0	0	0	0	0	0	5	0	5	0	83	957
5:25 PM	0	36	10	0	8	26	0	0	0	0	0	0	7	0	4	0	91	982
5:30 PM	0	32	7	0	6	24	0	0	0	0	0	0	3	0	7	0	79	975
5:35 PM	0	26	11	0	6	17	0	0	0	0	0	0	2	0	7	0	69	973
5:40 PM	0	20	10	0	7	28	0	0	0	0	0	0	3	0	5	0	73	958
5:45 PM	0	36	7	0	3	21	0	0	0	0	0	0	6	0	3	0	76	948
5:50 PM	0	28	10	0	7	20	0	0	0	0	0	0	4	0	3	0	72	938
5:55 PM	0	29	12	0	8	27	0	0	0	0	0	0	4	0	7	0	87	968

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	464	164	0	76	320	0	0	0	0	0	0	44	0	32	0	1100
Heavy Trucks	0	4	0		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				0				0				8			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

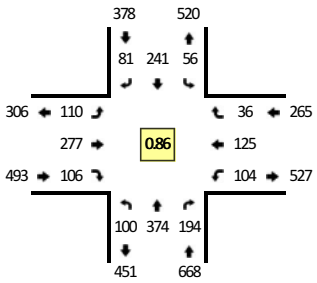
Type of peak hour being reported: Intersection Peak

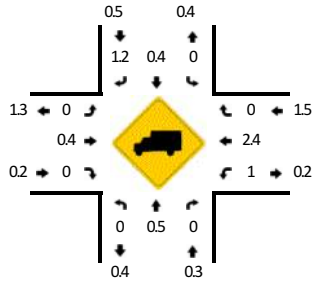
Method for determining peak hour: Total Entering Volume

LOCATION: NW Parker St -- NW 38th Ave
CITY/STATE: Camas, WA

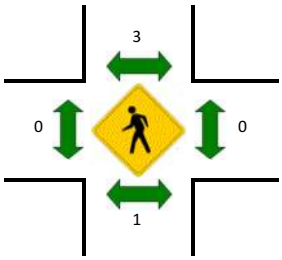
QC JOB #: 16591646
DATE: Wed, May 15 2024

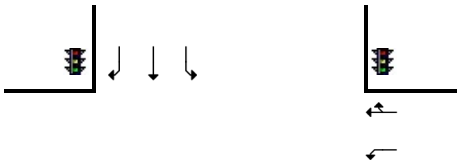
Peak-Hour: 4:40 PM -- 5:40 PM
Peak 15-Min: 5:10 PM -- 5:25 PM

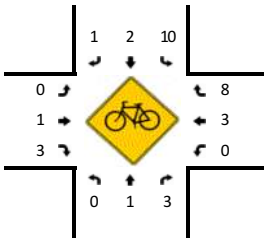


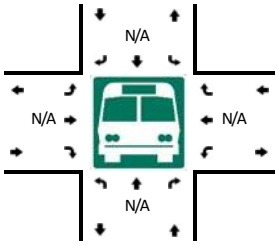


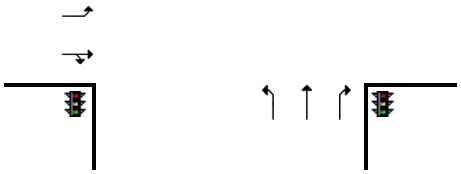
TRUE DATA TO IMPROVE MOBILITY

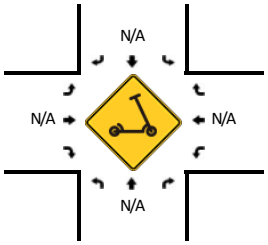












5-Min Count Period Beginning At	NW Parker St (Northbound)				NW Parker St (Southbound)				NW 38th Ave (Eastbound)				NW 38th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	7	22	9	0	5	12	5	0	7	16	6	0	6	5	3	0	103	
4:05 PM	6	17	15	0	2	16	5	0	5	21	8	0	13	11	2	0	121	
4:10 PM	4	21	6	0	2	11	2	0	4	18	9	0	6	7	1	0	91	
4:15 PM	6	20	7	0	5	12	4	0	8	20	20	0	12	6	4	0	124	
4:20 PM	11	18	8	0	1	16	6	0	18	22	9	0	8	13	4	0	134	
4:25 PM	2	23	17	0	4	11	4	0	8	21	6	0	8	11	4	0	119	
4:30 PM	9	20	13	0	7	25	5	0	11	13	10	0	9	7	4	0	133	
4:35 PM	7	27	12	0	3	13	5	0	10	22	4	0	3	9	5	0	120	
4:40 PM	3	29	19	0	4	22	5	0	7	19	8	0	10	7	4	0	137	
4:45 PM	13	30	14	0	4	29	5	0	12	23	10	0	7	13	4	0	164	
4:50 PM	9	29	11	0	3	20	7	0	10	21	11	0	7	7	1	0	136	
4:55 PM	9	27	17	0	2	13	3	0	10	29	7	0	8	9	1	0	135	1517
5:00 PM	6	27	10	0	3	11	4	0	6	26	13	0	8	11	3	0	128	1542
5:05 PM	5	39	21	0	4	16	4	0	6	22	7	0	9	10	2	0	145	1566
5:10 PM	10	36	15	0	6	28	9	0	17	24	9	0	9	8	4	0	175	1650
5:15 PM	6	37	16	0	10	24	11	0	8	29	12	0	6	13	6	0	178	1704
5:20 PM	9	43	31	0	4	21	5	0	10	24	4	0	10	10	3	0	174	1744
5:25 PM	12	28	12	0	9	22	11	0	3	16	13	0	8	16	4	0	154	1779
5:30 PM	7	21	18	0	6	17	12	0	11	27	8	0	12	11	3	0	153	1799
5:35 PM	11	28	10	0	1	18	5	0	10	17	4	0	10	10	1	0	125	1804
5:40 PM	8	23	14	0	11	15	7	0	6	20	13	0	3	8	3	0	131	1798
5:45 PM	11	28	6	0	5	19	4	0	7	18	9	0	7	12	7	0	133	1767
5:50 PM	7	22	9	0	7	20	4	0	7	19	10	0	6	12	7	0	130	1761
5:55 PM	7	28	17	0	6	24	4	0	9	15	13	0	6	11	6	0	146	1772

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	100	464	248	0	80	292	100	0	140	308	100	0	100	124	52	0	2108
Heavy Trucks	0	0	0		0	0	0		0	0	0		4	4	0		8
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	4		8	0	0		0	0	0		0	4	0		16
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

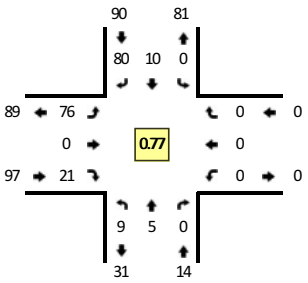
Type of peak hour being reported: Intersection Peak

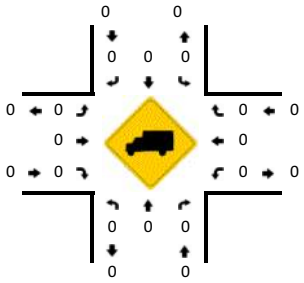
Method for determining peak hour: Total Entering Volume

LOCATION: NE 232nd Ave -- N Shore Blvd
CITY/STATE: Camas, WA

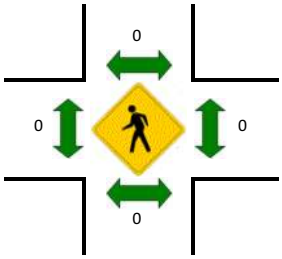
QC JOB #: 16591694
DATE: Wed, May 15 2024

Peak-Hour: 4:25 PM -- 5:25 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

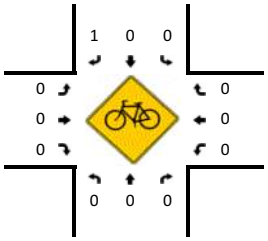


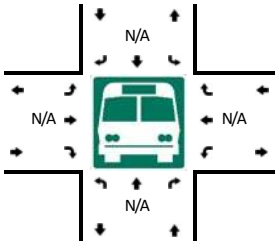


TRUE DATA TO IMPROVE MOBILITY

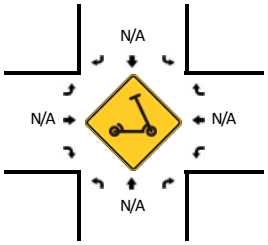












5-Min Count Period Beginning At	NE 232nd Ave (Northbound)				NE 232nd Ave (Southbound)				N Shore Blvd (Eastbound)				N Shore Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	4	0	9	0	0	0	0	0	0	0	13	
4:05 PM	0	2	0	0	0	1	3	0	2	0	2	0	0	0	0	0	10	
4:10 PM	0	2	0	0	0	0	7	0	7	0	0	0	0	0	0	0	16	
4:15 PM	2	0	0	0	0	0	3	0	8	0	0	0	0	0	0	0	13	
4:20 PM	0	0	0	0	0	0	2	0	5	0	0	0	0	0	0	0	7	
4:25 PM	0	0	0	0	0	0	6	0	5	0	0	0	0	0	0	0	11	
4:30 PM	0	0	0	0	0	0	5	0	5	0	1	0	0	0	0	0	11	
4:35 PM	0	1	0	0	0	0	1	0	5	0	1	0	0	0	0	0	8	
4:40 PM	0	2	0	0	0	1	10	0	8	0	2	0	0	0	0	0	23	
4:45 PM	0	0	0	0	0	1	4	0	4	0	1	0	0	0	0	0	10	
4:50 PM	0	0	0	0	0	3	4	0	9	0	3	0	0	0	0	0	19	
4:55 PM	1	0	0	0	0	1	13	0	3	0	3	0	0	0	0	0	21	162
5:00 PM	2	0	0	0	0	2	3	0	9	0	6	0	0	0	0	0	22	171
5:05 PM	2	1	0	0	0	2	1	0	13	0	1	0	0	0	0	0	20	181
5:10 PM	2	0	0	0	0	0	14	0	6	0	1	0	0	0	0	0	23	188
5:15 PM	0	0	0	0	0	0	7	0	4	0	0	0	0	0	0	0	11	186
5:20 PM	2	1	0	0	0	0	12	0	5	0	2	0	0	0	0	0	22	201
5:25 PM	1	0	0	0	0	0	4	0	2	0	0	0	0	0	0	0	7	197
5:30 PM	0	0	0	0	0	0	11	0	3	0	0	0	0	0	0	0	14	200
5:35 PM	0	0	0	0	0	0	7	0	1	0	0	0	0	0	0	0	8	200
5:40 PM	0	0	0	0	0	0	2	0	6	0	0	0	0	0	0	0	8	185
5:45 PM	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	4	179
5:50 PM	0	1	0	0	0	0	9	0	9	0	1	0	0	0	0	0	20	180
5:55 PM	0	0	0	0	0	0	7	0	8	0	0	0	0	0	0	0	15	174

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	4	0	0	0	16	72	0	112	0	32	0	0	0	0	0	260
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	4		0	0	0		0	0	0		4
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

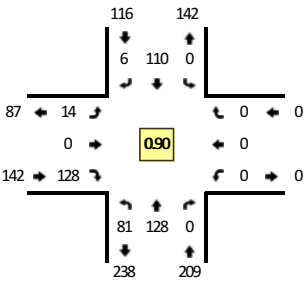
Type of peak hour being reported: Intersection Peak

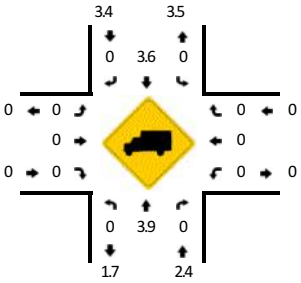
Method for determining peak hour: Total Entering Volume

LOCATION: SE 283rd Ave -- SE 15th St
CITY/STATE: Camas, WA

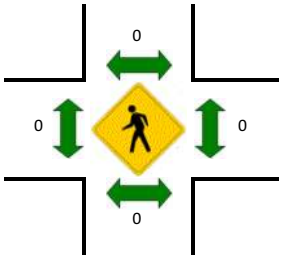
QC JOB #: 16591648
DATE: Wed, May 15 2024

Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 4:55 PM -- 5:10 PM

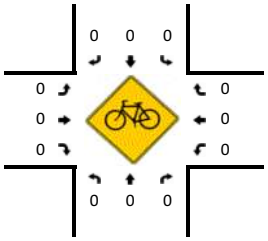


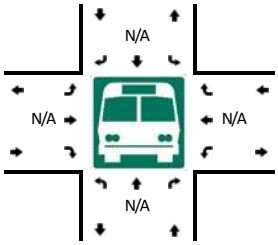


TRUE DATA TO IMPROVE MOBILITY

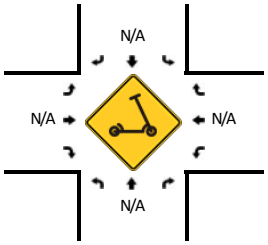












5-Min Count Period Beginning At	SE 283rd Ave (Northbound)				SE 283rd Ave (Southbound)				SE 15th St (Eastbound)				SE 15th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	5	8	0	0	0	8	0	0	4	0	2	0	0	0	0	0	27	
4:05 PM	4	8	0	0	0	9	1	0	1	0	5	0	0	0	0	0	28	
4:10 PM	8	9	0	0	0	9	0	0	1	0	5	0	0	0	0	0	32	
4:15 PM	6	2	0	0	0	8	1	0	0	0	3	0	0	0	0	0	20	
4:20 PM	5	17	0	0	0	3	0	0	0	0	5	0	0	0	0	0	30	
4:25 PM	2	11	0	0	0	6	1	0	0	0	10	0	0	0	0	0	30	
4:30 PM	5	9	0	0	0	8	0	0	2	0	5	0	0	0	0	0	29	
4:35 PM	3	6	0	0	0	2	1	0	0	0	5	0	0	0	0	0	17	
4:40 PM	5	10	0	0	0	8	1	0	1	0	8	0	0	0	0	0	33	
4:45 PM	4	8	0	0	0	8	1	0	1	0	7	0	0	0	0	0	29	
4:50 PM	9	11	0	0	0	6	1	0	0	0	8	0	0	0	0	0	35	
4:55 PM	4	19	0	0	0	2	1	0	1	0	8	0	0	0	0	0	35	345
5:00 PM	5	12	0	0	0	10	0	0	2	0	15	0	0	0	0	0	44	362
5:05 PM	10	20	0	0	0	14	0	0	2	0	5	0	0	0	0	0	51	385
5:10 PM	7	8	0	0	0	9	0	0	1	0	7	0	0	0	0	0	32	385
5:15 PM	6	12	0	0	0	12	1	0	0	0	9	0	0	0	0	0	40	405
5:20 PM	8	11	0	0	0	9	0	0	1	0	20	0	0	0	0	0	49	424
5:25 PM	6	5	0	0	0	10	2	0	1	0	15	0	0	0	0	0	39	433
5:30 PM	5	7	0	0	0	4	1	0	1	0	13	0	0	0	0	0	31	435
5:35 PM	6	10	0	0	0	8	0	0	2	0	11	0	0	0	0	0	37	455
5:40 PM	9	6	0	0	0	7	0	0	2	0	9	0	0	0	0	0	33	455
5:45 PM	6	7	0	0	0	19	0	0	1	0	8	0	0	0	0	0	41	467
5:50 PM	6	15	0	0	0	5	1	0	1	0	7	0	0	0	0	0	35	467
5:55 PM	6	9	0	0	0	7	0	0	1	0	8	0	0	0	0	0	31	463

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	76	204	0	0	0	104	4	0	20	0	112	0	0	0	0	0	520
Heavy Trucks	0	12	0		0	0	0		0	0	0		0	0	0		12
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

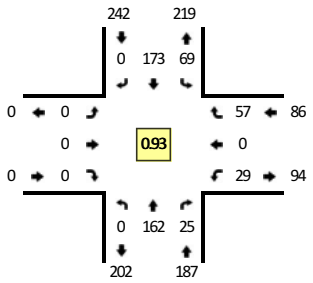
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: SE 283rd Ave -- SE 23rd St
CITY/STATE: Camas, WA

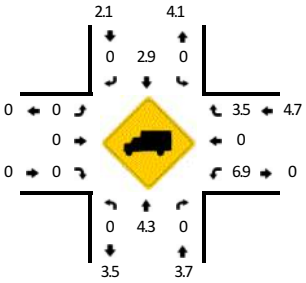
QC JOB #: 16591632
DATE: Wed, May 15 2024

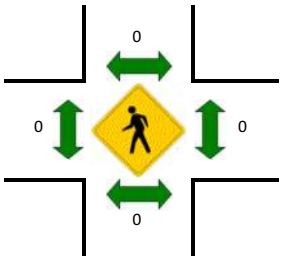
Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:00 PM -- 5:15 PM



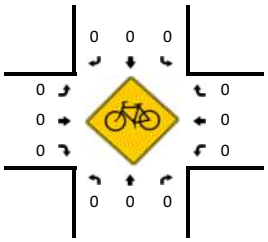


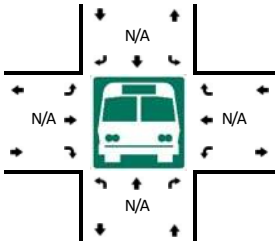
TRUE DATA TO IMPROVE MOBILITY



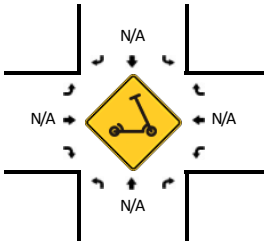












5-Min Count Period Beginning At	SE 283rd Ave (Northbound)				SE 283rd Ave (Southbound)				SE 23rd St (Eastbound)				SE 23rd St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	8	2	0	6	5	0	0	0	0	0	0	4	0	4	0	29	
4:05 PM	0	12	5	0	5	8	0	0	0	0	0	0	2	0	3	0	35	
4:10 PM	0	10	1	0	2	11	0	0	0	0	0	0	3	0	7	0	34	
4:15 PM	0	8	2	0	4	8	0	0	0	0	0	0	3	0	0	0	25	
4:20 PM	0	17	0	0	2	6	0	0	0	0	0	0	4	0	5	0	34	
4:25 PM	0	11	2	0	2	16	0	0	0	0	0	0	1	0	3	0	35	
4:30 PM	0	10	2	0	6	8	0	0	0	0	0	0	1	0	3	0	30	
4:35 PM	0	11	3	0	5	1	0	0	0	0	0	0	1	0	1	0	22	
4:40 PM	0	9	1	0	3	13	0	0	0	0	0	0	1	0	4	0	31	
4:45 PM	0	14	3	0	1	11	0	0	0	0	0	0	1	0	1	0	31	
4:50 PM	0	18	2	0	9	10	0	0	0	0	0	0	3	0	3	0	45	
4:55 PM	0	13	2	0	4	5	0	0	0	0	0	0	2	0	6	0	32	383
5:00 PM	0	17	1	0	6	18	0	0	0	0	0	0	5	0	3	0	50	404
5:05 PM	0	22	3	0	7	13	0	0	0	0	0	0	1	0	8	0	54	423
5:10 PM	0	8	3	0	5	12	0	0	0	0	0	0	2	0	5	0	35	424
5:15 PM	0	17	3	0	2	17	0	0	0	0	0	0	3	0	3	0	45	444
5:20 PM	0	8	1	0	9	21	0	0	0	0	0	0	3	0	8	0	50	460
5:25 PM	0	11	0	0	4	20	0	0	0	0	0	0	2	0	5	0	42	467
5:30 PM	0	12	1	0	9	12	0	0	0	0	0	0	0	0	2	0	36	473
5:35 PM	0	13	1	0	6	12	0	0	0	0	0	0	4	0	4	0	40	491
5:40 PM	0	9	4	0	4	12	0	0	0	0	0	0	0	0	4	0	33	493
5:45 PM	0	14	4	0	4	21	0	0	0	0	0	0	4	0	6	0	53	515
5:50 PM	0	13	1	0	3	13	0	0	0	0	0	0	1	0	6	0	37	507
5:55 PM	0	10	1	0	3	12	0	0	0	0	0	0	2	0	2	0	30	505

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	188	28	0	72	172	0	0	0	0	0	0	32	0	64	0	556
Heavy Trucks	0	12	0		0	4	0		0	0	0		8	0	0		24
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

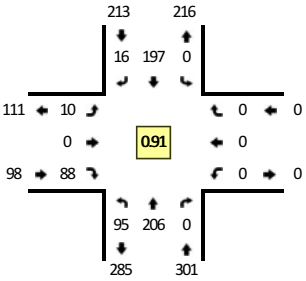
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

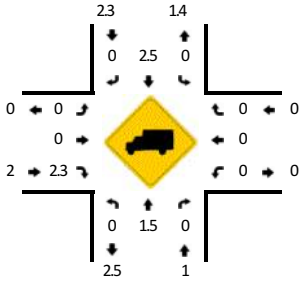
LOCATION: SE 283rd Ave -- NE Woodburn Dr
CITY/STATE: Camas, WA

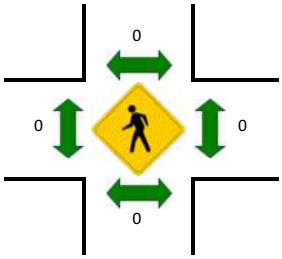
QC JOB #: 165916100
DATE: Wed, May 15 2024

Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

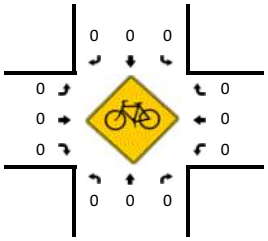


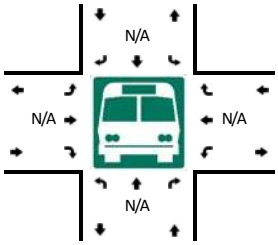




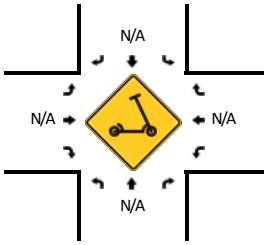












5-Min Count Period Beginning At	SE 283rd Ave (Northbound)				SE 283rd Ave (Southbound)				NE Woodburn Dr (Eastbound)				NE Woodburn Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	7	9	0	0	0	8	1	0	1	0	5	0	0	0	0	0	31	
4:05 PM	3	20	0	0	0	9	0	0	1	0	9	0	0	0	0	0	42	
4:10 PM	10	12	0	0	0	13	0	0	0	0	3	0	0	0	0	0	38	
4:15 PM	7	14	0	0	0	10	1	0	0	0	5	0	0	0	0	0	37	
4:20 PM	6	17	0	0	0	7	3	0	0	0	8	0	0	0	0	0	41	
4:25 PM	4	14	0	0	0	16	0	0	1	0	4	0	0	0	0	0	39	
4:30 PM	4	11	0	0	0	6	3	0	2	0	6	0	0	0	0	0	32	
4:35 PM	5	15	0	0	0	1	0	0	0	0	8	0	0	0	0	0	29	
4:40 PM	4	11	0	0	0	12	2	0	0	0	4	0	0	0	0	0	33	
4:45 PM	2	18	0	0	0	13	1	0	4	0	1	0	0	0	0	0	39	
4:50 PM	4	20	0	0	0	9	4	0	0	0	9	0	0	0	0	0	46	
4:55 PM	12	16	0	0	0	4	3	0	1	0	6	0	0	0	0	0	42	449
5:00 PM	7	18	0	0	0	23	1	0	0	0	11	0	0	0	0	0	60	478
5:05 PM	11	33	0	0	0	14	1	0	1	0	5	0	0	0	0	0	65	501
5:10 PM	5	13	0	0	0	13	0	0	1	0	12	0	0	0	0	0	44	507
5:15 PM	4	25	0	0	0	19	2	0	1	0	6	0	0	0	0	0	57	527
5:20 PM	5	8	0	0	0	24	0	0	1	0	4	0	0	0	0	0	42	528
5:25 PM	7	15	0	0	0	20	1	0	0	0	8	0	0	0	0	0	51	540
5:30 PM	10	17	0	0	0	13	0	0	0	0	3	0	0	0	0	0	43	551
5:35 PM	11	14	0	0	0	15	1	0	0	0	8	0	0	0	0	0	49	571
5:40 PM	7	16	0	0	0	10	1	0	2	0	10	0	0	0	0	0	46	584
5:45 PM	6	20	0	0	0	21	5	0	2	0	4	0	0	0	0	0	58	603
5:50 PM	11	14	0	0	0	12	2	0	1	0	6	0	0	0	0	0	46	603
5:55 PM	11	13	0	0	0	13	2	0	1	0	11	0	0	0	0	0	51	612

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	92	256	0	0	0	200	8	0	8	0	112	0	0	0	0	0	676
Heavy Trucks	0	8	0		0	12	0		0	0	0		0	0	0		20
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

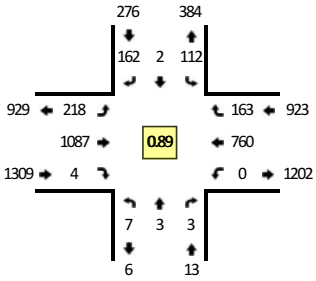
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

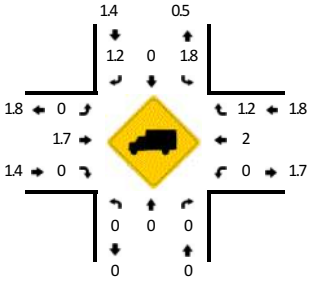
LOCATION: SE Crown Rd -- NE 3rd Ave
CITY/STATE: Camas, WA

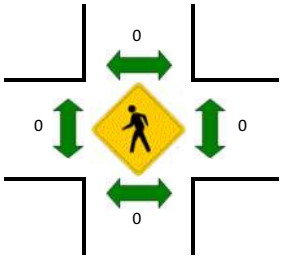
QC JOB #: 16591634
DATE: Wed, May 15 2024

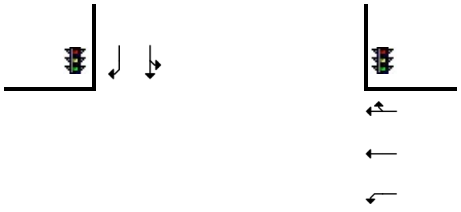
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Peak 15-Min: 4:50 PM -- 5:05 PM

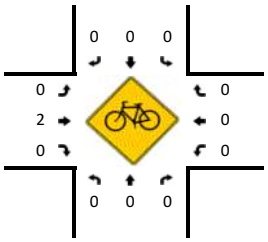


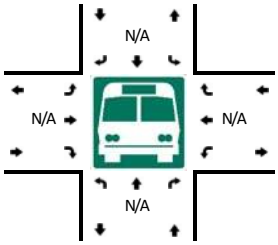
TRUE DATA TO IMPROVE MOBILITY

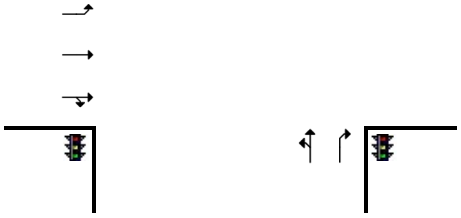


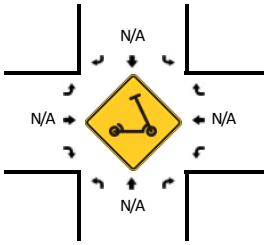












5-Min Count Period Beginning At	SE Crown Rd (Northbound)				SE Crown Rd (Southbound)				NE 3rd Ave (Eastbound)				NE 3rd Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	0	0	0	3	0	12	0	13	33	0	0	0	41	11	0	115	
4:05 PM	0	0	0	0	9	0	20	0	26	39	1	0	0	31	6	0	132	
4:10 PM	0	0	0	0	2	0	21	0	21	50	0	0	0	35	8	0	137	
4:15 PM	0	0	0	0	5	0	10	0	16	77	0	0	0	29	15	0	152	
4:20 PM	0	0	0	0	7	0	20	0	9	84	0	0	0	41	14	0	175	
4:25 PM	0	0	0	0	7	0	20	0	14	76	0	0	0	48	11	0	176	
4:30 PM	1	0	0	0	6	0	15	0	10	75	1	0	0	61	12	0	181	
4:35 PM	2	0	0	0	4	0	9	0	21	75	1	0	1	73	6	0	192	
4:40 PM	1	0	0	0	9	0	16	0	14	90	0	0	0	79	10	0	219	
4:45 PM	2	0	1	0	5	0	17	0	9	85	0	0	0	97	14	0	230	
4:50 PM	0	0	1	0	7	0	19	0	16	84	0	0	0	102	20	0	249	
4:55 PM	1	0	0	0	7	1	7	0	28	84	1	0	0	75	20	0	224	2182
5:00 PM	0	1	0	0	11	0	16	0	13	91	0	0	0	82	18	0	232	2299
5:05 PM	0	0	0	0	5	0	14	0	13	100	0	0	0	69	20	0	221	2388
5:10 PM	0	0	0	0	1	0	8	0	13	108	0	0	0	55	15	0	200	2451
5:15 PM	1	0	0	0	21	1	14	0	13	101	0	0	0	37	13	0	201	2500
5:20 PM	0	0	0	0	14	0	16	0	22	83	0	0	0	45	7	0	187	2512
5:25 PM	0	0	1	0	12	0	12	0	23	85	2	0	0	41	7	0	183	2519
5:30 PM	1	1	0	0	13	0	10	0	26	85	0	0	0	36	8	0	180	2518
5:35 PM	1	1	0	0	7	0	13	0	28	91	1	0	0	42	11	0	195	2521
5:40 PM	1	0	0	0	16	0	13	0	26	65	0	0	0	29	5	0	155	2457
5:45 PM	0	2	0	0	11	0	9	0	18	51	1	0	0	32	18	0	142	2369
5:50 PM	0	0	0	0	7	0	20	0	17	66	0	0	0	47	14	0	171	2291
5:55 PM	0	0	0	0	10	0	14	0	17	40	0	0	0	46	13	0	140	2207

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	4	4	0	100	4	168	0	228	1036	4	0	0	1036	232	0	2820
Heavy Trucks	0	0	0		4	0	4		0	16	0		0	24	4		52
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 6/24/2024 4:40 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Appendix D: Existing Conditions Analysis Worksheets

Intersection Level Of Service Report

Intersection 1: NE 232nd Avenue & NE 28th Street

Control Type:	Two-way stop	Delay (sec / veh):	33.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.466

Intersection Setup

Name	NE 232nd Avenue			NE 232nd Avenue			NE 28th Street			NE 28th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			25.00			40.00			40.00		
Grade [%]	0.02			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	NE 232nd Avenue			NE 232nd Avenue			NE 28th Street			NE 28th Street		
Base Volume Input [veh/h]	78	2	35	0	5	5	2	124	125	73	225	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.00	0.00	6.00	0.00	0.00	0.00	0.00	8.00	12.00	11.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	78	2	35	0	5	5	2	124	125	73	225	0
Peak Hour Factor	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	1	12	0	2	2	1	44	44	26	79	0
Total Analysis Volume [veh/h]	110	3	49	0	7	7	3	175	176	103	317	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.47	0.01	0.06	0.00	0.03	0.01	0.00	0.00	0.00	0.09	0.00	0.00
d_M, Delay for Movement [s/veh]	33.67	32.06	23.18	20.08	19.42	10.31	7.87	0.00	0.00	8.23	0.00	0.00
Movement LOS	D	D	C	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	3.02	3.02	3.02	0.11	0.11	0.11	0.01	0.01	0.01	0.18	0.18	0.18
95th-Percentile Queue Length [ft/ln]	75.55	75.55	75.55	2.87	2.87	2.87	0.14	0.14	0.14	4.55	4.55	4.55
d_A, Approach Delay [s/veh]	30.47			14.86			0.07			2.02		
Approach LOS	D			B			A			A		
d_I, Intersection Delay [s/veh]	6.33											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 2: SR 500 & NE 28th Street

Control Type:	Two-way stop	Delay (sec / veh):	19.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.341

Intersection Setup

Name	Private Driveway			SR 500			NE 28th Street			SR 500		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	20.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Private Driveway			SR 500			NE 28th Street			SR 500		
Base Volume Input [veh/h]	0	0	0	116	0	65	24	135	0	0	227	102
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	15.00	0.00	6.00	4.00	6.00	0.00	0.00	3.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	116	0	65	24	135	0	0	227	102
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	35	0	20	7	41	0	0	68	31
Total Analysis Volume [veh/h]	0	0	0	140	0	78	29	163	0	0	273	123
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.34	0.00	0.11	0.03	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.94	14.07	9.06	19.78	19.39	16.18	8.16	0.00	0.00	7.52	0.00	0.00
Movement LOS	B	B	A	C	C	C	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	2.32	2.32	2.32	0.05	0.05	0.05	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	57.88	57.88	57.88	1.23	1.23	1.23	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.69			18.49			1.23			0.00		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	5.29											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 3: NE Everett Street & SE 8th Street

Control Type:	Two-way stop	Delay (sec / veh):	23.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.228

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Base Volume Input [veh/h]	175	60	34	342	34	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	0.00	0.00	2.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	175	60	34	342	34	46
Peak Hour Factor	0.5900	0.5900	0.5900	0.5900	0.5900	0.5900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	74	25	14	145	14	19
Total Analysis Volume [veh/h]	297	102	58	580	58	78
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.05	0.01	0.23	0.10
d_M, Delay for Movement [s/veh]	0.00	0.00	8.14	0.00	23.47	14.14
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.10	0.10	1.43	1.43
95th-Percentile Queue Length [ft/ln]	0.00	0.00	2.50	2.50	35.84	35.84
d_A, Approach Delay [s/veh]	0.00		0.74		18.12	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.50					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	30.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.363

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	203	132	96	276	55	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	0.00	3.00	4.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	203	132	96	276	55	31
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	73	47	34	99	20	11
Total Analysis Volume [veh/h]	290	189	137	394	79	44
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.13	0.00	0.36	0.07
d_M, Delay for Movement [s/veh]	0.00	0.00	8.76	0.00	30.68	19.52
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.43	0.00	2.05	2.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	10.70	0.00	51.27	51.27
d_A, Approach Delay [s/veh]	0.00		2.26		26.69	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	3.96					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 5: NE Everett Street & SE Leadbetter Road

Control Type:	Two-way stop	Delay (sec / veh):	31.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.222

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.04		-0.02		0.03	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Base Volume Input [veh/h]	74	303	323	15	36	150
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	8.00	4.00	4.00	0.00	3.00	9.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	74	303	323	15	36	150
Peak Hour Factor	0.7800	0.7800	0.7800	0.7800	0.7800	0.7800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	97	104	5	12	48
Total Analysis Volume [veh/h]	95	388	414	19	46	192
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.00	0.00	0.00	0.22	0.32
d_M, Delay for Movement [s/veh]	8.60	0.00	0.00	0.00	31.85	20.51
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.28	0.00	0.00	0.00	3.19	3.19
95th-Percentile Queue Length [ft/ln]	7.11	0.00	0.00	0.00	79.69	79.69
d_A, Approach Delay [s/veh]	1.69		0.00		22.70	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	5.39					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 6: NE Everett Street & NE 43rd Avenue

Control Type:	Signalized	Delay (sec / veh):	12.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.687

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	300.00	120.00	100.00	100.00	80.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.03		-0.04		-0.04	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Base Volume Input [veh/h]	316	468	74	400	323	57
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	5.00	18.00	4.00	11.00	4.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	316	0	74	400	323	57
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	92	0	22	116	94	17
Total Analysis Volume [veh/h]	367	0	86	465	376	66
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	ProtPerm	Permissive	Permissive	Permissive
Signal Group	2	0	1	6	8	0
Auxiliary Signal Groups						
Maximum Green [s]	40	0	20	40	40	0
Amber [s]	4.0	0.0	3.0	4.0	3.0	0.0
All red [s]	1.0	0.0	2.0	1.0	1.0	0.0
Walk [s]	7	0	0	0	7	0
Pedestrian Clearance [s]	14	0	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.0	0.0	3.0	3.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	14	0	9	14	9	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	5	0	4	5	4	0
Vehicle Extension [s]	5.0	0.0	3.0	3.5	3.0	0.0
Minimum Recall	Yes		No	Yes	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	40	40	40	40	40	40
L, Total Lost Time per Cycle [s]	5.00	5.00	5.00	5.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.00	3.00	0.00	3.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	19	19	12	12
g / C, Green / Cycle	0.30	0.30	0.49	0.49	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.21	0.00	0.08	0.25	0.23	0.04
s, saturation flow rate [veh/h]	1737	1451	1075	1840	1653	1564
c, Capacity [veh/h]	518	433	614	893	479	453
d1, Uniform Delay [s]	12.49	0.00	6.37	7.08	13.07	10.54
k, delay calibration	0.23	0.23	0.11	0.13	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.80	0.00	0.10	0.57	2.89	0.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.00	0.14	0.52	0.79	0.15
d, Delay for Lane Group [s/veh]	16.28	0.00	6.48	7.65	15.97	10.69
Lane Group LOS	B	A	A	A	B	B
Critical Lane Group	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	2.72	0.00	0.25	1.75	2.92	0.38
50th-Percentile Queue Length [ft/ln]	67.88	0.00	6.32	43.73	73.04	9.44
95th-Percentile Queue Length [veh/ln]	4.89	0.00	0.46	3.15	5.26	0.68
95th-Percentile Queue Length [ft/ln]	122.18	0.00	11.38	78.71	131.47	16.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.28	0.00	6.48	7.65	15.97	10.69
Movement LOS	B	A	A	A	B	B
d_A, Approach Delay [s/veh]	16.28		7.47		15.18	
Approach LOS	B		A		B	
d_I, Intersection Delay [s/veh]	12.35					
Intersection LOS	B					
Intersection V/C	0.687					

Emissions

Vehicle Miles Traveled [mph]	215.26	0.00	6.01	32.50	9.83	1.73
Stops [stops/h]	245.37	0.00	22.85	158.07	264.02	34.13
Fuel consumption [US gal/h]	11.27	0.00	0.51	3.15	2.68	0.35
CO [g/h]	787.54	0.00	35.95	220.31	187.11	24.61
NOx [g/h]	153.23	0.00	6.99	42.86	36.40	4.79
VOC [g/h]	182.52	0.00	8.33	51.06	43.36	5.70

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	10.44	10.44
l_p,int, Pedestrian LOS Score for Intersectio	0.000	2.265	2.077
Crosswalk LOS	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	2008	2008	2008
d_b, Bicycle Delay [s]	0.00	0.00	0.00
l_b,int, Bicycle LOS Score for Intersection	2.165	2.469	1.560
Bicycle LOS	B	B	A

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



MOVEMENT SUMMARY

Site: 7 [NE Everett St & NW Lake Rd_ExistingAM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.4.221

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NE Everett Street															
3	L2	All MCs	237	12.0	237	12.0	0.361	14.3	LOS B	2.2	61.4	0.76	0.75	0.76	30.8
8	T1	All MCs	351	8.0	351	8.0	0.406	6.9	LOS A	2.9	77.1	0.78	0.66	0.78	34.4
Approach			587	9.6	587	9.6	0.406	9.9	LOS A	2.9	77.1	0.77	0.69	0.77	32.8
North: NE Everett Street															
4	T1	All MCs	428	9.0	428	9.0	0.383	5.3	LOS A	2.7	71.3	0.56	0.51	0.56	34.8
14	R2	All MCs	374	4.0	374	4.0	0.313	5.1	LOS A	2.1	54.0	0.52	0.53	0.52	35.1
Approach			802	6.7	802	6.7	0.383	5.2	LOS A	2.7	71.3	0.54	0.52	0.54	34.9
West: NW Lake Road															
5	L2	All MCs	552	3.0	552	3.0	0.521	12.9	LOS B	4.2	108.6	0.75	0.72	0.78	31.4
12	R2	All MCs	245	6.0	245	6.0	0.242	6.1	LOS A	1.5	39.2	0.62	0.60	0.62	34.8
Approach			797	3.9	797	3.9	0.521	10.8	LOS B	4.2	108.6	0.71	0.68	0.73	32.3
All Vehicles			2186	6.5	2186	6.5	0.521	8.5	LOS A	4.2	108.6	0.66	0.63	0.67	33.4

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 8: NE Everett Street & NE 17th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	25.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.305

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 17th Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 17th Avenue	
Base Volume Input [veh/h]	36	311	438	52	72	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	6.00	5.00	3.00	0.00	4.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	311	438	52	72	34
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	88	124	15	20	10
Total Analysis Volume [veh/h]	41	353	498	59	82	39
Pedestrian Volume [ped/h]	0		2		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.00	0.31	0.07
d_M, Delay for Movement [s/veh]	8.78	0.00	0.00	0.00	25.05	18.27
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.13	0.00	0.00	0.00	1.70	1.70
95th-Percentile Queue Length [ft/ln]	3.22	0.00	0.00	0.00	42.53	42.53
d_A, Approach Delay [s/veh]	0.91		0.00		22.87	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.92					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 9: NE Everett Street & NE 15th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	40.3
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.292

Intersection Setup

Name	NE Everett Street (SR 500)			NE Everett Street (SR 500)			NE 15th Avenue			NE 15th Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NE Everett Street (SR 500)			NE Everett Street (SR 500)			NE 15th Avenue			NE 15th Avenue		
Base Volume Input [veh/h]	15	218	4	80	270	120	38	25	25	2	25	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	7.00	7.00	0.00	0.00	2.00	2.00	3.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	218	4	80	270	120	38	25	25	2	25	84
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	66	1	24	81	36	11	8	8	1	8	25
Total Analysis Volume [veh/h]	18	263	5	96	325	145	46	30	30	2	30	101
Pedestrian Volume [ped/h]	5			16			0			5		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	2	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.07	0.00	0.00	0.29	0.12	0.05	0.01	0.13	0.14
d_M, Delay for Movement [s/veh]	8.44	0.00	0.00	8.00	0.00	0.00	40.27	31.54	22.94	26.66	23.37	12.68
Movement LOS	A	A	A	A	A	A	E	D	C	D	C	B
95th-Percentile Queue Length [veh/ln]	0.05	0.00	0.00	0.24	0.00	0.00	2.21	2.21	2.21	1.12	1.12	1.12
95th-Percentile Queue Length [ft/ln]	1.29	0.00	0.00	5.99	0.00	0.00	55.25	55.25	55.25	27.89	27.89	27.89
d_A, Approach Delay [s/veh]	0.53			1.36			32.90			15.30		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	5.90											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 12: Division Street & NE 6th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	15.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.040

Intersection Setup

Name	Division Street		NW 6th Avenue		NE 6th Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	40.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	-0.12		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Division Street		NW 6th Avenue		NE 6th Avenue	
Base Volume Input [veh/h]	12	162	125	410	531	14
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	4.00	5.00	4.00	7.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	162	125	410	531	14
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	46	36	116	151	4
Total Analysis Volume [veh/h]	14	184	142	466	603	16
Pedestrian Volume [ped/h]	2		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.24	0.15	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	15.67	11.23	9.00	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.12	0.94	0.26	0.13	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.10	23.61	6.42	3.21	0.00	0.00
d_A, Approach Delay [s/veh]	11.55		2.10		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.50					
Intersection LOS	C					

MOVEMENT SUMMARY

Site: 13 [NW Norwood St & NW 6th Ave_ExistingAM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Existing AM
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NW 6th Avenue															
3	L2	All MCs	106	1.0	106	1.0	0.212	12.6	LOS B	1.1	29.6	0.61	0.69	0.61	32.6
8	T1	All MCs	2	0.0	2	0.0	0.212	6.2	LOS A	1.1	29.6	0.61	0.69	0.61	33.3
18	R2	All MCs	68	13.0	68	13.0	0.212	7.3	LOS A	1.1	29.6	0.61	0.69	0.61	32.8
Approach			176	5.6	176	5.6	0.212	10.5	LOS B	1.1	29.6	0.61	0.69	0.61	32.7
East: NW 6th Avenue															
1	L2	All MCs	78	3.0	78	3.0	0.729	11.3	LOS B	8.1	208.8	0.63	0.49	0.63	33.8
6	T1	All MCs	778	3.0	778	3.0	0.729	5.0	LOS A	8.1	208.8	0.63	0.49	0.63	34.6
16	R2	All MCs	6	50.0	6	50.0	0.729	7.0	LOS A	8.1	208.8	0.63	0.49	0.63	33.2
Approach			863	3.4	863	3.4	0.729	5.6	LOS A	8.1	208.8	0.63	0.49	0.63	34.5
North: NW Norwood Street															
7	L2	All MCs	29	4.0	29	4.0	0.160	17.2	LOS B	1.0	26.0	0.86	0.79	0.86	31.3
4	T1	All MCs	6	0.0	6	0.0	0.160	10.4	LOS B	1.0	26.0	0.86	0.79	0.86	32.0
14	R2	All MCs	44	5.0	44	5.0	0.160	11.1	LOS B	1.0	26.0	0.86	0.79	0.86	31.7
Approach			80	4.2	80	4.2	0.160	13.3	LOS B	1.0	26.0	0.86	0.79	0.86	31.6
West: NW 6th Avenue															
5	L2	All MCs	12	27.0	12	27.0	0.474	11.4	LOS B	3.4	88.7	0.40	0.43	0.40	33.9
2	T1	All MCs	456	7.0	456	7.0	0.474	4.5	LOS A	3.4	88.7	0.40	0.43	0.40	35.5
12	R2	All MCs	80	3.0	80	3.0	0.474	4.6	LOS A	3.4	88.7	0.40	0.43	0.40	35.2
Approach			547	6.9	547	6.9	0.474	4.7	LOS A	3.4	88.7	0.40	0.43	0.40	35.4
All Vehicles			1667	4.8	1667	4.8	0.729	6.2	LOS A	8.1	208.8	0.56	0.51	0.56	34.4

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 14: NW Lacamas Lane & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	14.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name	NW Lacamas Lane		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	110.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	-0.11		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Lacamas Lane		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	2	191	570	2	60	505
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	4.00	0.00	10.00	5.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	191	570	2	60	505
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	51	153	1	16	136
Total Analysis Volume [veh/h]	2	205	613	2	65	543
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.34	0.01	0.00	0.07	0.01
d_M, Delay for Movement [s/veh]	14.69	14.18	0.00	0.00	9.18	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	1.53	0.00	0.00	0.23	0.00
95th-Percentile Queue Length [ft/ln]	0.40	38.18	0.00	0.00	5.64	0.00
d_A, Approach Delay [s/veh]	14.19		0.00		0.98	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.47					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 15: NW Sierra Street & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	30.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.365

Intersection Setup

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	75	205	345	83	119	374
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	4.00	7.00	2.00	8.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	205	345	83	119	374
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	55	92	22	32	99
Total Analysis Volume [veh/h]	80	218	367	88	127	398
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.37	0.34	0.00	0.00	0.12	0.00
d_M, Delay for Movement [s/veh]	30.62	13.57	0.00	0.00	8.80	0.00
Movement LOS	D	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.58	1.52	0.00	0.00	0.40	0.00
95th-Percentile Queue Length [ft/ln]	39.59	37.97	0.00	0.00	10.02	0.00
d_A, Approach Delay [s/veh]	18.15		0.00		2.13	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	5.11					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 16: NW Lake Road & NW Leadbetter Drive

Control Type:	Two-way stop	Delay (sec / veh):	29.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.069

Intersection Setup

Name	NW Leadbetter Drive			NW Leadbetter Drive			NW Lake Road			NW Lake Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	NW Leadbetter Drive			NW Leadbetter Drive			NW Lake Road			NW Lake Road		
Base Volume Input [veh/h]	4	5	98	10	7	6	10	341	12	79	364	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	20.00	16.00	0.00	0.00	17.00	0.00	4.00	0.00	5.00	2.00	33.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	5	98	10	7	6	10	341	12	79	364	6
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	27	3	2	2	3	93	3	21	99	2
Total Analysis Volume [veh/h]	4	5	107	11	8	7	11	371	13	86	396	7
Pedestrian Volume [ped/h]	2			2			1			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.02	0.17	0.07	0.03	0.01	0.01	0.00	0.00	0.07	0.00	0.00
d_M, Delay for Movement [s/veh]	24.62	23.65	12.41	29.67	22.76	12.93	8.13	0.00	0.00	8.37	0.00	0.00
Movement LOS	C	C	B	D	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.79	0.79	0.79	0.39	0.39	0.39	0.03	0.00	0.00	0.24	0.00	0.00
95th-Percentile Queue Length [ft/ln]	19.82	19.82	19.82	9.63	9.63	9.63	0.72	0.00	0.00	6.03	0.00	0.00
d_A, Approach Delay [s/veh]	13.31			23.04			0.23			1.47		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	2.88											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 21: N Shore Boulevard and NE 232nd Avenue

Control Type:	Two-way stop	Delay (sec / veh):	20.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.258

Intersection Setup

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		-0.02		0.02	
Crosswalk	No		No		No	

Volumes

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Base Volume Input [veh/h]	62	66	103	108	42	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	13.00	3.00	7.00	6.00	7.00	8.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	62	66	103	108	42	40
Peak Hour Factor	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	33	52	54	21	20
Total Analysis Volume [veh/h]	124	132	206	216	84	80
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.00	0.00	0.00	0.26	0.11
d_M, Delay for Movement [s/veh]	8.48	0.00	0.00	0.00	20.83	14.91
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.22	0.22	0.00	0.00	1.70	1.70
95th-Percentile Queue Length [ft/ln]	5.54	5.54	0.00	0.00	42.40	42.40
d_A, Approach Delay [s/veh]	4.11		0.00		17.94	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.74					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 22: SE 283rd Avenue & SE Nourse Road

Control Type:	Two-way stop	Delay (sec / veh):	17.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.046

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.02	
Crosswalk	No		No		No	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Base Volume Input [veh/h]	238	55	98	28	13	86
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	2.00	10.00	18.00	0.00	7.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	238	55	98	28	13	86
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	65	15	27	8	4	23
Total Analysis Volume [veh/h]	259	60	107	30	14	93
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.18	0.00	0.00	0.00	0.05	0.10
d_M, Delay for Movement [s/veh]	7.89	0.00	0.00	0.00	17.57	9.82
Movement LOS	A	A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.53	0.53	0.00	0.00	0.52	0.52
95th-Percentile Queue Length [ft/ln]	13.37	13.37	0.00	0.00	12.92	12.92
d_A, Approach Delay [s/veh]	6.40		0.00		10.83	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.69					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 3: NE Everett Street & SE 8th Street

Control Type:	Two-way stop	Delay (sec / veh):	19.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.181

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Base Volume Input [veh/h]	250	67	22	223	37	45
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	3.00	0.00	2.00	5.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	250	67	22	223	37	45
Peak Hour Factor	0.6300	0.6300	0.6300	0.6300	0.6300	0.6300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	99	27	9	88	15	18
Total Analysis Volume [veh/h]	397	106	35	354	59	71
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.03	0.00	0.18	0.11
d_M, Delay for Movement [s/veh]	0.00	0.00	8.40	0.00	19.25	13.70
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.06	0.06	1.18	1.18
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.49	1.49	29.59	29.59
d_A, Approach Delay [s/veh]	0.00		0.76		16.22	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.35					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	17.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.044

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	304	20	26	235	10	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	0.00	0.00	2.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	304	20	26	235	10	13
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	109	7	9	84	4	5
Total Analysis Volume [veh/h]	434	29	37	336	14	19
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.03	0.00	0.04	0.03
d_M, Delay for Movement [s/veh]	0.00	0.00	8.36	0.00	16.96	11.52
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.10	0.00	0.24	0.24
95th-Percentile Queue Length [ft/ln]	0.00	0.00	2.59	0.00	6.04	6.04
d_A, Approach Delay [s/veh]	0.00		0.83		13.82	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.88					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 5: NE Everett Street & SE Leadbetter Road

Control Type:	Two-way stop	Delay (sec / veh):	22.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.036

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.04		-0.02		0.03	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Base Volume Input [veh/h]	75	309	259	10	6	87
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	7.00	4.00	2.00	10.00	17.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	309	259	10	6	87
Peak Hour Factor	0.7900	0.7900	0.7900	0.7900	0.7900	0.7900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	98	82	3	2	28
Total Analysis Volume [veh/h]	95	391	328	13	8	110
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.00	0.00	0.04	0.16
d_M, Delay for Movement [s/veh]	8.29	0.00	0.00	0.00	22.49	11.78
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.26	0.00	0.00	0.00	0.73	0.73
95th-Percentile Queue Length [ft/ln]	6.49	0.00	0.00	0.00	18.24	18.24
d_A, Approach Delay [s/veh]	1.62		0.00		12.50	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.39					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 6: NE Everett Street & NE 43rd Avenue

Control Type:	Signalized	Delay (sec / veh):	9.3
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.579

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	300.00	120.00	100.00	100.00	80.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.03		-0.04		-0.04	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Base Volume Input [veh/h]	334	136	45	307	161	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	4.00	2.00	1.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	334	0	45	307	161	41
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	101	0	14	92	48	12
Total Analysis Volume [veh/h]	402	0	54	370	194	49
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	ProtPerm	Permissive	Permissive	Permissive
Signal Group	2	0	1	6	8	0
Auxiliary Signal Groups						
Maximum Green [s]	40	0	20	40	40	0
Amber [s]	4.0	0.0	3.0	4.0	3.0	0.0
All red [s]	1.0	0.0	2.0	1.0	1.0	0.0
Walk [s]	7	0	0	0	7	0
Pedestrian Clearance [s]	14	0	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.0	0.0	3.0	3.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	14	0	9	14	9	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	5	0	4	5	4	0
Vehicle Extension [s]	5.0	0.0	3.0	3.5	3.0	0.0
Minimum Recall	Yes		No	Yes	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Exhibit 7 SUB24-1002

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	31	31	31	31	31	31
L, Total Lost Time per Cycle [s]	5.00	5.00	5.00	5.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.00	3.00	0.00	3.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	17	17	5	5
g / C, Green / Cycle	0.34	0.34	0.55	0.55	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.23	0.00	0.05	0.20	0.11	0.03
s, saturation flow rate [veh/h]	1737	1502	1172	1869	1795	1589
c, Capacity [veh/h]	596	515	796	1029	294	261
d1, Uniform Delay [s]	8.85	0.00	3.92	3.97	12.34	11.36
k, delay calibration	0.23	0.23	0.11	0.13	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.85	0.00	0.04	0.26	2.52	0.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.68	0.00	0.07	0.36	0.66	0.19
d, Delay for Lane Group [s/veh]	11.70	0.00	3.96	4.23	14.86	11.70
Lane Group LOS	B	A	A	A	B	B
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.84	0.00	0.05	0.45	1.21	0.26
50th-Percentile Queue Length [ft/ln]	46.08	0.00	1.33	11.20	30.35	6.48
95th-Percentile Queue Length [veh/ln]	3.32	0.00	0.10	0.81	2.19	0.47
95th-Percentile Queue Length [ft/ln]	82.95	0.00	2.39	20.16	54.63	11.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	11.70	0.00	3.96	4.23	14.86	11.70
Movement LOS	B	A	A	A	B	B
d_A, Approach Delay [s/veh]	11.70		4.19		14.22	
Approach LOS	B		A		B	
d_I, Intersection Delay [s/veh]	9.29					
Intersection LOS	A					
Intersection V/C	0.579					

Emissions

Vehicle Miles Traveled [mph]	235.78	0.00	3.77	25.86	5.07	1.28
Stops [stops/h]	211.46	0.00	6.10	51.40	139.27	29.75
Fuel consumption [US gal/h]	11.53	0.00	0.23	1.69	1.35	0.29
CO [g/h]	806.28	0.00	16.30	118.17	94.30	20.16
NOx [g/h]	156.87	0.00	3.17	22.99	18.35	3.92
VOC [g/h]	186.86	0.00	3.78	27.39	21.85	4.67

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	6.62	6.62
l_p,int, Pedestrian LOS Score for Intersectio	0.000	2.205	1.985
Crosswalk LOS	F	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	2549	2549	2549
d_b, Bicycle Delay [s]	1.18	1.18	1.18
l_b,int, Bicycle LOS Score for Intersection	2.223	2.259	1.560
Bicycle LOS	B	B	A

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



MOVEMENT SUMMARY

Site: 7 [NE Everett St & NW Lake Rd_ExistingSchoolPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.4.221

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NE Everett Street															
3	L2	All MCs	271	1.0	271	1.0	0.247	11.2	LOS B	1.5	36.7	0.49	0.64	0.49	32.0
8	T1	All MCs	332	3.0	332	3.0	0.271	4.7	LOS A	1.7	42.7	0.48	0.47	0.48	35.4
Approach			603	2.1	603	2.1	0.271	7.6	LOS A	1.7	42.7	0.49	0.55	0.49	33.8
North: NE Everett Street															
4	T1	All MCs	329	3.0	329	3.0	0.268	4.9	LOS A	1.6	41.8	0.48	0.48	0.48	35.2
14	R2	All MCs	281	1.0	281	1.0	0.222	4.9	LOS A	1.3	33.3	0.46	0.52	0.46	35.3
Approach			610	2.1	610	2.1	0.268	4.9	LOS A	1.6	41.8	0.47	0.50	0.47	35.2
West: NW Lake Road															
5	L2	All MCs	270	2.0	270	2.0	0.225	11.2	LOS B	1.3	34.3	0.51	0.65	0.51	31.9
12	R2	All MCs	388	2.0	388	2.0	0.324	5.4	LOS A	2.1	53.2	0.55	0.56	0.55	35.1
Approach			659	2.0	659	2.0	0.324	7.8	LOS A	2.1	53.2	0.53	0.59	0.53	33.7
All Vehicles			1871	2.1	1871	2.1	0.324	6.8	LOS A	2.1	53.2	0.50	0.55	0.50	34.2

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 15: NW Sierra Street & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	35.4
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.401

Intersection Setup

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	72	110	439	107	103	353
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	4.00	2.00	2.00	1.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	110	439	107	103	353
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	30	119	29	28	96
Total Analysis Volume [veh/h]	78	120	477	116	112	384
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.40	0.22	0.00	0.00	0.11	0.00
d_M, Delay for Movement [s/veh]	35.40	13.53	0.00	0.00	9.11	0.00
Movement LOS	E	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.79	0.84	0.00	0.00	0.38	0.00
95th-Percentile Queue Length [ft/ln]	44.75	21.02	0.00	0.00	9.56	0.00
d_A, Approach Delay [s/veh]	22.15		0.00		2.06	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	4.20					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 21: N Shore Boulevard and NE 232nd Avenue

Control Type:	Two-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.062

Intersection Setup

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		-0.02		0.02	
Crosswalk	No		No		No	

Volumes

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Base Volume Input [veh/h]	14	19	14	57	47	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	4.00	6.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	19	14	57	47	9
Peak Hour Factor	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	5	4	16	14	3
Total Analysis Volume [veh/h]	16	22	16	66	54	10
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.06	0.01
d_M, Delay for Movement [s/veh]	7.37	0.00	0.00	0.00	9.47	8.84
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.00	0.23	0.23
95th-Percentile Queue Length [ft/ln]	0.67	0.67	0.00	0.00	5.82	5.82
d_A, Approach Delay [s/veh]	3.10		0.00		9.37	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.90					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 22: SE 283rd Avenue & SE Nourse Road

Control Type:	Two-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.022

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.02	
Crosswalk	No		No		No	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Base Volume Input [veh/h]	53	99	67	10	11	82
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	6.00	6.00	4.00	0.00	9.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	53	99	67	10	11	82
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	29	20	3	3	24
Total Analysis Volume [veh/h]	62	116	79	12	13	96
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.00	0.02	0.10
d_M, Delay for Movement [s/veh]	7.51	0.00	0.00	0.00	11.52	9.29
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.00	0.00	0.41	0.41
95th-Percentile Queue Length [ft/ln]	2.67	2.67	0.00	0.00	10.30	10.30
d_A, Approach Delay [s/veh]	2.61		0.00		9.55	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.99					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 1: NE 232nd Avenue & NE 28th Street

Control Type:	Two-way stop	Delay (sec / veh):	18.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.167

Intersection Setup

Name	NE 232nd Avenue			NE 232nd Avenue			NE 28th Street			NE 28th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			25.00			40.00			40.00		
Grade [%]	0.02			0.00			0.02			-0.02		
Crosswalk	No			No			No			No		

Volumes

Name	NE 232nd Avenue			NE 232nd Avenue			NE 28th Street			NE 28th Street		
Base Volume Input [veh/h]	49	4	14	1	2	1	8	337	86	15	157	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	21.00	0.00	0.00	100.00	0.00	1.00	0.00	0.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	49	4	14	1	2	1	8	337	86	15	157	1
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	1	4	0	1	0	2	96	24	4	45	0
Total Analysis Volume [veh/h]	56	5	16	1	2	1	9	383	98	17	178	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.17	0.01	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	18.28	17.92	13.87	15.47	15.35	10.51	7.57	0.00	0.00	8.32	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.78	0.78	0.78	0.03	0.03	0.03	0.02	0.02	0.02	0.03	0.03	0.03
95th-Percentile Queue Length [ft/ln]	19.41	19.41	19.41	0.76	0.76	0.76	0.39	0.39	0.39	0.72	0.72	0.72
d_A, Approach Delay [s/veh]	17.34			14.17			0.14			0.72		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	2.09											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 2: SR 500 & NE 28th Street

Control Type:	Two-way stop	Delay (sec / veh):	40.0
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.667

Intersection Setup

Name	Private Driveway			SR 500			NE 28th Street			SR 500		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	20.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Private Driveway			SR 500			NE 28th Street			SR 500		
Base Volume Input [veh/h]	0	0	0	175	0	40	56	289	0	0	135	174
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	6.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	5.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	175	0	40	56	289	0	0	135	174
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	51	0	12	16	85	0	0	40	51
Total Analysis Volume [veh/h]	0	0	0	206	0	47	66	340	0	0	159	205
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.67	0.00	0.06	0.05	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.59	17.64	10.09	40.01	39.38	33.02	8.06	0.00	0.00	7.93	0.00	0.00
Movement LOS	C	C	B	E	E	D	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	5.49	5.49	5.49	0.11	0.11	0.11	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	137.27	137.27	137.27	2.85	2.85	2.85	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.11			38.71			1.31			0.00		
Approach LOS	C			E			A			A		
d_I, Intersection Delay [s/veh]	10.09											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 3: NE Everett Street & SE 8th Street

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.056

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Base Volume Input [veh/h]	269	18	1	170	24	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	0.00	0.00	4.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	269	18	1	170	24	4
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	80	5	0	51	7	1
Total Analysis Volume [veh/h]	320	21	1	202	29	5
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.06	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.93	0.00	12.42	10.41
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.20	0.20
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.04	0.04	5.03	5.03
d_A, Approach Delay [s/veh]	0.00		0.04		12.12	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.73					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	12.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.017

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	280	9	14	178	7	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	0.00	0.00	3.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	280	9	14	178	7	7
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	83	3	4	53	2	2
Total Analysis Volume [veh/h]	333	11	17	212	8	8
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.98	0.00	12.84	10.27
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.04	0.00	0.09	0.09
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.05	0.00	2.18	2.18
d_A, Approach Delay [s/veh]	0.00		0.59		11.55	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.54					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: NE Everett Street & SE Leadbetter Road

Control Type:	Two-way stop	Delay (sec / veh):	16.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.024

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.04		-0.02		0.03	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Base Volume Input [veh/h]	86	278	185	7	7	105
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	4.00	5.00	14.00	0.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	86	278	185	7	7	105
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	78	52	2	2	29
Total Analysis Volume [veh/h]	97	312	208	8	8	118
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.00	0.00	0.00	0.02	0.14
d_M, Delay for Movement [s/veh]	7.85	0.00	0.00	0.00	16.94	10.39
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.23	0.00	0.00	0.00	0.61	0.61
95th-Percentile Queue Length [ft/ln]	5.75	0.00	0.00	0.00	15.13	15.13
d_A, Approach Delay [s/veh]	1.86		0.00		10.81	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.83					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 6: NE Everett Street & NE 43rd Avenue

Control Type:	Signalized	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.542

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	300.00	120.00	100.00	100.00	80.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.03		-0.04		-0.04	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Base Volume Input [veh/h]	341	316	39	229	138	27
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	0.00	4.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	341	0	39	229	138	27
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	93	0	11	62	38	7
Total Analysis Volume [veh/h]	371	0	42	249	150	29
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	ProtPerm	Permissive	Permissive	Permissive
Signal Group	2	0	1	6	8	0
Auxiliary Signal Groups						
Maximum Green [s]	40	0	20	40	40	0
Amber [s]	4.0	0.0	3.0	4.0	3.0	0.0
All red [s]	1.0	0.0	2.0	1.0	1.0	0.0
Walk [s]	7	0	0	0	7	0
Pedestrian Clearance [s]	14	0	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.0	0.0	3.0	3.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	14	0	9	14	9	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	5	0	4	5	4	0
Vehicle Extension [s]	5.0	0.0	3.0	3.5	3.0	0.0
Minimum Recall	Yes		No	Yes	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	28	28	28	28	28	28
L, Total Lost Time per Cycle [s]	5.00	5.00	5.00	5.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.00	3.00	0.00	3.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	15	15	4	4
g / C, Green / Cycle	0.33	0.33	0.55	0.55	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.21	0.00	0.03	0.14	0.08	0.02
s, saturation flow rate [veh/h]	1767	1502	1239	1840	1809	1614
c, Capacity [veh/h]	579	492	890	1009	231	206
d1, Uniform Delay [s]	7.96	0.00	3.34	3.28	11.54	10.77
k, delay calibration	0.23	0.23	0.11	0.13	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.52	0.00	0.02	0.15	3.05	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.64	0.00	0.05	0.25	0.65	0.14
d, Delay for Lane Group [s/veh]	10.48	0.00	3.36	3.43	14.59	11.08
Lane Group LOS	B	A	A	A	B	B
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.38	0.00	0.02	0.15	0.86	0.14
50th-Percentile Queue Length [ft/ln]	34.38	0.00	0.52	3.68	21.47	3.43
95th-Percentile Queue Length [veh/ln]	2.48	0.00	0.04	0.26	1.55	0.25
95th-Percentile Queue Length [ft/ln]	61.88	0.00	0.94	6.62	38.65	6.18

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	10.48	0.00	3.36	3.43	14.59	11.08
Movement LOS	B	A	A	A	B	B
d_A, Approach Delay [s/veh]	10.48		3.42		14.02	
Approach LOS	B		A		B	
d_I, Intersection Delay [s/veh]	8.79					
Intersection LOS	A					
Intersection V/C	0.542					

Emissions

Vehicle Miles Traveled [mph]	217.60	0.00	2.94	17.40	3.92	0.76
Stops [stops/h]	178.97	0.00	2.72	19.14	111.77	17.87
Fuel consumption [US gal/h]	10.43	0.00	0.16	0.98	1.05	0.17
CO [g/h]	729.17	0.00	11.26	68.58	73.43	11.75
NOx [g/h]	141.87	0.00	2.19	13.34	14.29	2.29
VOC [g/h]	168.99	0.00	2.61	15.89	17.02	2.72

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	5.02	5.02
l_p,int, Pedestrian LOS Score for Intersectio	0.000	2.124	1.946
Crosswalk LOS	F	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	2892	2892	2892
d_b, Bicycle Delay [s]	2.75	2.75	2.75
l_b,int, Bicycle LOS Score for Intersection	2.172	2.040	1.560
Bicycle LOS	B	B	A

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



MOVEMENT SUMMARY

Site: 7 [NE Everett St & NW Lake Rd_ExistingPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.4.221

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NE Everett Street															
3	L2	All MCs	427	1.0	427	1.0	0.383	12.0	LOS B	2.6	66.7	0.65	0.68	0.65	31.7
8	T1	All MCs	366	2.0	366	2.0	0.390	6.2	LOS A	2.6	64.9	0.67	0.60	0.67	34.8
Approach			794	1.5	794	1.5	0.390	9.3	LOS A	2.6	66.7	0.66	0.64	0.66	33.0
North: NE Everett Street															
4	T1	All MCs	235	4.0	235	4.0	0.222	5.7	LOS A	1.4	35.8	0.60	0.55	0.60	34.8
14	R2	All MCs	266	1.0	266	1.0	0.241	5.7	LOS A	1.6	39.1	0.60	0.59	0.60	34.9
Approach			501	2.4	501	2.4	0.241	5.7	LOS A	1.6	39.1	0.60	0.57	0.60	34.9
West: NW Lake Road															
5	L2	All MCs	439	1.0	439	1.0	0.341	10.9	LOS B	2.3	58.0	0.49	0.63	0.49	32.0
12	R2	All MCs	691	2.0	691	2.0	0.544	5.3	LOS A	4.5	114.4	0.60	0.55	0.60	34.9
Approach			1129	1.6	1129	1.6	0.544	7.5	LOS A	4.5	114.4	0.56	0.58	0.56	33.7
All Vehicles			2424	1.7	2424	1.7	0.544	7.7	LOS A	4.5	114.4	0.60	0.60	0.60	33.7

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 8: NE Everett Street & NE 17th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	27.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.305

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 17th Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 17th Avenue	
Base Volume Input [veh/h]	82	519	675	59	75	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	2.00	3.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	82	519	675	59	75	50
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	138	180	16	20	13
Total Analysis Volume [veh/h]	87	552	718	63	80	53
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.01	0.01	0.00	0.31	0.13
d_M, Delay for Movement [s/veh]	9.75	0.00	0.00	0.00	27.38	22.33
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.34	0.00	0.00	0.00	2.09	2.09
95th-Percentile Queue Length [ft/ln]	8.57	0.00	0.00	0.00	52.24	52.24
d_A, Approach Delay [s/veh]	1.33		0.00		25.37	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	2.72					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 9: NE Everett Street & NE 15th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	68.3
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.630

Intersection Setup

Name	NE Everett Street (SR 500)			NE Everett Street (SR 500)			NE 15th Avenue			NE 15th Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NE Everett Street (SR 500)			NE Everett Street (SR 500)			NE 15th Avenue			NE 15th Avenue		
Base Volume Input [veh/h]	32	511	11	28	563	129	66	18	63	1	10	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	0.00	0.00	2.00	1.00	0.00	0.00	3.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	511	11	28	563	129	66	18	63	1	10	24
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	142	3	8	156	36	18	5	18	0	3	7
Total Analysis Volume [veh/h]	36	568	12	31	626	143	73	20	70	1	11	27
Pedestrian Volume [ped/h]	8			2			0			5		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			Yes	No
Storage Area [veh]	0	0	2	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.01	0.00	0.03	0.01	0.00	0.63	0.09	0.13	0.01	0.09	0.05
d_M, Delay for Movement [s/veh]	9.40	0.00	0.00	8.73	0.00	0.00	68.34	52.86	43.81	53.32	38.61	14.78
Movement LOS	A	A	A	A	A	A	F	F	E	F	E	B
95th-Percentile Queue Length [veh/ln]	0.13	0.00	0.00	0.10	0.00	0.00	4.79	4.79	4.79	0.56	0.56	0.56
95th-Percentile Queue Length [ft/ln]	3.30	0.00	0.00	2.41	0.00	0.00	119.63	119.63	119.63	13.92	13.92	13.92
d_A, Approach Delay [s/veh]	0.55			0.34			55.91			22.49		
Approach LOS	A			A			F			C		
d_I, Intersection Delay [s/veh]	6.55											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 10: NE Everett Street & NE 14th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	49.8
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.439

Intersection Setup

Name				NE Everett Street (SR 500)			NE 14th Avenue			SR 500		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			2.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name				NE Everett Street (SR 500)			NE 14th Avenue			SR 500		
Base Volume Input [veh/h]	0	0	0	543	0	66	73	91	0	0	35	443
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	3.00	2.00	0.00	0.00	2.00	2.00	2.00	3.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	543	0	66	73	91	0	0	35	443
Peak Hour Factor	1.0000	1.0000	1.0000	0.8600	1.0000	0.8600	0.8600	0.8600	1.0000	1.0000	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	158	0	19	21	26	0	0	10	129
Total Analysis Volume [veh/h]	0	0	0	631	0	77	85	106	0	0	41	515
Pedestrian Volume [ped/h]	0			1			5			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.39	0.00	0.00	0.44	0.26	0.00	0.00	0.10	0.47
d_M, Delay for Movement [s/veh]	7.30	0.00	0.00	8.96	0.00	0.00	49.77	40.10	0.00	0.00	19.01	13.28
Movement LOS	A	A	A	A		A	E	E			C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	2.14	0.00	2.14	4.80	4.80	0.00	0.00	3.81	3.81
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	53.41	0.00	53.41	120.08	120.08	0.00	0.00	95.17	95.17
d_A, Approach Delay [s/veh]	2.43			7.98			44.40			13.70		
Approach LOS	A			A			E			B		
d_I, Intersection Delay [s/veh]	14.95											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 11: NE Dallas Street & NE 6th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	34.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.137

Intersection Setup

Name	NE Dallas Street			NE Dallas Street			NE 6th Avenue			NE 6th Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NE Dallas Street			NE Dallas Street			NE 6th Avenue			NE 6th Avenue		
Base Volume Input [veh/h]	81	112	7	8	264	59	34	186	79	13	156	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	0.00	0.00	0.00	2.00	0.00	3.00	1.00	1.00	0.00	4.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	81	112	7	8	264	59	34	186	79	13	156	21
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	31	2	2	74	17	10	52	22	4	44	6
Total Analysis Volume [veh/h]	91	126	8	9	297	66	38	209	89	15	175	24
Pedestrian Volume [ped/h]	1			1			0			9		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.00	0.01	0.00	0.00	0.14	0.46	0.11	0.07	0.40	0.03
d_M, Delay for Movement [s/veh]	8.15	0.00	0.00	7.51	0.00	0.00	34.57	29.58	26.14	29.63	21.07	16.66
Movement LOS	A	A	A	A	A	A	D	D	D	D	C	C
95th-Percentile Queue Length [veh/ln]	0.16	0.16	0.16	0.02	0.02	0.02	5.57	5.57	5.57	2.67	2.67	2.67
95th-Percentile Queue Length [ft/ln]	4.04	4.04	4.04	0.39	0.39	0.39	139.13	139.13	139.13	66.81	66.81	66.81
d_A, Approach Delay [s/veh]	3.30			0.18			29.23			21.18		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	13.22											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 12: Division Street & NE 6th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	25.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.106

Intersection Setup

Name	Division Street		NW 6th Avenue		NE 6th Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	40.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	-0.12		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Division Street		NW 6th Avenue		NE 6th Avenue	
Base Volume Input [veh/h]	20	126	93	958	991	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	2.00	3.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	126	93	958	991	24
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	33	24	252	261	6
Total Analysis Volume [veh/h]	21	133	98	1008	1043	25
Pedestrian Volume [ped/h]	2		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.23	0.15	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	25.30	12.98	10.59	0.00	0.00	0.00
Movement LOS	D	B	B	A	A	A
95th-Percentile Queue Length [veh/ln]	0.35	0.87	0.17	0.09	0.00	0.00
95th-Percentile Queue Length [ft/ln]	8.75	21.80	4.31	2.16	0.00	0.00
d_A, Approach Delay [s/veh]	14.66		0.94		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.42					
Intersection LOS	D					

MOVEMENT SUMMARY

Site: 13 [NW Norwood St & NW 6th Ave_ExistingPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Existing AM
Site Category: (None)
Roundabout
Sensitivity Analysis (Critical Gap & Follow-up Headway): Results for Parameter Scale = 100.0 %

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NW 6th Avenue															
3	L2	All MCs	67	2.0	67	2.0	0.869	47.8	LOS D	11.8	300.1	1.00	1.29	1.91	22.1
8	T1	All MCs	5	0.0	5	0.0	0.869	41.2	LOS D	11.8	300.1	1.00	1.29	1.91	22.5
18	R2	All MCs	236	2.0	236	2.0	0.869	41.7	LOS D	11.8	300.1	1.00	1.29	1.91	22.3
Approach			308	2.0	308	2.0	0.869	43.0	LOS D	11.8	300.1	1.00	1.29	1.91	22.3
East: NW 6th Avenue															
1	L2	All MCs	115	3.0	115	3.0	0.926	12.6	LOS D	21.9	565.4	1.00	0.63	1.01	32.7
6	T1	All MCs	983	4.0	983	4.0	0.926	6.4	LOS D	21.9	565.4	1.00	0.63	1.01	33.4
16	R2	All MCs	11	0.0	11	0.0	0.926	6.3	LOS D	21.9	565.4	1.00	0.63	1.01	33.2
Approach			1109	3.9	1109	3.9	0.926	7.0	LOS A	21.9	565.4	1.00	0.63	1.01	33.3
North: NW Norwood Street															
7	L2	All MCs	7	0.0	7	0.0	0.188	22.0	LOS C	1.3	34.7	1.00	0.85	1.00	29.6
4	T1	All MCs	14	0.0	14	0.0	0.188	15.8	LOS B	1.3	34.7	1.00	0.85	1.00	30.2
14	R2	All MCs	31	7.0	31	7.0	0.188	17.1	LOS B	1.3	34.7	1.00	0.85	1.00	29.8
Approach			52	4.2	52	4.2	0.188	17.5	LOS B	1.3	34.7	1.00	0.85	1.00	29.9
West: NW 6th Avenue															
5	L2	All MCs	26	0.0	26	0.0	0.970	20.1	LOS E	32.8	832.0	1.00	1.01	1.25	31.0
2	T1	All MCs	1023	2.0	1023	2.0	0.970	14.0	LOS E	32.8	832.0	1.00	1.01	1.25	31.6
12	R2	All MCs	91	1.0	91	1.0	0.970	14.0	LOS E	32.8	832.0	1.00	1.01	1.25	31.4
Approach			1140	1.9	1140	1.9	0.970	14.1	LOS B	32.8	832.0	1.00	1.01	1.25	31.6
All Vehicles			2609	2.8	2609	2.8	0.970	14.6	LOS B	32.8	832.0	1.00	0.88	1.22	30.7

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 14: NW Lacamas Lane & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	21.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.031

Intersection Setup

Name	NW Lacamas Lane		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	110.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	-0.11		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Lacamas Lane		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	6	63	1034	6	53	604
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	5.00	1.00	0.00	2.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	63	1034	6	53	604
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	17	281	2	14	164
Total Analysis Volume [veh/h]	7	68	1124	7	58	657
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.20	0.01	0.00	0.09	0.01
d_M, Delay for Movement [s/veh]	21.70	17.93	0.00	0.00	11.43	0.00
Movement LOS	C	C	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.10	0.72	0.00	0.00	0.31	0.00
95th-Percentile Queue Length [ft/ln]	2.43	17.97	0.00	0.00	7.74	0.00
d_A, Approach Delay [s/veh]	18.28		0.00		0.93	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	1.06					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 15: NW Sierra Street & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	161.6
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.854

Intersection Setup

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	58	228	806	132	124	507
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	1.00	2.00	0.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	228	806	132	124	507
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	62	219	36	34	138
Total Analysis Volume [veh/h]	63	248	876	143	135	551
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.85	0.78	0.01	0.00	0.20	0.01
d_M, Delay for Movement [s/veh]	161.63	46.45	0.00	0.00	11.50	0.00
Movement LOS	F	E	A	A	B	A
95th-Percentile Queue Length [veh/ln]	4.23	6.17	0.00	0.00	0.72	0.00
95th-Percentile Queue Length [ft/ln]	105.80	154.22	0.00	0.00	18.09	0.00
d_A, Approach Delay [s/veh]	69.79		0.00		2.26	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	11.54					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 16: NW Lake Road & NW Leadbetter Drive

Control Type:	Two-way stop	Delay (sec / veh):	39.0
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.052

Intersection Setup

Name	NW Leadbetter Drive			NW Leadbetter Drive			NW Lake Road			NW Lake Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	NW Leadbetter Drive			NW Leadbetter Drive			NW Lake Road			NW Lake Road		
Base Volume Input [veh/h]	7	14	131	4	5	13	15	802	8	53	491	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	14.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	12.00	0.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	14	131	4	5	13	15	802	8	53	491	7
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	4	36	1	1	4	4	220	2	15	135	2
Total Analysis Volume [veh/h]	8	15	144	4	5	14	16	881	9	58	540	8
Pedestrian Volume [ped/h]	2			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.10	0.35	0.04	0.03	0.02	0.02	0.01	0.00	0.08	0.01	0.00
d_M, Delay for Movement [s/veh]	39.00	38.67	24.18	38.50	24.88	11.72	8.54	0.00	0.00	10.08	0.00	0.00
Movement LOS	E	E	C	E	C	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	2.67	2.67	2.67	0.27	0.27	0.27	0.05	0.00	0.00	0.24	0.00	0.00
95th-Percentile Queue Length [ft/ln]	66.80	66.80	66.80	6.77	6.77	6.77	1.18	0.00	0.00	6.12	0.00	0.00
d_A, Approach Delay [s/veh]	26.19			19.24			0.15			0.96		
Approach LOS	D			C			A			A		
d_I, Intersection Delay [s/veh]	3.25											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 17: NW Parker Street & NW Lake Road

Control Type:	Signalized	Delay (sec / veh):	27.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.694

Intersection Setup

Name	NW Parker Street			NW Larkspur Street			NW Lake Road			NW Lake Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	265.00	100.00	100.00	80.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	85.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NW Parker Street			NW Larkspur Street			NW Lake Road			NW Lake Road		
Base Volume Input [veh/h]	225	117	142	57	87	21	25	642	288	60	431	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	2.00	0.00	0.00	0.00	1.00	0.00	2.00	1.00	3.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	225	117	142	57	87	21	25	642	288	60	431	32
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	60	31	38	15	23	6	7	173	77	16	116	9
Total Analysis Volume [veh/h]	242	126	153	61	94	23	27	690	310	65	463	34
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			1			1			4		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Overlap	ProtPer	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	7	1	6	0
Auxiliary Signal Groups									2,7			
Maximum Green [s]	15	30	0	15	20	0	15	45	15	25	45	0
Amber [s]	3.0	3.6	0.0	3.0	3.0	0.0	3.0	4.0	3.0	3.0	3.6	0.0
All red [s]	2.2	2.3	0.0	2.6	3.3	0.0	2.5	1.7	2.2	2.7	1.9	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	18	0	0	22	0	0	16	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.2	3.9	0.0	3.6	4.3	0.0	3.5	3.7	3.2	3.7	3.5	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	9	14	0	9	14	0	9	14	9	9	14	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	5	0	5	5	0	5	8	5	5	8	0
Vehicle Extension [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	Yes	No	No	Yes	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	5.55	5.90	5.95	6.30	5.60	5.70	5.70	5.60	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.90	0.00	4.30	0.00	3.70	0.00	0.00	3.50	3.50
g_i, Effective Green Time [s]	25	15	25	14	39	30	40	39	30	30
g / C, Green / Cycle	0.34	0.20	0.33	0.19	0.52	0.39	0.53	0.52	0.40	0.40
(v / s)_i Volume / Saturation Flow Rate	0.16	0.16	0.04	0.06	0.02	0.37	0.20	0.07	0.13	0.13
s, saturation flow rate [veh/h]	1550	1693	1425	1831	1163	1885	1588	918	1885	1833
c, Capacity [veh/h]	469	339	331	346	545	742	840	317	760	739
d1, Uniform Delay [s]	24.38	29.02	26.81	26.62	13.91	21.95	10.44	27.30	15.56	15.58
k, delay calibration	0.04	0.20	0.04	0.04	0.04	0.47	0.04	0.04	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.33	8.84	0.10	0.21	0.01	18.81	0.10	0.12	0.09	0.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.52	0.82	0.18	0.34	0.05	0.93	0.37	0.21	0.33	0.33
d, Delay for Lane Group [s/veh]	24.71	37.86	26.91	26.83	13.93	40.77	10.54	27.41	15.66	15.68
Lane Group LOS	C	D	C	C	B	D	B	C	B	B
Critical Lane Group	No	No	No	Yes	No	Yes	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.06	5.40	0.73	1.82	0.19	14.32	2.62	0.48	2.74	2.69
50th-Percentile Queue Length [ft/ln]	76.53	135.10	18.16	45.43	4.79	357.92	65.47	12.01	68.48	67.23
95th-Percentile Queue Length [veh/ln]	5.51	9.22	1.31	3.27	0.34	20.52	4.71	0.86	4.93	4.84
95th-Percentile Queue Length [ft/ln]	137.76	230.41	32.69	81.77	8.62	513.05	117.84	21.62	123.26	121.02

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	24.71	37.86	37.86	26.91	26.83	26.83	13.93	40.77	10.54	27.41	15.67	15.68
Movement LOS	C	D	D	C	C	C	B	D	B	C	B	B
d_A, Approach Delay [s/veh]	31.75			26.86			30.94			17.03		
Approach LOS	C			C			C			B		
d_I, Intersection Delay [s/veh]	27.39											
Intersection LOS	C											
Intersection V/C	0.694											

Emissions

Vehicle Miles Traveled [mph]	112.14	129.28	4.19	8.04	23.88	610.38	274.23	46.33	178.88	175.37
Stops [stops/h]	146.09	257.88	34.66	86.72	9.14	683.22	124.96	22.93	130.72	128.34
Fuel consumption [US gal/h]	6.59	9.02	0.66	1.33	1.06	34.13	12.06	2.30	8.60	8.43
CO [g/h]	460.63	630.25	45.82	93.19	73.79	2385.54	842.81	160.84	601.21	589.58
NOx [g/h]	89.62	122.62	8.91	18.13	14.36	464.14	163.98	31.29	116.97	114.71
VOC [g/h]	106.75	146.07	10.62	21.60	17.10	552.87	195.33	37.28	139.34	136.64

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.26	29.26	29.26	29.26
l_p,int, Pedestrian LOS Score for Intersectio	2.387	2.065	2.975	2.614
Crosswalk LOS	B	B	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	795	530	1193	1193
d_b, Bicycle Delay [s]	13.70	20.38	6.14	6.15
l_b,int, Bicycle LOS Score for Intersection	2.419	1.853	3.254	2.023
Bicycle LOS	B	A	C	B

Sequence

Ring 1	2	1	4	3	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	5	8	7	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: NW Friberg-Strunk Street & NW Lake Road

Control Type:	Signalized	Delay (sec / veh):	14.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.678

Intersection Setup

Name	Private Driveway			NW Friberg-Strunk Street			NW 1st Street			NW Lake Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	140.00	220.00	100.00	100.00	85.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	20.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Private Driveway			NW Friberg-Strunk Street			NW 1st Street			NW Lake Road		
Base Volume Input [veh/h]	0	0	0	115	0	162	301	816	0	5	584	115
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	1.00	0.00	2.00	0.00	1.00	0.00	0.00	1.00	1.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	115	0	162	301	816	0	5	584	115
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	31	0	44	82	222	0	1	159	31
Total Analysis Volume [veh/h]	0	0	0	125	0	176	327	887	0	5	635	125
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			2			4			2		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	4	0	0	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Maximum Green [s]	0	30	0	0	30	0	25	45	0	15	45	0
Amber [s]	0.0	3.0	0.0	0.0	4.0	0.0	3.0	4.0	0.0	3.0	4.0	0.0
All red [s]	0.0	2.9	0.0	0.0	2.0	0.0	2.6	1.5	0.0	2.8	1.6	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.9	0.0	0.0	4.0	0.0	3.6	3.5	0.0	3.8	3.6	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	0	14	0	0	14	0	9	14	0	9	14	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	8	0	5	8	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	Yes		No	Yes	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	46	46	46	46	46	46	46	46	46
L, Total Lost Time per Cycle [s]	5.90	6.00	6.00	5.60	5.50	5.50	5.80	5.60	5.60
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	4.00	4.00	3.60	3.50	3.50	3.80	3.60	3.60
g_i, Effective Green Time [s]	7	7	7	10	22	22	0	12	12
g / C, Green / Cycle	0.15	0.15	0.15	0.22	0.47	0.47	0.01	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.00	0.08	0.11	0.18	0.24	0.24	0.00	0.21	0.21
s, saturation flow rate [veh/h]	1374	1540	1566	1810	1885	1885	1810	1885	1763
c, Capacity [veh/h]	159	390	239	398	883	883	12	486	454
d1, Uniform Delay [s]	0.00	17.97	18.77	17.28	8.59	8.59	23.00	16.16	16.21
k, delay calibration	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.17	1.66	1.65	0.16	0.16	7.78	1.20	1.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.32	0.74	0.82	0.50	0.50	0.41	0.80	0.81
d, Delay for Lane Group [s/veh]	0.00	18.14	20.43	18.92	8.76	8.76	30.78	17.37	17.57
Lane Group LOS	A	B	C	B	A	A	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	1.04	1.61	2.86	2.08	2.08	0.08	3.46	3.30
50th-Percentile Queue Length [ft/ln]	0.00	25.95	40.28	71.61	52.05	52.05	1.91	86.40	82.43
95th-Percentile Queue Length [veh/ln]	0.00	1.87	2.90	5.16	3.75	3.75	0.14	6.22	5.93
95th-Percentile Queue Length [ft/ln]	0.00	46.71	72.50	128.90	93.69	93.69	3.43	155.51	148.37

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	18.14	18.14	20.43	18.92	8.76	8.76	30.78	17.45	17.57
Movement LOS	A	A	A	B	B	C	B	A	A	C	B	B
d_A, Approach Delay [s/veh]	0.00			19.48			11.49			17.55		
Approach LOS	A			B			B			B		
d_I, Intersection Delay [s/veh]	14.58											
Intersection LOS	B											
Intersection V/C	0.678											

Emissions

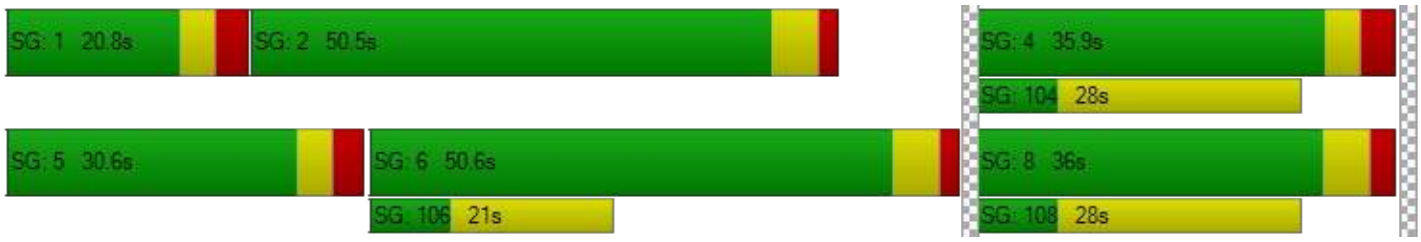
Vehicle Miles Traveled [mph]	0.00	8.86	12.47	35.41	48.03	48.03	4.42	345.46	326.84
Stops [stops/h]	0.00	80.56	125.03	222.29	161.57	161.57	5.92	268.18	255.87
Fuel consumption [US gal/h]	0.00	1.57	2.41	4.71	4.10	4.10	0.25	17.08	16.19
CO [g/h]	0.00	109.76	168.23	329.34	286.45	286.45	17.20	1194.13	1131.67
NOx [g/h]	0.00	21.36	32.73	64.08	55.73	55.73	3.35	232.33	220.18
VOC [g/h]	0.00	25.44	38.99	76.33	66.39	66.39	3.99	276.75	262.28

Other Modes

g_Walk,mi, Effective Walk Time [s]	8.5	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	15.47	13.50	13.50	13.50
l_p,int, Pedestrian LOS Score for Intersectio	1.684	2.228	2.788	2.786
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1293	1293	1940	1940
d_b, Bicycle Delay [s]	2.90	2.90	0.02	0.02
l_b,int, Bicycle LOS Score for Intersection	1.560	2.056	2.561	2.191
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: NW Parker Street & NW Leadbetter Drive

Control Type:	Two-way stop	Delay (sec / veh):	23.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.223

Intersection Setup

Name	NW Parker Street		NW Parker Street		NW Leadbetter Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	80.00	100.00	100.00	180.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.02		-0.02		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	NW Parker Street		NW Parker Street		NW Leadbetter Drive	
Base Volume Input [veh/h]	386	152	65	278	49	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	0.00	0.00	4.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	386	152	65	278	49	52
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	108	43	18	78	14	15
Total Analysis Volume [veh/h]	434	171	73	312	55	58
Pedestrian Volume [ped/h]	0		0		13	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.08	0.00	0.22	0.11
d_M, Delay for Movement [s/veh]	0.00	0.00	9.06	0.00	23.70	12.40
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.25	0.00	0.83	0.36
95th-Percentile Queue Length [ft/ln]	0.00	0.00	6.16	0.00	20.76	8.89
d_A, Approach Delay [s/veh]	0.00		1.72		17.90	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.43					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 20: NW Parker Street & NW 38th Avenue

Control Type:	Signalized	Delay (sec / veh):	26.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.747

Intersection Setup

Name	NW Parker Street			NW Parker Street			NW 38th Avenue			NW 38th Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	130.00	100.00	100.00	245.00	100.00	130.00	130.00	100.00	100.00	130.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NW Parker Street			NW Parker Street			NW 38th Avenue			NW 38th Avenue		
Base Volume Input [veh/h]	100	374	194	56	241	81	110	277	106	104	125	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	100	374	194	56	241	81	110	277	106	104	125	36
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	109	56	16	70	24	32	81	31	30	36	10
Total Analysis Volume [veh/h]	116	435	226	65	280	94	128	322	123	121	145	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	4			13			4			11		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	ProtPer	Permiss	Overlap	ProtPer	Permiss	Overlap	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	1	6	7	5	2	3	3	8	0	7	4	0
Auxiliary Signal Groups			6,7			2,3						
Maximum Green [s]	15	25	15	15	25	15	15	20	0	15	20	0
Amber [s]	3.0	3.6	3.0	3.0	3.6	3.0	3.0	4.0	0.0	3.0	3.6	0.0
All red [s]	2.9	2.1	3.0	2.7	2.0	2.8	2.8	2.0	0.0	3.0	2.4	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	9	0	0	9	0	0	13	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.9	3.7	4.0	3.7	3.6	3.8	3.8	4.0	0.0	4.0	4.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	9	14	9	9	14	9	9	14	0	9	14	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	5	5	5	5	5	5	5	0	5	5	0
Vehicle Extension [s]	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	Yes	No	No	Yes	No	No	No		No	No	
Maximum Recall	No	No	No	No	No	No	No	No		No	No	
Pedestrian Recall	No	No	No	No	No	No	No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Exhibit 7 SUB24-1002

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C
C, Cycle Length [s]	72	72	72	72	72	72	72	72	72	72
L, Total Lost Time per Cycle [s]	5.80	5.70	5.70	5.65	5.60	5.60	5.90	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	0.00	3.60	0.00	0.00	4.00	0.00	4.00
g_i, Effective Green Time [s]	30	20	31	31	20	31	30	20	30	19
g / C, Green / Cycle	0.42	0.28	0.42	0.42	0.28	0.43	0.42	0.27	0.42	0.27
(v / s)_i Volume / Saturation Flow Rate	0.09	0.23	0.14	0.05	0.15	0.06	0.09	0.25	0.16	0.10
s, saturation flow rate [veh/h]	1337	1885	1588	1207	1900	1566	1470	1797	748	1782
c, Capacity [veh/h]	458	521	672	366	533	675	527	486	361	475
d1, Uniform Delay [s]	21.78	24.69	14.08	24.77	22.03	12.53	19.57	25.69	24.81	21.81
k, delay calibration	0.04	0.12	0.04	0.04	0.10	0.04	0.04	0.27	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	3.93	0.11	0.09	0.75	0.03	0.09	15.51	0.20	0.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.25	0.83	0.34	0.18	0.53	0.14	0.24	0.92	0.34	0.39
d, Delay for Lane Group [s/veh]	21.89	28.61	14.19	24.85	22.77	12.57	19.66	41.20	25.01	22.01
Lane Group LOS	C	C	B	C	C	B	B	D	C	C
Critical Lane Group	No	Yes	Yes	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.07	7.03	2.25	0.58	3.85	0.84	1.17	8.82	1.11	2.42
50th-Percentile Queue Length [ft/ln]	26.87	175.85	56.33	14.56	96.16	21.03	29.17	220.39	27.86	60.45
95th-Percentile Queue Length [veh/ln]	1.93	11.38	4.06	1.05	6.92	1.51	2.10	13.68	2.01	4.35
95th-Percentile Queue Length [ft/ln]	48.37	284.59	101.39	26.20	173.09	37.85	52.50	342.12	50.14	108.81

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	21.89	28.61	14.19	24.85	22.77	12.57	19.66	41.20	41.20	25.01	22.01	22.01
Movement LOS	C	C	B	C	C	B	B	D	D	C	C	C
d_A, Approach Delay [s/veh]	23.42			20.90			36.39			23.19		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	26.40											
Intersection LOS	C											
Intersection V/C	0.747											

Emissions

Vehicle Miles Traveled [mph]	15.76	59.08	30.70	38.05	163.91	55.03	26.95	93.68	28.22	43.61
Stops [stops/h]	53.38	349.29	111.89	28.91	191.00	41.77	57.94	437.76	55.33	120.07
Fuel consumption [US gal/h]	1.52	7.41	2.66	2.00	8.98	2.65	2.05	11.39	2.17	3.58
CO [g/h]	106.16	518.09	186.23	139.56	627.85	185.38	143.05	795.97	151.70	250.18
NOx [g/h]	20.65	100.80	36.23	27.15	122.16	36.07	27.83	154.87	29.52	48.68
VOC [g/h]	24.60	120.07	43.16	32.34	145.51	42.96	33.15	184.47	35.16	57.98

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	27.81	27.81	27.81	27.81
l_p,int, Pedestrian LOS Score for Intersectio	2.633	2.568	2.470	2.406
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	690	690	552	552
d_b, Bicycle Delay [s]	15.59	15.66	19.05	19.11
l_b,int, Bicycle LOS Score for Intersection	2.842	2.284	2.505	2.068
Bicycle LOS	C	B	B	B

Sequence

Ring 1	2	1	4	3	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	5	8	7	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: N Shore Boulevard and NE 232nd Avenue

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.111

Intersection Setup

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		-0.02		0.02	
Crosswalk	No		No		No	

Volumes

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Base Volume Input [veh/h]	9	5	10	80	76	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	5	10	80	76	21
Peak Hour Factor	0.7700	0.7700	0.7700	0.7700	0.7700	0.7700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	3	26	25	7
Total Analysis Volume [veh/h]	12	6	13	104	99	27
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.11	0.03
d_M, Delay for Movement [s/veh]	7.44	0.00	0.00	0.00	9.66	9.23
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.48	0.48
95th-Percentile Queue Length [ft/ln]	0.50	0.50	0.00	0.00	11.94	11.94
d_A, Approach Delay [s/veh]	4.96		0.00		9.57	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.96					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 22: SE 283rd Avenue & SE Nourse Road

Control Type:	Two-way stop	Delay (sec / veh):	13.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.031

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.02	
Crosswalk	No		No		No	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Base Volume Input [veh/h]	81	128	110	6	14	128
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	4.00	4.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	81	128	110	6	14	128
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	36	31	2	4	36
Total Analysis Volume [veh/h]	90	142	122	7	16	142
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.00	0.00	0.00	0.03	0.15
d_M, Delay for Movement [s/veh]	7.56	0.00	0.00	0.00	13.04	9.85
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.16	0.16	0.00	0.00	0.68	0.68
95th-Percentile Queue Length [ft/ln]	3.94	3.94	0.00	0.00	16.91	16.91
d_A, Approach Delay [s/veh]	2.93		0.00		10.17	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.41					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 23: SE 283rd Avenue & SE 23rd Street

Control Type:	Two-way stop	Delay (sec / veh):	12.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.060

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		SE 23rd Street	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	-0.02		0.02		-0.03	
Crosswalk	No		No		No	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		SE 23rd Street	
Base Volume Input [veh/h]	162	25	69	173	29	57
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	0.00	0.00	3.00	7.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	162	25	69	173	29	57
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	44	7	19	47	8	15
Total Analysis Volume [veh/h]	174	27	74	186	31	61
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.05	0.00	0.06	0.07
d_M, Delay for Movement [s/veh]	0.00	0.00	7.69	0.00	12.69	9.94
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.13	0.13	0.45	0.45
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.21	3.21	11.18	11.18
d_A, Approach Delay [s/veh]	0.00		2.19		10.86	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.84					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 24: SE 283rd Avenue and NE Woodburn Drive

Control Type:	Two-way stop	Delay (sec / veh):	15.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.030

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		NE Woodburn Drive	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1
Entry Pocket Length [ft]	175.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	-0.02		0.02		0.02	
Crosswalk	No		No		Yes	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		NE Woodburn Drive	
Base Volume Input [veh/h]	95	206	197	16	10	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	3.00	0.00	0.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	95	206	197	16	10	88
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	57	54	4	3	24
Total Analysis Volume [veh/h]	104	226	216	18	11	97
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.00	0.00	0.03	0.12
d_M, Delay for Movement [s/veh]	7.90	0.00	0.00	0.00	15.02	10.09
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.25	0.00	0.00	0.00	0.09	0.41
95th-Percentile Queue Length [ft/ln]	6.27	0.00	0.00	0.00	2.29	10.24
d_A, Approach Delay [s/veh]	2.49		0.00		10.59	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.92					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 25: SE Crown Road & NE 3rd Avenue

Control Type:	Signalized	Delay (sec / veh):	12.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.652

Intersection Setup

Name	SE Crown Road			SE Crown Road			NE 3rd Avenue			NE 3rd Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	30.00	110.00	100.00	100.00	130.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SE Crown Road			SE Crown Road			NE 3rd Avenue			NE 3rd Avenue		
Base Volume Input [veh/h]	7	3	3	112	2	162	218	1087	4	0	760	163
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	0.00	0.00	2.00	1.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	60	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	3	3	112	2	102	218	1087	4	0	760	163
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	1	1	31	1	29	61	305	1	0	213	46
Total Analysis Volume [veh/h]	8	3	3	126	2	115	245	1221	4	0	854	183
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			2			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	4	0	0	8	5	5	2	0	1	6	0
Auxiliary Signal Groups						5,8						
Maximum Green [s]	0	25	0	0	25	25	25	45	0	15	45	0
Amber [s]	0.0	3.0	0.0	0.0	4.0	3.0	3.0	3.0	0.0	3.0	4.0	0.0
All red [s]	0.0	3.8	0.0	0.0	2.0	2.6	2.6	2.0	0.0	2.2	1.3	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	11	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.8	0.0	0.0	4.0	3.6	3.6	3.0	0.0	3.2	3.3	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	0	14	0	0	14	9	9	14	0	9	14	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	8	0	5	8	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	45	45	45	45	45	45	45	45	45
L, Total Lost Time per Cycle [s]	6.80	6.00	5.60	5.60	5.00	5.00	5.20	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.80	0.00	0.00	3.60	3.00	3.00	3.20	3.30	3.30
g_i, Effective Green Time [s]	4	5	19	8	24	24	0	15	15
g / C, Green / Cycle	0.09	0.11	0.42	0.17	0.53	0.53	0.00	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.03	0.07	0.07	0.14	0.33	0.33	0.00	0.29	0.29
s, saturation flow rate [veh/h]	318	1811	1602	1810	1870	1868	1810	1870	1757
c, Capacity [veh/h]	169	281	673	316	985	984	0	629	591
d1, Uniform Delay [s]	18.65	18.94	8.11	17.65	7.46	7.46	0.00	13.82	13.82
k, delay calibration	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.06	0.43	0.04	1.54	0.24	0.24	0.00	1.27	1.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.46	0.17	0.77	0.62	0.62	0.00	0.85	0.85
d, Delay for Lane Group [s/veh]	18.71	19.37	8.16	19.19	7.70	7.70	0.00	15.09	15.17
Lane Group LOS	B	B	A	B	A	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.10	1.16	0.54	2.23	2.81	2.80	0.00	4.24	4.00
50th-Percentile Queue Length [ft/ln]	2.39	28.91	13.58	55.63	70.13	70.09	0.00	105.99	99.96
95th-Percentile Queue Length [veh/ln]	0.17	2.08	0.98	4.01	5.05	5.05	0.00	7.62	7.20
95th-Percentile Queue Length [ft/ln]	4.30	52.04	24.45	100.14	126.23	126.15	0.00	190.41	179.93

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	18.71	18.71	0.00	19.37	19.37	8.16	19.19	7.70	7.70	0.00	15.12	15.17
Movement LOS	B	B		B	B	A	B	A	A	A	B	B
d_A, Approach Delay [s/veh]	18.71			14.06			9.62			15.13		
Approach LOS	B			B			A			B		
d_I, Intersection Delay [s/veh]	12.11											
Intersection LOS	B											
Intersection V/C	0.652											

Emissions

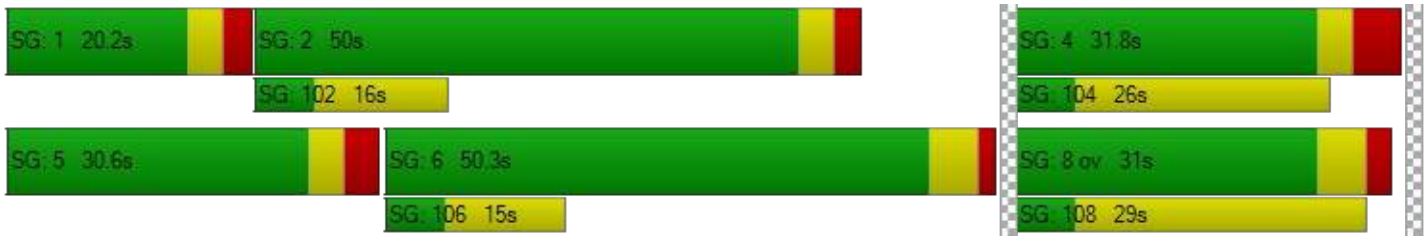
Vehicle Miles Traveled [mph]	0.67	8.58	7.71	19.00	47.52	47.48	0.00	48.41	45.50
Stops [stops/h]	7.68	93.07	43.72	179.08	225.74	225.61	0.00	341.19	321.78
Fuel consumption [US gal/h]	0.11	1.37	0.75	2.73	4.16	4.16	0.00	5.52	5.20
CO [g/h]	7.84	95.90	52.42	190.73	291.06	290.85	0.00	385.82	363.64
NOx [g/h]	1.52	18.66	10.20	37.11	56.63	56.59	0.00	75.07	70.75
VOC [g/h]	1.82	22.23	12.15	44.20	67.46	67.41	0.00	89.42	84.28

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.27	14.27	14.27	14.27
l_p,int, Pedestrian LOS Score for Intersectio	1.687	2.228	2.764	2.899
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1118	1118	2012	2012
d_b, Bicycle Delay [s]	4.35	4.35	0.00	0.00
l_b,int, Bicycle LOS Score for Intersection	1.578	2.060	2.772	2.415
Bicycle LOS	A	B	C	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Appendix E: In-Process Data

0% Build-Out

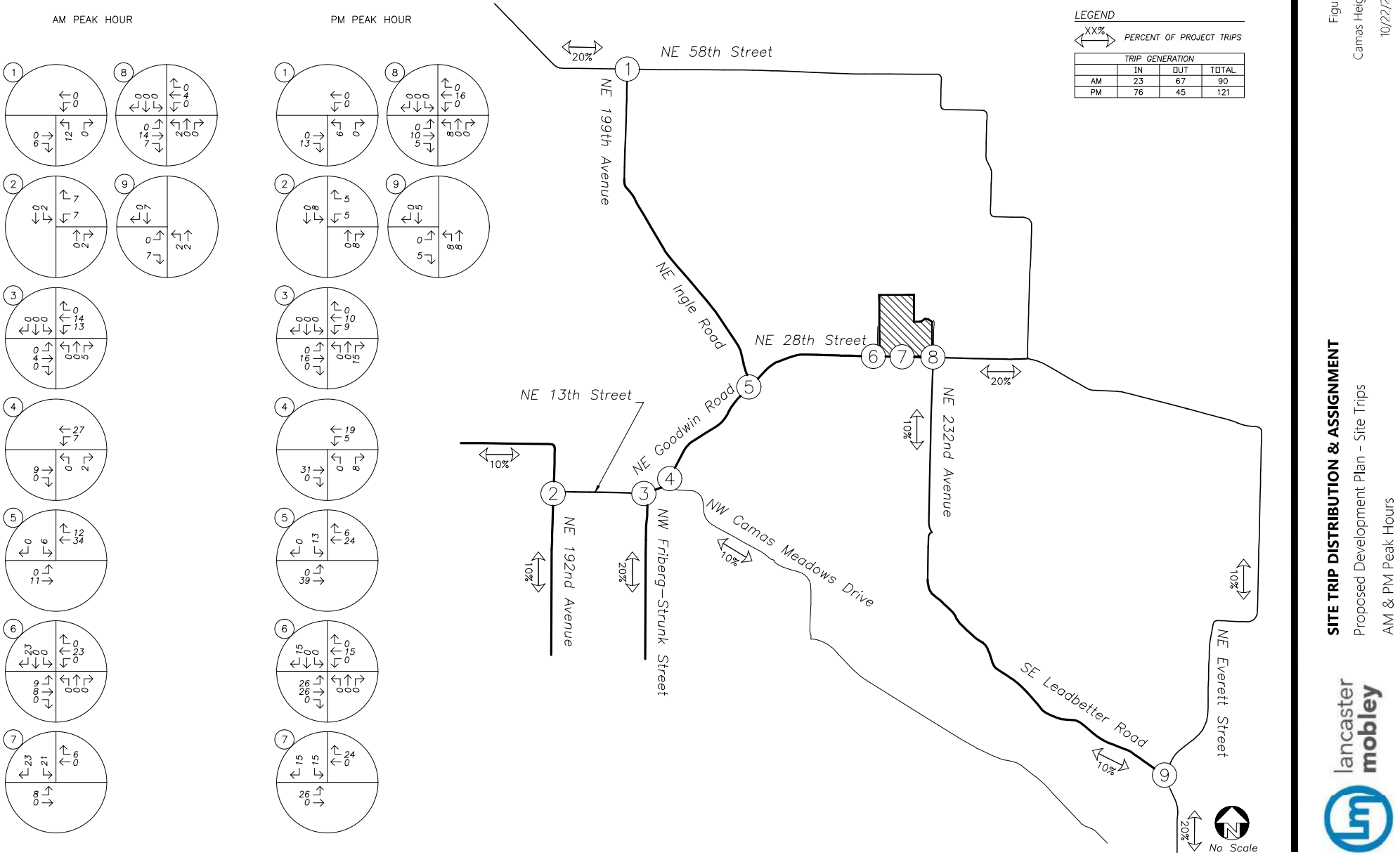


Figure 3
Camas Heights
10/22/2021

SITE TRIP DISTRIBUTION & ASSIGNMENT

Proposed Development Plan - Site Trips

AM & PM Peak Hours

lancaster mobley

75% Build-Out

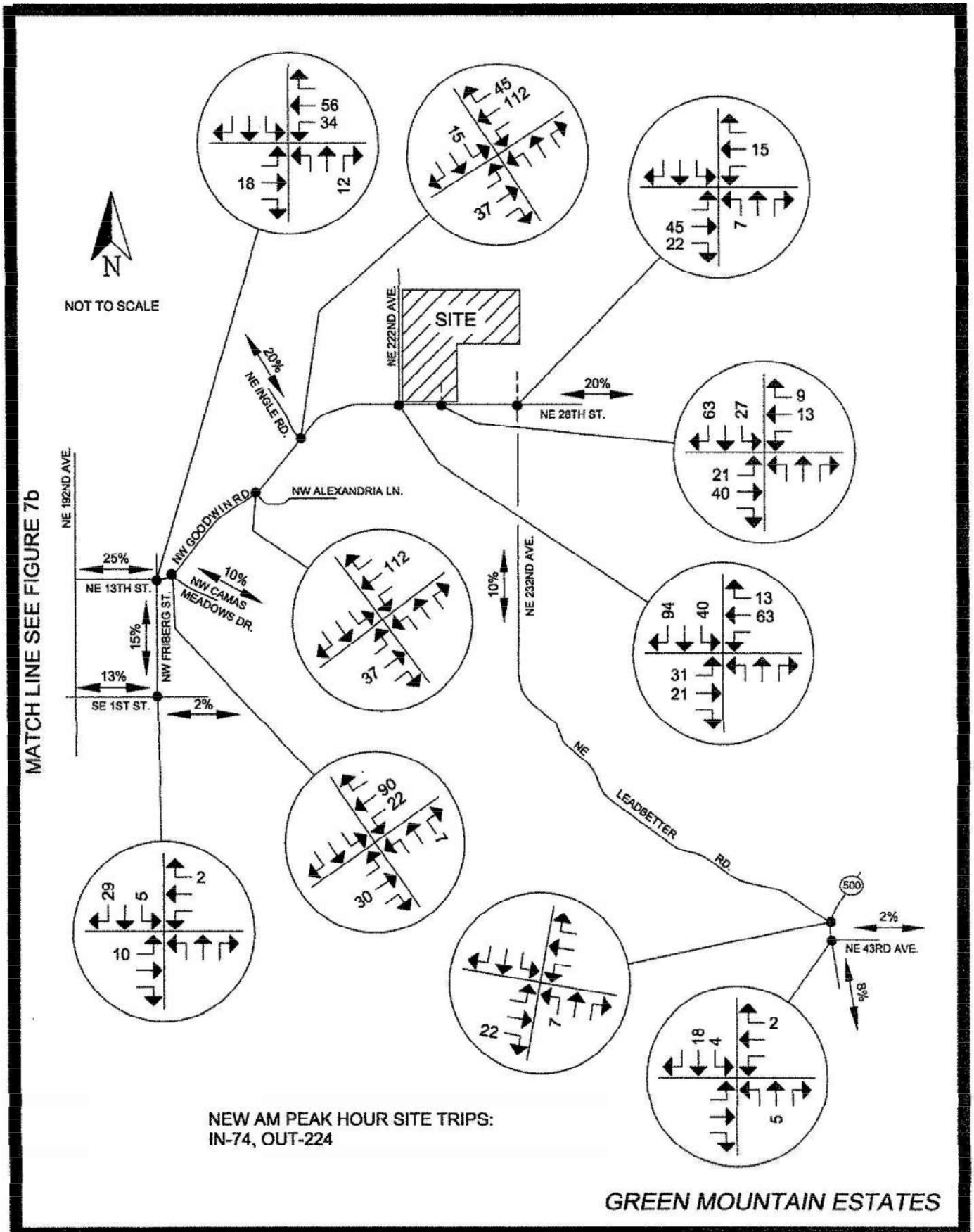


FIGURE 7a
SITE TRAFFIC DISTRIBUTION/
ASSIGNMENT, AM PEAK HOUR

KELLY ENGINEERING
316 E. Fourth Plain, A-2, Vancouver, WA 98663
Phone: 360-433-7530

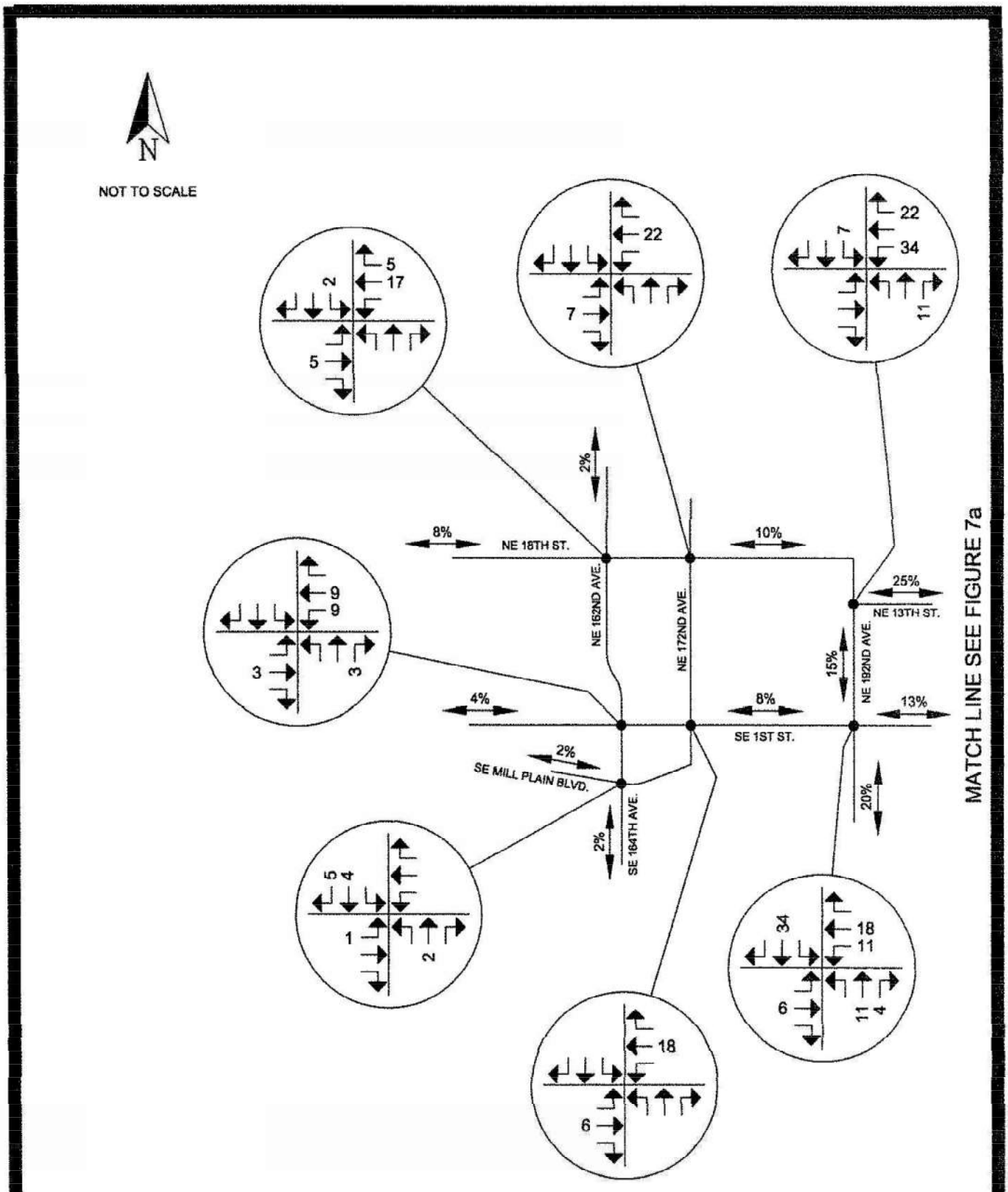


FIGURE 7b
SITE TRAFFIC DISTRIBUTION/ ASSIGNMENT, AM PEAK HOUR

KELLY ENGINEERING
316 E. Fourth Plain, A-2, Vancouver, WA 98663
Phone: 360-433-7530

75% Build-Out

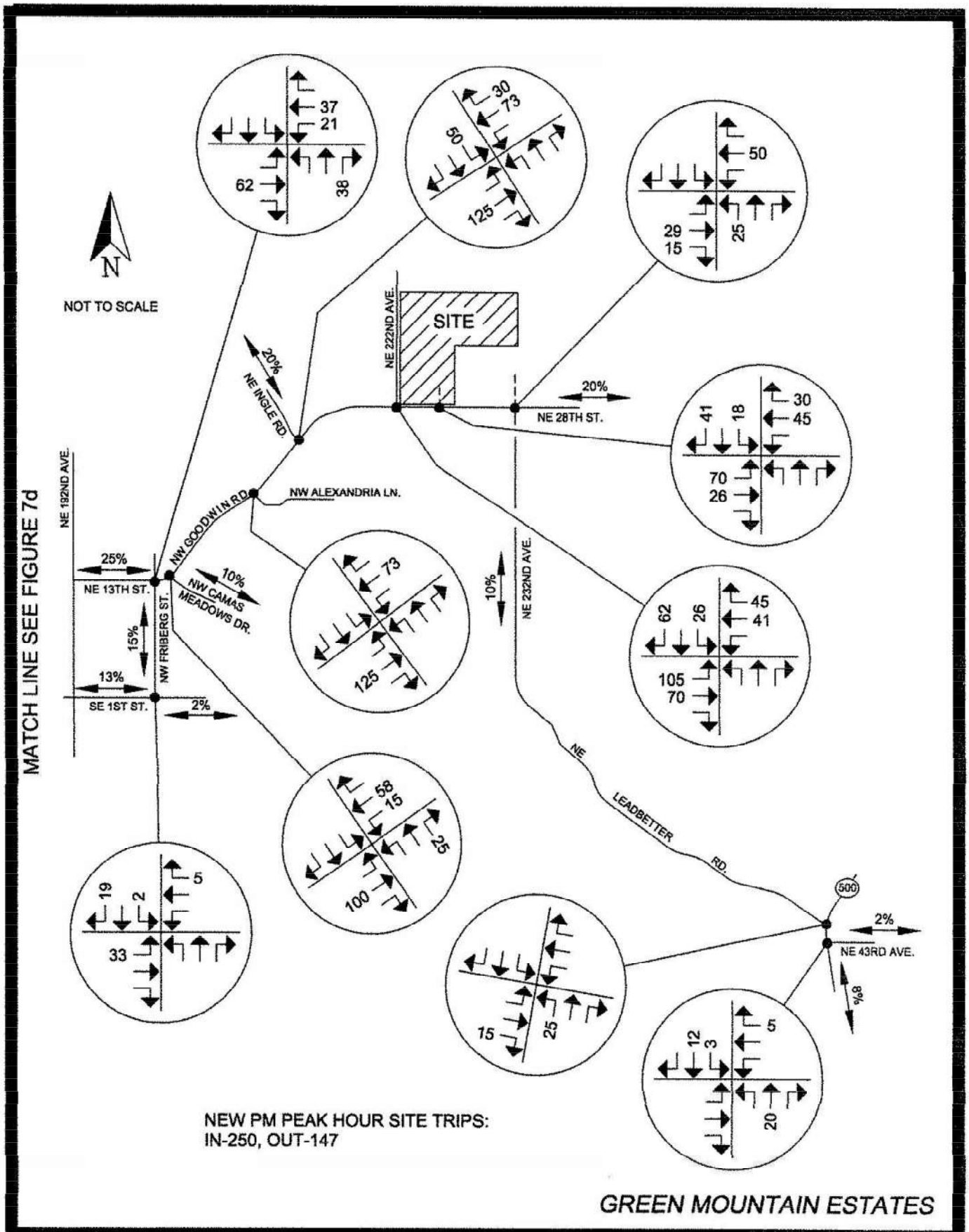


FIGURE 7c
SITE TRAFFIC DISTRIBUTION/ ASSIGNMENT, PM PEAK HOUR

KELLY ENGINEERING
316 E. Fourth Plain, A-2, Vancouver, WA 98663
Phone: 360-433-7530

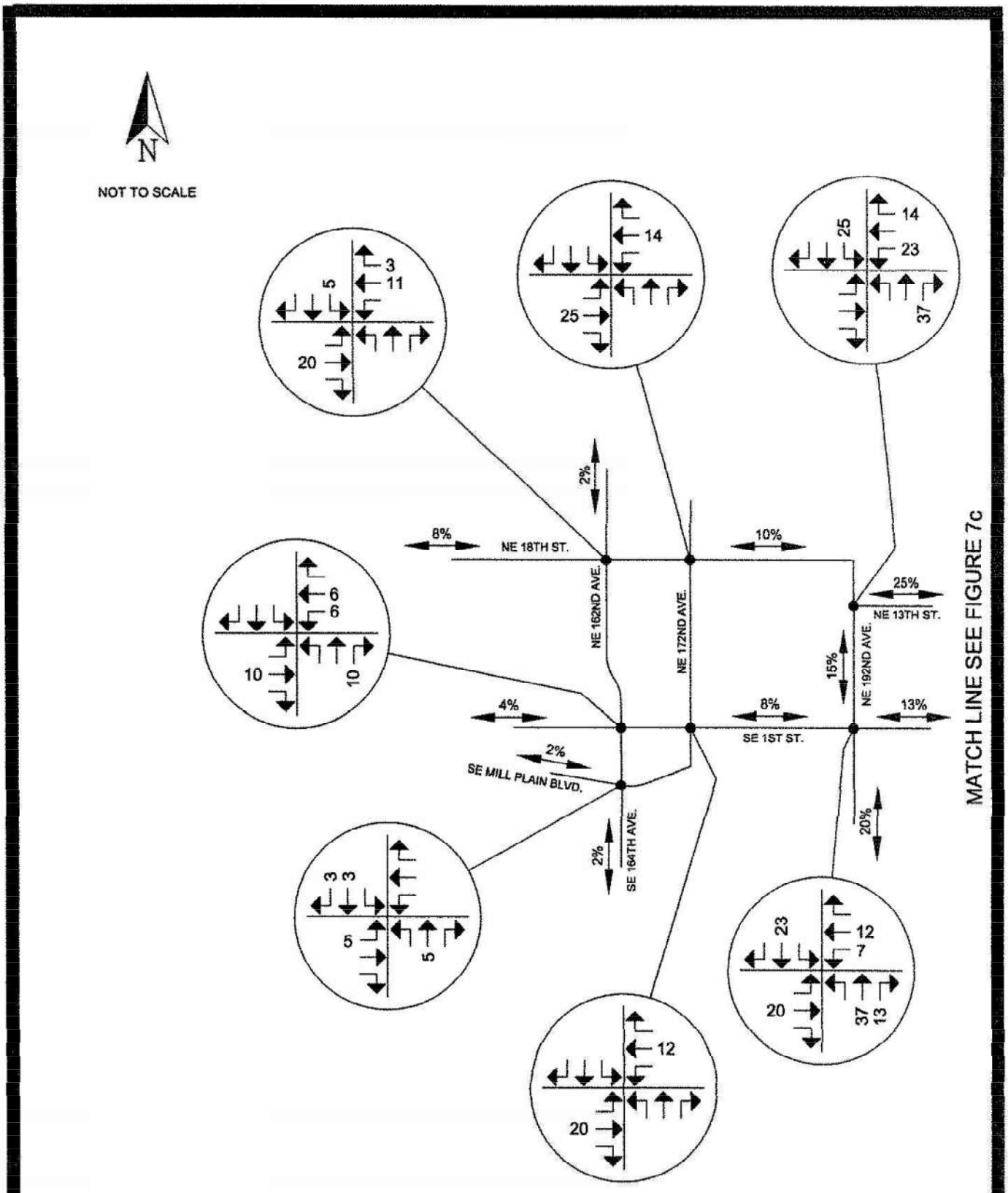
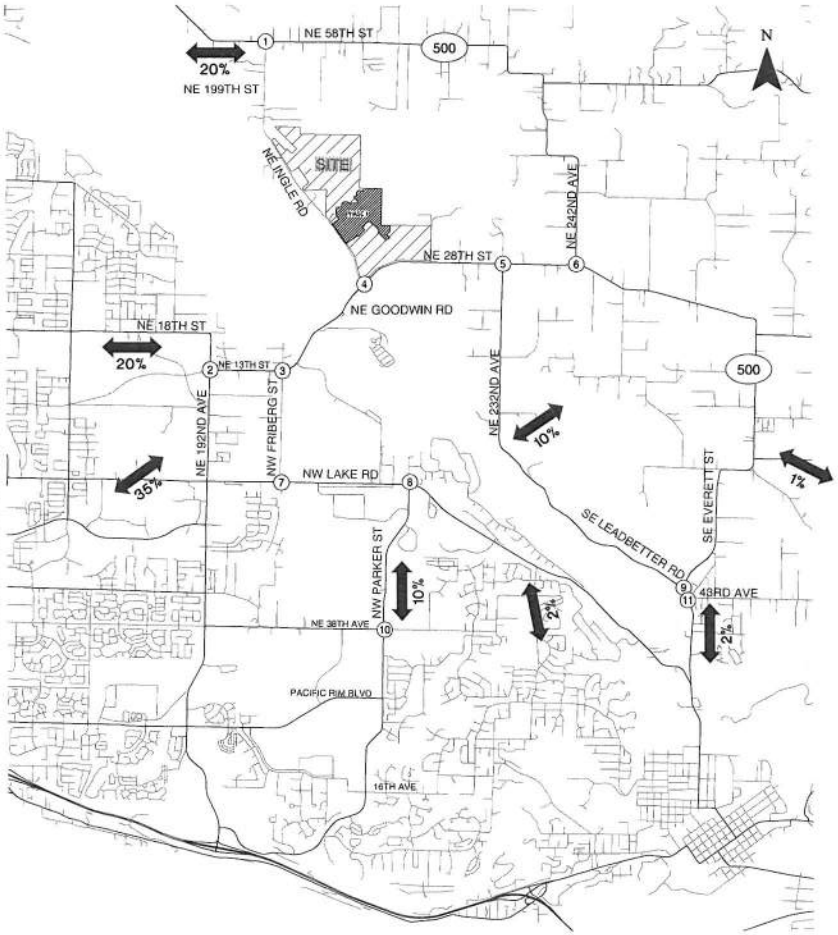


FIGURE 7d
SITE TRAFFIC DISTRIBUTION/ ASSIGNMENT, PM PEAK HOUR

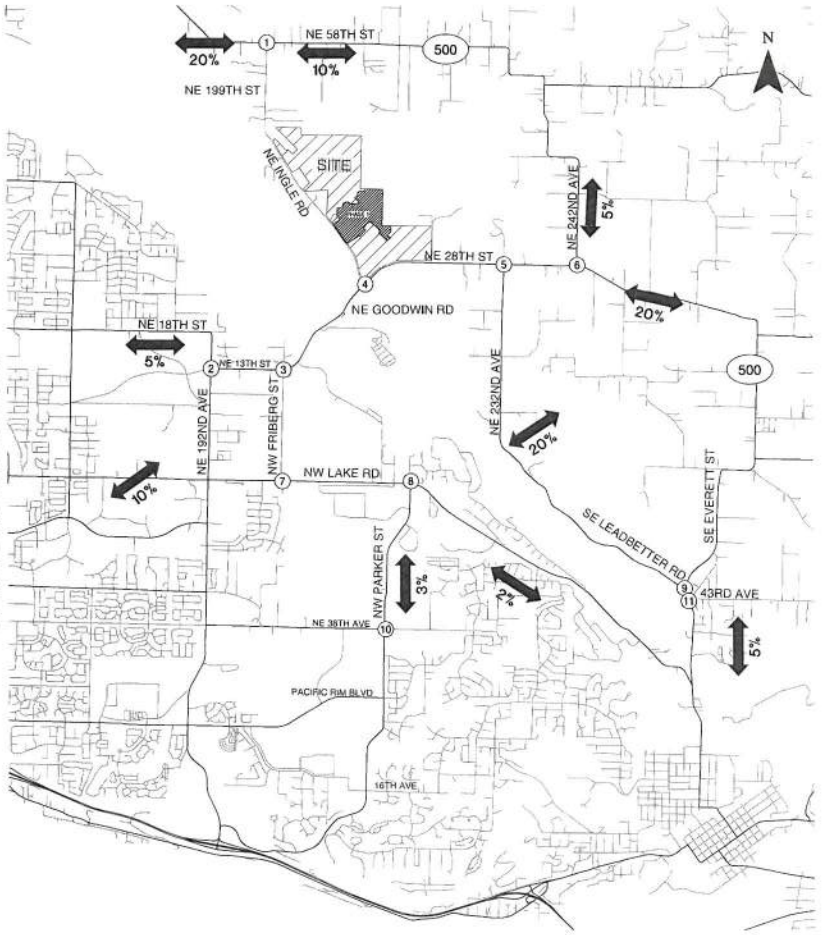
KELLY ENGINEERING
316 E. Fourth Plain, A-2, Vancouver, WA 98663
Phone: 360-433-7530

75% Build-Out

RESIDENTIAL DISTRIBUTION:



RETAIL DISTRIBUTION:



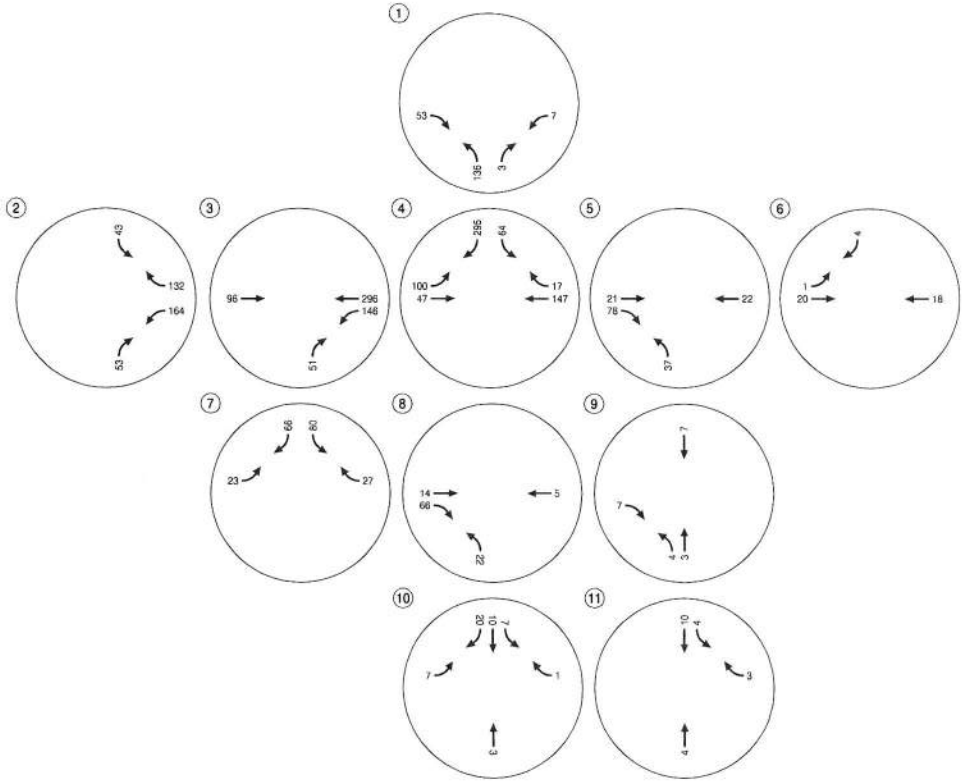
Estimated Trip Distribution Pattern
Camas, Washington

Figure 6

H:\proj\fio\13865 - Green Mountain Master Plan\dwg\graf\gat13865_trafic study -Nov update.dwg Nov 20, 2014 - 2:27pm - Akustsen Layout Tab: fig_6Dist

75% Build-Out





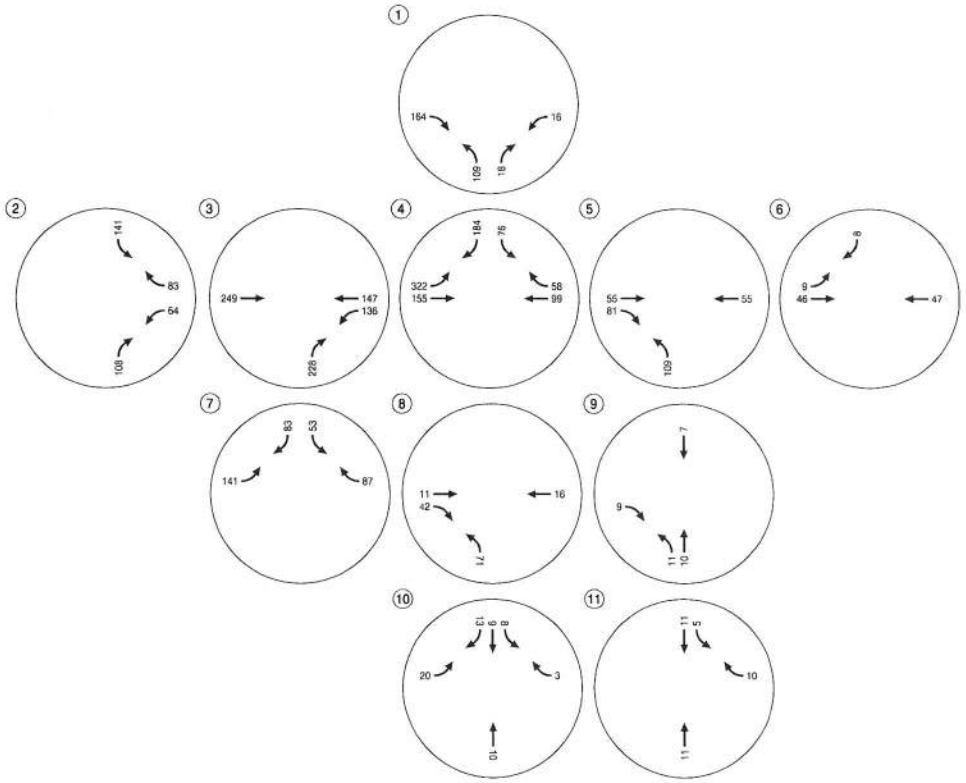
Total Estimated Trip Assignment - Full Build-Out
Weekday AM Peak Hour
Camas, Washington

Figure 9

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING, PLANNING

75% Build-Out



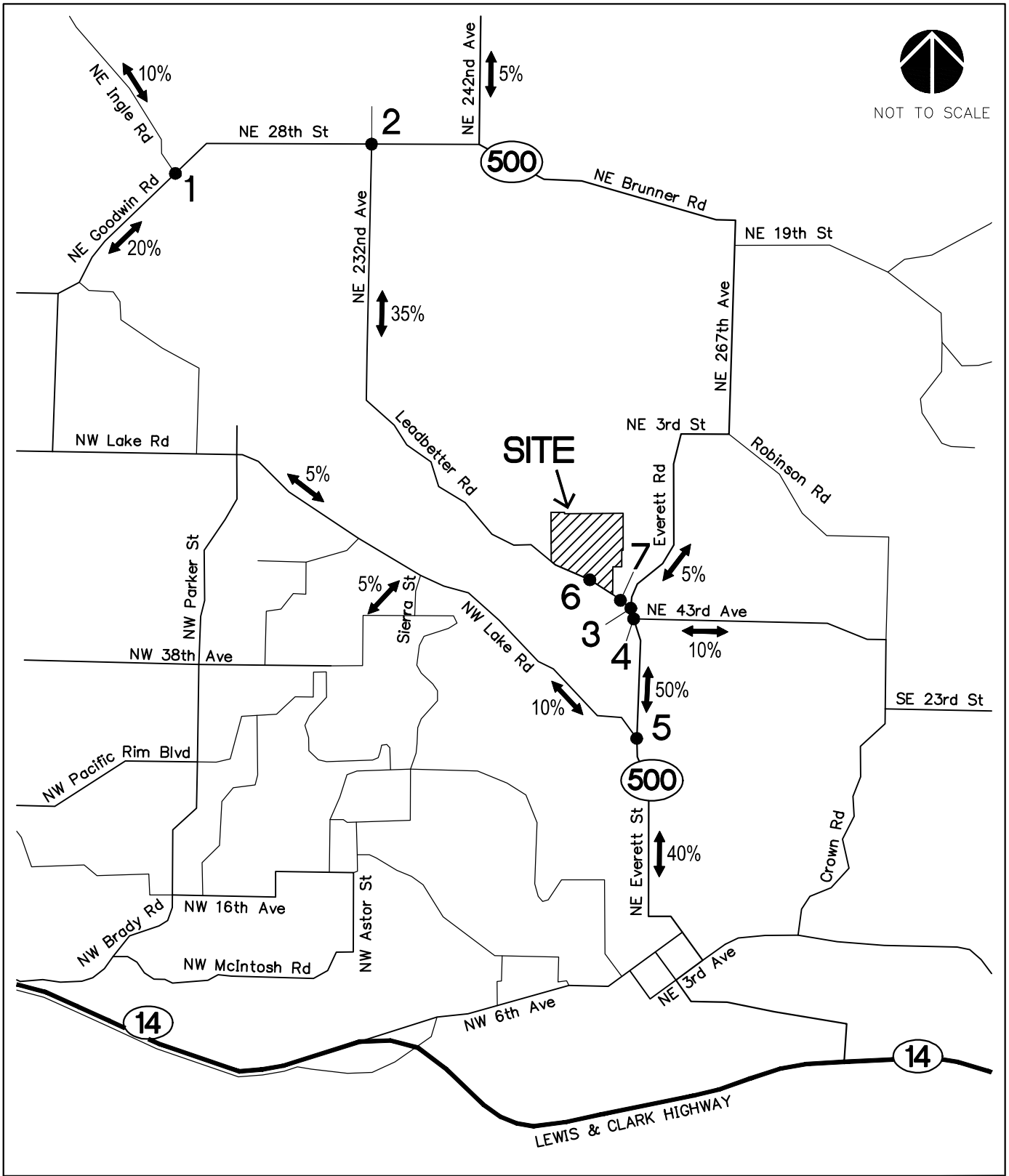


Total Estimated Trip Assignment - Full Build-Out
Weekday PM Peak Hour
Camas, Washington

Figure 10

H:\proj\tki\13805 - Green Mountain Master Plan\dwg\figs\13805_traffic.mxdy - Nov 20, 2014 - 2:28pm - klaatteen Layout Tab: 10_BkPM

40% Build-Out



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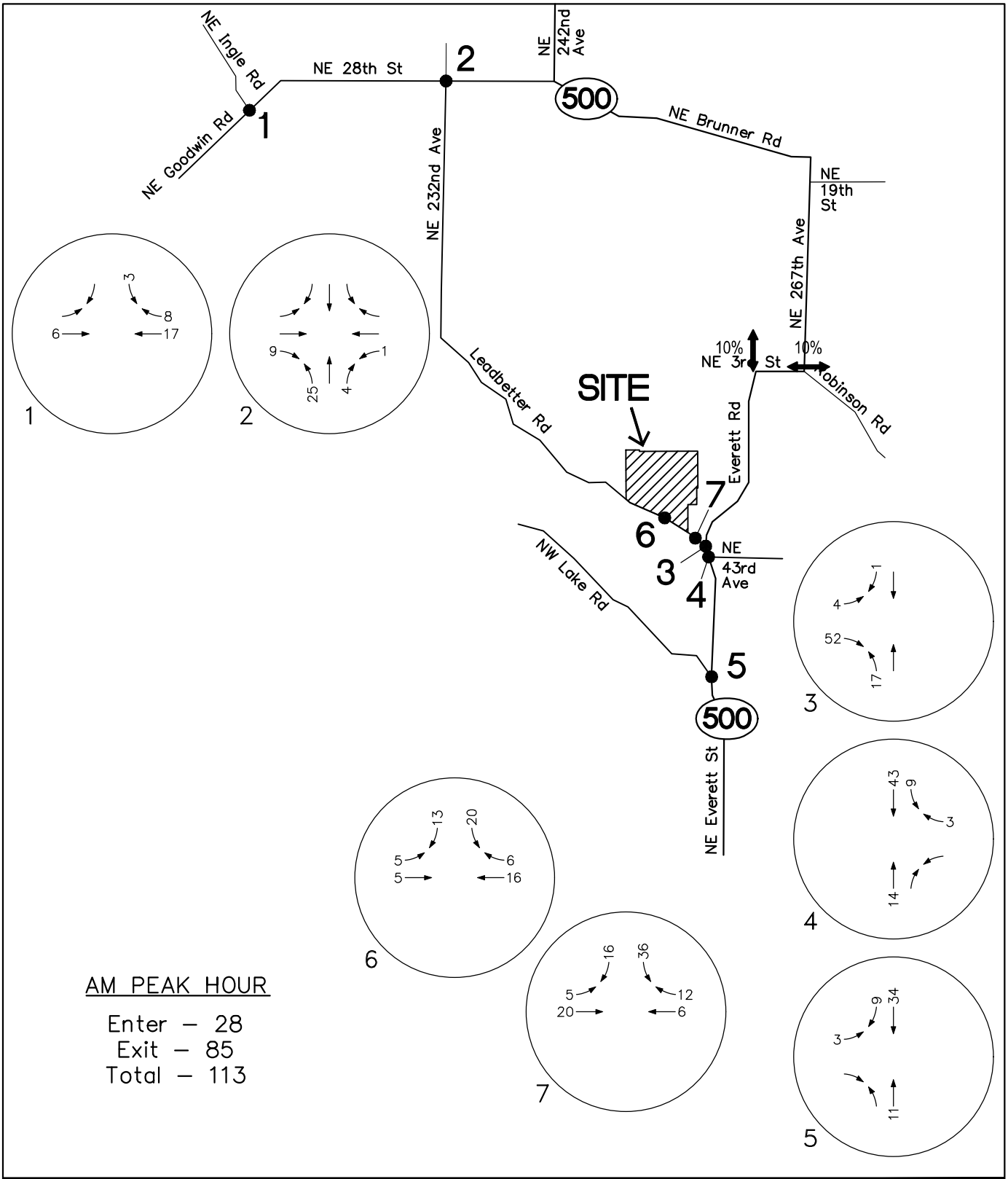
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TRIP DISTRIBUTION

CJ DENS EAST SUBDIVISION
CAMAS, WASHINGTON

FIGURE 1



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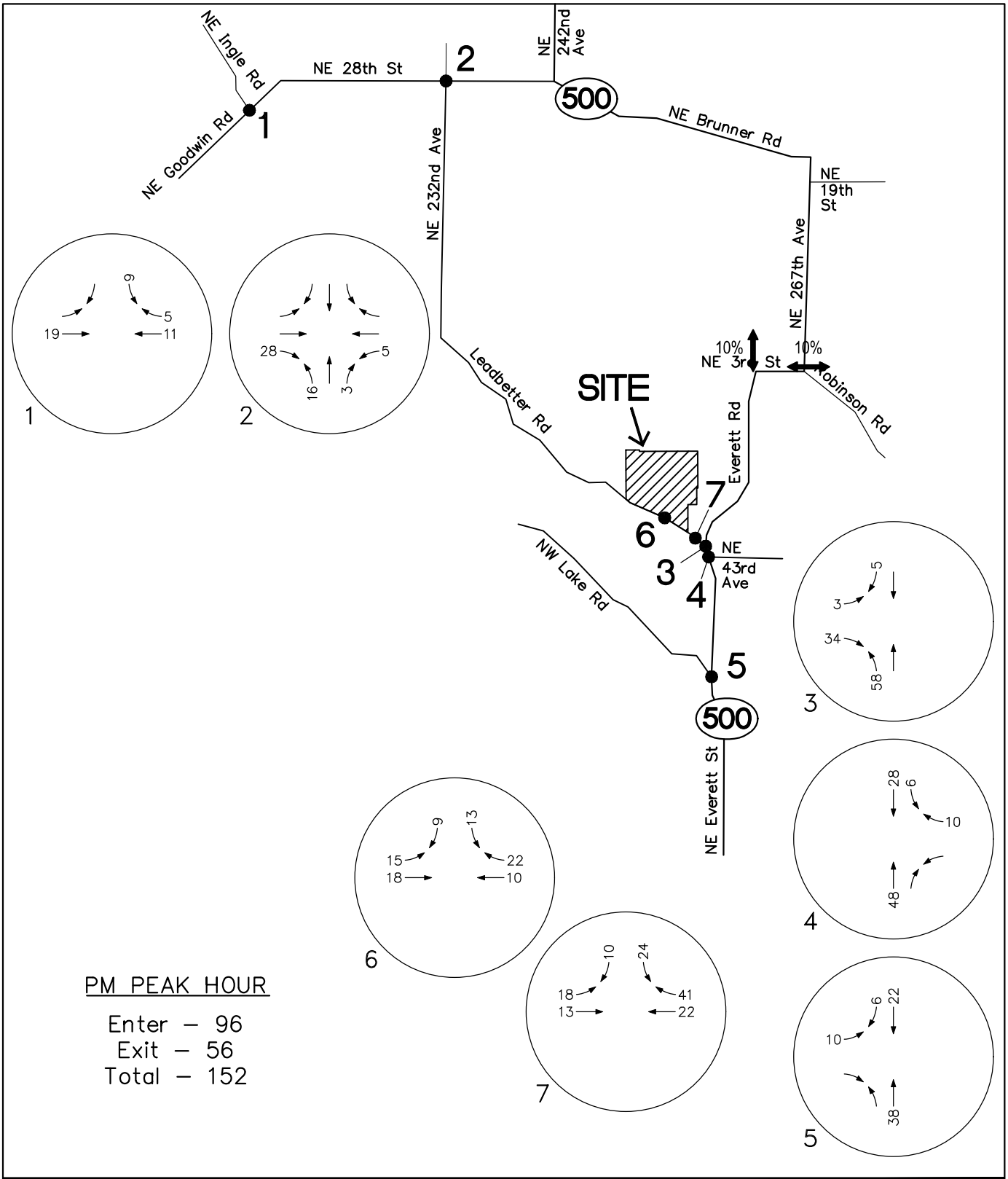
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PROJECT TRIP ASSIGNMENT
AM PEAK HOUR

CJ DENS EAST SUBDIVISION
CAMAS, WASHINGTON

FIGURE
2A



PM PEAK HOUR

Enter – 96
Exit – 56
Total – 152

Portland 503.224.9560 · Vancouver 360.695.7879 · Seattle 206.749.9993 · www.mcknze.com · Architecture · Interiors · Planning · Engineering · MACKENZIE	DATE: 9.16.2020 DRAWN BY: JTJ CHECKED BY: BTA JOB NO: 220038900	PROJECT TRIP ASSIGNMENT PM PEAK HOUR CJ DENS EAST SUBDIVISION CAMAS, WASHINGTON	FIGURE 2B

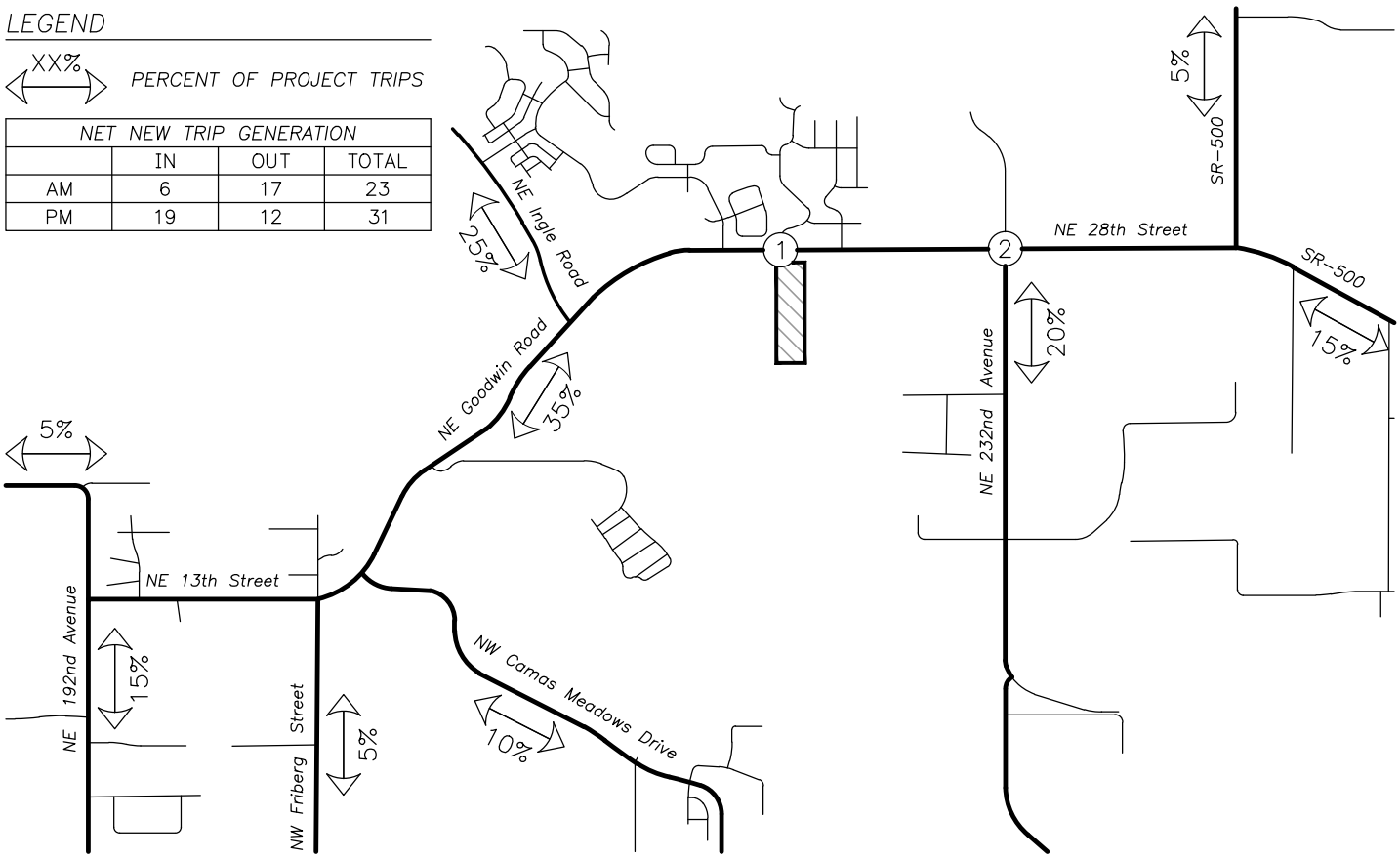
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0% Build-Out

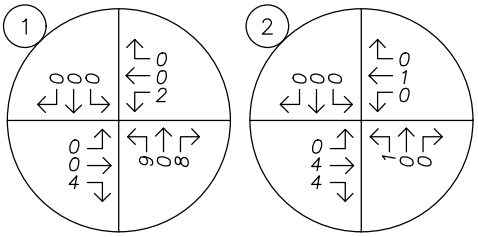
LEGEND

XX% PERCENT OF PROJECT TRIPS

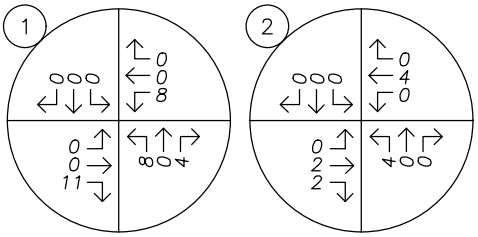
NET NEW TRIP GENERATION			
	IN	OUT	TOTAL
AM	6	17	23
PM	19	12	31



AM PEAK HOUR



PM PEAK HOUR



no scale

lancaster mobley

SITE TRIP DISTRIBUTION & ASSIGNMENT

Proposed Development Plan - Site Trips
AM & PM Peak Hours

Figure 3
Monte Verde Subdivision
7/13/2022

Appendix F: Year 2030 Background Traffic Conditions Analysis Worksheets

Intersection Level Of Service Report

Intersection 1: NE 232nd Avenue & NE 28th Street

Control Type:	Two-way stop	Delay (sec / veh):	183.2
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.097

Intersection Setup

Name	NE 232nd Avenue			NE 232nd Avenue			NE 28th Street			NE 28th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			25.00			40.00			40.00		
Grade [%]	0.02			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	NE 232nd Avenue			NE 232nd Avenue			NE 28th Street			NE 28th Street		
Base Volume Input [veh/h]	122	2	41	0	6	6	2	169	180	83	279	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.00	0.00	6.00	0.00	0.00	0.00	0.00	8.00	12.00	11.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	122	2	41	0	6	6	2	169	180	83	279	0
Peak Hour Factor	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	1	14	0	2	2	1	60	63	29	98	0
Total Analysis Volume [veh/h]	172	3	58	0	8	8	3	238	254	117	393	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.10	0.02	0.09	0.00	0.05	0.01	0.00	0.00	0.00	0.11	0.00	0.00
d_M, Delay for Movement [s/veh]	183.15	179.43	165.67	27.76	26.24	11.24	8.06	0.00	0.00	8.65	0.00	0.00
Movement LOS	F	F	F	D	D	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	12.10	12.10	12.10	0.18	0.18	0.18	0.01	0.01	0.01	0.21	0.21	0.21
95th-Percentile Queue Length [ft/ln]	302.50	302.50	302.50	4.56	4.56	4.56	0.14	0.14	0.14	5.21	5.21	5.21
d_A, Approach Delay [s/veh]	178.75			18.74			0.05			1.98		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	34.28											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: SR 500 & NE 28th Street

Control Type:	Two-way stop	Delay (sec / veh):	30.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.481

Intersection Setup

Name	Private Driveway			SR 500			NE 28th Street			SR 500		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	20.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Private Driveway			SR 500			NE 28th Street			SR 500		
Base Volume Input [veh/h]	0	0	0	130	0	80	34	176	0	0	275	114
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	15.00	0.00	6.00	4.00	6.00	0.00	0.00	3.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	130	0	80	34	176	0	0	275	114
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	39	0	24	10	53	0	0	83	34
Total Analysis Volume [veh/h]	0	0	0	157	0	96	41	212	0	0	331	137
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.48	0.00	0.15	0.04	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	18.23	16.16	9.32	30.18	29.34	24.76	8.37	0.00	0.00	7.63	0.00	0.00
Movement LOS	C	C	A	D	D	C	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	4.18	4.18	4.18	0.07	0.07	0.07	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	104.58	104.58	104.58	1.75	1.75	1.75	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.57			28.12			1.36			0.00		
Approach LOS	B			D			A			A		
d_I, Intersection Delay [s/veh]	7.66											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 3: NE Everett Street & SE 8th Street

Control Type:	Two-way stop	Delay (sec / veh):	30.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.316

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Base Volume Input [veh/h]	208	67	38	391	38	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	0.00	0.00	2.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	208	67	38	391	38	52
Peak Hour Factor	0.5900	0.5900	0.5900	0.5900	0.5900	0.5900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	88	28	16	166	16	22
Total Analysis Volume [veh/h]	353	114	64	663	64	88
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.06	0.01	0.32	0.13
d_M, Delay for Movement [s/veh]	0.00	0.00	8.33	0.00	30.83	18.24
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.11	0.11	2.18	2.18
95th-Percentile Queue Length [ft/ln]	0.00	0.00	2.76	2.76	54.56	54.56
d_A, Approach Delay [s/veh]	0.00		0.73		23.54	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	3.05					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	46.6
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.517

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	239	148	108	317	62	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	0.00	3.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	239	148	108	317	62	35
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	53	39	113	22	13
Total Analysis Volume [veh/h]	341	211	154	453	89	50
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.15	0.00	0.52	0.08
d_M, Delay for Movement [s/veh]	0.00	0.00	9.12	0.00	46.65	31.56
Movement LOS	A	A	A	A	E	D
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.53	0.00	3.45	3.45
95th-Percentile Queue Length [ft/ln]	0.00	0.00	13.15	0.00	86.25	86.25
d_A, Approach Delay [s/veh]	0.00		2.31		41.22	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	5.50					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 5: NE Everett Street & SE Leadbetter Road

Control Type:	Two-way stop	Delay (sec / veh):	31.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.211

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.04		-0.02		0.03	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Base Volume Input [veh/h]	96	312	330	16	39	197
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	4.00	4.00	0.00	1.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	96	312	330	16	39	197
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	91	96	5	11	57
Total Analysis Volume [veh/h]	112	363	384	19	45	229
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.00	0.00	0.00	0.21	0.36
d_M, Delay for Movement [s/veh]	8.43	0.00	0.00	0.00	31.38	20.16
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.32	0.00	0.00	0.00	3.51	3.51
95th-Percentile Queue Length [ft/ln]	7.99	0.00	0.00	0.00	87.77	87.77
d_A, Approach Delay [s/veh]	1.99		0.00		22.00	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	6.05					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 6: NE Everett Street & NE 43rd Avenue

Control Type:	Signalized	Delay (sec / veh):	12.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.712

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	300.00	120.00	100.00	100.00	80.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.03		-0.04		-0.04	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Base Volume Input [veh/h]	341	468	83	445	323	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	5.00	18.00	4.00	11.00	4.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	341	0	83	445	323	63
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	99	0	24	129	94	18
Total Analysis Volume [veh/h]	397	0	97	517	376	73
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	ProtPerm	Permissive	Permissive	Permissive
Signal Group	2	0	1	6	8	0
Auxiliary Signal Groups						
Maximum Green [s]	40	0	20	40	40	0
Amber [s]	4.0	0.0	3.0	4.0	3.0	0.0
All red [s]	1.0	0.0	2.0	1.0	1.0	0.0
Walk [s]	7	0	0	0	7	0
Pedestrian Clearance [s]	14	0	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.0	0.0	3.0	3.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	14	0	9	14	9	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	5	0	4	5	4	0
Vehicle Extension [s]	5.0	0.0	3.0	3.5	3.0	0.0
Minimum Recall	Yes		No	Yes	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	42	42	42	42	42	42
L, Total Lost Time per Cycle [s]	5.00	5.00	5.00	5.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.00	3.00	0.00	3.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	21	21	12	12
g / C, Green / Cycle	0.31	0.31	0.50	0.50	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.23	0.00	0.09	0.28	0.23	0.05
s, saturation flow rate [veh/h]	1737	1451	1051	1840	1653	1564
c, Capacity [veh/h]	547	457	596	918	475	449
d1, Uniform Delay [s]	12.80	0.00	6.60	7.35	13.85	11.22
k, delay calibration	0.23	0.23	0.11	0.13	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.89	0.00	0.13	0.66	3.02	0.17
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.00	0.16	0.56	0.79	0.16
d, Delay for Lane Group [s/veh]	16.69	0.00	6.73	8.00	16.87	11.39
Lane Group LOS	B	A	A	A	B	B
Critical Lane Group	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	3.10	0.00	0.30	2.13	3.15	0.45
50th-Percentile Queue Length [ft/ln]	77.50	0.00	7.58	53.21	78.75	11.35
95th-Percentile Queue Length [veh/ln]	5.58	0.00	0.55	3.83	5.67	0.82
95th-Percentile Queue Length [ft/ln]	139.50	0.00	13.64	95.77	141.75	20.43

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.69	0.00	6.73	8.00	16.87	11.39
Movement LOS	B	A	A	A	B	B
d_A, Approach Delay [s/veh]	16.69		7.80		15.98	
Approach LOS	B		A		B	
d_I, Intersection Delay [s/veh]	12.73					
Intersection LOS	B					
Intersection V/C	0.712					

Emissions

Vehicle Miles Traveled [mph]	232.85	0.00	6.78	36.14	9.83	1.91
Stops [stops/h]	266.08	0.00	26.02	182.68	270.39	38.96
Fuel consumption [US gal/h]	12.23	0.00	0.59	3.59	2.77	0.40
CO [g/h]	854.55	0.00	41.02	251.19	193.64	28.28
NOx [g/h]	166.27	0.00	7.98	48.87	37.68	5.50
VOC [g/h]	198.05	0.00	9.51	58.22	44.88	6.55

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	11.41	11.41
l_p,int, Pedestrian LOS Score for Intersectio	0.000	2.306	2.093
Crosswalk LOS	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1907	1907	1907
d_b, Bicycle Delay [s]	0.04	0.04	0.04
l_b,int, Bicycle LOS Score for Intersection	2.215	2.573	1.560
Bicycle LOS	B	B	A

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



MOVEMENT SUMMARY

Site: 7 [NE Everett St & NW Lake Rd_BackgroundAM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NE Everett Street															
3	L2	All MCs	238	12.0	238	12.0	0.370	14.4	LOS B	2.3	63.6	0.77	0.76	0.77	30.8
8	T1	All MCs	374	8.0	374	8.0	0.437	7.0	LOS A	3.2	86.1	0.80	0.67	0.81	34.3
Approach			612	9.6	612	9.6	0.437	9.9	LOS A	3.2	86.1	0.79	0.70	0.80	32.8
North: NE Everett Street															
4	T1	All MCs	468	9.0	468	9.0	0.419	5.3	LOS A	3.0	81.0	0.58	0.51	0.58	34.8
14	R2	All MCs	381	4.0	381	4.0	0.320	5.1	LOS A	2.2	55.6	0.53	0.54	0.53	35.0
Approach			849	6.8	849	6.8	0.419	5.2	LOS A	3.0	81.0	0.56	0.52	0.56	34.9
West: NW Lake Road															
5	L2	All MCs	555	3.0	555	3.0	0.545	13.6	LOS B	4.8	121.6	0.79	0.75	0.86	31.3
12	R2	All MCs	253	6.0	253	6.0	0.260	6.4	LOS A	1.6	43.1	0.66	0.62	0.66	34.7
Approach			807	3.9	807	3.9	0.545	11.4	LOS B	4.8	121.6	0.75	0.71	0.80	32.3
All Vehicles			2268	6.5	2268	6.5	0.545	8.7	LOS A	4.8	121.6	0.69	0.64	0.71	33.3

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 8: NE Everett Street & NE 17th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	26.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.321

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 17th Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 17th Avenue	
Base Volume Input [veh/h]	36	320	459	53	72	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	6.00	5.00	3.00	0.00	4.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	320	459	53	72	34
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	91	130	15	20	10
Total Analysis Volume [veh/h]	41	364	522	60	82	39
Pedestrian Volume [ped/h]	0		2		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.01	0.00	0.32	0.07
d_M, Delay for Movement [s/veh]	8.86	0.00	0.00	0.00	26.57	19.32
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.13	0.00	0.00	0.00	1.82	1.82
95th-Percentile Queue Length [ft/ln]	3.30	0.00	0.00	0.00	45.43	45.43
d_A, Approach Delay [s/veh]	0.90		0.00		24.23	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.97					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 9: NE Everett Street & NE 15th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	43.8
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.316

Intersection Setup

Name	NE Everett Street (SR 500)			NE Everett Street (SR 500)			NE 15th Avenue			NE 15th Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NE Everett Street (SR 500)			NE Everett Street (SR 500)			NE 15th Avenue			NE 15th Avenue		
Base Volume Input [veh/h]	15	226	4	80	285	126	39	25	25	2	25	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	7.00	7.00	0.00	0.00	2.00	2.00	3.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	226	4	80	285	126	39	25	25	2	25	84
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	68	1	24	86	38	12	8	8	1	8	25
Total Analysis Volume [veh/h]	18	272	5	96	343	152	47	30	30	2	30	101
Pedestrian Volume [ped/h]	5			16			0			5		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	2	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.07	0.00	0.00	0.32	0.12	0.05	0.01	0.14	0.14
d_M, Delay for Movement [s/veh]	8.51	0.00	0.00	8.03	0.00	0.00	43.83	34.36	25.31	27.94	24.32	12.94
Movement LOS	A	A	A	A	A	A	E	D	D	D	C	B
95th-Percentile Queue Length [veh/ln]	0.05	0.00	0.00	0.24	0.00	0.00	2.43	2.43	2.43	1.16	1.16	1.16
95th-Percentile Queue Length [ft/ln]	1.32	0.00	0.00	6.04	0.00	0.00	60.68	60.68	60.68	29.01	29.01	29.01
d_A, Approach Delay [s/veh]	0.52			1.30			35.98			15.73		
Approach LOS	A			A			E			C		
d_I, Intersection Delay [s/veh]	6.10											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 12: Division Street & NE 6th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	16.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.116

Intersection Setup

Name	Division Street		NW 6th Avenue		NE 6th Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	40.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	-0.12		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Division Street		NW 6th Avenue		NE 6th Avenue	
Base Volume Input [veh/h]	35	163	125	410	535	28
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	4.00	5.00	4.00	7.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	163	125	410	535	28
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	46	36	116	152	8
Total Analysis Volume [veh/h]	40	185	142	466	608	32
Pedestrian Volume [ped/h]	2		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.25	0.15	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	16.75	11.34	9.07	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.39	0.97	0.26	0.13	0.00	0.00
95th-Percentile Queue Length [ft/ln]	9.70	24.15	6.42	3.21	0.00	0.00
d_A, Approach Delay [s/veh]	12.30		2.12		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.75					
Intersection LOS	C					

MOVEMENT SUMMARY

Site: 13 [NW Norwood St & NW 6th Ave_BackgroundAM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Existing AM
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NW 6th Avenue															
3	L2	All MCs	106	1.0	106	1.0	0.212	12.6	LOS B	1.1	29.6	0.61	0.69	0.61	32.6
8	T1	All MCs	2	0.0	2	0.0	0.212	6.2	LOS A	1.1	29.6	0.61	0.69	0.61	33.3
18	R2	All MCs	68	13.0	68	13.0	0.212	7.3	LOS A	1.1	29.6	0.61	0.69	0.61	32.8
Approach			176	5.6	176	5.6	0.212	10.5	LOS B	1.1	29.6	0.61	0.69	0.61	32.7
East: NW 6th Avenue															
1	L2	All MCs	78	3.0	78	3.0	0.733	11.3	LOS B	8.3	212.2	0.64	0.49	0.64	33.8
6	T1	All MCs	784	3.0	784	3.0	0.733	5.0	LOS A	8.3	212.2	0.64	0.49	0.64	34.6
16	R2	All MCs	6	50.0	6	50.0	0.733	7.0	LOS A	8.3	212.2	0.64	0.49	0.64	33.2
Approach			869	3.3	869	3.3	0.733	5.6	LOS A	8.3	212.2	0.64	0.49	0.64	34.5
North: NW Norwood Street															
7	L2	All MCs	29	4.0	29	4.0	0.161	17.2	LOS B	1.0	26.4	0.86	0.79	0.86	31.2
4	T1	All MCs	6	0.0	6	0.0	0.161	10.5	LOS B	1.0	26.4	0.86	0.79	0.86	32.0
14	R2	All MCs	44	5.0	44	5.0	0.161	11.2	LOS B	1.0	26.4	0.86	0.79	0.86	31.6
Approach			80	4.2	80	4.2	0.161	13.4	LOS B	1.0	26.4	0.86	0.79	0.86	31.5
West: NW 6th Avenue															
5	L2	All MCs	12	27.0	12	27.0	0.474	11.4	LOS B	3.4	88.8	0.40	0.43	0.40	33.9
2	T1	All MCs	456	7.0	456	7.0	0.474	4.5	LOS A	3.4	88.8	0.40	0.43	0.40	35.5
12	R2	All MCs	80	3.0	80	3.0	0.474	4.6	LOS A	3.4	88.8	0.40	0.43	0.40	35.2
Approach			547	6.9	547	6.9	0.474	4.7	LOS A	3.4	88.8	0.40	0.43	0.40	35.4
All Vehicles			1672	4.8	1672	4.8	0.733	6.2	LOS A	8.3	212.2	0.57	0.51	0.57	34.4

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 14: NW Lacamas Lane & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name	NW Lacamas Lane		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	110.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	-0.11		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Lacamas Lane		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	2	191	580	2	60	513
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	4.00	0.00	10.00	5.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	191	580	2	60	513
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	51	156	1	16	138
Total Analysis Volume [veh/h]	2	205	624	2	65	552
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.35	0.01	0.00	0.07	0.01
d_M, Delay for Movement [s/veh]	14.85	14.34	0.00	0.00	9.22	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	1.55	0.00	0.00	0.23	0.00
95th-Percentile Queue Length [ft/ln]	0.41	38.79	0.00	0.00	5.70	0.00
d_A, Approach Delay [s/veh]	14.34		0.00		0.97	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.46					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 15: NW Sierra Street & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	32.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.378

Intersection Setup

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	75	206	354	85	122	379
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	4.00	7.00	2.00	8.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	206	354	85	122	379
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	55	94	23	32	101
Total Analysis Volume [veh/h]	80	219	377	90	130	403
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.38	0.35	0.00	0.00	0.12	0.00
d_M, Delay for Movement [s/veh]	32.04	13.78	0.00	0.00	8.85	0.00
Movement LOS	D	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.66	1.56	0.00	0.00	0.42	0.00
95th-Percentile Queue Length [ft/ln]	41.48	39.02	0.00	0.00	10.40	0.00
d_A, Approach Delay [s/veh]	18.67		0.00		2.16	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	5.18					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 16: NW Lake Road & NW Leadbetter Drive

Control Type:	Two-way stop	Delay (sec / veh):	30.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.071

Intersection Setup

Name	NW Leadbetter Drive			NW Leadbetter Drive			NW Lake Road			NW Lake Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	NW Leadbetter Drive			NW Leadbetter Drive			NW Lake Road			NW Lake Road		
Base Volume Input [veh/h]	4	5	98	10	7	6	10	352	12	79	369	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	20.00	16.00	0.00	0.00	17.00	0.00	4.00	0.00	5.00	2.00	33.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	5	98	10	7	6	10	352	12	79	369	6
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	27	3	2	2	3	96	3	21	100	2
Total Analysis Volume [veh/h]	4	5	107	11	8	7	11	383	13	86	401	7
Pedestrian Volume [ped/h]	2			2			1			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.02	0.17	0.07	0.04	0.01	0.01	0.00	0.00	0.08	0.00	0.00
d_M, Delay for Movement [s/veh]	25.20	24.14	12.57	30.51	23.26	13.09	8.14	0.00	0.00	8.41	0.00	0.00
Movement LOS	D	C	B	D	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.81	0.81	0.81	0.40	0.40	0.40	0.03	0.00	0.00	0.24	0.00	0.00
95th-Percentile Queue Length [ft/ln]	20.27	20.27	20.27	9.91	9.91	9.91	0.72	0.00	0.00	6.09	0.00	0.00
d_A, Approach Delay [s/veh]	13.51			23.59			0.22			1.46		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	2.87											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 21: N Shore Boulevard and NE 232nd Avenue

Control Type:	Two-way stop	Delay (sec / veh):	32.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.521

Intersection Setup

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		-0.02		0.02	
Crosswalk	No		No		No	

Volumes

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Base Volume Input [veh/h]	62	66	103	149	79	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	13.00	3.00	7.00	6.00	7.00	8.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	62	66	103	149	79	40
Peak Hour Factor	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	33	52	75	40	20
Total Analysis Volume [veh/h]	124	132	206	298	158	80
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.00	0.00	0.00	0.52	0.12
d_M, Delay for Movement [s/veh]	8.73	0.00	0.00	0.00	32.71	26.27
Movement LOS	A	A	A	A	D	D
95th-Percentile Queue Length [veh/ln]	0.22	0.22	0.00	0.00	4.27	4.27
95th-Percentile Queue Length [ft/ln]	5.54	5.54	0.00	0.00	106.87	106.87
d_A, Approach Delay [s/veh]	4.23		0.00		30.55	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	8.37					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 22: SE 283rd Avenue & SE Nourse Road

Control Type:	Two-way stop	Delay (sec / veh):	17.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.050

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.02	
Crosswalk	No		No		No	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Base Volume Input [veh/h]	244	55	98	28	14	94
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	2.00	10.00	18.00	0.00	7.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	244	55	98	28	14	94
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	66	15	27	8	4	26
Total Analysis Volume [veh/h]	265	60	107	30	15	102
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.18	0.00	0.00	0.00	0.05	0.11
d_M, Delay for Movement [s/veh]	7.90	0.00	0.00	0.00	17.94	9.92
Movement LOS	A	A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.55	0.55	0.00	0.00	0.58	0.58
95th-Percentile Queue Length [ft/ln]	13.80	13.80	0.00	0.00	14.40	14.40
d_A, Approach Delay [s/veh]	6.44		0.00		10.95	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.83					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 3: NE Everett Street & SE 8th Street

Control Type:	Two-way stop	Delay (sec / veh):	24.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.243

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Base Volume Input [veh/h]	293	75	25	260	41	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	3.00	0.00	2.00	5.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	293	75	25	260	41	50
Peak Hour Factor	0.6300	0.6300	0.6300	0.6300	0.6300	0.6300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	116	30	10	103	16	20
Total Analysis Volume [veh/h]	465	119	40	413	65	79
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.04	0.00	0.24	0.13
d_M, Delay for Movement [s/veh]	0.00	0.00	8.64	0.00	23.97	16.48
Movement LOS	A	A	A	A	C	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.07	0.07	1.70	1.70
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.70	1.70	42.50	42.50
d_A, Approach Delay [s/veh]	0.00		0.76		19.86	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.71					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	19.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.061

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	353	22	29	273	11	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	0.00	0.00	2.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	353	22	29	273	11	15
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	126	8	10	98	4	5
Total Analysis Volume [veh/h]	504	31	41	390	16	21
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.04	0.00	0.06	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	8.59	0.00	19.66	12.46
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.12	0.00	0.32	0.32
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.07	0.00	8.09	8.09
d_A, Approach Delay [s/veh]	0.00		0.82		15.57	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.93					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 5: NE Everett Street & SE Leadbetter Road

Control Type:	Two-way stop	Delay (sec / veh):	28.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.057

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.04		-0.02		0.03	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Base Volume Input [veh/h]	131	320	266	13	8	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	4.00	2.00	1.00	1.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	131	320	266	13	8	120
Peak Hour Factor	0.7900	0.7900	0.7900	0.7900	0.7900	0.7900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	101	84	4	3	38
Total Analysis Volume [veh/h]	166	405	337	16	10	152
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.14	0.00	0.00	0.00	0.06	0.22
d_M, Delay for Movement [s/veh]	8.44	0.00	0.00	0.00	28.08	12.71
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.47	0.00	0.00	0.00	1.15	1.15
95th-Percentile Queue Length [ft/ln]	11.87	0.00	0.00	0.00	28.65	28.65
d_A, Approach Delay [s/veh]	2.45		0.00		13.66	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.33					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 6: NE Everett Street & NE 43rd Avenue

Control Type:	Signalized	Delay (sec / veh):	9.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.608

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	300.00	120.00	100.00	100.00	80.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.03		-0.04		-0.04	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Base Volume Input [veh/h]	389	136	52	340	161	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	4.00	2.00	1.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	389	0	52	340	161	53
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	117	0	16	102	48	16
Total Analysis Volume [veh/h]	469	0	63	410	194	64
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	ProtPerm	Permissive	Permissive	Permissive
Signal Group	2	0	1	6	8	0
Auxiliary Signal Groups						
Maximum Green [s]	40	0	20	40	40	0
Amber [s]	4.0	0.0	3.0	4.0	3.0	0.0
All red [s]	1.0	0.0	2.0	1.0	1.0	0.0
Walk [s]	7	0	0	0	7	0
Pedestrian Clearance [s]	14	0	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.0	0.0	3.0	3.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	14	0	9	14	9	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	5	0	4	5	4	0
Vehicle Extension [s]	5.0	0.0	3.0	3.5	3.0	0.0
Minimum Recall	Yes		No	Yes	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	35	35	35	35	35	35
L, Total Lost Time per Cycle [s]	5.00	5.00	5.00	5.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.00	3.00	0.00	3.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	20	20	6	6
g / C, Green / Cycle	0.38	0.38	0.58	0.58	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.27	0.00	0.06	0.22	0.11	0.04
s, saturation flow rate [veh/h]	1737	1502	1112	1869	1795	1589
c, Capacity [veh/h]	662	573	743	1080	295	261
d1, Uniform Delay [s]	9.15	0.00	4.19	3.98	13.66	12.70
k, delay calibration	0.23	0.23	0.11	0.13	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.98	0.00	0.05	0.27	2.50	0.48
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.00	0.08	0.38	0.66	0.25
d, Delay for Lane Group [s/veh]	12.13	0.00	4.24	4.25	16.16	13.18
Lane Group LOS	B	A	A	A	B	B
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.39	0.00	0.07	0.59	1.38	0.40
50th-Percentile Queue Length [ft/ln]	59.83	0.00	1.84	14.74	34.59	9.91
95th-Percentile Queue Length [veh/ln]	4.31	0.00	0.13	1.06	2.49	0.71
95th-Percentile Queue Length [ft/ln]	107.69	0.00	3.30	26.52	62.26	17.84

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	12.13	0.00	4.24	4.25	16.16	13.18
Movement LOS	B	A	A	A	B	B
d_A, Approach Delay [s/veh]	12.13		4.25		15.42	
Approach LOS	B		A		B	
d_I, Intersection Delay [s/veh]	9.73					
Intersection LOS	A					
Intersection V/C	0.608					

Emissions

Vehicle Miles Traveled [mph]	275.08	0.00	4.40	28.66	5.07	1.67
Stops [stops/h]	247.73	0.00	7.60	61.02	143.23	41.05
Fuel consumption [US gal/h]	13.51	0.00	0.28	1.91	1.42	0.40
CO [g/h]	944.08	0.00	19.53	133.22	98.96	28.27
NOx [g/h]	183.68	0.00	3.80	25.92	19.25	5.50
VOC [g/h]	218.80	0.00	4.53	30.87	22.93	6.55

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	8.13	8.13
l_p,int, Pedestrian LOS Score for Intersectio	0.000	2.263	2.008
Crosswalk LOS	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	2300	2300	2300
d_b, Bicycle Delay [s]	0.39	0.39	0.39
l_b,int, Bicycle LOS Score for Intersection	2.333	2.340	1.560
Bicycle LOS	B	B	A

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



MOVEMENT SUMMARY

Site: 7 [NE Everett St & NW Lake Rd_BackgroundSchoolPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NE Everett Street															
3	L2	All MCs	277	1.0	277	1.0	0.259	11.3	LOS B	1.5	38.9	0.50	0.65	0.50	32.0
8	T1	All MCs	382	3.0	382	3.0	0.314	4.8	LOS A	2.0	51.8	0.51	0.49	0.51	35.3
Approach			659	2.2	659	2.2	0.314	7.5	LOS A	2.0	51.8	0.51	0.55	0.51	33.8
North: NE Everett Street															
4	T1	All MCs	359	3.0	359	3.0	0.293	5.0	LOS A	1.8	47.1	0.50	0.49	0.50	35.2
14	R2	All MCs	286	1.0	286	1.0	0.228	4.9	LOS A	1.4	34.4	0.47	0.52	0.47	35.3
Approach			645	2.1	645	2.1	0.293	5.0	LOS A	1.8	47.1	0.48	0.50	0.48	35.2
West: NW Lake Road															
5	L2	All MCs	279	2.0	279	2.0	0.238	11.4	LOS B	1.5	36.9	0.54	0.65	0.54	31.9
12	R2	All MCs	395	2.0	395	2.0	0.337	5.5	LOS A	2.2	56.4	0.58	0.57	0.58	35.0
Approach			673	2.0	673	2.0	0.337	8.0	LOS A	2.2	56.4	0.56	0.61	0.56	33.6
All Vehicles			1977	2.1	1977	2.1	0.337	6.8	LOS A	2.2	56.4	0.52	0.55	0.52	34.2

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 15: NW Sierra Street & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	37.9
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.427

Intersection Setup

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	74	113	450	108	105	361
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	3.00	2.00	2.00	1.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	74	113	450	108	105	361
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	31	122	29	29	98
Total Analysis Volume [veh/h]	80	123	489	117	114	392
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.43	0.23	0.00	0.00	0.12	0.00
d_M, Delay for Movement [s/veh]	37.86	13.74	0.00	0.00	9.17	0.00
Movement LOS	E	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.95	0.88	0.00	0.00	0.39	0.00
95th-Percentile Queue Length [ft/ln]	48.84	22.04	0.00	0.00	9.87	0.00
d_A, Approach Delay [s/veh]	23.24		0.00		2.07	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	4.38					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 21: N Shore Boulevard and NE 232nd Avenue

Control Type:	Two-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.144

Intersection Setup

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		-0.02		0.02	
Crosswalk	No		No		No	

Volumes

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Base Volume Input [veh/h]	14	19	14	108	104	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	4.00	6.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	19	14	108	104	9
Peak Hour Factor	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	5	4	31	30	3
Total Analysis Volume [veh/h]	16	22	16	124	120	10
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.14	0.01
d_M, Delay for Movement [s/veh]	7.49	0.00	0.00	0.00	10.11	9.44
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.00	0.55	0.55
95th-Percentile Queue Length [ft/ln]	0.67	0.67	0.00	0.00	13.63	13.63
d_A, Approach Delay [s/veh]	3.15		0.00		10.06	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.64					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 22: SE 283rd Avenue & SE Nourse Road

Control Type:	Two-way stop	Delay (sec / veh):	11.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.02	
Crosswalk	No		No		No	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Base Volume Input [veh/h]	64	99	67	11	11	89
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	6.00	6.00	4.00	0.00	9.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	64	99	67	11	11	89
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	29	20	3	3	26
Total Analysis Volume [veh/h]	75	116	79	13	13	105
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.02	0.11
d_M, Delay for Movement [s/veh]	7.52	0.00	0.00	0.00	11.87	9.34
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.13	0.13	0.00	0.00	0.45	0.45
95th-Percentile Queue Length [ft/ln]	3.26	3.26	0.00	0.00	11.31	11.31
d_A, Approach Delay [s/veh]	2.95		0.00		9.62	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.24					
Intersection LOS	B					

Intersection Level Of Service Report

Intersection 1: NE 232nd Avenue & NE 28th Street

Control Type:	Two-way stop	Delay (sec / veh):	38.8
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.531

Intersection Setup

Name	NE 232nd Avenue			NE 232nd Avenue			NE 28th Street			NE 28th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			25.00			40.00			40.00		
Grade [%]	0.02			0.00			0.02			-0.02		
Crosswalk	No			No			No			No		

Volumes

Name	NE 232nd Avenue			NE 232nd Avenue			NE 28th Street			NE 28th Street		
Base Volume Input [veh/h]	110	4	18	1	2	1	9	410	144	20	223	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	100.00	0.00	1.00	0.00	0.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	110	4	18	1	2	1	9	410	144	20	223	1
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	1	5	0	1	0	3	116	41	6	63	0
Total Analysis Volume [veh/h]	125	5	20	1	2	1	10	466	164	23	253	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.53	0.02	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	38.76	37.56	30.38	19.89	19.46	11.21	7.73	0.00	0.00	8.77	0.00	0.00
Movement LOS	E	E	D	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	3.41	3.41	3.41	0.04	0.04	0.04	0.02	0.02	0.02	0.04	0.04	0.04
95th-Percentile Queue Length [ft/ln]	85.35	85.35	85.35	1.04	1.04	1.04	0.44	0.44	0.44	0.97	0.97	0.97
d_A, Approach Delay [s/veh]	37.60			17.50			0.12			0.73		
Approach LOS	E			C			A			A		
d_I, Intersection Delay [s/veh]	5.59											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 2: SR 500 & NE 28th Street

Control Type:	Two-way stop	Delay (sec / veh):	137.0
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.029

Intersection Setup

Name	Private Driveway			SR 500			NE 28th Street			SR 500		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	20.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Private Driveway			SR 500			NE 28th Street			SR 500		
Base Volume Input [veh/h]	0	0	0	196	0	58	71	351	0	0	188	195
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	6.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	5.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	196	0	58	71	351	0	0	188	195
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	58	0	17	21	103	0	0	55	57
Total Analysis Volume [veh/h]	0	0	0	231	0	68	84	413	0	0	221	229
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	1.03	0.00	0.10	0.07	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	23.27	21.97	10.60	136.98	135.49	126.09	8.31	0.00	0.00	8.11	0.00	0.00
Movement LOS	C	C	B	F	F	F	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	12.88	12.88	12.88	0.15	0.15	0.15	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	322.11	322.11	322.11	3.67	3.67	3.67	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	18.61			134.50			1.40			0.00		
Approach LOS	C			F			A			A		
d_I, Intersection Delay [s/veh]	32.84											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 3: NE Everett Street & SE 8th Street

Control Type:	Two-way stop	Delay (sec / veh):	13.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.070

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Base Volume Input [veh/h]	314	20	1	200	27	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	0.00	0.00	4.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	314	20	1	200	27	4
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	93	6	0	60	8	1
Total Analysis Volume [veh/h]	374	24	1	238	32	5
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.07	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	8.07	0.00	13.49	10.95
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.25	0.25
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.04	0.04	6.25	6.25
d_A, Approach Delay [s/veh]	0.00		0.03		13.14	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.73					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	14.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.024

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	327	10	16	209	8	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	0.00	0.00	3.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	327	10	16	209	8	8
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	97	3	5	62	2	2
Total Analysis Volume [veh/h]	389	12	19	249	10	10
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.02	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	8.13	0.00	14.04	10.76
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.00	0.12	0.12
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.24	0.00	3.08	3.08
d_A, Approach Delay [s/veh]	0.00		0.58		12.40	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.58					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: NE Everett Street & SE Leadbetter Road

Control Type:	Two-way stop	Delay (sec / veh):	21.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.040

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.04		-0.02		0.03	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Base Volume Input [veh/h]	142	289	192	10	9	138
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	4.00	5.00	5.00	0.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	142	289	192	10	9	138
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	81	54	3	3	39
Total Analysis Volume [veh/h]	160	325	216	11	10	155
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.00	0.00	0.00	0.04	0.19
d_M, Delay for Movement [s/veh]	8.03	0.00	0.00	0.00	21.00	11.00
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.40	0.00	0.00	0.00	0.90	0.90
95th-Percentile Queue Length [ft/ln]	10.08	0.00	0.00	0.00	22.44	22.44
d_A, Approach Delay [s/veh]	2.65		0.00		11.61	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.65					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 6: NE Everett Street & NE 43rd Avenue

Control Type:	Signalized	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.567

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	300.00	120.00	100.00	100.00	80.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.03		-0.04		-0.04	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Base Volume Input [veh/h]	397	316	46	262	138	38
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	0.00	4.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	397	0	46	262	138	38
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	108	0	13	71	38	10
Total Analysis Volume [veh/h]	432	0	50	285	150	41
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	ProtPerm	Permissive	Permissive	Permissive
Signal Group	2	0	1	6	8	0
Auxiliary Signal Groups						
Maximum Green [s]	40	0	20	40	40	0
Amber [s]	4.0	0.0	3.0	4.0	3.0	0.0
All red [s]	1.0	0.0	2.0	1.0	1.0	0.0
Walk [s]	7	0	0	0	7	0
Pedestrian Clearance [s]	14	0	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.0	0.0	3.0	3.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	14	0	9	14	9	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	5	0	4	5	4	0
Vehicle Extension [s]	5.0	0.0	3.0	3.5	3.0	0.0
Minimum Recall	Yes		No	Yes	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	30	30	30	30	30	30
L, Total Lost Time per Cycle [s]	5.00	5.00	5.00	5.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.00	3.00	0.00	3.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	17	17	4	4
g / C, Green / Cycle	0.36	0.36	0.57	0.57	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.24	0.00	0.04	0.15	0.08	0.03
s, saturation flow rate [veh/h]	1767	1502	1182	1840	1809	1614
c, Capacity [veh/h]	644	548	837	1058	235	209
d1, Uniform Delay [s]	8.14	0.00	3.49	3.26	12.58	11.84
k, delay calibration	0.23	0.23	0.11	0.13	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.58	0.00	0.03	0.16	2.89	0.45
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.67	0.00	0.06	0.27	0.64	0.20
d, Delay for Lane Group [s/veh]	10.72	0.00	3.52	3.42	15.47	12.29
Lane Group LOS	B	A	A	A	B	B
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.75	0.00	0.03	0.21	0.96	0.22
50th-Percentile Queue Length [ft/ln]	43.76	0.00	0.78	5.22	23.88	5.59
95th-Percentile Queue Length [veh/ln]	3.15	0.00	0.06	0.38	1.72	0.40
95th-Percentile Queue Length [ft/ln]	78.77	0.00	1.41	9.40	42.98	10.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	10.72	0.00	3.52	3.42	15.47	12.29
Movement LOS	B	A	A	A	B	B
d_A, Approach Delay [s/veh]	10.72		3.44		14.79	
Approach LOS	B		A		B	
d_I, Intersection Delay [s/veh]	8.99					
Intersection LOS	A					
Intersection V/C	0.567					

Emissions

Vehicle Miles Traveled [mph]	253.38	0.00	3.49	19.92	3.92	1.07
Stops [stops/h]	207.57	0.00	3.72	24.78	113.25	26.50
Fuel consumption [US gal/h]	12.16	0.00	0.20	1.14	1.08	0.25
CO [g/h]	850.11	0.00	13.77	79.97	75.72	17.65
NOx [g/h]	165.40	0.00	2.68	15.56	14.73	3.43
VOC [g/h]	197.02	0.00	3.19	18.53	17.55	4.09

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	6.17	6.17
l_p,int, Pedestrian LOS Score for Intersectio	0.000	2.177	1.966
Crosswalk LOS	F	B	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	2635	2635	2635
d_b, Bicycle Delay [s]	1.53	1.53	1.53
l_b,int, Bicycle LOS Score for Intersection	2.272	2.112	1.560
Bicycle LOS	B	B	A

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



MOVEMENT SUMMARY

Site: 7 [NE Everett St & NW Lake Rd_BackgroundPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NE Everett Street															
3	L2	All MCs	433	1.0	433	1.0	0.392	12.1	LOS B	2.8	69.3	0.66	0.68	0.66	31.6
8	T1	All MCs	417	2.0	417	2.0	0.442	6.3	LOS A	3.1	77.5	0.70	0.61	0.70	34.7
Approach			849	1.5	849	1.5	0.442	9.3	LOS A	3.1	77.5	0.68	0.65	0.68	33.1
North: NE Everett Street															
4	T1	All MCs	264	4.0	264	4.0	0.252	5.7	LOS A	1.6	41.5	0.61	0.56	0.61	34.7
14	R2	All MCs	272	1.0	272	1.0	0.247	5.7	LOS A	1.6	40.5	0.61	0.59	0.61	34.9
Approach			536	2.5	536	2.5	0.252	5.7	LOS A	1.6	41.5	0.61	0.57	0.61	34.8
West: NW Lake Road															
5	L2	All MCs	447	1.0	447	1.0	0.356	11.1	LOS B	2.4	61.5	0.53	0.63	0.53	31.9
12	R2	All MCs	697	2.0	697	2.0	0.562	5.5	LOS A	4.7	119.9	0.64	0.57	0.64	34.8
Approach			1144	1.6	1144	1.6	0.562	7.7	LOS A	4.7	119.9	0.60	0.60	0.60	33.6
All Vehicles			2529	1.8	2529	1.8	0.562	7.8	LOS A	4.7	119.9	0.63	0.61	0.63	33.7

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 8: NE Everett Street & NE 17th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	28.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.319

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 17th Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 17th Avenue	
Base Volume Input [veh/h]	82	542	692	59	76	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	2.00	3.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	82	542	692	59	76	50
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	144	184	16	20	13
Total Analysis Volume [veh/h]	87	577	736	63	81	53
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.01	0.01	0.00	0.32	0.13
d_M, Delay for Movement [s/veh]	9.83	0.00	0.00	0.00	28.71	23.41
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.35	0.00	0.00	0.00	2.21	2.21
95th-Percentile Queue Length [ft/ln]	8.72	0.00	0.00	0.00	55.37	55.37
d_A, Approach Delay [s/veh]	1.29		0.00		26.61	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	2.77					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 9: NE Everett Street & NE 15th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	85.2
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.717

Intersection Setup

Name	NE Everett Street (SR 500)			NE Everett Street (SR 500)			NE 15th Avenue			NE 15th Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NE Everett Street (SR 500)			NE Everett Street (SR 500)			NE 15th Avenue			NE 15th Avenue		
Base Volume Input [veh/h]	32	530	11	28	576	133	70	18	63	1	10	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	0.00	0.00	2.00	1.00	0.00	0.00	3.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	530	11	28	576	133	70	18	63	1	10	24
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	147	3	8	160	37	19	5	18	0	3	7
Total Analysis Volume [veh/h]	36	589	12	31	640	148	78	20	70	1	11	27
Pedestrian Volume [ped/h]	8			2			0			5		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			Yes	No
Storage Area [veh]	0	0	2	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.01	0.00	0.03	0.01	0.00	0.72	0.09	0.13	0.01	0.10	0.05
d_M, Delay for Movement [s/veh]	9.48	0.00	0.00	8.80	0.00	0.00	85.17	68.30	58.76	56.78	40.74	15.28
Movement LOS	A	A	A	A	A	A	F	F	F	F	E	C
95th-Percentile Queue Length [veh/ln]	0.13	0.00	0.00	0.10	0.00	0.00	5.82	5.82	5.82	0.59	0.59	0.59
95th-Percentile Queue Length [ft/ln]	3.35	0.00	0.00	2.46	0.00	0.00	145.56	145.56	145.56	14.71	14.71	14.71
d_A, Approach Delay [s/veh]	0.54			0.33			72.16			23.52		
Approach LOS	A			A			F			C		
d_I, Intersection Delay [s/veh]	8.21											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 10: NE Everett Street & NE 14th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	59.5
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.496

Intersection Setup

Name				NE Everett Street (SR 500)			NE 14th Avenue			SR 500		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			2.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name				NE Everett Street (SR 500)			NE 14th Avenue			SR 500		
Base Volume Input [veh/h]	0	0	0	556	0	66	77	91	0	0	35	458
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	3.00	2.00	0.00	0.00	2.00	2.00	2.00	3.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	556	0	66	77	91	0	0	35	458
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	1.0000	0.8600	0.8600	0.8600	1.0000	1.0000	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	162	0	19	22	26	0	0	10	133
Total Analysis Volume [veh/h]	0	0	0	647	0	77	90	106	0	0	41	533
Pedestrian Volume [ped/h]	3			1			5			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.40	0.00	0.00	0.50	0.27	0.00	0.00	0.11	0.49
d_M, Delay for Movement [s/veh]	7.28	0.00	0.00	9.03	0.00	0.00	59.54	48.88	0.00	0.00	19.65	13.68
Movement LOS	A	A	A	A		A	F	E			C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	2.23	0.00	2.23	5.62	5.62	0.00	0.00	4.09	4.09
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	55.72	0.00	55.72	140.39	140.39	0.00	0.00	102.17	102.17
d_A, Approach Delay [s/veh]	2.43			8.07			53.77			14.10		
Approach LOS	A			A			F			B		
d_I, Intersection Delay [s/veh]	16.39											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 11: NE Dallas Street & NE 6th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	35.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.140

Intersection Setup

Name	NE Dallas Street			NE Dallas Street			NE 6th Avenue			NE 6th Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NE Dallas Street			NE Dallas Street			NE 6th Avenue			NE 6th Avenue		
Base Volume Input [veh/h]	81	116	7	8	268	59	34	186	79	13	156	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	0.00	0.00	0.00	2.00	0.00	3.00	1.00	1.00	0.00	4.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	81	116	7	8	268	59	34	186	79	13	156	21
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	33	2	2	75	17	10	52	22	4	44	6
Total Analysis Volume [veh/h]	91	130	8	9	301	66	38	209	89	15	175	24
Pedestrian Volume [ped/h]	0			9			1			1		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.00	0.01	0.00	0.00	0.14	0.46	0.11	0.07	0.40	0.03
d_M, Delay for Movement [s/veh]	8.16	0.00	0.00	7.48	0.00	0.00	34.95	29.64	26.25	29.28	20.90	16.54
Movement LOS	A	A	A	A	A	A	D	D	D	D	C	C
95th-Percentile Queue Length [veh/ln]	0.16	0.16	0.16	0.02	0.02	0.02	5.58	5.58	5.58	2.65	2.65	2.65
95th-Percentile Queue Length [ft/ln]	4.04	4.04	4.04	0.39	0.39	0.39	139.59	139.59	139.59	66.17	66.17	66.17
d_A, Approach Delay [s/veh]	3.24			0.18			29.34			21.00		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	13.13											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 12: Division Street & NE 6th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	28.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.206

Intersection Setup

Name	Division Street		NW 6th Avenue		NE 6th Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	40.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	-0.12		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Division Street		NW 6th Avenue		NE 6th Avenue	
Base Volume Input [veh/h]	37	126	94	958	1008	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	2.00	3.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	126	94	958	1008	53
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	33	25	252	265	14
Total Analysis Volume [veh/h]	39	133	99	1008	1061	56
Pedestrian Volume [ped/h]	2		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.21	0.23	0.16	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	28.85	13.28	10.83	0.00	0.00	0.00
Movement LOS	D	B	B	A	A	A
95th-Percentile Queue Length [veh/ln]	0.75	0.90	0.17	0.09	0.00	0.00
95th-Percentile Queue Length [ft/ln]	18.69	22.60	4.36	2.18	0.00	0.00
d_A, Approach Delay [s/veh]	16.81		0.97		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	1.65					
Intersection LOS	D					

MOVEMENT SUMMARY

Site: 13 [NW Norwood St & NW 6th Ave_BackgroundPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Existing AM
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NW 6th Avenue															
3	L2	All MCs	67	2.0	67	2.0	0.871	48.1	LOS D	11.9	301.6	1.00	1.30	1.92	22.1
8	T1	All MCs	5	0.0	5	0.0	0.871	41.5	LOS D	11.9	301.6	1.00	1.30	1.92	22.4
18	R2	All MCs	236	2.0	236	2.0	0.871	42.0	LOS D	11.9	301.6	1.00	1.30	1.92	22.3
Approach			308	2.0	308	2.0	0.871	43.3	LOS D	11.9	301.6	1.00	1.30	1.92	22.2
East: NW 6th Avenue															
1	L2	All MCs	115	3.0	115	3.0	0.941	13.3	LOS D	24.8	638.9	1.00	0.69	1.02	32.7
6	T1	All MCs	1001	4.0	1001	4.0	0.941	7.1	LOS D	24.8	638.9	1.00	0.69	1.02	33.4
16	R2	All MCs	11	0.0	11	0.0	0.941	7.0	LOS D	24.8	638.9	1.00	0.69	1.02	33.1
Approach			1127	3.9	1127	3.9	0.941	7.7	LOS A	24.8	638.9	1.00	0.69	1.02	33.3
North: NW Norwood Street															
7	L2	All MCs	7	0.0	7	0.0	0.195	22.6	LOS C	1.4	36.2	1.00	0.86	1.00	29.4
4	T1	All MCs	14	0.0	14	0.0	0.195	16.4	LOS B	1.4	36.2	1.00	0.86	1.00	29.9
14	R2	All MCs	31	7.0	31	7.0	0.195	17.8	LOS B	1.4	36.2	1.00	0.86	1.00	29.6
Approach			52	4.2	52	4.2	0.195	18.1	LOS B	1.4	36.2	1.00	0.86	1.00	29.6
West: NW 6th Avenue															
5	L2	All MCs	26	0.0	26	0.0	0.971	20.2	LOS E	33.0	838.4	1.00	1.01	1.25	31.0
2	T1	All MCs	1024	2.0	1024	2.0	0.971	14.1	LOS E	33.0	838.4	1.00	1.01	1.25	31.6
12	R2	All MCs	91	1.0	91	1.0	0.971	14.2	LOS E	33.0	838.4	1.00	1.01	1.25	31.3
Approach			1141	1.9	1141	1.9	0.971	14.2	LOS B	33.0	838.4	1.00	1.01	1.25	31.5
All Vehicles			2628	2.8	2628	2.8	0.971	14.9	LOS B	33.0	838.4	1.00	0.90	1.23	30.7

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 14: NW Lacamas Lane & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	22.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.032

Intersection Setup

Name	NW Lacamas Lane		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	110.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	-0.11		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Lacamas Lane		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	6	63	1048	6	53	614
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	5.00	1.00	0.00	2.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	63	1048	6	53	614
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	17	285	2	14	167
Total Analysis Volume [veh/h]	7	68	1139	7	58	667
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.20	0.01	0.00	0.10	0.01
d_M, Delay for Movement [s/veh]	22.08	18.18	0.00	0.00	11.52	0.00
Movement LOS	C	C	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.10	0.73	0.00	0.00	0.31	0.00
95th-Percentile Queue Length [ft/ln]	2.48	18.31	0.00	0.00	7.85	0.00
d_A, Approach Delay [s/veh]	18.54		0.00		0.92	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	1.06					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 15: NW Sierra Street & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	184.4
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.920

Intersection Setup

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	60	231	817	133	126	515
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	1.00	2.00	0.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	231	817	133	126	515
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	63	222	36	34	140
Total Analysis Volume [veh/h]	65	251	888	145	137	560
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.92	0.80	0.01	0.00	0.20	0.01
d_M, Delay for Movement [s/veh]	184.38	49.92	0.00	0.00	11.62	0.00
Movement LOS	F	E	A	A	B	A
95th-Percentile Queue Length [veh/ln]	4.60	6.54	0.00	0.00	0.75	0.00
95th-Percentile Queue Length [ft/ln]	114.93	163.53	0.00	0.00	18.70	0.00
d_A, Approach Delay [s/veh]	77.58		0.00		2.28	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	12.76					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 16: NW Lake Road & NW Leadbetter Drive

Control Type:	Two-way stop	Delay (sec / veh):	40.4
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.054

Intersection Setup

Name	NW Leadbetter Drive			NW Leadbetter Drive			NW Lake Road			NW Lake Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	NW Leadbetter Drive			NW Leadbetter Drive			NW Lake Road			NW Lake Road		
Base Volume Input [veh/h]	7	14	131	4	5	13	15	814	8	53	501	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	14.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	12.00	0.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	14	131	4	5	13	15	814	8	53	501	7
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	4	36	1	1	4	4	224	2	15	138	2
Total Analysis Volume [veh/h]	8	15	144	4	5	14	16	895	9	58	551	8
Pedestrian Volume [ped/h]	2			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.10	0.36	0.04	0.03	0.02	0.02	0.01	0.00	0.08	0.01	0.00
d_M, Delay for Movement [s/veh]	40.35	39.97	24.93	39.84	25.44	11.84	8.58	0.00	0.00	10.14	0.00	0.00
Movement LOS	E	E	C	E	D	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	2.76	2.76	2.76	0.28	0.28	0.28	0.05	0.00	0.00	0.25	0.00	0.00
95th-Percentile Queue Length [ft/ln]	68.97	68.97	68.97	6.97	6.97	6.97	1.19	0.00	0.00	6.20	0.00	0.00
d_A, Approach Delay [s/veh]	27.02			19.67			0.15			0.95		
Approach LOS	D			C			A			A		
d_I, Intersection Delay [s/veh]	3.29											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 17: NW Parker Street & NW Lake Road

Control Type:	Signalized	Delay (sec / veh):	28.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.702

Intersection Setup

Name	NW Parker Street			NW Larkspur Street			NW Lake Road			NW Lake Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	265.00	100.00	100.00	80.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	85.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NW Parker Street			NW Larkspur Street			NW Lake Road			NW Lake Road		
Base Volume Input [veh/h]	248	130	142	61	93	21	25	650	303	60	438	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	2.00	0.00	0.00	0.00	1.00	0.00	2.00	1.00	3.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	248	130	142	61	93	21	25	650	303	60	438	35
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	35	38	16	25	6	7	175	81	16	118	9
Total Analysis Volume [veh/h]	267	140	153	66	100	23	27	699	326	65	471	38
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			1			1			4		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Overlap	ProtPer	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	7	1	6	0
Auxiliary Signal Groups									2,7			
Maximum Green [s]	15	30	0	15	20	0	15	45	15	25	45	0
Amber [s]	3.0	3.6	0.0	3.0	3.0	0.0	3.0	4.0	3.0	3.0	3.6	0.0
All red [s]	2.2	2.3	0.0	2.6	3.3	0.0	2.5	1.7	2.2	2.7	1.9	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	18	0	0	22	0	0	16	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.2	3.9	0.0	3.6	4.3	0.0	3.5	3.7	3.2	3.7	3.5	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	9	14	0	9	14	0	9	14	9	9	14	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	5	0	5	5	0	5	8	5	5	8	0
Vehicle Extension [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	Yes	No	No	Yes	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	79	79	79	79	79	79	79	79	79	79
L, Total Lost Time per Cycle [s]	5.55	5.90	5.95	6.30	5.60	5.70	5.70	5.60	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.90	0.00	4.30	0.00	3.70	0.00	0.00	3.50	3.50
g_i, Effective Green Time [s]	27	17	27	16	41	31	41	41	32	32
g / C, Green / Cycle	0.34	0.21	0.34	0.20	0.52	0.40	0.53	0.52	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.17	0.17	0.05	0.07	0.02	0.37	0.21	0.07	0.14	0.14
s, saturation flow rate [veh/h]	1530	1701	1399	1834	1148	1885	1588	897	1885	1828
c, Capacity [veh/h]	470	361	319	371	534	748	836	305	764	741
d1, Uniform Delay [s]	25.63	29.64	28.36	26.97	14.67	22.85	11.14	28.86	16.19	16.21
k, delay calibration	0.10	0.25	0.04	0.04	0.04	0.50	0.04	0.04	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.03	9.78	0.12	0.19	0.01	20.26	0.11	0.13	0.10	0.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.57	0.81	0.21	0.33	0.05	0.93	0.39	0.21	0.34	0.34
d, Delay for Lane Group [s/veh]	26.66	39.42	28.48	27.17	14.68	43.11	11.25	28.98	16.29	16.31
Lane Group LOS	C	D	C	C	B	D	B	C	B	B
Critical Lane Group	No	No	No	Yes	No	Yes	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.66	5.99	0.82	1.98	0.20	15.42	2.99	0.51	2.97	2.91
50th-Percentile Queue Length [ft/ln]	91.58	149.86	20.51	49.41	5.12	385.62	74.81	12.84	74.33	72.84
95th-Percentile Queue Length [veh/ln]	6.59	10.01	1.48	3.56	0.37	21.87	5.39	0.92	5.35	5.24
95th-Percentile Queue Length [ft/ln]	164.85	250.25	36.91	88.94	9.22	546.64	134.65	23.11	133.80	131.11

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.66	39.42	39.42	28.48	27.17	27.17	14.68	43.11	11.25	28.98	16.30	16.31
Movement LOS	C	D	D	C	C	C	B	D	B	C	B	B
d_A, Approach Delay [s/veh]	33.33			27.63			32.51			17.74		
Approach LOS	C			C			C			B		
d_I, Intersection Delay [s/veh]	28.74											
Intersection LOS	C											
Intersection V/C	0.702											

Emissions

Vehicle Miles Traveled [mph]	123.72	135.77	4.54	8.46	23.88	618.34	288.38	46.33	183.39	179.41
Stops [stops/h]	167.29	273.75	37.46	90.25	9.36	704.39	136.65	23.45	135.78	133.05
Fuel consumption [US gal/h]	7.42	9.58	0.73	1.41	1.06	35.00	12.77	2.33	8.86	8.67
CO [g/h]	518.83	669.92	51.04	98.31	74.19	2446.41	892.35	162.57	619.61	606.38
NOx [g/h]	100.95	130.34	9.93	19.13	14.44	475.98	173.62	31.63	120.55	117.98
VOC [g/h]	120.24	155.26	11.83	22.78	17.19	566.98	206.81	37.68	143.60	140.53

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	30.93	30.93	30.93	30.93
l_p,int, Pedestrian LOS Score for Intersectio	2.413	2.075	3.011	2.630
Crosswalk LOS	B	B	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	761	507	1142	1142
d_b, Bicycle Delay [s]	15.15	21.96	7.26	7.27
l_b,int, Bicycle LOS Score for Intersection	2.484	1.871	3.295	2.033
Bicycle LOS	B	A	C	B

Sequence

Ring 1	2	1	4	3	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	5	8	7	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: NW Friberg-Strunk Street & NW Lake Road

Control Type:	Signalized	Delay (sec / veh):	18.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.778

Intersection Setup

Name	Private Driveway			NW Friberg-Strunk Street			NW 1st Street			NW Lake Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	140.00	220.00	100.00	100.00	85.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	20.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Private Driveway			NW Friberg-Strunk Street			NW 1st Street			NW Lake Road		
Base Volume Input [veh/h]	0	0	0	147	0	213	392	919	0	6	657	156
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	1.00	0.00	2.00	0.00	1.00	0.00	0.00	1.00	1.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	147	0	213	392	919	0	6	657	156
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	40	0	58	107	250	0	2	179	42
Total Analysis Volume [veh/h]	0	0	0	160	0	232	426	999	0	7	714	170
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			2			4			2		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	4	0	0	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Maximum Green [s]	0	30	0	0	30	0	25	45	0	15	45	0
Amber [s]	0.0	3.0	0.0	0.0	4.0	0.0	3.0	4.0	0.0	3.0	4.0	0.0
All red [s]	0.0	2.9	0.0	0.0	2.0	0.0	2.6	1.5	0.0	2.8	1.6	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.9	0.0	0.0	4.0	0.0	3.6	3.5	0.0	3.8	3.6	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	0	14	0	0	14	0	9	14	0	9	14	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	8	0	5	8	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	Yes		No	Yes	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

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Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	62	62	62	62	62	62	62	62	62
L, Total Lost Time per Cycle [s]	5.90	6.00	6.00	5.60	5.50	5.50	5.80	5.60	5.60
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	4.00	4.00	3.60	3.50	3.50	3.80	3.60	3.60
g_i, Effective Green Time [s]	11	11	11	17	33	33	1	18	18
g / C, Green / Cycle	0.18	0.18	0.18	0.26	0.53	0.53	0.01	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.00	0.11	0.15	0.24	0.26	0.26	0.00	0.24	0.24
s, saturation flow rate [veh/h]	1791	1504	1566	1810	1885	1885	1810	1885	1744
c, Capacity [veh/h]	302	385	281	479	1009	1009	17	530	490
d1, Uniform Delay [s]	0.00	23.34	24.68	22.11	9.20	9.20	30.83	21.35	21.42
k, delay calibration	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.27	2.38	3.04	0.14	0.14	6.12	1.67	1.94
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.42	0.83	0.89	0.50	0.50	0.42	0.86	0.87
d, Delay for Lane Group [s/veh]	0.00	23.61	27.06	25.15	9.34	9.34	36.95	23.02	23.36
Lane Group LOS	A	C	C	C	A	A	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	1.97	3.15	5.65	3.26	3.26	0.13	6.03	5.69
50th-Percentile Queue Length [ft/ln]	0.00	49.15	78.68	141.30	81.40	81.40	3.22	150.75	142.24
95th-Percentile Queue Length [veh/ln]	0.00	3.54	5.67	9.55	5.86	5.86	0.23	10.06	9.60
95th-Percentile Queue Length [ft/ln]	0.00	88.48	141.63	238.77	146.52	146.52	5.80	251.43	240.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	23.61	23.61	27.06	25.15	9.34	9.34	36.95	23.14	23.36
Movement LOS	A	A	A	C	C	C	C	A	A	D	C	C
d_A, Approach Delay [s/veh]	0.00			25.65			14.07			23.29		
Approach LOS	A			C			B			C		
d_I, Intersection Delay [s/veh]	18.78											
Intersection LOS	B											
Intersection V/C	0.778											

Emissions

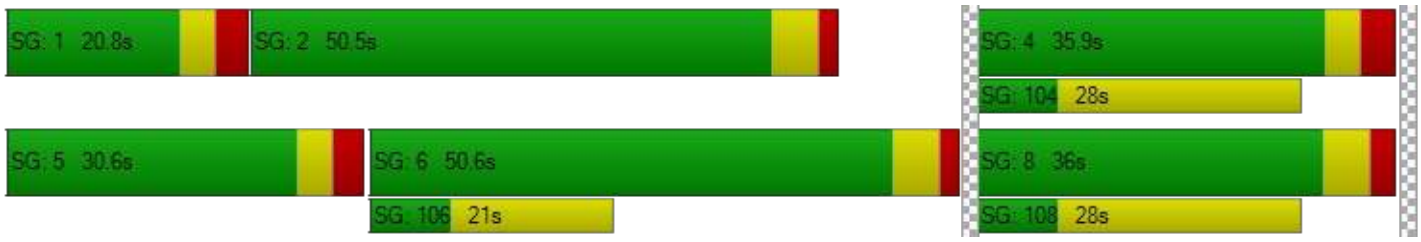
Vehicle Miles Traveled [mph]	0.00	11.34	16.44	46.13	54.09	54.09	6.19	404.17	377.82
Stops [stops/h]	0.00	113.35	181.44	325.83	187.71	187.71	7.43	347.62	328.01
Fuel consumption [US gal/h]	0.00	2.29	3.65	7.03	4.73	4.73	0.35	20.70	19.40
CO [g/h]	0.00	159.95	255.05	491.67	330.70	330.70	24.37	1446.85	1355.80
NOx [g/h]	0.00	31.12	49.62	95.66	64.34	64.34	4.74	281.50	263.79
VOC [g/h]	0.00	37.07	59.11	113.95	76.64	76.64	5.65	335.32	314.22

Other Modes

g_Walk,mi, Effective Walk Time [s]	8.5	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	23.30	21.19	21.19	21.19
l_p,int, Pedestrian LOS Score for Intersectio	1.701	2.348	2.896	2.907
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	961	961	1441	1441
d_b, Bicycle Delay [s]	8.43	8.44	2.44	2.44
l_b,int, Bicycle LOS Score for Intersection	1.560	2.206	2.735	2.295
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: NW Parker Street & NW Leadbetter Drive

Control Type:	Two-way stop	Delay (sec / veh):	25.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.239

Intersection Setup

Name	NW Parker Street		NW Parker Street		NW Leadbetter Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	80.00	100.00	100.00	180.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.02		-0.02		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	NW Parker Street		NW Parker Street		NW Leadbetter Drive	
Base Volume Input [veh/h]	413	152	65	296	49	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	0.00	0.00	4.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	413	152	65	296	49	52
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	116	43	18	83	14	15
Total Analysis Volume [veh/h]	464	171	73	333	55	58
Pedestrian Volume [ped/h]	0		0		13	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.08	0.00	0.24	0.11
d_M, Delay for Movement [s/veh]	0.00	0.00	9.17	0.00	25.53	12.73
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.25	0.00	0.91	0.37
95th-Percentile Queue Length [ft/ln]	0.00	0.00	6.33	0.00	22.66	9.29
d_A, Approach Delay [s/veh]	0.00		1.65		18.96	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.44					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 20: NW Parker Street & NW 38th Avenue

Control Type:	Signalized	Delay (sec / veh):	27.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.756

Intersection Setup

Name	NW Parker Street			NW Parker Street			NW 38th Avenue			NW 38th Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	130.00	100.00	100.00	245.00	100.00	130.00	130.00	100.00	100.00	130.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NW Parker Street			NW Parker Street			NW 38th Avenue			NW 38th Avenue		
Base Volume Input [veh/h]	100	390	194	59	250	87	118	277	106	104	125	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	100	390	194	59	250	87	118	277	106	104	125	39
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	113	56	17	73	25	34	81	31	30	36	11
Total Analysis Volume [veh/h]	116	453	226	69	291	101	137	322	123	121	145	45
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	4			13			4			11		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	ProtPer	Permiss	Overlap	ProtPer	Permiss	Overlap	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	1	6	7	5	2	3	3	8	0	7	4	0
Auxiliary Signal Groups			6,7			2,3						
Maximum Green [s]	15	25	15	15	25	15	15	20	0	15	20	0
Amber [s]	3.0	3.6	3.0	3.0	3.6	3.0	3.0	4.0	0.0	3.0	3.6	0.0
All red [s]	2.9	2.1	3.0	2.7	2.0	2.8	2.8	2.0	0.0	3.0	2.4	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	9	0	0	9	0	0	13	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.9	3.7	4.0	3.7	3.6	3.8	3.8	4.0	0.0	4.0	4.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	9	14	9	9	14	9	9	14	0	9	14	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	5	5	5	5	5	5	5	0	5	5	0
Vehicle Extension [s]	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	Yes	No	No	Yes	No	No	No		No	No	
Maximum Recall	No	No	No	No	No	No	No	No		No	No	
Pedestrian Recall	No	No	No	No	No	No	No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

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Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C
C, Cycle Length [s]	73	73	73	73	73	73	73	73	73	73
L, Total Lost Time per Cycle [s]	5.80	5.70	5.70	5.65	5.60	5.60	5.90	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	0.00	3.60	0.00	0.00	4.00	0.00	4.00
g_i, Effective Green Time [s]	31	21	31	31	21	32	31	20	30	19
g / C, Green / Cycle	0.42	0.28	0.43	0.43	0.29	0.43	0.42	0.27	0.41	0.27
(v / s)_i Volume / Saturation Flow Rate	0.09	0.24	0.14	0.06	0.15	0.06	0.09	0.25	0.16	0.11
s, saturation flow rate [veh/h]	1320	1885	1587	1191	1900	1566	1467	1797	744	1778
c, Capacity [veh/h]	454	532	678	361	544	681	520	484	357	472
d1, Uniform Delay [s]	22.10	24.92	14.06	25.17	22.09	12.55	20.23	26.05	25.22	22.17
k, delay calibration	0.04	0.15	0.04	0.04	0.13	0.04	0.04	0.28	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	5.34	0.11	0.09	0.97	0.04	0.10	16.16	0.21	0.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.26	0.85	0.33	0.19	0.53	0.15	0.26	0.92	0.34	0.40
d, Delay for Lane Group [s/veh]	22.21	30.26	14.17	25.26	23.06	12.59	20.33	42.20	25.43	22.38
Lane Group LOS	C	C	B	C	C	B	C	D	C	C
Critical Lane Group	No	Yes	Yes	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.08	7.64	2.27	0.62	4.08	0.91	1.28	9.01	1.14	2.50
50th-Percentile Queue Length [ft/ln]	27.05	191.11	56.72	15.60	101.90	22.86	32.08	225.21	28.46	62.56
95th-Percentile Queue Length [veh/ln]	1.95	12.18	4.08	1.12	7.34	1.65	2.31	13.93	2.05	4.50
95th-Percentile Queue Length [ft/ln]	48.70	304.47	102.10	28.07	183.42	41.14	57.75	348.27	51.23	112.60

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.21	30.26	14.17	25.26	23.06	12.59	20.33	42.20	42.20	25.43	22.38	22.38
Movement LOS	C	C	B	C	C	B	C	D	D	C	C	C
d_A, Approach Delay [s/veh]	24.51			21.10			37.06			23.56		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	27.04											
Intersection LOS	C											
Intersection V/C	0.756											

Emissions

Vehicle Miles Traveled [mph]	15.76	61.53	30.70	40.39	170.35	59.13	28.84	93.68	28.22	44.31
Stops [stops/h]	53.10	375.10	111.33	30.61	200.00	44.86	62.97	442.04	55.87	122.79
Fuel consumption [US gal/h]	1.52	7.96	2.66	2.12	9.36	2.85	2.22	11.52	2.19	3.66
CO [g/h]	106.54	556.09	185.86	148.51	654.48	199.20	155.07	805.24	152.79	255.74
NOx [g/h]	20.73	108.20	36.16	28.89	127.34	38.76	30.17	156.67	29.73	49.76
VOC [g/h]	24.69	128.88	43.08	34.42	151.68	46.17	35.94	186.62	35.41	59.27

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	28.23	28.23	28.23	28.23
l_p,int, Pedestrian LOS Score for Intersectio	2.640	2.594	2.478	2.415
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	682	682	545	545
d_b, Bicycle Delay [s]	15.97	16.05	19.45	19.52
l_b,int, Bicycle LOS Score for Intersection	2.871	2.320	2.520	2.073
Bicycle LOS	C	B	B	B

Sequence

Ring 1	2	1	4	3	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	5	8	7	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: N Shore Boulevard and NE 232nd Avenue

Control Type:	Two-way stop	Delay (sec / veh):	10.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.203

Intersection Setup

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		-0.02		0.02	
Crosswalk	No		No		No	

Volumes

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Base Volume Input [veh/h]	9	5	10	131	133	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	5	10	131	133	21
Peak Hour Factor	0.7700	0.7700	0.7700	0.7700	0.7700	0.7700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	3	43	43	7
Total Analysis Volume [veh/h]	12	6	13	170	173	27
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.20	0.03
d_M, Delay for Movement [s/veh]	7.58	0.00	0.00	0.00	10.48	10.01
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.89	0.89
95th-Percentile Queue Length [ft/ln]	0.50	0.50	0.00	0.00	22.33	22.33
d_A, Approach Delay [s/veh]	5.05		0.00		10.41	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.42					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 22: SE 283rd Avenue & SE Nourse Road

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.033

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.02	
Crosswalk	No		No		No	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Base Volume Input [veh/h]	92	128	110	6	14	135
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	4.00	4.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	128	110	6	14	135
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	36	31	2	4	38
Total Analysis Volume [veh/h]	102	142	122	7	16	150
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.07	0.00	0.00	0.00	0.03	0.16
d_M, Delay for Movement [s/veh]	7.57	0.00	0.00	0.00	13.42	9.92
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.18	0.18	0.00	0.00	0.72	0.72
95th-Percentile Queue Length [ft/ln]	4.50	4.50	0.00	0.00	18.04	18.04
d_A, Approach Delay [s/veh]	3.16		0.00		10.26	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.59					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 23: SE 283rd Avenue & SE 23rd Street

Control Type:	Two-way stop	Delay (sec / veh):	12.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.061

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		SE 23rd Street	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	-0.02		0.02		-0.03	
Crosswalk	No		No		No	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		SE 23rd Street	
Base Volume Input [veh/h]	170	25	70	179	29	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	0.00	0.00	3.00	7.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	170	25	70	179	29	60
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	7	19	48	8	16
Total Analysis Volume [veh/h]	183	27	75	192	31	65
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.05	0.00	0.06	0.08
d_M, Delay for Movement [s/veh]	0.00	0.00	7.71	0.00	12.89	10.03
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.13	0.13	0.47	0.47
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.26	3.26	11.84	11.84
d_A, Approach Delay [s/veh]	0.00		2.17		10.96	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.84					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 24: SE 283rd Avenue and NE Woodburn Drive

Control Type:	Two-way stop	Delay (sec / veh):	15.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.030

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		NE Woodburn Drive	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1
Entry Pocket Length [ft]	175.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	-0.02		0.02		0.02	
Crosswalk	No		No		Yes	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		NE Woodburn Drive	
Base Volume Input [veh/h]	95	214	203	16	10	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	3.00	0.00	0.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	95	214	203	16	10	88
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	59	56	4	3	24
Total Analysis Volume [veh/h]	104	235	223	18	11	97
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.00	0.00	0.03	0.12
d_M, Delay for Movement [s/veh]	7.92	0.00	0.00	0.00	15.27	10.14
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.25	0.00	0.00	0.00	0.09	0.41
95th-Percentile Queue Length [ft/ln]	6.31	0.00	0.00	0.00	2.35	10.35
d_A, Approach Delay [s/veh]	2.43		0.00		10.67	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.87					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 25: SE Crown Road & NE 3rd Avenue

Control Type:	Signalized	Delay (sec / veh):	12.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.658

Intersection Setup

Name	SE Crown Road			SE Crown Road			NE 3rd Avenue			NE 3rd Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	30.00	110.00	100.00	100.00	130.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SE Crown Road			SE Crown Road			NE 3rd Avenue			NE 3rd Avenue		
Base Volume Input [veh/h]	7	3	3	114	2	166	222	1087	4	0	760	167
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	0.00	0.00	2.00	1.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	60	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	3	3	114	2	106	222	1087	4	0	760	167
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	1	1	32	1	30	62	305	1	0	213	47
Total Analysis Volume [veh/h]	8	3	3	128	2	119	249	1221	4	0	854	188
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			2			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	4	0	0	8	5	5	2	0	1	6	0
Auxiliary Signal Groups						5,8						
Maximum Green [s]	0	25	0	0	25	25	25	45	0	15	45	0
Amber [s]	0.0	3.0	0.0	0.0	4.0	3.0	3.0	3.0	0.0	3.0	4.0	0.0
All red [s]	0.0	3.8	0.0	0.0	2.0	2.6	2.6	2.0	0.0	2.2	1.3	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	11	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.8	0.0	0.0	4.0	3.6	3.6	3.0	0.0	3.2	3.3	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	0	14	0	0	14	9	9	14	0	9	14	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	8	0	5	8	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	45	45	45	45	45	45	45	45	45
L, Total Lost Time per Cycle [s]	6.80	6.00	5.60	5.60	5.00	5.00	5.20	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.80	0.00	0.00	3.60	3.00	3.00	3.20	3.30	3.30
g_i, Effective Green Time [s]	4	5	19	8	24	24	0	15	15
g / C, Green / Cycle	0.09	0.11	0.42	0.18	0.53	0.53	0.00	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.03	0.07	0.07	0.14	0.33	0.33	0.00	0.29	0.29
s, saturation flow rate [veh/h]	318	1811	1602	1810	1870	1868	1810	1870	1755
c, Capacity [veh/h]	167	279	674	321	992	991	0	632	593
d1, Uniform Delay [s]	18.82	19.12	8.18	17.72	7.40	7.41	0.00	13.90	13.90
k, delay calibration	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.06	0.45	0.05	1.54	0.23	0.24	0.00	1.28	1.37
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.47	0.18	0.78	0.62	0.62	0.00	0.85	0.85
d, Delay for Lane Group [s/veh]	18.88	19.57	8.23	19.26	7.64	7.64	0.00	15.18	15.27
Lane Group LOS	B	B	A	B	A	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.10	1.19	0.57	2.28	2.80	2.80	0.00	4.31	4.06
50th-Percentile Queue Length [ft/ln]	2.41	29.75	14.24	57.00	70.10	70.06	0.00	107.70	101.45
95th-Percentile Queue Length [veh/ln]	0.17	2.14	1.03	4.10	5.05	5.04	0.00	7.71	7.30
95th-Percentile Queue Length [ft/ln]	4.34	53.55	25.64	102.60	126.17	126.10	0.00	192.80	182.61

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	18.88	18.88	0.00	19.57	19.57	8.23	19.26	7.64	7.64	0.00	15.21	15.27
Movement LOS	B	B		B	B	A	B	A	A	A	B	B
d_A, Approach Delay [s/veh]	18.88			14.15			9.60			15.22		
Approach LOS	B			B			A			B		
d_I, Intersection Delay [s/veh]	12.16											
Intersection LOS	B											
Intersection V/C	0.658											

Emissions

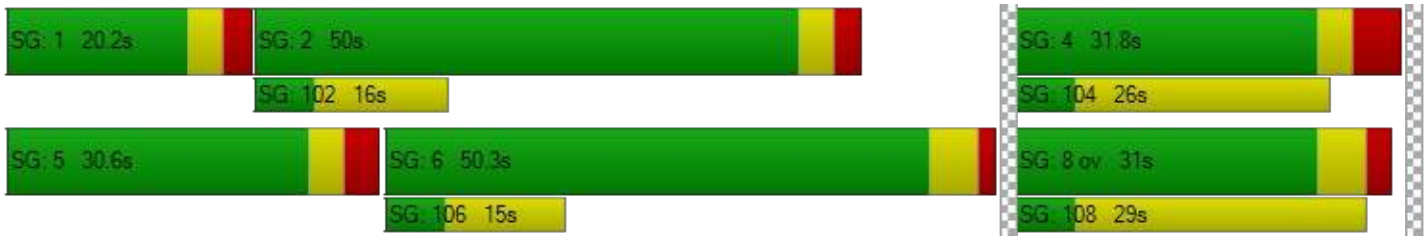
Vehicle Miles Traveled [mph]	0.67	8.72	7.98	19.31	47.52	47.48	0.00	48.68	45.69
Stops [stops/h]	7.71	95.05	45.51	182.11	223.96	223.83	0.00	344.11	324.13
Fuel consumption [US gal/h]	0.11	1.40	0.78	2.78	4.15	4.14	0.00	5.57	5.24
CO [g/h]	7.87	97.99	54.47	194.13	289.83	289.63	0.00	389.04	366.22
NOx [g/h]	1.53	19.07	10.60	37.77	56.39	56.35	0.00	75.69	71.25
VOC [g/h]	1.82	22.71	12.62	44.99	67.17	67.12	0.00	90.16	84.88

Other Modes

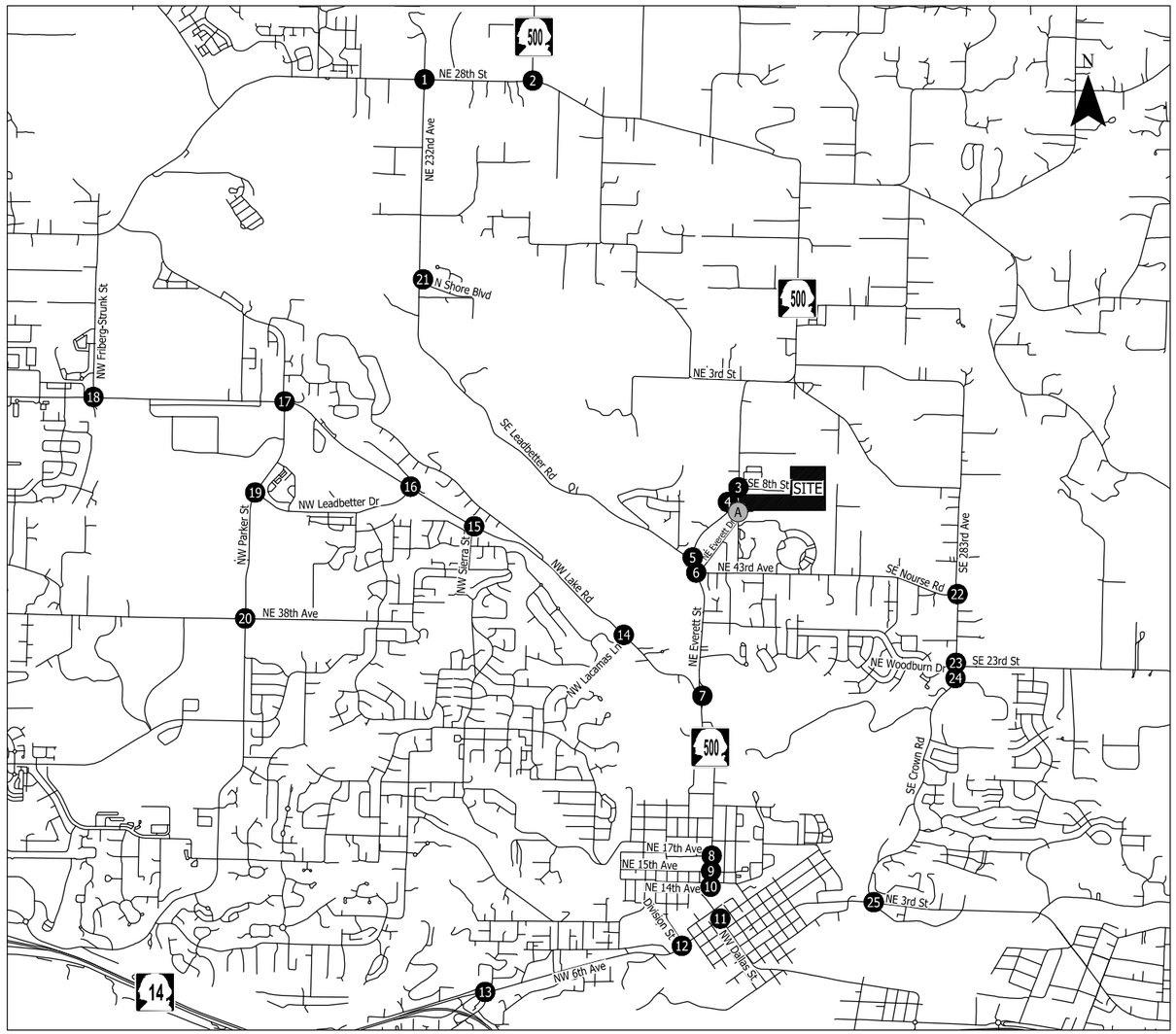
g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.43	14.43	14.43	14.43
l_p,int, Pedestrian LOS Score for Intersectio	1.688	2.233	2.766	2.904
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1109	1109	1997	1997
d_b, Bicycle Delay [s]	4.47	4.47	0.00	0.00
l_b,int, Bicycle LOS Score for Intersection	1.578	2.069	2.776	2.419
Bicycle LOS	A	B	C	B

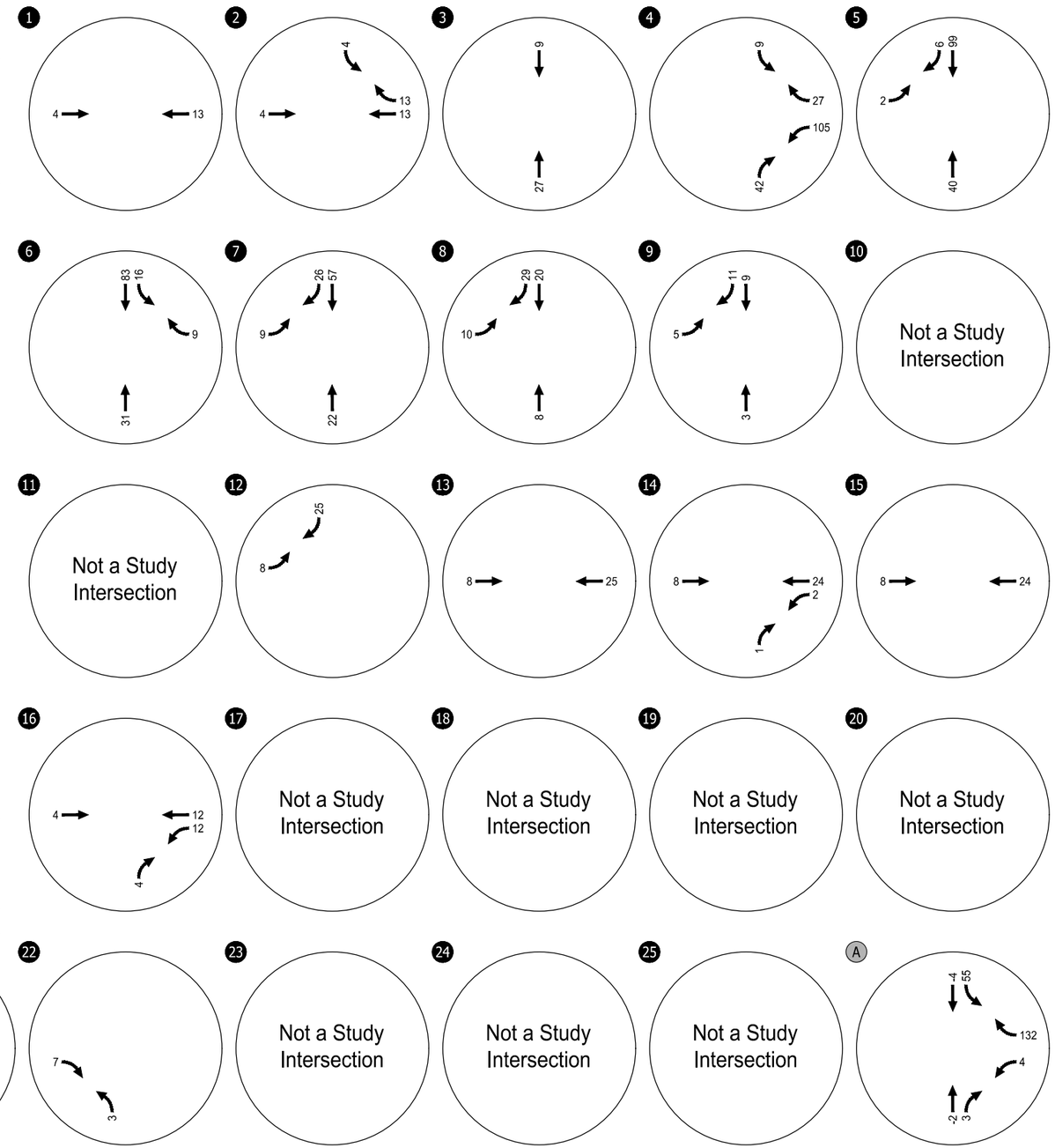
Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Appendix G: Year 2030 Total Traffic Conditions Analysis Worksheets





Note: Negative volumes reflact pass-by trips

Study Intersections

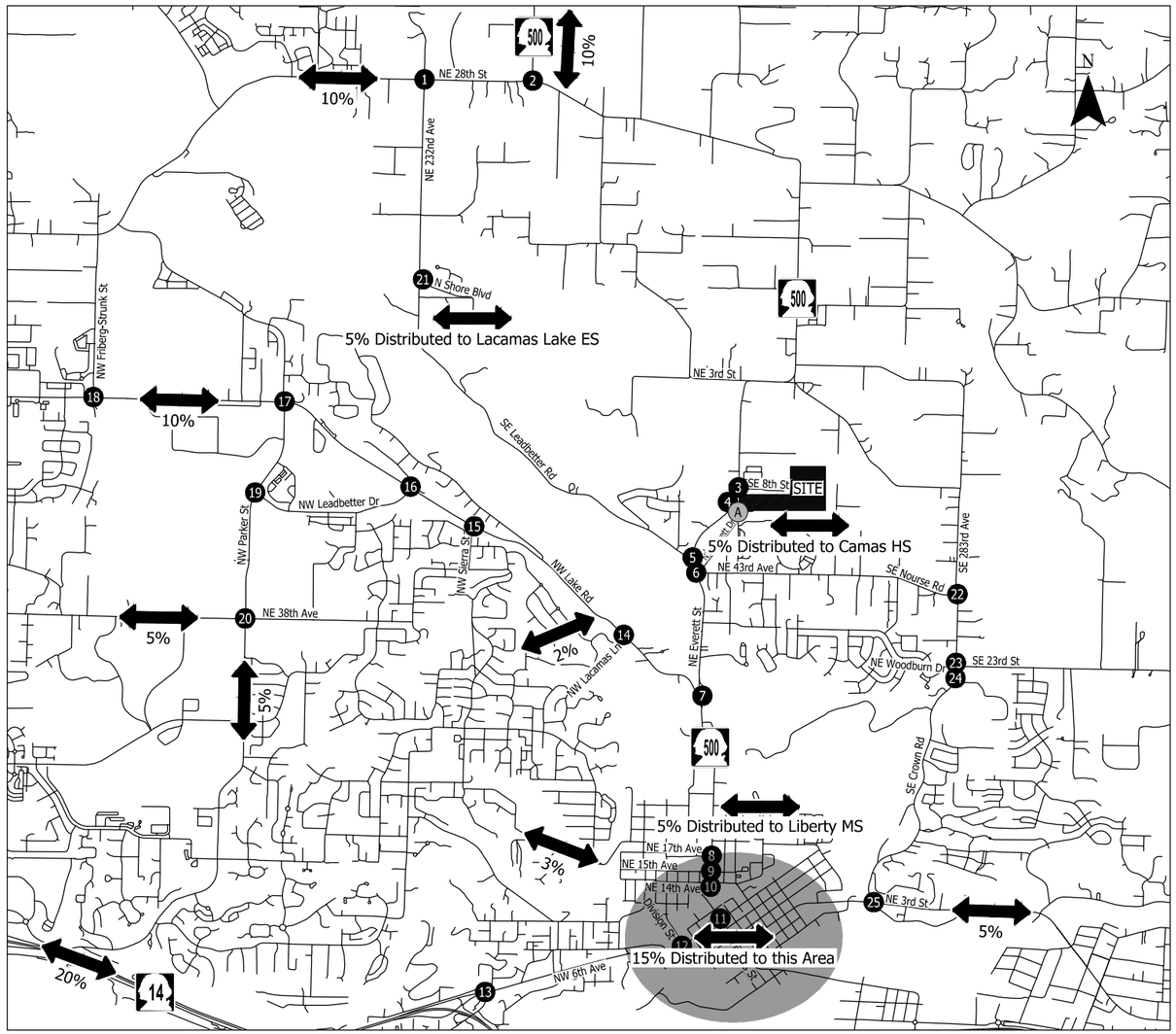
A Site Driveway

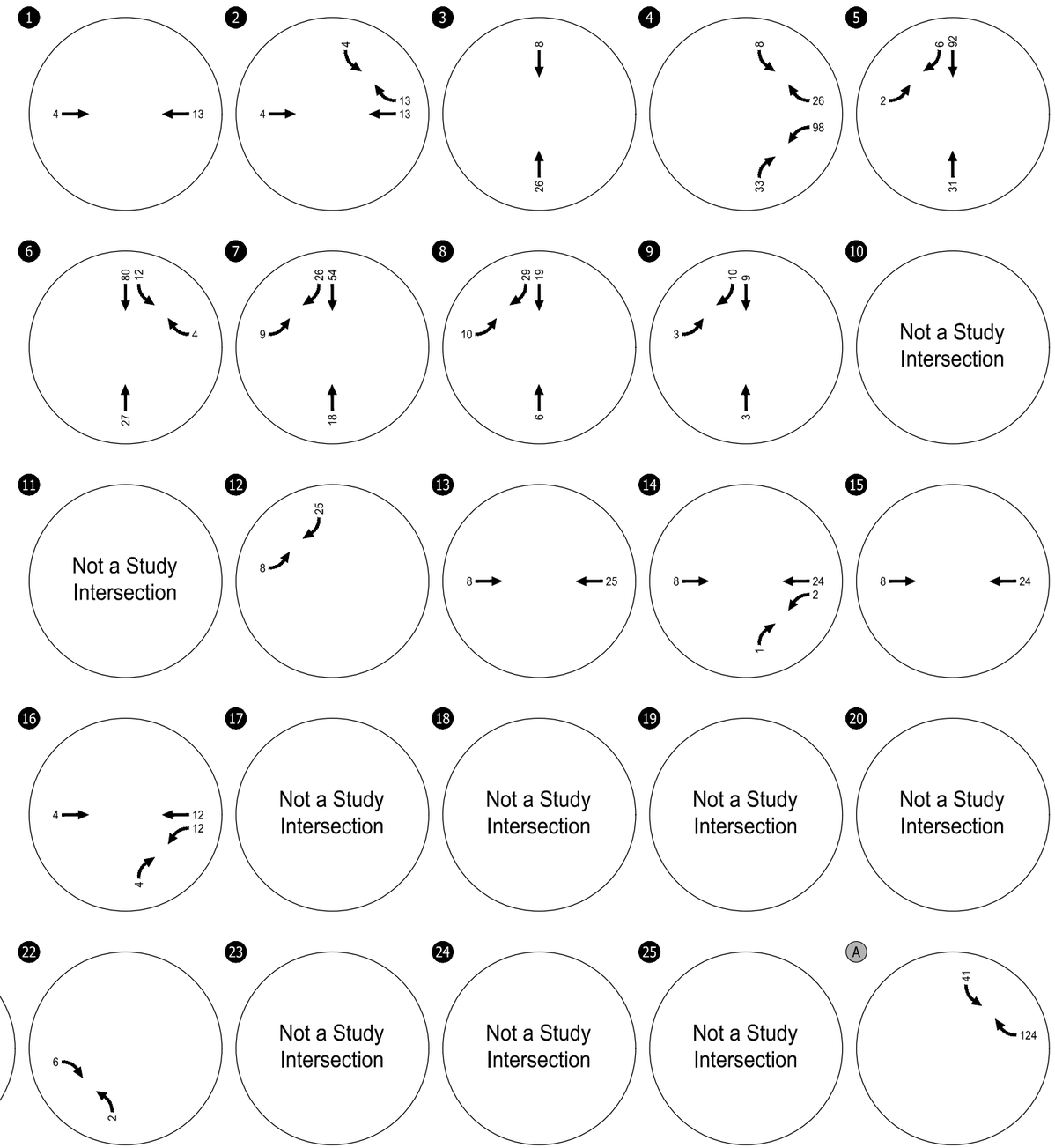
Weekday AM Peak Hour
Site-Generated Trip Assignment
Camas, Washington

Figure
12

KITTELSON & ASSOCIATES

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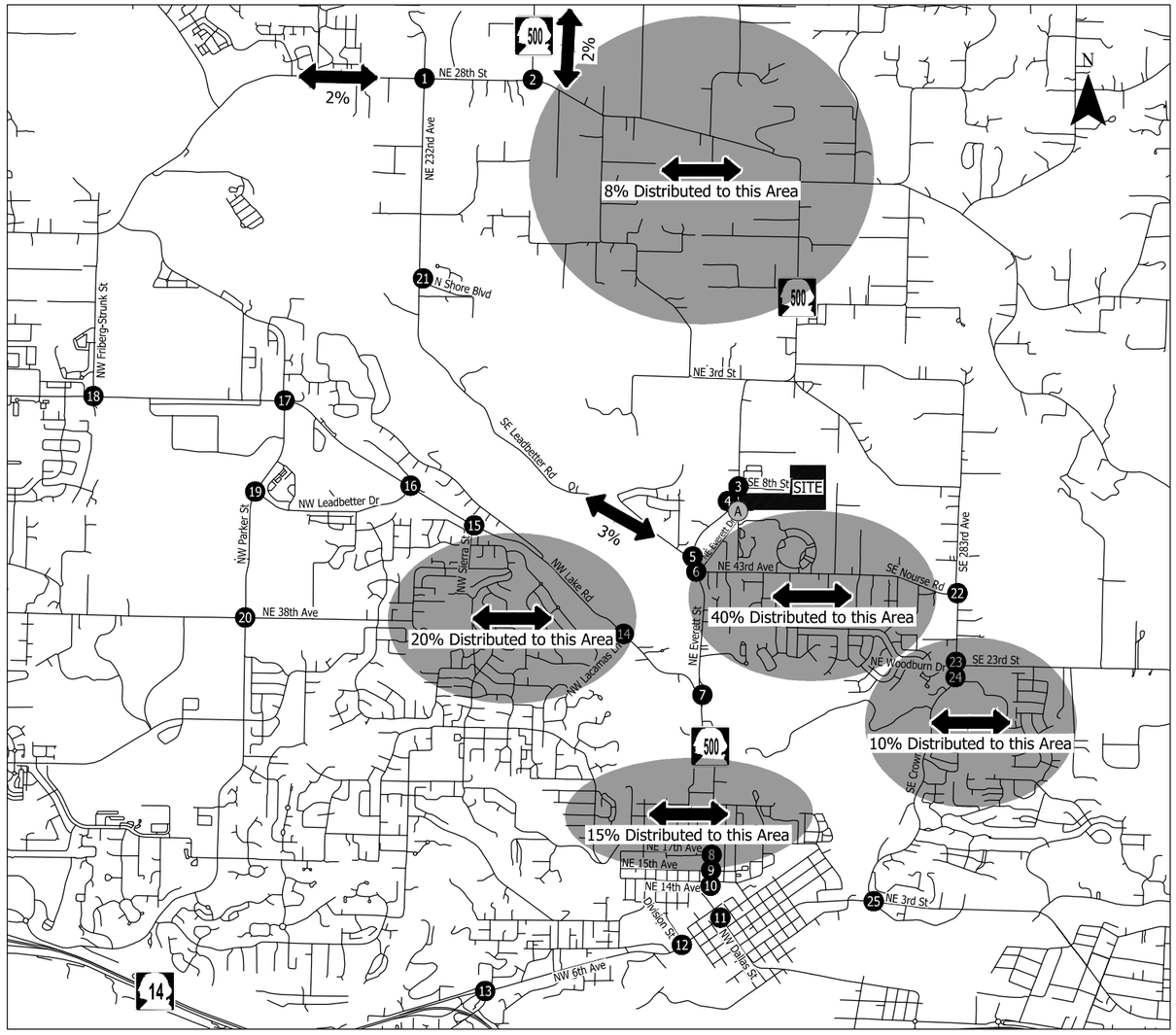
Study Intersections

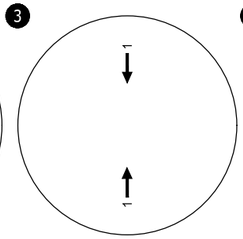
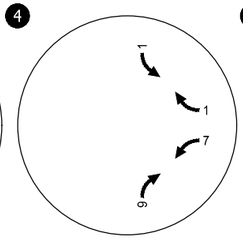
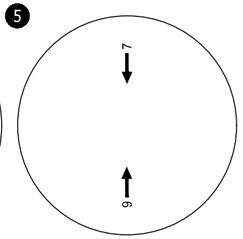
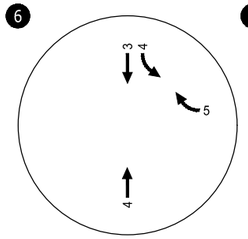
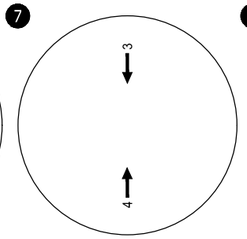
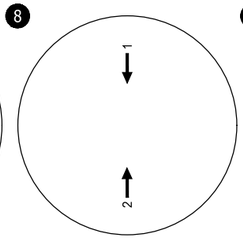
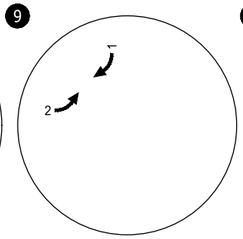
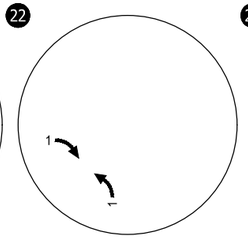
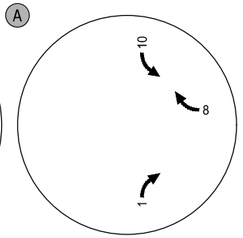
A Site Driveway

Weekday AM Peak Hour Residential Trip Assignment Camas, Washington

Figure 12A

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1 No Site Trips	2 No Site Trips	3 	4 	5 
6 	7 	8 	9 	10 Not a Study Intersection
11 Not a Study Intersection	12 No Site Trips	13 No Site Trips	14 No Site Trips	15 No Site Trips
16 No Site Trips	17 Not a Study Intersection	18 Not a Study Intersection	19 Not a Study Intersection	20 Not a Study Intersection
21 No Site Trips	22 	23 Not a Study Intersection	24 Not a Study Intersection	25 Not a Study Intersection
				A 

Study Intersections

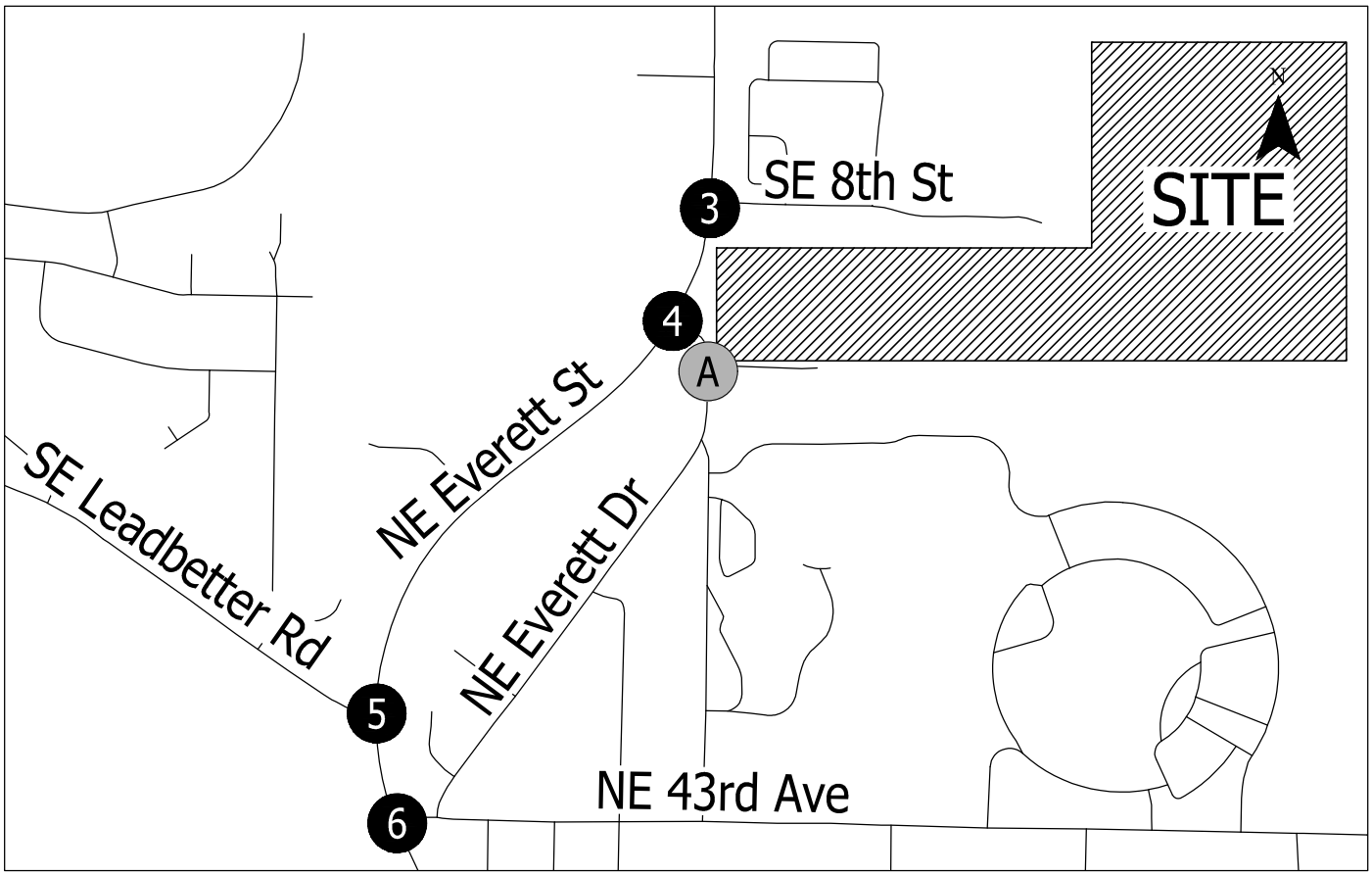
A Site Driveway

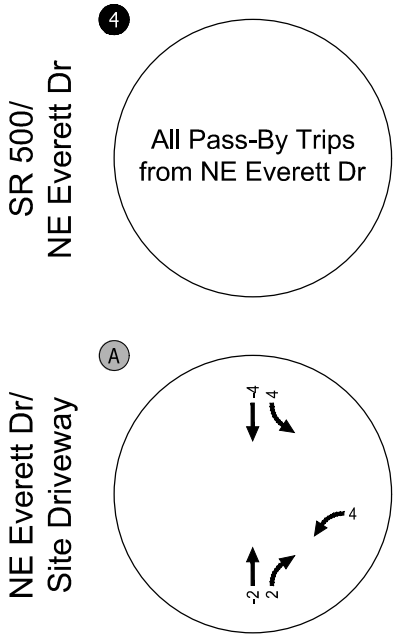
Weekday AM Peak Hour
Commercial Trip Assignment
Camas, Washington

Figure
12B

KITTELSON & ASSOCIATES

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Weekday AM Peak Hour
Pass-By Trip Assignments
Camas, Washington

Figure
12C

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Intersection Level Of Service Report

Intersection 1: NE 232nd Avenue & NE 28th Street

Control Type:	Two-way stop	Delay (sec / veh):	205.1
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.148

Intersection Setup

Name	NE 232nd Avenue			NE 232nd Avenue			NE 28th Street			NE 28th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			25.00			40.00			40.00		
Grade [%]	0.02			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	NE 232nd Avenue			NE 232nd Avenue			NE 28th Street			NE 28th Street		
Base Volume Input [veh/h]	122	2	41	0	6	6	2	173	180	83	292	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	5.00	0.00	6.00	0.00	0.00	0.00	0.00	8.00	12.00	11.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	122	2	41	0	6	6	2	173	180	83	292	0
Peak Hour Factor	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100	0.7100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	43	1	14	0	2	2	1	61	63	29	103	0
Total Analysis Volume [veh/h]	172	3	58	0	8	8	3	244	254	117	411	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	1.15	0.02	0.09	0.00	0.05	0.01	0.00	0.00	0.00	0.11	0.00	0.00
d_M, Delay for Movement [s/veh]	205.10	201.06	186.59	28.77	27.05	11.43	8.11	0.00	0.00	8.66	0.00	0.00
Movement LOS	F	F	F	D	D	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	12.74	12.74	12.74	0.19	0.19	0.19	0.01	0.01	0.01	0.21	0.21	0.21
95th-Percentile Queue Length [ft/ln]	318.61	318.61	318.61	4.72	4.72	4.72	0.14	0.14	0.14	5.21	5.21	5.21
d_A, Approach Delay [s/veh]	200.44			19.24			0.05			1.92		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	37.60											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: SR 500 & NE 28th Street

Control Type:	Two-way stop	Delay (sec / veh):	33.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.517

Intersection Setup

Name	Private Driveway			SR 500			NE 28th Street			SR 500		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	20.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Private Driveway			SR 500			NE 28th Street			SR 500		
Base Volume Input [veh/h]	0	0	0	134	0	80	34	180	0	0	288	127
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	15.00	0.00	6.00	4.00	6.00	0.00	0.00	3.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	134	0	80	34	180	0	0	288	127
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	40	0	24	10	54	0	0	87	38
Total Analysis Volume [veh/h]	0	0	0	161	0	96	41	217	0	0	347	153
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.52	0.00	0.15	0.04	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	18.93	16.74	9.35	33.80	32.84	28.02	8.46	0.00	0.00	7.64	0.00	0.00
Movement LOS	C	C	A	D	D	D	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	4.72	4.72	4.72	0.07	0.07	0.07	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	117.98	117.98	117.98	1.75	1.75	1.75	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.01			31.65			1.34			0.00		
Approach LOS	C			D			A			A		
d_I, Intersection Delay [s/veh]	8.35											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 3: NE Everett Street & SE 8th Street

Control Type:	Two-way stop	Delay (sec / veh):	34.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.345

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Base Volume Input [veh/h]	235	67	38	400	38	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	0.00	0.00	2.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	235	67	38	400	38	52
Peak Hour Factor	0.5900	0.5900	0.5900	0.5900	0.5900	0.5900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	100	28	16	169	16	22
Total Analysis Volume [veh/h]	398	114	64	678	64	88
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.06	0.01	0.35	0.13
d_M, Delay for Movement [s/veh]	0.00	0.00	8.46	0.00	34.43	20.51
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.11	0.11	2.47	2.47
95th-Percentile Queue Length [ft/ln]	0.00	0.00	2.76	2.76	61.66	61.66
d_A, Approach Delay [s/veh]	0.00		0.73		26.37	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	3.24					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	379.0
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.540

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	239	190	117	317	167	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	0.00	3.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	239	190	117	317	167	62
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	68	42	113	60	22
Total Analysis Volume [veh/h]	341	271	167	453	239	89
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.17	0.00	1.54	0.15
d_M, Delay for Movement [s/veh]	0.00	0.00	9.44	0.00	378.97	361.85
Movement LOS	A	A	A	A	F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.61	0.00	22.27	22.27
95th-Percentile Queue Length [ft/ln]	0.00	0.00	15.37	0.00	556.64	556.64
d_A, Approach Delay [s/veh]	0.00		2.54		374.33	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	79.72					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 5: NE Everett Street & SE Leadbetter Road

Control Type:	Two-way stop	Delay (sec / veh):	47.4
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.293

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.04		-0.02		0.03	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Base Volume Input [veh/h]	96	352	429	22	41	197
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	4.00	4.00	0.00	1.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	96	352	429	22	41	197
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	102	125	6	12	57
Total Analysis Volume [veh/h]	112	409	499	26	48	229
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.00	0.00	0.00	0.29	0.42
d_M, Delay for Movement [s/veh]	8.85	0.00	0.00	0.00	47.39	32.04
Movement LOS	A	A	A	A	E	D
95th-Percentile Queue Length [veh/ln]	0.36	0.00	0.00	0.00	5.44	5.44
95th-Percentile Queue Length [ft/ln]	8.96	0.00	0.00	0.00	136.01	136.01
d_A, Approach Delay [s/veh]	1.90		0.00		34.70	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	8.01					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 6: NE Everett Street & NE 43rd Avenue

Control Type:	Signalized	Delay (sec / veh):	13.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.768

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	300.00	120.00	100.00	100.00	80.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.03		-0.04		-0.04	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Base Volume Input [veh/h]	372	468	99	528	323	72
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	5.00	18.00	4.00	11.00	4.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	372	0	99	528	323	72
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	108	0	29	153	94	21
Total Analysis Volume [veh/h]	433	0	115	614	376	84
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	ProtPerm	Permissive	Permissive	Permissive
Signal Group	2	0	1	6	8	0
Auxiliary Signal Groups						
Maximum Green [s]	40	0	20	40	40	0
Amber [s]	4.0	0.0	3.0	4.0	3.0	0.0
All red [s]	1.0	0.0	2.0	1.0	1.0	0.0
Walk [s]	7	0	0	0	7	0
Pedestrian Clearance [s]	14	0	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.0	0.0	3.0	3.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	14	0	9	14	9	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	5	0	4	5	4	0
Vehicle Extension [s]	5.0	0.0	3.0	3.5	3.0	0.0
Minimum Recall	Yes		No	Yes	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	45	45	45	45	45	45
L, Total Lost Time per Cycle [s]	5.00	5.00	5.00	5.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.00	3.00	0.00	3.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	23	23	13	13
g / C, Green / Cycle	0.33	0.33	0.51	0.51	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.25	0.00	0.11	0.33	0.23	0.05
s, saturation flow rate [veh/h]	1737	1451	1024	1840	1653	1564
c, Capacity [veh/h]	580	485	574	947	470	444
d1, Uniform Delay [s]	13.20	0.00	6.95	7.90	14.82	12.10
k, delay calibration	0.23	0.23	0.11	0.13	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.08	0.00	0.17	0.91	3.21	0.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.00	0.20	0.65	0.80	0.19
d, Delay for Lane Group [s/veh]	17.28	0.00	7.12	8.82	18.03	12.31
Lane Group LOS	B	A	A	A	B	B
Critical Lane Group	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	3.62	0.00	0.39	2.91	3.44	0.58
50th-Percentile Queue Length [ft/ln]	90.47	0.00	9.67	72.75	85.97	14.40
95th-Percentile Queue Length [veh/ln]	6.51	0.00	0.70	5.24	6.19	1.04
95th-Percentile Queue Length [ft/ln]	162.85	0.00	17.41	130.96	154.75	25.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	17.28	0.00	7.12	8.82	18.03	12.31
Movement LOS	B	A	A	A	B	B
d_A, Approach Delay [s/veh]	17.28		8.55		16.99	
Approach LOS	B		A		B	
d_I, Intersection Delay [s/veh]	13.27					
Intersection LOS	B					
Intersection V/C	0.768					

Emissions

Vehicle Miles Traveled [mph]	253.97	0.00	8.04	42.92	9.83	2.20
Stops [stops/h]	292.48	0.00	31.28	235.20	277.93	46.56
Fuel consumption [US gal/h]	13.40	0.00	0.71	4.51	2.89	0.49
CO [g/h]	936.86	0.00	49.50	314.99	201.87	34.10
NOx [g/h]	182.28	0.00	9.63	61.29	39.28	6.63
VOC [g/h]	217.13	0.00	11.47	73.00	46.79	7.90

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	12.63	12.63
l_p,int, Pedestrian LOS Score for Intersectio	0.000	2.372	2.117
Crosswalk LOS	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1796	1796	1796
d_b, Bicycle Delay [s]	0.23	0.23	0.23
l_b,int, Bicycle LOS Score for Intersection	2.274	2.762	1.560
Bicycle LOS	B	C	A

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



MOVEMENT SUMMARY

Site: 7 [NE Everett St & NW Lake Rd_TotalAM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NE Everett Street															
3	L2	All MCs	238	12.0	238	12.0	0.382	14.6	LOS B	2.4	66.8	0.79	0.76	0.79	30.7
8	T1	All MCs	397	8.0	397	8.0	0.475	7.6	LOS A	3.8	101.2	0.84	0.70	0.88	34.2
Approach			635	9.5	635	9.5	0.475	10.2	LOS B	3.8	101.2	0.82	0.73	0.85	32.8
North: NE Everett Street															
4	T1	All MCs	528	9.0	528	9.0	0.474	5.5	LOS A	3.6	96.8	0.61	0.53	0.61	34.7
14	R2	All MCs	408	4.0	408	4.0	0.343	5.2	LOS A	2.4	61.2	0.54	0.54	0.54	35.0
Approach			937	6.8	937	6.8	0.474	5.3	LOS A	3.6	96.8	0.58	0.53	0.58	34.8
West: NW Lake Road															
5	L2	All MCs	564	3.0	564	3.0	0.589	14.9	LOS B	5.7	147.0	0.86	0.80	1.00	30.8
12	R2	All MCs	253	6.0	253	6.0	0.277	6.8	LOS A	1.8	47.6	0.71	0.65	0.71	34.6
Approach			817	3.9	817	3.9	0.589	12.4	LOS B	5.7	147.0	0.81	0.76	0.91	31.8
All Vehicles			2388	6.5	2388	6.5	0.589	9.0	LOS A	5.7	147.0	0.72	0.66	0.76	33.2

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 8: NE Everett Street & NE 17th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	30.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.390

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 17th Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 17th Avenue	
Base Volume Input [veh/h]	36	328	479	82	82	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	6.00	5.00	3.00	0.00	4.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	36	328	479	82	82	34
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	93	136	23	23	10
Total Analysis Volume [veh/h]	41	373	544	93	93	39
Pedestrian Volume [ped/h]	0		2		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.01	0.00	0.39	0.08
d_M, Delay for Movement [s/veh]	9.06	0.00	0.00	0.00	30.80	22.92
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.14	0.00	0.00	0.00	2.34	2.34
95th-Percentile Queue Length [ft/ln]	3.46	0.00	0.00	0.00	58.56	58.56
d_A, Approach Delay [s/veh]	0.90		0.00		28.47	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	3.49					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 9: NE Everett Street & NE 15th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	49.4
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.372

Intersection Setup

Name	NE Everett Street (SR 500)			NE Everett Street (SR 500)			NE 15th Avenue			NE 15th Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NE Everett Street (SR 500)			NE Everett Street (SR 500)			NE 15th Avenue			NE 15th Avenue		
Base Volume Input [veh/h]	15	229	4	80	294	137	44	25	25	2	25	84
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	7.00	7.00	0.00	0.00	2.00	2.00	3.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	229	4	80	294	137	44	25	25	2	25	84
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	69	1	24	89	41	13	8	8	1	8	25
Total Analysis Volume [veh/h]	18	276	5	96	354	165	53	30	30	2	30	101
Pedestrian Volume [ped/h]	5			16			0			5		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	2	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.07	0.00	0.00	0.37	0.13	0.05	0.01	0.14	0.14
d_M, Delay for Movement [s/veh]	8.59	0.00	0.00	8.04	0.00	0.00	49.44	39.40	30.04	28.90	25.13	13.13
Movement LOS	A	A	A	A	A	A	E	E	D	D	D	B
95th-Percentile Queue Length [veh/ln]	0.05	0.00	0.00	0.24	0.00	0.00	2.90	2.90	2.90	1.20	1.20	1.20
95th-Percentile Queue Length [ft/ln]	1.34	0.00	0.00	6.06	0.00	0.00	72.52	72.52	72.52	29.89	29.89	29.89
d_A, Approach Delay [s/veh]	0.52			1.25			41.63			16.07		
Approach LOS	A			A			E			C		
d_I, Intersection Delay [s/veh]	6.70											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 12: Division Street & NE 6th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	17.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.119

Intersection Setup

Name	Division Street		NW 6th Avenue		NE 6th Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	40.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	-0.12		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Division Street		NW 6th Avenue		NE 6th Avenue	
Base Volume Input [veh/h]	35	188	133	410	535	28
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	4.00	5.00	4.00	7.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	188	133	410	535	28
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	53	38	116	152	8
Total Analysis Volume [veh/h]	40	214	151	466	608	32
Pedestrian Volume [ped/h]	2		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.28	0.16	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	17.13	11.68	9.08	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.40	1.17	0.27	0.14	0.00	0.00
95th-Percentile Queue Length [ft/ln]	10.01	29.33	6.86	3.43	0.00	0.00
d_A, Approach Delay [s/veh]	12.54		2.22		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	3.02					
Intersection LOS	C					

MOVEMENT SUMMARY

Site: 13 [NW Norwood St & NW 6th Ave_TotalAM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Existing AM
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NW 6th Avenue															
3	L2	All MCs	106	1.0	106	1.0	0.214	12.6	LOS B	1.1	30.0	0.62	0.69	0.62	32.6
8	T1	All MCs	2	0.0	2	0.0	0.214	6.3	LOS A	1.1	30.0	0.62	0.69	0.62	33.3
18	R2	All MCs	68	13.0	68	13.0	0.214	7.4	LOS A	1.1	30.0	0.62	0.69	0.62	32.7
Approach			176	5.6	176	5.6	0.214	10.5	LOS B	1.1	30.0	0.62	0.69	0.62	32.7
East: NW 6th Avenue															
1	L2	All MCs	78	3.0	78	3.0	0.756	11.4	LOS B	9.0	230.5	0.67	0.50	0.67	33.7
6	T1	All MCs	811	3.0	811	3.0	0.756	5.1	LOS A	9.0	230.5	0.67	0.50	0.67	34.5
16	R2	All MCs	6	50.0	6	50.0	0.756	7.2	LOS A	9.0	230.5	0.67	0.50	0.67	33.1
Approach			896	3.3	896	3.3	0.756	5.7	LOS A	9.0	230.5	0.67	0.50	0.67	34.4
North: NW Norwood Street															
7	L2	All MCs	29	4.0	29	4.0	0.170	17.7	LOS B	1.1	28.3	0.88	0.80	0.88	31.0
4	T1	All MCs	6	0.0	6	0.0	0.170	10.9	LOS B	1.1	28.3	0.88	0.80	0.88	31.8
14	R2	All MCs	44	5.0	44	5.0	0.170	11.7	LOS B	1.1	28.3	0.88	0.80	0.88	31.4
Approach			80	4.2	80	4.2	0.170	13.8	LOS B	1.1	28.3	0.88	0.80	0.88	31.3
West: NW 6th Avenue															
5	L2	All MCs	12	27.0	12	27.0	0.482	11.4	LOS B	3.5	91.8	0.41	0.43	0.41	33.9
2	T1	All MCs	465	7.0	465	7.0	0.482	4.5	LOS A	3.5	91.8	0.41	0.43	0.41	35.4
12	R2	All MCs	80	3.0	80	3.0	0.482	4.6	LOS A	3.5	91.8	0.41	0.43	0.41	35.2
Approach			556	6.9	556	6.9	0.482	4.7	LOS A	3.5	91.8	0.41	0.43	0.41	35.4
All Vehicles			1708	4.8	1708	4.8	0.756	6.2	LOS A	9.0	230.5	0.59	0.51	0.59	34.3

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 14: NW Lacamas Lane & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	15.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	NW Lacamas Lane		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	110.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	-0.11		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Lacamas Lane		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	2	192	588	2	62	537
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	4.00	0.00	10.00	5.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	192	588	2	62	537
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	52	158	1	17	144
Total Analysis Volume [veh/h]	2	206	632	2	67	577
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane						
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.35	0.01	0.00	0.07	0.01
d_M, Delay for Movement [s/veh]	15.17	14.48	0.00	0.00	9.26	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	1.58	0.00	0.00	0.24	0.00
95th-Percentile Queue Length [ft/ln]	0.42	39.52	0.00	0.00	5.94	0.00
d_A, Approach Delay [s/veh]	14.49		0.00		0.96	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.45					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 15: NW Sierra Street & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	34.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.397

Intersection Setup

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	75	206	362	85	122	403
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	4.00	7.00	2.00	8.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	206	362	85	122	403
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	55	96	23	32	107
Total Analysis Volume [veh/h]	80	219	385	90	130	429
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.40	0.35	0.00	0.00	0.12	0.00
d_M, Delay for Movement [s/veh]	34.16	13.92	0.00	0.00	8.89	0.00
Movement LOS	D	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.77	1.58	0.00	0.00	0.42	0.00
95th-Percentile Queue Length [ft/ln]	44.23	39.62	0.00	0.00	10.49	0.00
d_A, Approach Delay [s/veh]	19.34		0.00		2.07	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	5.20					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 16: NW Lake Road & NW Leadbetter Drive

Control Type:	Two-way stop	Delay (sec / veh):	33.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.078

Intersection Setup

Name	NW Leadbetter Drive			NW Leadbetter Drive			NW Lake Road			NW Lake Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	NW Leadbetter Drive			NW Leadbetter Drive			NW Lake Road			NW Lake Road		
Base Volume Input [veh/h]	4	5	102	10	7	6	10	356	12	91	381	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	20.00	16.00	0.00	0.00	17.00	0.00	4.00	0.00	5.00	2.00	33.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	5	102	10	7	6	10	356	12	91	381	6
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	28	3	2	2	3	97	3	25	104	2
Total Analysis Volume [veh/h]	4	5	111	11	8	7	11	387	13	99	414	7
Pedestrian Volume [ped/h]	2			2			1			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.03	0.18	0.08	0.04	0.01	0.01	0.00	0.00	0.09	0.00	0.00
d_M, Delay for Movement [s/veh]	26.93	25.60	12.75	33.21	24.85	13.59	8.17	0.00	0.00	8.46	0.00	0.00
Movement LOS	D	D	B	D	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.86	0.86	0.86	0.43	0.43	0.43	0.03	0.00	0.00	0.29	0.00	0.00
95th-Percentile Queue Length [ft/ln]	21.56	21.56	21.56	10.82	10.82	10.82	0.73	0.00	0.00	7.13	0.00	0.00
d_A, Approach Delay [s/veh]	13.76			25.35			0.22			1.61		
Approach LOS	B			D			A			A		
d_I, Intersection Delay [s/veh]	3.01											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 21: N Shore Boulevard and NE 232nd Avenue

Control Type:	Two-way stop	Delay (sec / veh):	34.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.530

Intersection Setup

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		-0.02		0.02	
Crosswalk	No		No		No	

Volumes

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Base Volume Input [veh/h]	64	66	103	149	79	46
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	13.00	3.00	7.00	6.00	7.00	8.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	64	66	103	149	79	46
Peak Hour Factor	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	32	33	52	75	40	23
Total Analysis Volume [veh/h]	128	132	206	298	158	92
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.00	0.00	0.00	0.53	0.14
d_M, Delay for Movement [s/veh]	8.73	0.00	0.00	0.00	34.48	27.84
Movement LOS	A	A	A	A	D	D
95th-Percentile Queue Length [veh/ln]	0.23	0.23	0.00	0.00	4.66	4.66
95th-Percentile Queue Length [ft/ln]	5.74	5.74	0.00	0.00	116.39	116.39
d_A, Approach Delay [s/veh]	4.30		0.00		32.04	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	9.00					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 22: SE 283rd Avenue & SE Nourse Road

Control Type:	Two-way stop	Delay (sec / veh):	18.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.051

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.02	
Crosswalk	No		No		No	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Base Volume Input [veh/h]	247	55	98	28	14	101
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	2.00	10.00	18.00	0.00	7.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	247	55	98	28	14	101
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	15	27	8	4	27
Total Analysis Volume [veh/h]	268	60	107	30	15	110
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.19	0.00	0.00	0.00	0.05	0.12
d_M, Delay for Movement [s/veh]	7.91	0.00	0.00	0.00	18.14	9.98
Movement LOS	A	A	A	A	C	A
95th-Percentile Queue Length [veh/ln]	0.56	0.56	0.00	0.00	0.62	0.62
95th-Percentile Queue Length [ft/ln]	14.02	14.02	0.00	0.00	15.39	15.39
d_A, Approach Delay [s/veh]	6.46		0.00		10.96	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.91					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 101: NE Everett Drive and Site Access

Control Type:	Two-way stop	Delay (sec / veh):	15.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	NE Everett Drive		NE Everett Drive		Site Access	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

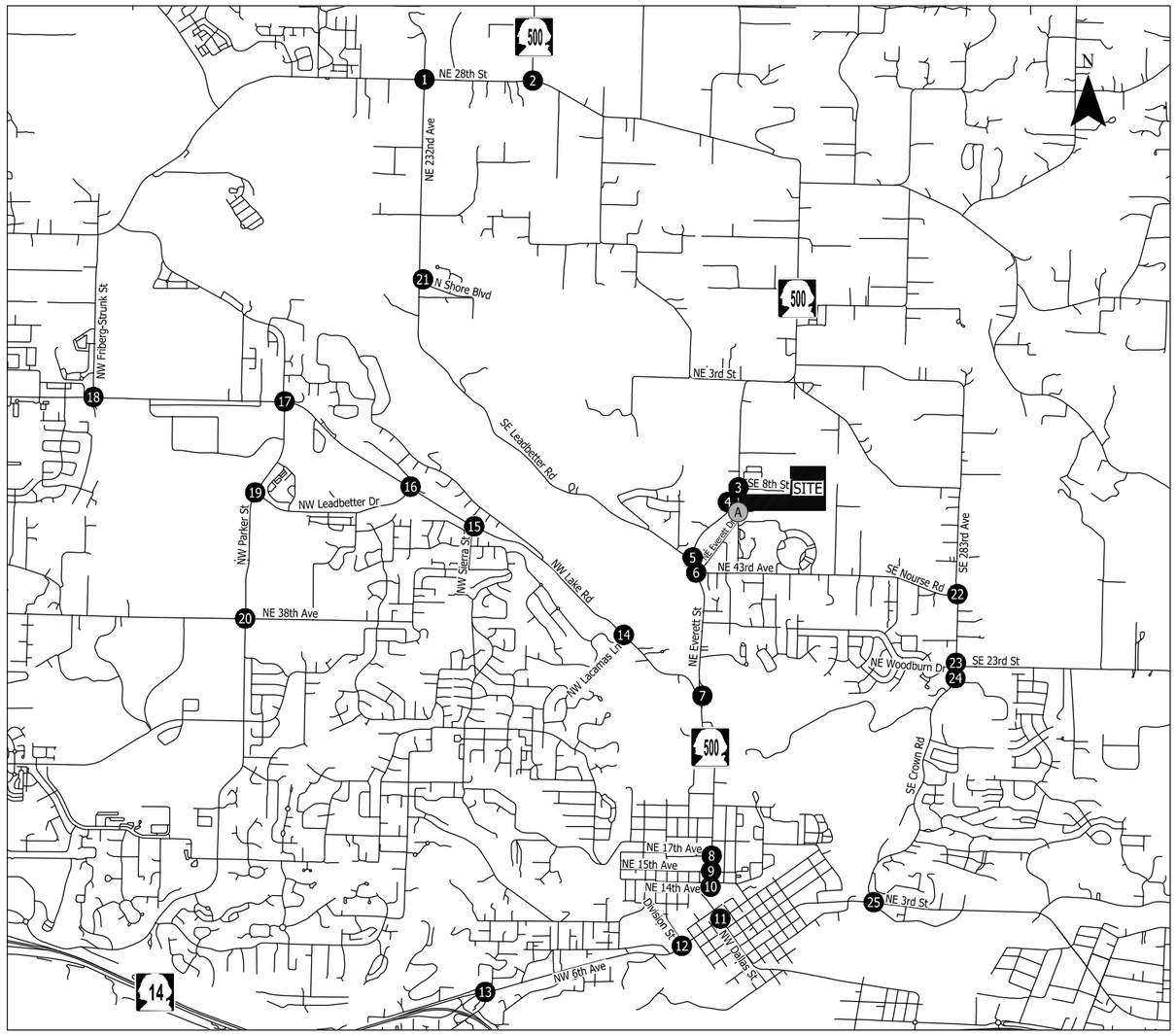
Name	NE Everett Drive		NE Everett Drive		Site Access	
Base Volume Input [veh/h]	94	3	55	251	4	132
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	0.00	0.00	1.00	0.00	3.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	94	3	55	251	4	132
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	1	20	90	1	47
Total Analysis Volume [veh/h]	134	4	79	359	6	189
Pedestrian Volume [ped/h]	0		0		0	

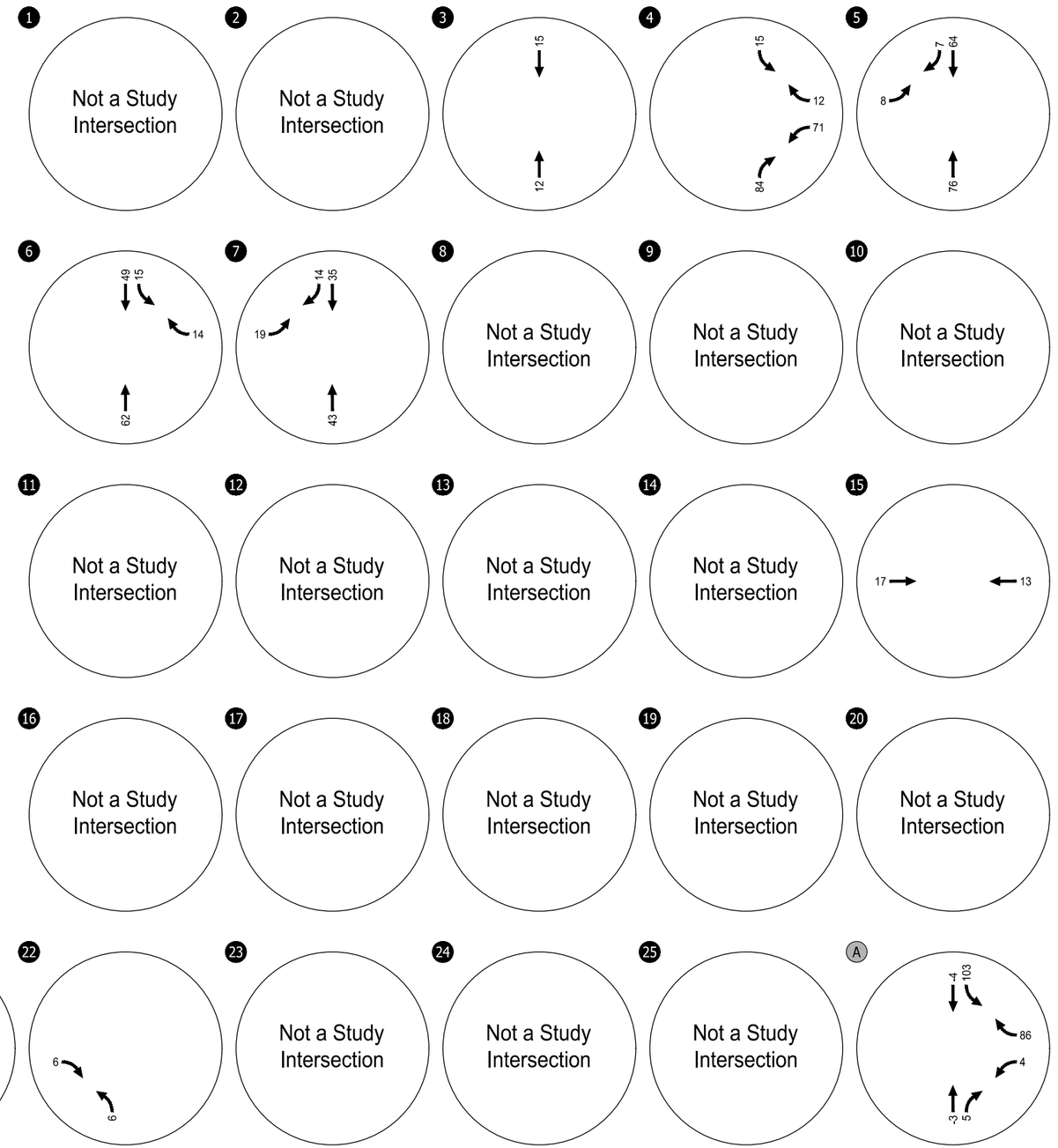
Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.05	0.00	0.01	0.21
d_M, Delay for Movement [s/veh]	0.00	0.00	7.56	0.00	15.04	10.13
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.14	0.14	0.85	0.85
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.44	3.44	21.25	21.25
d_A, Approach Delay [s/veh]	0.00		1.36		10.28	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.37					
Intersection LOS	C					





Note: Negative volumes reflact pass-by trips

Study Intersections

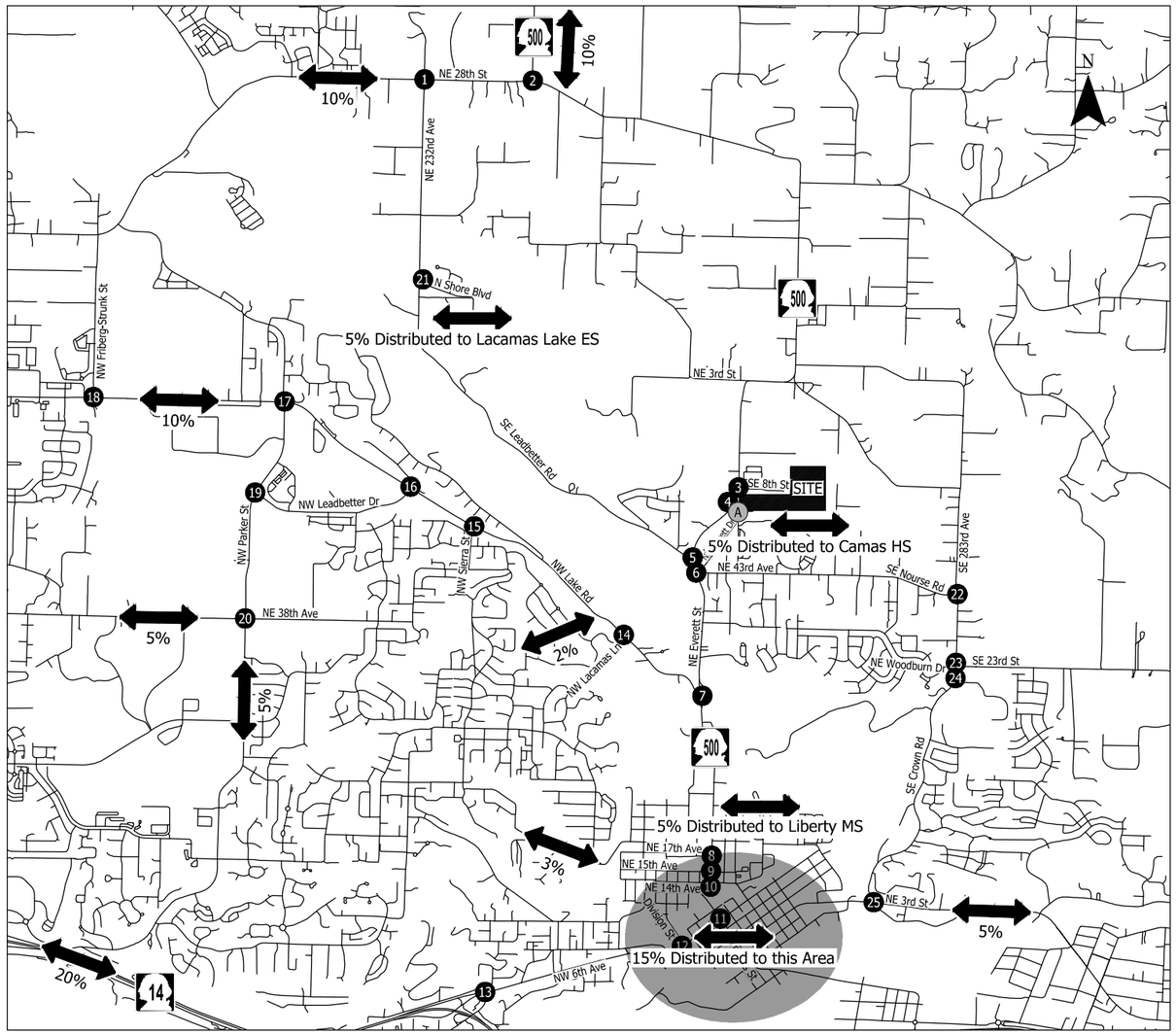
A Site Driveway

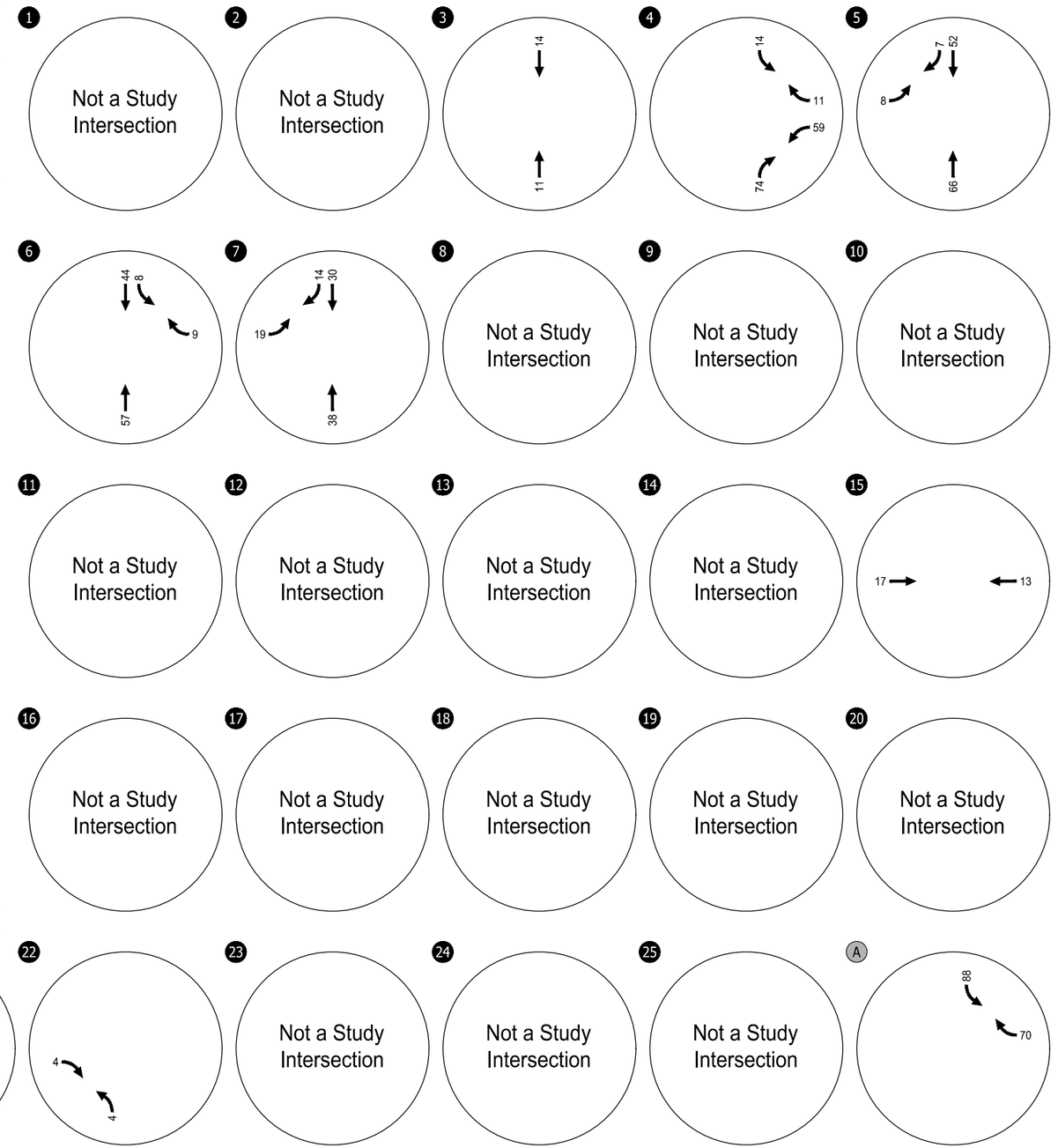
Weekday School PM Peak Hour
Site-Generated Trip Assignment
Camas, Washington

Figure
13

KITTELSON & ASSOCIATES

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Weekday School PM Peak Hour Residential Trip Assignment Camas, Washington

Figure 13A

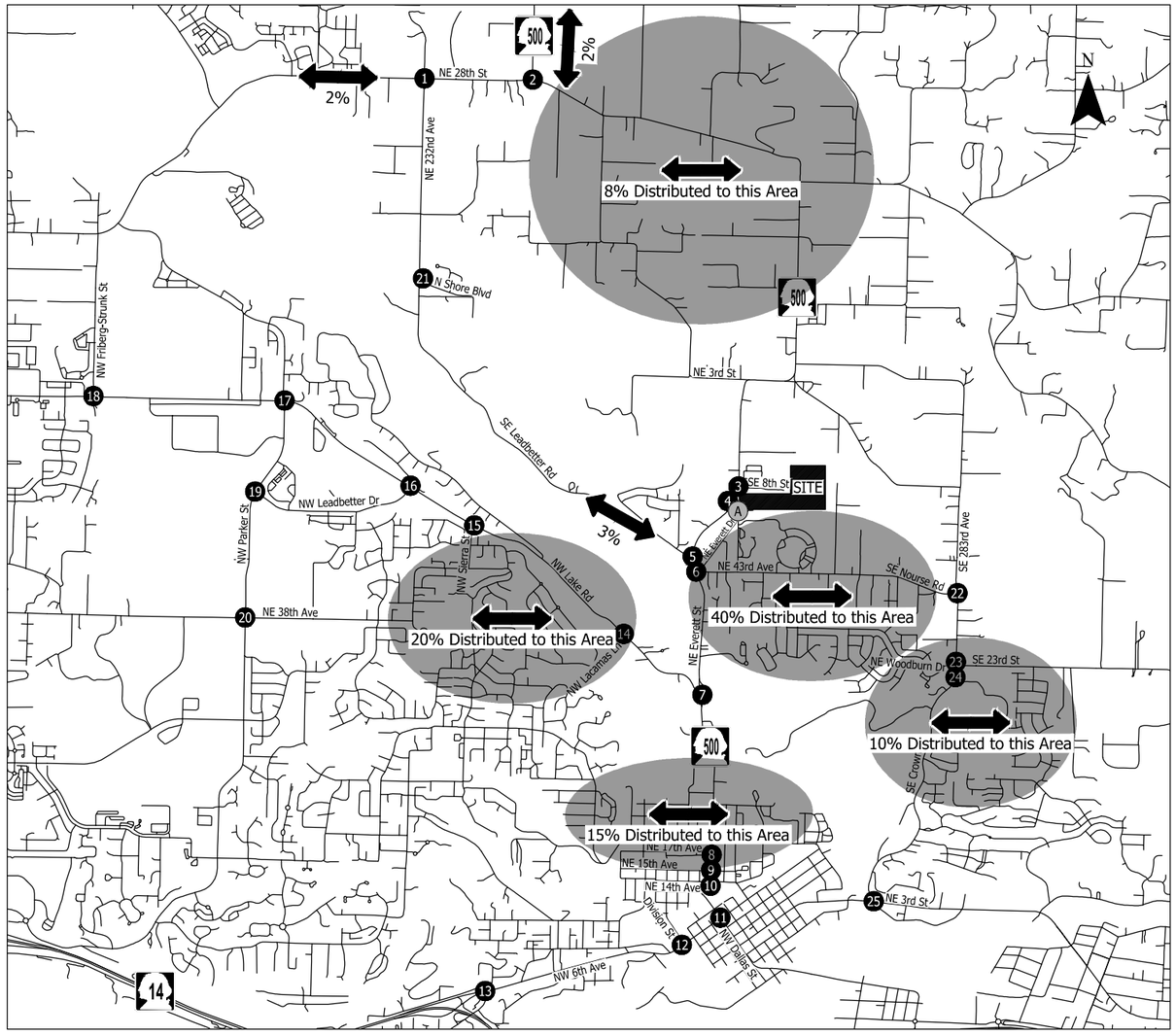
(#) Study Intersections

(A) Site Driveway

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Camas Woods *October 2024*



1 Not a Study Intersection	2 Not a Study Intersection	3	4	5
6	7	8 Not a Study Intersection	9 Not a Study Intersection	10 Not a Study Intersection
11 Not a Study Intersection	12 Not a Study Intersection	13 Not a Study Intersection	14 Not a Study Intersection	15 No Site Trips
16 Not a Study Intersection	17 Not a Study Intersection	18 Not a Study Intersection	19 Not a Study Intersection	20 Not a Study Intersection
21 No Site Trips	22	23 Not a Study Intersection	24 Not a Study Intersection	25 Not a Study Intersection
A				

(#) Study Intersections

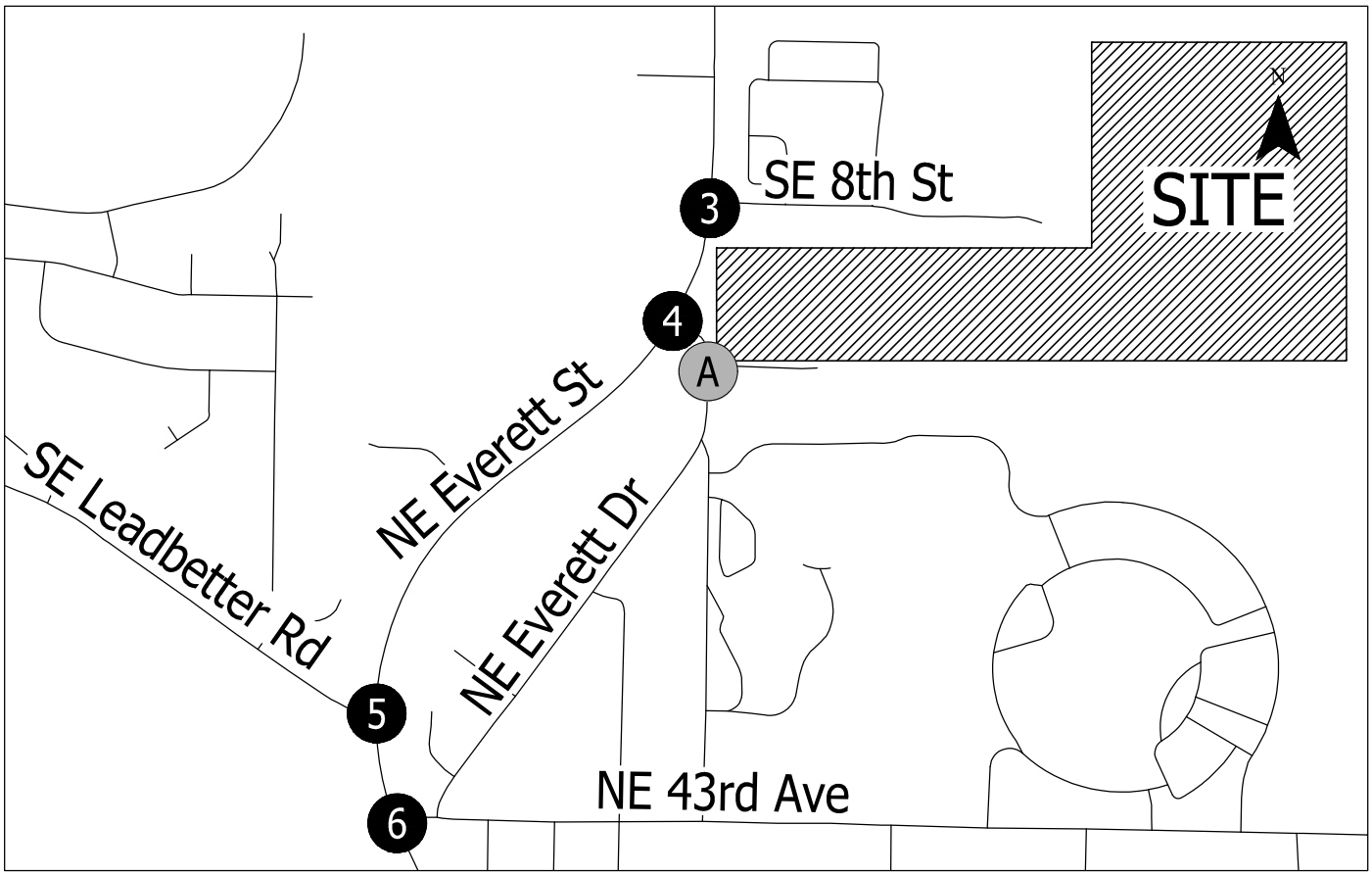
(A) Site Driveway

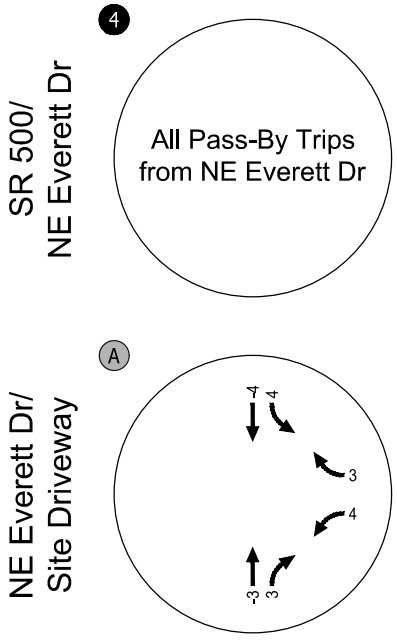
Weekday School PM Peak Hour
Commercial Trip Assignment
Camas, Washington

Figure
13B

KITTELSON & ASSOCIATES

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Weekday School PM Peak Hour
Pass-By Trip Assignments
Camas, Washington

Figure
13C

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Intersection Level Of Service Report

Intersection 3: NE Everett Street & SE 8th Street

Control Type:	Two-way stop	Delay (sec / veh):	25.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.259

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Base Volume Input [veh/h]	305	75	25	275	41	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	3.00	0.00	2.00	5.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	305	75	25	275	41	50
Peak Hour Factor	0.6300	0.6300	0.6300	0.6300	0.6300	0.6300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	121	30	10	109	16	20
Total Analysis Volume [veh/h]	484	119	40	437	65	79
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.04	0.00	0.26	0.13
d_M, Delay for Movement [s/veh]	0.00	0.00	8.70	0.00	25.54	17.36
Movement LOS	A	A	A	A	D	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.07	0.07	1.82	1.82
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.70	1.70	45.59	45.59
d_A, Approach Delay [s/veh]	0.00		0.73		21.05	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.76					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	40.1
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.526

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	353	106	44	273	82	27
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	0.00	0.00	2.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	353	106	44	273	82	27
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	126	38	16	98	29	10
Total Analysis Volume [veh/h]	504	151	63	390	117	39
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.07	0.00	0.53	0.08
d_M, Delay for Movement [s/veh]	0.00	0.00	9.10	0.00	40.09	30.86
Movement LOS	A	A	A	A	E	D
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.21	0.00	3.55	3.55
95th-Percentile Queue Length [ft/ln]	0.00	0.00	5.37	0.00	88.71	88.71
d_A, Approach Delay [s/veh]	0.00		1.27		37.79	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	5.12					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 5: NE Everett Street & SE Leadbetter Road

Control Type:	Two-way stop	Delay (sec / veh):	38.4
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.154

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.04		-0.02		0.03	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Base Volume Input [veh/h]	131	396	330	20	16	120
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	4.00	2.00	1.00	1.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	131	396	330	20	16	120
Peak Hour Factor	0.7900	0.7900	0.7900	0.7900	0.7900	0.7900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	125	104	6	5	38
Total Analysis Volume [veh/h]	166	501	418	25	20	152
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.15	0.01	0.00	0.00	0.15	0.25
d_M, Delay for Movement [s/veh]	8.76	0.00	0.00	0.00	38.39	16.62
Movement LOS	A	A	A	A	E	C
95th-Percentile Queue Length [veh/ln]	0.52	0.00	0.00	0.00	1.93	1.93
95th-Percentile Queue Length [ft/ln]	12.96	0.00	0.00	0.00	48.18	48.18
d_A, Approach Delay [s/veh]	2.18		0.00		19.15	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	3.70					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 6: NE Everett Street & NE 43rd Avenue

Control Type:	Signalized	Delay (sec / veh):	10.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.643

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	300.00	120.00	100.00	100.00	80.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.03		-0.04		-0.04	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Base Volume Input [veh/h]	451	136	67	389	161	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	4.00	2.00	1.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	451	0	67	389	161	67
Peak Hour Factor	0.8300	0.8300	0.8300	0.8300	0.8300	0.8300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	136	0	20	117	48	20
Total Analysis Volume [veh/h]	543	0	81	469	194	81
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	ProtPerm	Permissive	Permissive	Permissive
Signal Group	2	0	1	6	8	0
Auxiliary Signal Groups						
Maximum Green [s]	40	0	20	40	40	0
Amber [s]	4.0	0.0	3.0	4.0	3.0	0.0
All red [s]	1.0	0.0	2.0	1.0	1.0	0.0
Walk [s]	7	0	0	0	7	0
Pedestrian Clearance [s]	14	0	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.0	0.0	3.0	3.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	14	0	9	14	9	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	5	0	4	5	4	0
Vehicle Extension [s]	5.0	0.0	3.0	3.5	3.0	0.0
Minimum Recall	Yes		No	Yes	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	39	39	39	39	39	39
L, Total Lost Time per Cycle [s]	5.00	5.00	5.00	5.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.00	3.00	0.00	3.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	24	24	6	6
g / C, Green / Cycle	0.42	0.42	0.61	0.61	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.31	0.00	0.08	0.25	0.11	0.05
s, saturation flow rate [veh/h]	1737	1502	1053	1869	1795	1589
c, Capacity [veh/h]	728	629	690	1135	293	259
d1, Uniform Delay [s]	9.62	0.00	4.66	4.04	15.39	14.46
k, delay calibration	0.23	0.23	0.11	0.13	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.26	0.00	0.08	0.29	2.57	0.68
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.00	0.12	0.41	0.66	0.31
d, Delay for Lane Group [s/veh]	12.88	0.00	4.74	4.33	17.95	15.14
Lane Group LOS	B	A	A	A	B	B
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.19	0.00	0.11	0.81	1.61	0.60
50th-Percentile Queue Length [ft/ln]	79.65	0.00	2.81	20.35	40.17	14.94
95th-Percentile Queue Length [veh/ln]	5.74	0.00	0.20	1.47	2.89	1.08
95th-Percentile Queue Length [ft/ln]	143.38	0.00	5.06	36.63	72.30	26.89

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	12.88	0.00	4.74	4.33	17.95	15.14
Movement LOS	B	A	A	A	B	B
d_A, Approach Delay [s/veh]	12.88		4.39		17.13	
Approach LOS	B		A		B	
d_I, Intersection Delay [s/veh]	10.32					
Intersection LOS	B					
Intersection V/C	0.643					

Emissions

Vehicle Miles Traveled [mph]	318.49	0.00	5.66	32.78	5.07	2.12
Stops [stops/h]	293.66	0.00	10.36	75.03	148.09	55.07
Fuel consumption [US gal/h]	15.77	0.00	0.37	2.23	1.51	0.56
CO [g/h]	1102.47	0.00	25.99	155.65	105.20	38.87
NOx [g/h]	214.50	0.00	5.06	30.28	20.47	7.56
VOC [g/h]	255.51	0.00	6.02	36.07	24.38	9.01

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	10.08	10.08
l_p,int, Pedestrian LOS Score for Intersectio	0.000	2.335	2.041
Crosswalk LOS	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	2048	2048	2048
d_b, Bicycle Delay [s]	0.01	0.01	0.01
l_b,int, Bicycle LOS Score for Intersection	2.456	2.467	1.560
Bicycle LOS	B	B	A

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



MOVEMENT SUMMARY

Site: 7 [NE Everett St & NW Lake Rd_TotalSchoolPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NE Everett Street															
3	L2	All MCs	277	1.0	277	1.0	0.269	11.5	LOS B	1.6	41.0	0.53	0.65	0.53	31.9
8	T1	All MCs	428	3.0	428	3.0	0.358	5.0	LOS A	2.4	61.8	0.55	0.51	0.55	35.2
Approach			704	2.2	704	2.2	0.358	7.5	LOS A	2.4	61.8	0.54	0.56	0.54	33.8
North: NE Everett Street															
4	T1	All MCs	396	3.0	396	3.0	0.324	5.0	LOS A	2.1	53.8	0.51	0.49	0.51	35.1
14	R2	All MCs	301	1.0	301	1.0	0.240	5.0	LOS A	1.5	36.9	0.47	0.53	0.47	35.2
Approach			697	2.1	697	2.1	0.324	5.0	LOS A	2.1	53.8	0.50	0.51	0.50	35.2
West: NW Lake Road															
5	L2	All MCs	299	2.0	299	2.0	0.263	11.6	LOS B	1.7	42.0	0.58	0.66	0.58	31.8
12	R2	All MCs	395	2.0	395	2.0	0.347	5.8	LOS A	2.3	59.0	0.61	0.59	0.61	34.9
Approach			694	2.0	694	2.0	0.347	8.3	LOS A	2.3	59.0	0.60	0.62	0.60	33.5
All Vehicles			2095	2.1	2095	2.1	0.358	6.9	LOS A	2.4	61.8	0.55	0.56	0.55	34.1

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 15: NW Sierra Street & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	40.7
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.449

Intersection Setup

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	74	113	467	108	105	374
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	3.00	2.00	2.00	1.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	74	113	467	108	105	374
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	31	127	29	29	102
Total Analysis Volume [veh/h]	80	123	508	117	114	407
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.45	0.24	0.01	0.00	0.12	0.00
d_M, Delay for Movement [s/veh]	40.70	14.02	0.00	0.00	9.25	0.00
Movement LOS	E	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	2.09	0.91	0.00	0.00	0.40	0.00
95th-Percentile Queue Length [ft/ln]	52.22	22.74	0.00	0.00	10.05	0.00
d_A, Approach Delay [s/veh]	24.53		0.00		2.02	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	4.47					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 21: N Shore Boulevard and NE 232nd Avenue

Control Type:	Two-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.151

Intersection Setup

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		-0.02		0.02	
Crosswalk	No		No		No	

Volumes

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Base Volume Input [veh/h]	18	19	14	112	107	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	4.00	6.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	19	14	112	107	13
Peak Hour Factor	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	5	4	32	31	4
Total Analysis Volume [veh/h]	21	22	16	129	123	15
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.15	0.02
d_M, Delay for Movement [s/veh]	7.51	0.00	0.00	0.00	10.29	9.54
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.60	0.60
95th-Percentile Queue Length [ft/ln]	0.89	0.89	0.00	0.00	14.88	14.88
d_A, Approach Delay [s/veh]	3.67		0.00		10.21	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.81					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 22: SE 283rd Avenue & SE Nourse Road

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.02	
Crosswalk	No		No		No	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Base Volume Input [veh/h]	70	99	67	11	11	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	6.00	6.00	4.00	0.00	9.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	99	67	11	11	95
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	29	20	3	3	28
Total Analysis Volume [veh/h]	82	116	79	13	13	112
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.00	0.00	0.00	0.02	0.12
d_M, Delay for Movement [s/veh]	7.53	0.00	0.00	0.00	12.07	9.39
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.14	0.14	0.00	0.00	0.48	0.48
95th-Percentile Queue Length [ft/ln]	3.58	3.58	0.00	0.00	12.09	12.09
d_A, Approach Delay [s/veh]	3.12		0.00		9.67	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.40					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 101: NE Everett Drive and Site Access

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name	NE Everett Drive		NE Everett Drive		Site Access	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

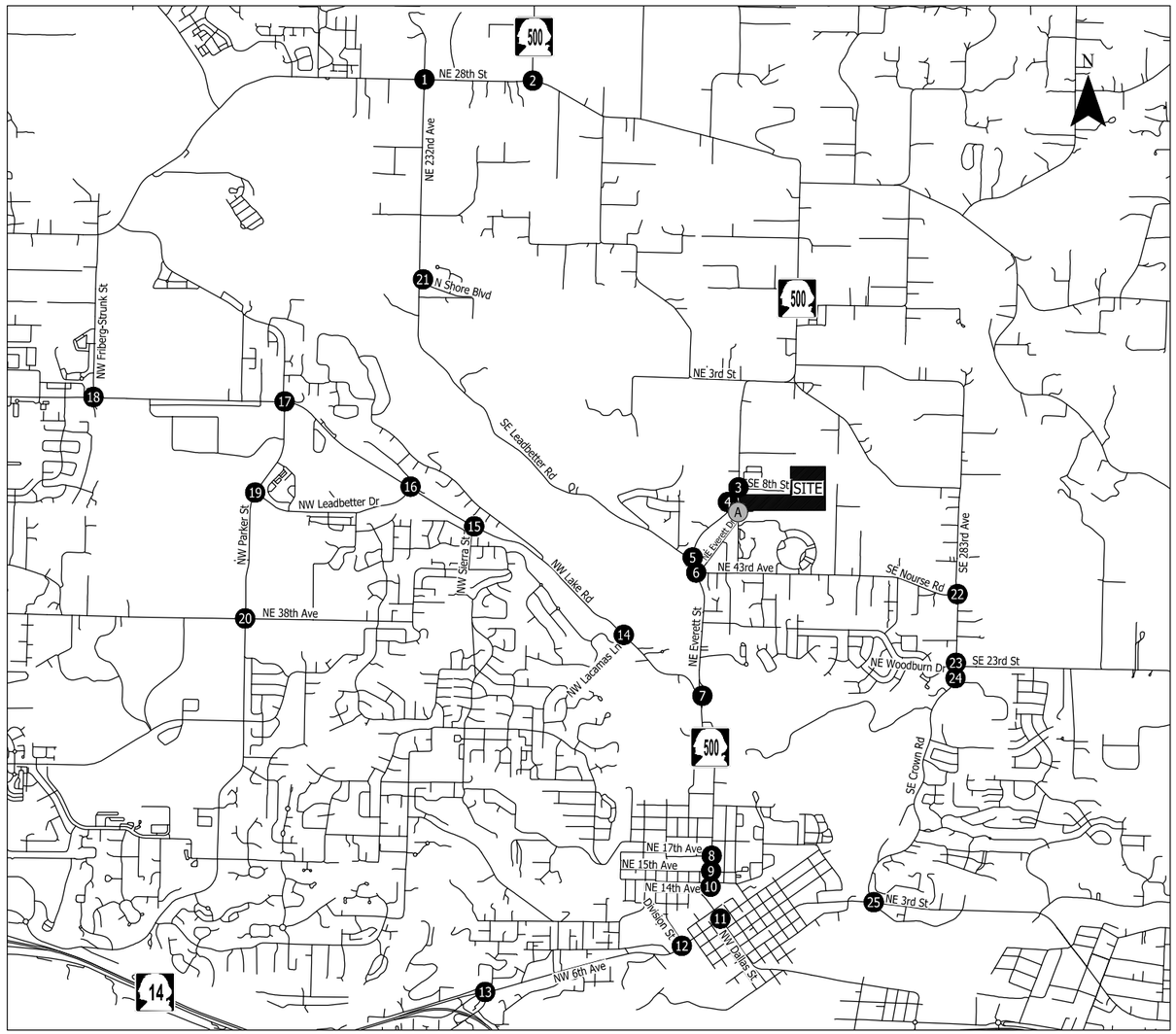
Name	NE Everett Drive		NE Everett Drive		Site Access	
Base Volume Input [veh/h]	23	5	103	48	4	86
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	5	103	48	4	86
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	2	37	17	1	31
Total Analysis Volume [veh/h]	33	7	147	69	6	123
Pedestrian Volume [ped/h]	0		0		0	

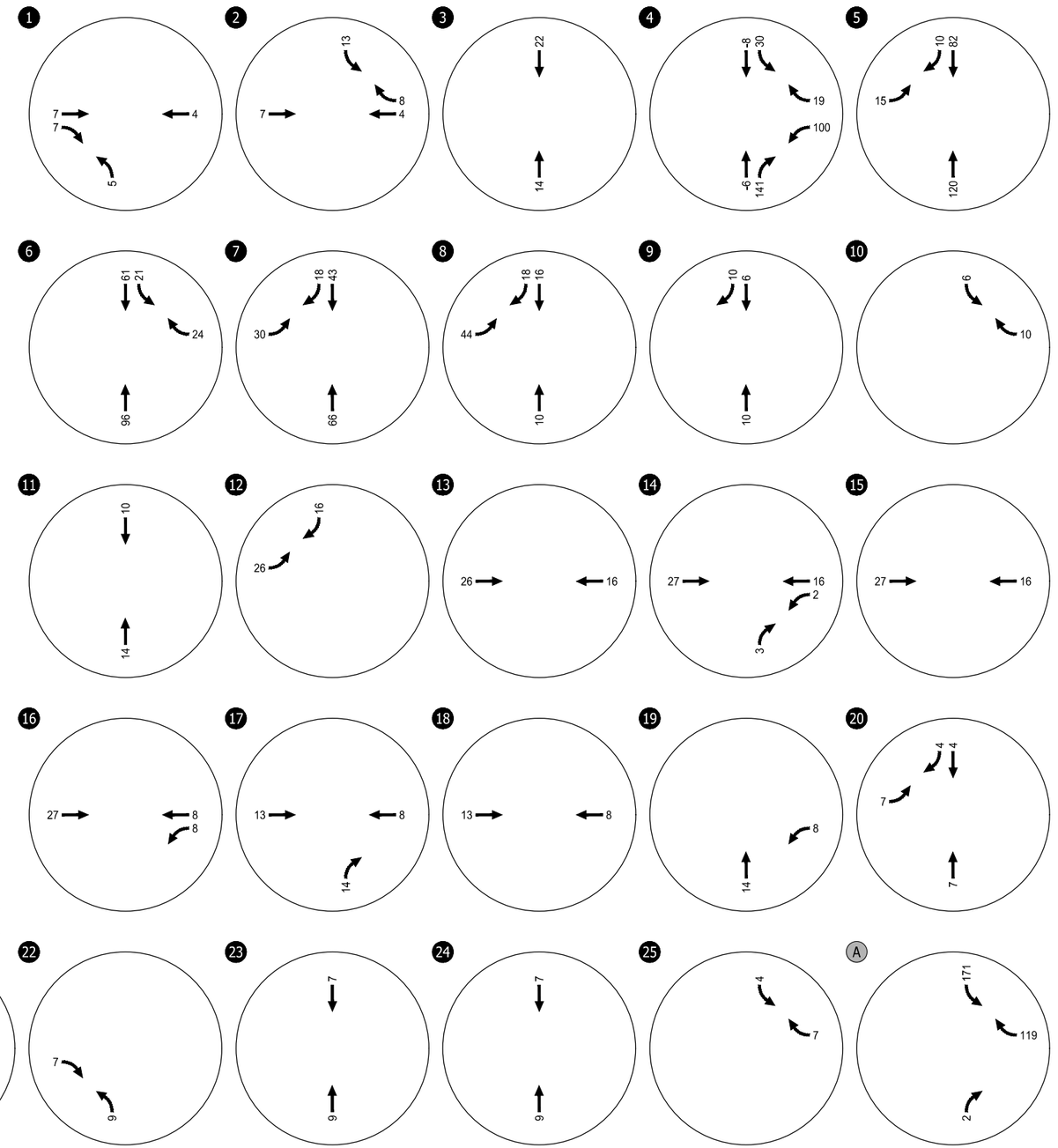
Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.09	0.00	0.01	0.12
d_M, Delay for Movement [s/veh]	0.00	0.00	7.45	0.00	12.06	8.99
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.27	0.27	0.44	0.44
95th-Percentile Queue Length [ft/ln]	0.00	0.00	6.66	6.66	11.06	11.06
d_A, Approach Delay [s/veh]	0.00		5.07		9.13	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.90					
Intersection LOS	B					





Note: Negative volumes reflact pass-by trips

Study Intersections

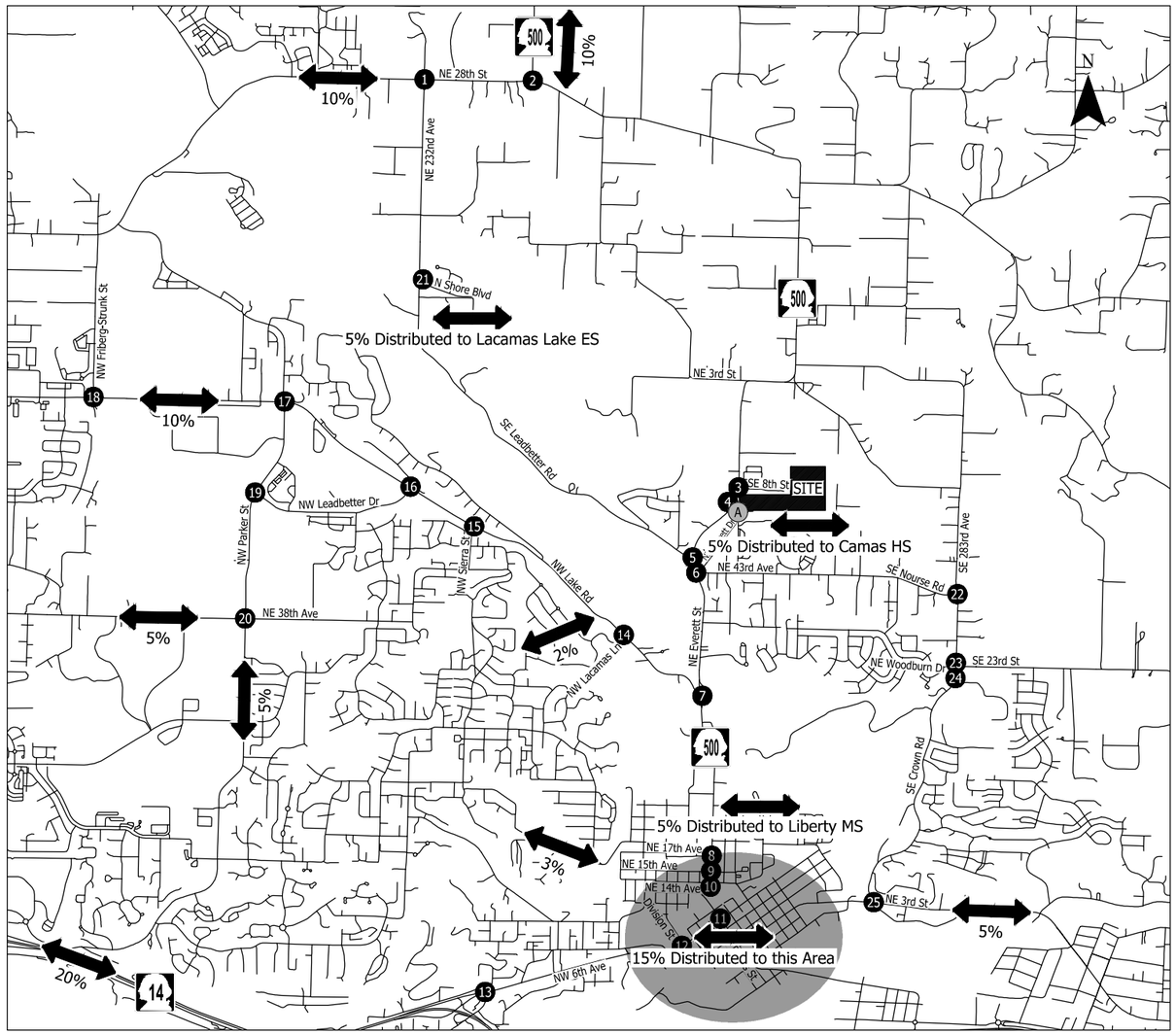
A Site Driveway

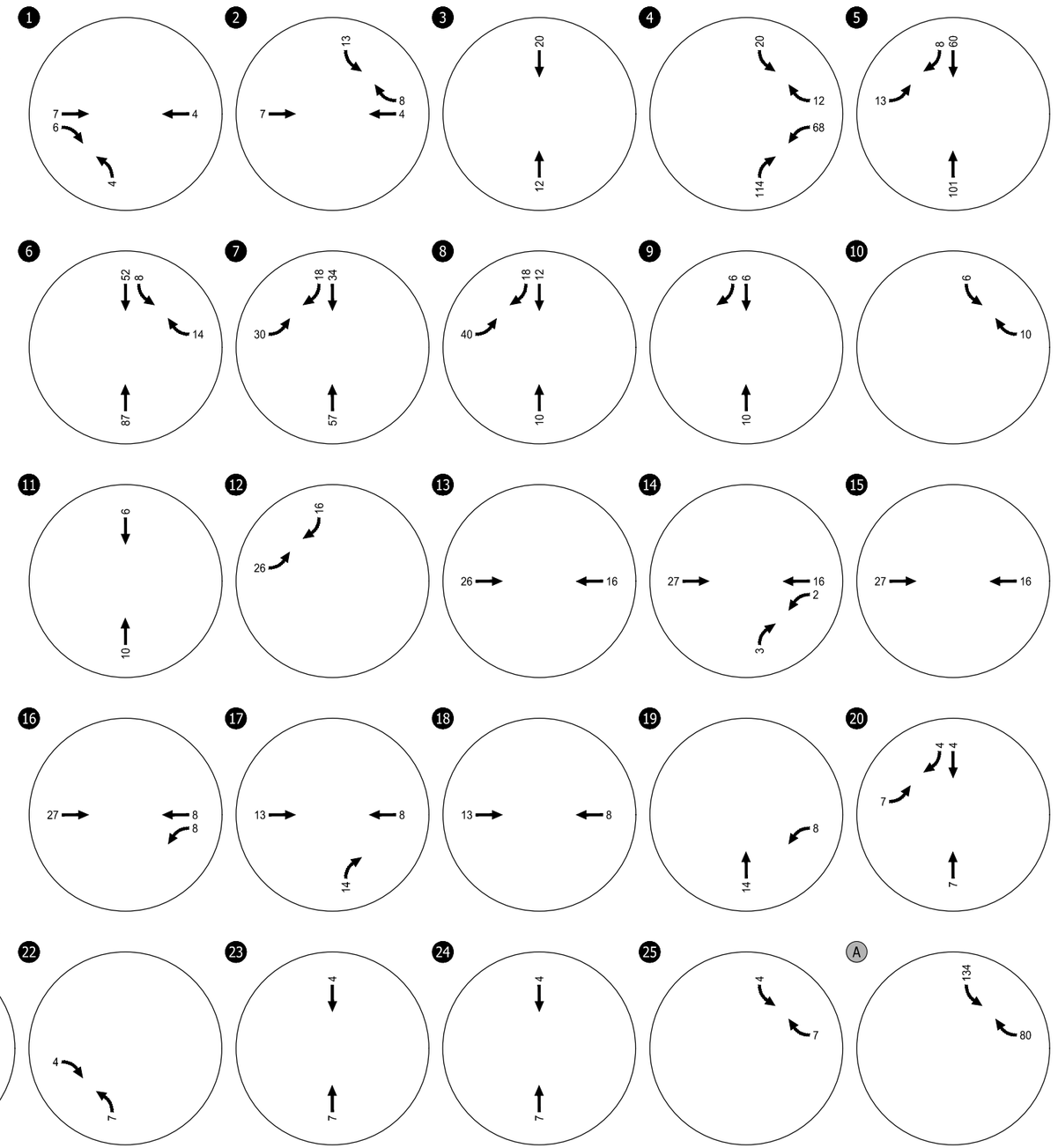
Weekday PM Peak Hour Site-Generated Trip Assignment Camas, Washington

Figure 14

KITTELSON & ASSOCIATES

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Weekday PM Peak Hour Residential Trip Assignment Camas, Washington

Figure 14A

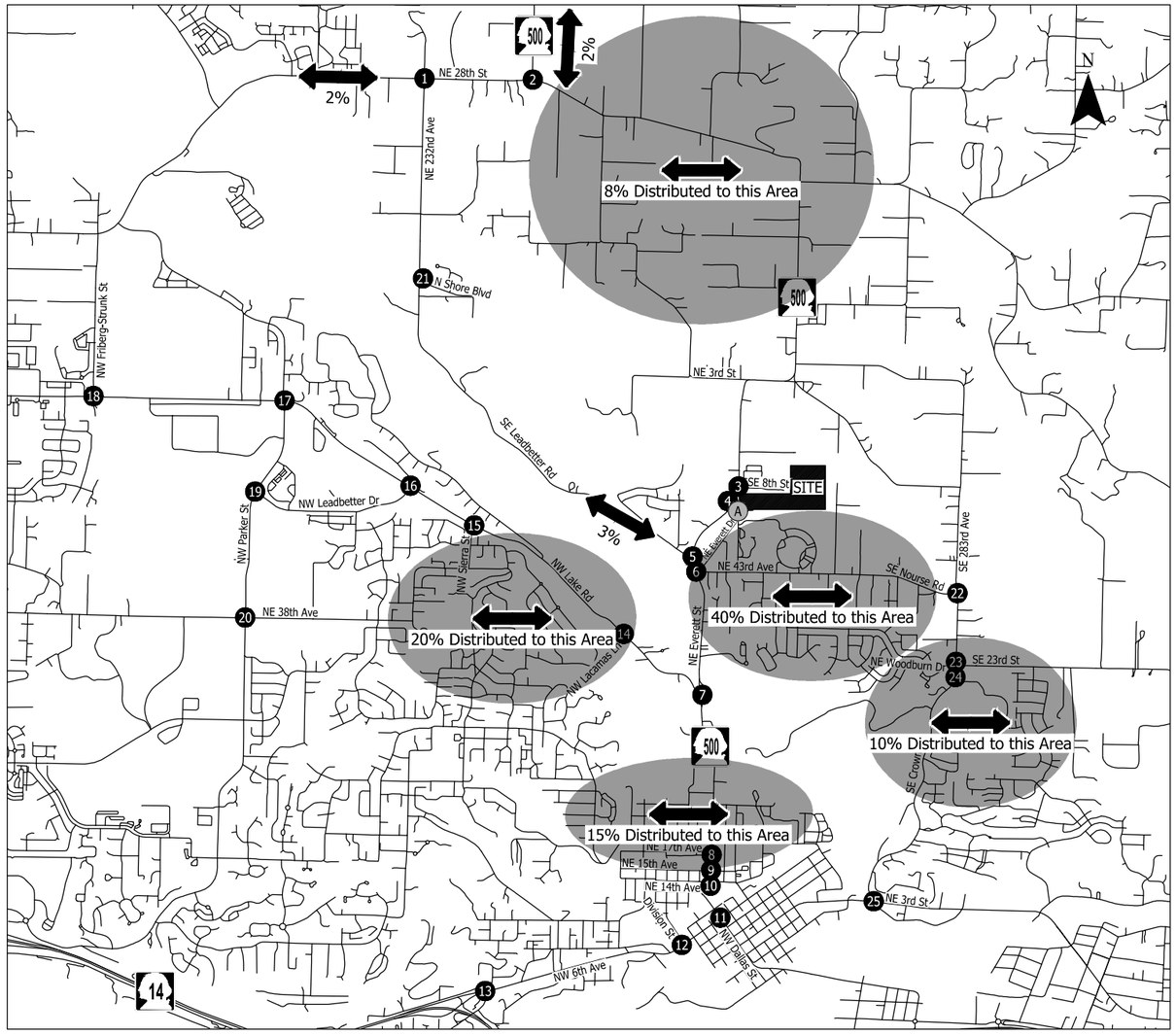
(#) Study Intersections

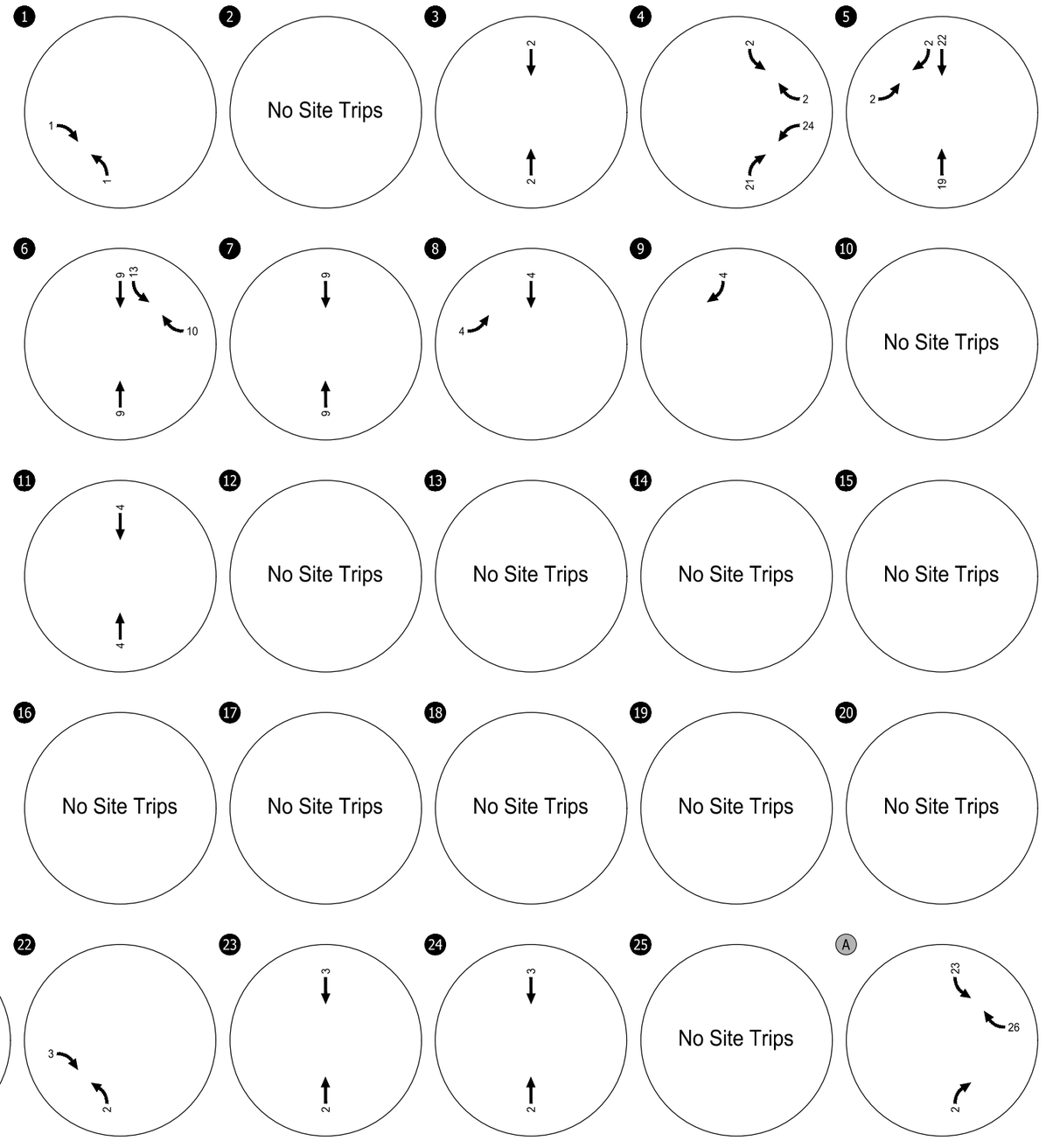
(A) Site Driveway

KITTELSON & ASSOCIATES

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Camas Woods *October 2024*





Weekday PM Peak Hour Commercial Trip Assignment Camas, Washington

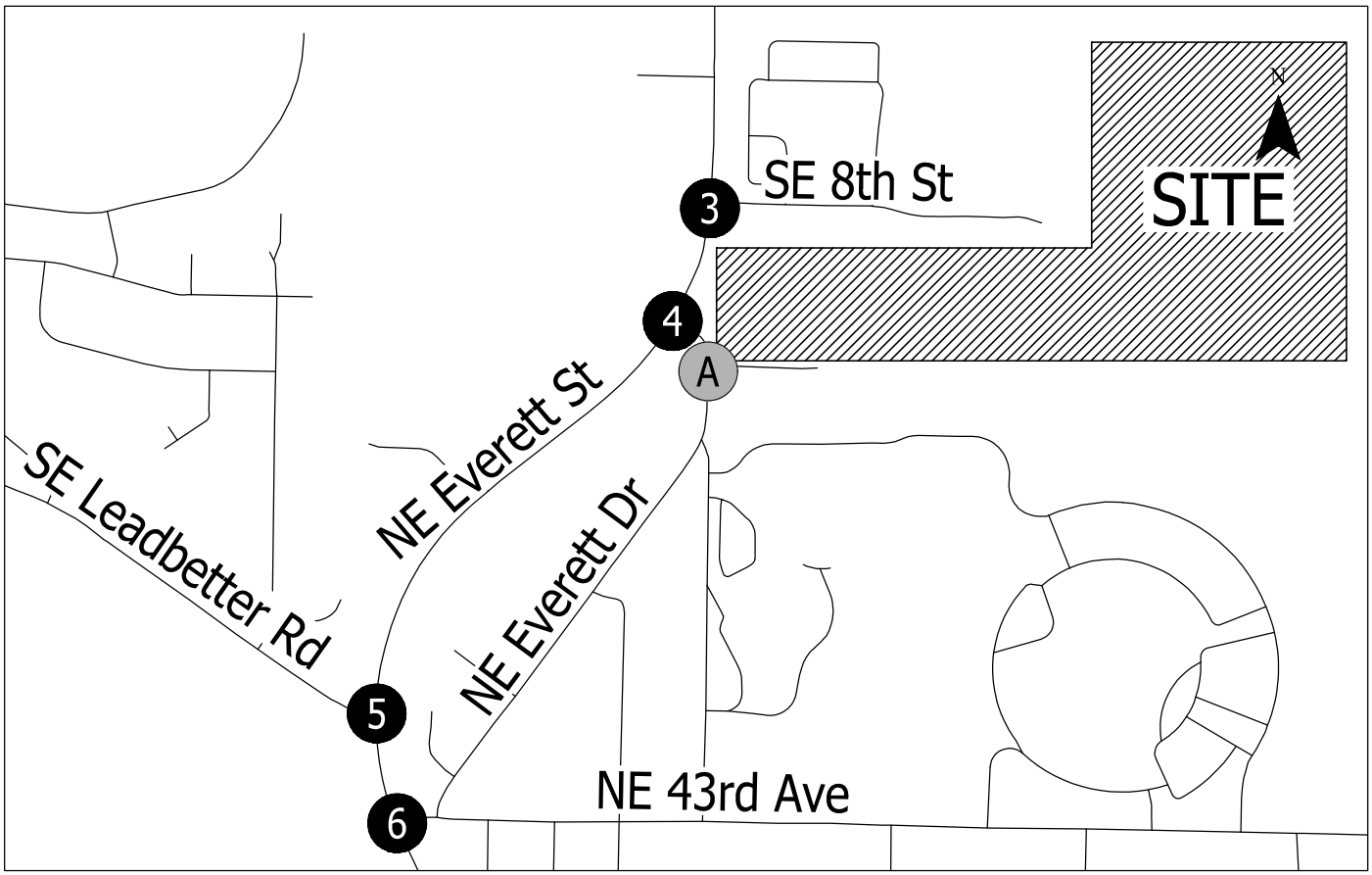
Figure 14B

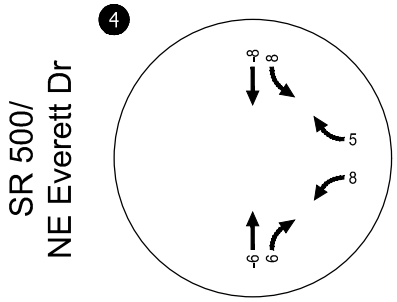
Study Intersections

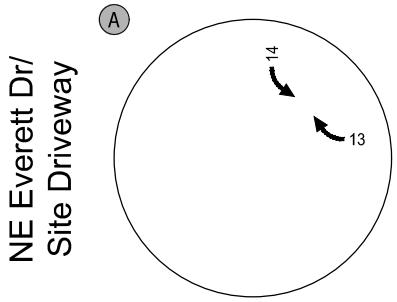
A Site Driveway

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KITTELSON & ASSOCIATES







Weekday PM Peak Hour
Pass-By Trip Assignments
Camas, Washington

Figure
14C

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Intersection Level Of Service Report

Intersection 1: NE 232nd Avenue & NE 28th Street

Control Type:	Two-way stop	Delay (sec / veh):	42.9
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.573

Intersection Setup

Name	NE 232nd Avenue			NE 232nd Avenue			NE 28th Street			NE 28th Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			25.00			40.00			40.00		
Grade [%]	0.02			0.00			0.02			-0.02		
Crosswalk	No			No			No			No		

Volumes

Name	NE 232nd Avenue			NE 232nd Avenue			NE 28th Street			NE 28th Street		
Base Volume Input [veh/h]	115	4	18	1	2	1	9	417	151	20	227	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	100.00	0.00	1.00	0.00	0.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	115	4	18	1	2	1	9	417	151	20	227	1
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	1	5	0	1	0	3	118	43	6	64	0
Total Analysis Volume [veh/h]	131	5	20	1	2	1	10	474	172	23	258	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.57	0.02	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	42.92	41.63	34.20	20.33	19.89	11.26	7.75	0.00	0.00	8.82	0.00	0.00
Movement LOS	E	E	D	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	3.85	3.85	3.85	0.04	0.04	0.04	0.02	0.02	0.02	0.04	0.04	0.04
95th-Percentile Queue Length [ft/ln]	96.35	96.35	96.35	1.07	1.07	1.07	0.44	0.44	0.44	0.97	0.97	0.97
d_A, Approach Delay [s/veh]	41.76			17.84			0.12			0.72		
Approach LOS	E			C			A			A		
d_I, Intersection Delay [s/veh]	6.25											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 2: SR 500 & NE 28th Street

Control Type:	Two-way stop	Delay (sec / veh):	174.8
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.129

Intersection Setup

Name	Private Driveway			SR 500			NE 28th Street			SR 500		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	20.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Private Driveway			SR 500			NE 28th Street			SR 500		
Base Volume Input [veh/h]	0	0	0	209	0	58	71	358	0	0	192	203
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	6.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	5.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	209	0	58	71	358	0	0	192	203
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	61	0	17	21	105	0	0	56	60
Total Analysis Volume [veh/h]	0	0	0	246	0	68	84	421	0	0	226	239
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	1.13	0.00	0.10	0.08	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	23.85	22.54	10.65	174.76	173.16	163.44	8.35	0.00	0.00	8.13	0.00	0.00
Movement LOS	C	C	B	F	F	F	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	15.09	15.09	15.09	0.15	0.15	0.15	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	377.15	377.15	377.15	3.67	3.67	3.67	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	19.02			172.31			1.39			0.00		
Approach LOS	C			F			A			A		
d_I, Intersection Delay [s/veh]	42.68											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 3: NE Everett Street & SE 8th Street

Control Type:	Two-way stop	Delay (sec / veh):	14.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.074

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Base Volume Input [veh/h]	328	20	1	222	27	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	0.00	0.00	4.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	328	20	1	222	27	4
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	98	6	0	66	8	1
Total Analysis Volume [veh/h]	390	24	1	264	32	5
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.07	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	8.12	0.00	14.02	11.13
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.26	0.26
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.04	0.04	6.62	6.62
d_A, Approach Delay [s/veh]	0.00		0.03		13.63	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.72					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	23.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.393

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	321	151	46	201	108	27
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	0.00	0.00	3.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	321	151	46	201	108	27
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	96	45	14	60	32	8
Total Analysis Volume [veh/h]	382	180	55	239	129	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.05	0.00	0.39	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	8.73	0.00	23.79	18.86
Movement LOS	A	A	A	A	C	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.17	0.00	2.22	2.22
95th-Percentile Queue Length [ft/ln]	0.00	0.00	4.27	0.00	55.60	55.60
d_A, Approach Delay [s/veh]	0.00		1.63		22.81	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.08					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 5: NE Everett Street & SE Leadbetter Road

Control Type:	Two-way stop	Delay (sec / veh):	30.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.157

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	120.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.04		-0.02		0.03	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE Leadbetter Road	
Base Volume Input [veh/h]	142	409	274	20	24	138
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	4.00	5.00	5.00	0.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	142	409	274	20	24	138
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	115	77	6	7	39
Total Analysis Volume [veh/h]	160	460	308	22	27	155
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.00	0.00	0.00	0.16	0.22
d_M, Delay for Movement [s/veh]	8.35	0.00	0.00	0.00	30.37	14.54
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.44	0.00	0.00	0.00	1.73	1.73
95th-Percentile Queue Length [ft/ln]	11.12	0.00	0.00	0.00	43.36	43.36
d_A, Approach Delay [s/veh]	2.15		0.00		16.89	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	3.90					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 6: NE Everett Street & NE 43rd Avenue

Control Type:	Signalized	Delay (sec / veh):	9.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.612

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	1	0	0	1
Entry Pocket Length [ft]	100.00	300.00	120.00	100.00	100.00	80.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.03		-0.04		-0.04	
Curb Present	No		No		No	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 43rd Avenue	
Base Volume Input [veh/h]	493	316	67	323	138	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	0.00	4.00	0.00	0.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	493	0	67	323	138	62
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	134	0	18	88	38	17
Total Analysis Volume [veh/h]	536	0	73	351	150	67
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permissive	Permissive	ProtPerm	Permissive	Permissive	Permissive
Signal Group	2	0	1	6	8	0
Auxiliary Signal Groups						
Maximum Green [s]	40	0	20	40	40	0
Amber [s]	4.0	0.0	3.0	4.0	3.0	0.0
All red [s]	1.0	0.0	2.0	1.0	1.0	0.0
Walk [s]	7	0	0	0	7	0
Pedestrian Clearance [s]	14	0	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.0	0.0	3.0	3.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	14	0	9	14	9	0
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	5	0	4	5	4	0
Vehicle Extension [s]	5.0	0.0	3.0	3.5	3.0	0.0
Minimum Recall	Yes		No	Yes	No	
Maximum Recall	No		No	No	No	
Pedestrian Recall	No		No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	R	L	C	L	R
C, Cycle Length [s]	36	36	36	36	36	36
L, Total Lost Time per Cycle [s]	5.00	5.00	5.00	5.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	3.00	3.00	0.00	3.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	22	22	5	5
g / C, Green / Cycle	0.42	0.42	0.62	0.62	0.13	0.13
(v / s)_i Volume / Saturation Flow Rate	0.30	0.00	0.07	0.19	0.08	0.04
s, saturation flow rate [veh/h]	1767	1502	1095	1840	1809	1614
c, Capacity [veh/h]	741	630	754	1134	241	215
d1, Uniform Delay [s]	8.71	0.00	3.99	3.27	14.74	14.10
k, delay calibration	0.23	0.23	0.11	0.13	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.87	0.00	0.06	0.19	2.62	0.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.72	0.00	0.10	0.31	0.62	0.31
d, Delay for Lane Group [s/veh]	11.59	0.00	4.05	3.45	17.35	14.91
Lane Group LOS	B	A	A	A	B	B
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.65	0.00	0.07	0.37	1.15	0.47
50th-Percentile Queue Length [ft/ln]	66.35	0.00	1.64	9.18	28.84	11.67
95th-Percentile Queue Length [veh/ln]	4.78	0.00	0.12	0.66	2.08	0.84
95th-Percentile Queue Length [ft/ln]	119.43	0.00	2.96	16.53	51.91	21.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	11.59	0.00	4.05	3.45	17.35	14.91
Movement LOS	B	A	A	A	B	B
d_A, Approach Delay [s/veh]	11.59		3.56		16.60	
Approach LOS	B		A		B	
d_I, Intersection Delay [s/veh]	9.62					
Intersection LOS	A					
Intersection V/C	0.612					

Emissions

Vehicle Miles Traveled [mph]	314.38	0.00	5.10	24.53	3.92	1.75
Stops [stops/h]	266.39	0.00	6.60	36.87	115.79	46.86
Fuel consumption [US gal/h]	15.25	0.00	0.30	1.46	1.15	0.46
CO [g/h]	1066.00	0.00	21.27	102.00	80.40	32.29
NOx [g/h]	207.41	0.00	4.14	19.84	15.64	6.28
VOC [g/h]	247.06	0.00	4.93	23.64	18.63	7.48

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	8.62	8.62
l_p,int, Pedestrian LOS Score for Intersectio	0.000	2.273	2.012
Crosswalk LOS	F	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	2231	2231	2231
d_b, Bicycle Delay [s]	0.24	0.24	0.24
l_b,int, Bicycle LOS Score for Intersection	2.444	2.259	1.560
Bicycle LOS	B	B	A

Sequence

Ring 1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



MOVEMENT SUMMARY

Site: 7 [NE Everett St & NW Lake Rd_TotalPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NE Everett Street															
3	L2	All MCs	433	1.0	433	1.0	0.473	13.1	LOS B	3.5	88.1	0.74	0.73	0.76	31.5
8	T1	All MCs	486	2.0	486	2.0	0.462	6.1	LOS A	3.5	87.7	0.73	0.62	0.73	34.6
Approach			919	1.5	919	1.5	0.473	9.4	LOS A	3.5	88.1	0.74	0.67	0.75	33.0
North: NE Everett Street															
4	T1	All MCs	309	4.0	309	4.0	0.297	5.8	LOS A	2.0	51.4	0.64	0.57	0.64	34.7
14	R2	All MCs	291	1.0	291	1.0	0.267	5.7	LOS A	1.8	45.1	0.63	0.60	0.63	34.9
Approach			600	2.5	600	2.5	0.297	5.8	LOS A	2.0	51.4	0.64	0.58	0.64	34.8
West: NW Lake Road															
5	L2	All MCs	479	1.0	479	1.0	0.395	11.4	LOS B	2.8	71.1	0.59	0.65	0.59	31.8
12	R2	All MCs	697	2.0	697	2.0	0.583	6.0	LOS A	5.1	130.1	0.70	0.61	0.71	34.7
Approach			1176	1.6	1176	1.6	0.583	8.2	LOS A	5.1	130.1	0.65	0.63	0.66	33.4
All Vehicles			2695	1.8	2695	1.8	0.583	8.1	LOS A	5.1	130.1	0.68	0.63	0.69	33.6

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 8: NE Everett Street & NE 17th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	41.2
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.519

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 17th Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE 17th Avenue	
Base Volume Input [veh/h]	82	552	708	77	120	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	2.00	3.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	82	552	708	77	120	50
Peak Hour Factor	0.9400	0.9400	0.9400	0.9400	0.9400	0.9400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	22	147	188	20	32	13
Total Analysis Volume [veh/h]	87	587	753	82	128	53
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			Yes
Number of Storage Spaces in Median	0	0	1

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.11	0.01	0.01	0.00	0.52	0.14
d_M, Delay for Movement [s/veh]	10.00	0.00	0.00	0.00	41.21	35.82
Movement LOS	A	A	A	A	E	E
95th-Percentile Queue Length [veh/ln]	0.36	0.00	0.00	0.00	4.20	4.20
95th-Percentile Queue Length [ft/ln]	9.02	0.00	0.00	0.00	105.01	105.01
d_A, Approach Delay [s/veh]	1.29		0.00		39.63	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	4.76					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 9: NE Everett Street & NE 15th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	93.2
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.746

Intersection Setup

Name	NE Everett Street (SR 500)			NE Everett Street (SR 500)			NE 15th Avenue			NE 15th Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NE Everett Street (SR 500)			NE Everett Street (SR 500)			NE 15th Avenue			NE 15th Avenue		
Base Volume Input [veh/h]	32	540	11	28	582	143	70	18	63	1	10	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	0.00	0.00	2.00	1.00	0.00	0.00	3.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	540	11	28	582	143	70	18	63	1	10	24
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	150	3	8	162	40	19	5	18	0	3	7
Total Analysis Volume [veh/h]	36	600	12	31	647	159	78	20	70	1	11	27
Pedestrian Volume [ped/h]	8			2			0			5		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			Yes	No
Storage Area [veh]	0	0	2	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.01	0.00	0.03	0.01	0.00	0.75	0.09	0.13	0.01	0.10	0.05
d_M, Delay for Movement [s/veh]	9.55	0.00	0.00	8.84	0.00	0.00	93.20	75.38	65.53	59.14	42.36	15.61
Movement LOS	A	A	A	A	A	A	F	F	F	F	E	C
95th-Percentile Queue Length [veh/ln]	0.14	0.00	0.00	0.10	0.00	0.00	6.17	6.17	6.17	0.61	0.61	0.61
95th-Percentile Queue Length [ft/ln]	3.41	0.00	0.00	2.48	0.00	0.00	154.36	154.36	154.36	15.28	15.28	15.28
d_A, Approach Delay [s/veh]	0.53			0.33			79.55			24.27		
Approach LOS	A			A			F			C		
d_I, Intersection Delay [s/veh]	8.82											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 10: NE Everett Street & NE 14th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	63.5
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.513

Intersection Setup

Name				NE Everett Street (SR 500)			NE 14th Avenue			SR 500		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			2.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name				NE Everett Street (SR 500)			NE 14th Avenue			SR 500		
Base Volume Input [veh/h]	0	0	0	562	0	66	77	91	0	0	35	468
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	3.00	2.00	0.00	0.00	2.00	2.00	2.00	3.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	562	0	66	77	91	0	0	35	468
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	1.0000	0.8600	0.8600	0.8600	1.0000	1.0000	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	163	0	19	22	26	0	0	10	136
Total Analysis Volume [veh/h]	0	0	0	653	0	77	90	106	0	0	41	544
Pedestrian Volume [ped/h]	3			1			5			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane				No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.40	0.00	0.00	0.51	0.27	0.00	0.00	0.11	0.50
d_M, Delay for Movement [s/veh]	7.28	0.00	0.00	9.06	0.00	0.00	63.45	52.23	0.00	0.00	19.99	13.92
Movement LOS	A	A	A	A		A	F	F			C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	2.26	0.00	2.26	5.86	5.86	0.00	0.00	4.26	4.26
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	56.61	0.00	56.61	146.48	146.48	0.00	0.00	106.47	106.47
d_A, Approach Delay [s/veh]	2.43			8.11			57.38			14.35		
Approach LOS	A			A			F			B		
d_I, Intersection Delay [s/veh]	16.91											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 11: NE Dallas Street & NE 6th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	37.4
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.146

Intersection Setup

Name	NE Dallas Street			NE Dallas Street			NE 6th Avenue			NE 6th Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			30.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NE Dallas Street			NE Dallas Street			NE 6th Avenue			NE 6th Avenue		
Base Volume Input [veh/h]	81	130	7	8	278	59	34	186	79	13	156	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	0.00	0.00	0.00	2.00	0.00	3.00	1.00	1.00	0.00	4.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	81	130	7	8	278	59	34	186	79	13	156	21
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	37	2	2	78	17	10	52	22	4	44	6
Total Analysis Volume [veh/h]	91	146	8	9	312	66	38	209	89	15	175	24
Pedestrian Volume [ped/h]	0			9			1			1		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.00	0.01	0.00	0.00	0.15	0.47	0.11	0.07	0.41	0.03
d_M, Delay for Movement [s/veh]	8.19	0.00	0.00	7.52	0.00	0.00	37.39	31.68	28.14	30.81	21.79	17.27
Movement LOS	A	A	A	A	A	A	E	D	D	D	C	C
95th-Percentile Queue Length [veh/ln]	0.16	0.16	0.16	0.02	0.02	0.02	5.91	5.91	5.91	2.78	2.78	2.78
95th-Percentile Queue Length [ft/ln]	4.03	4.03	4.03	0.39	0.39	0.39	147.86	147.86	147.86	69.45	69.45	69.45
d_A, Approach Delay [s/veh]	3.04			0.17			31.39			21.92		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	13.58											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 12: Division Street & NE 6th Avenue

Control Type:	Two-way stop	Delay (sec / veh):	33.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.233

Intersection Setup

Name	Division Street		NW 6th Avenue		NE 6th Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	40.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	-0.12		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Division Street		NW 6th Avenue		NE 6th Avenue	
Base Volume Input [veh/h]	37	142	120	958	1008	53
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	2.00	0.00	2.00	3.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	142	120	958	1008	53
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	37	32	252	265	14
Total Analysis Volume [veh/h]	39	149	126	1008	1061	56
Pedestrian Volume [ped/h]	2		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.23	0.26	0.20	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	32.99	13.60	10.86	0.00	0.00	0.00
Movement LOS	D	B	B	A	A	A
95th-Percentile Queue Length [veh/ln]	0.87	1.05	0.23	0.11	0.00	0.00
95th-Percentile Queue Length [ft/ln]	21.67	26.20	5.64	2.82	0.00	0.00
d_A, Approach Delay [s/veh]	17.62		1.21		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	1.92					
Intersection LOS	D					

MOVEMENT SUMMARY

Site: 13 [NW Norwood St & NW 6th Ave_TotalPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

Existing AM
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NW 6th Avenue															
3	L2	All MCs	67	2.0	67	2.0	0.916	57.2	LOS E	13.6	346.5	1.00	1.38	2.11	20.3
8	T1	All MCs	5	0.0	5	0.0	0.916	50.5	LOS D	13.6	346.5	1.00	1.38	2.11	20.5
18	R2	All MCs	236	2.0	236	2.0	0.916	51.0	LOS D	13.6	346.5	1.00	1.38	2.11	20.4
Approach			308	2.0	308	2.0	0.916	52.4	LOS D	13.6	346.5	1.00	1.38	2.11	20.4
East: NW 6th Avenue															
1	L2	All MCs	115	3.0	115	3.0	0.955	14.2	LOS E	28.2	726.5	1.00	0.76	1.04	32.6
6	T1	All MCs	1018	4.0	1018	4.0	0.955	8.0	LOS E	28.2	726.5	1.00	0.76	1.04	33.3
16	R2	All MCs	11	0.0	11	0.0	0.955	7.9	LOS E	28.2	726.5	1.00	0.76	1.04	33.1
Approach			1144	3.9	1144	3.9	0.955	8.6	LOS A	28.2	726.5	1.00	0.76	1.04	33.2
North: NW Norwood Street															
7	L2	All MCs	7	0.0	7	0.0	0.202	23.3	LOS C	1.5	37.6	1.00	0.86	1.00	27.2
4	T1	All MCs	14	0.0	14	0.0	0.202	17.0	LOS B	1.5	37.6	1.00	0.86	1.00	27.6
14	R2	All MCs	31	7.0	31	7.0	0.202	28.1	LOS C	1.5	37.6	1.00	0.86	1.00	6.9
Approach			52	4.2	52	4.2	0.202	24.5	LOS C	1.5	37.6	1.00	0.86	1.00	9.9
West: NW 6th Avenue															
5	L2	All MCs	26	0.0	26	0.0	0.994	24.6	LOS E	40.5	1028.2	1.00	1.20	1.37	29.2
2	T1	All MCs	1051	2.0	1051	2.0	0.994	18.5	LOS E	40.5	1028.2	1.00	1.20	1.37	29.8
12	R2	All MCs	91	1.0	91	1.0	0.994	18.6	LOS E	40.5	1028.2	1.00	1.20	1.37	29.5
Approach			1168	1.9	1168	1.9	0.994	18.6	LOS B	40.5	1028.2	1.00	1.20	1.37	29.7
All Vehicles			2672	2.8	2672	2.8	0.994	18.3	LOS B	40.5	1028.2	1.00	1.02	1.31	28.4

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 14: NW Lacamas Lane & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	23.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.034

Intersection Setup

Name	NW Lacamas Lane		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	110.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	-0.11		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Lacamas Lane		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	6	66	1075	6	55	630
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	5.00	1.00	0.00	2.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	66	1075	6	55	630
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	18	292	2	15	171
Total Analysis Volume [veh/h]	7	72	1168	7	60	685
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.22	0.01	0.00	0.10	0.01
d_M, Delay for Movement [s/veh]	22.96	18.90	0.00	0.00	11.74	0.00
Movement LOS	C	C	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.10	0.81	0.00	0.00	0.34	0.00
95th-Percentile Queue Length [ft/ln]	2.61	20.37	0.00	0.00	8.38	0.00
d_A, Approach Delay [s/veh]	19.26		0.00		0.95	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	1.11					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 15: NW Sierra Street & NW Lake Road

Control Type:	Two-way stop	Delay (sec / veh):	213.5
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.989

Intersection Setup

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	NW Sierra Street		NW Lake Road		NW Lake Road	
Base Volume Input [veh/h]	60	231	844	133	126	531
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	1.00	2.00	0.00	1.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	60	231	844	133	126	531
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	16	63	229	36	34	144
Total Analysis Volume [veh/h]	65	251	917	145	137	577
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.99	0.83	0.01	0.00	0.21	0.01
d_M, Delay for Movement [s/veh]	213.54	55.80	0.00	0.00	11.83	0.00
Movement LOS	F	F	A	A	B	A
95th-Percentile Queue Length [veh/ln]	4.89	7.03	0.00	0.00	0.77	0.00
95th-Percentile Queue Length [ft/ln]	122.32	175.72	0.00	0.00	19.28	0.00
d_A, Approach Delay [s/veh]	88.25		0.00		2.27	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	14.10					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 16: NW Lake Road & NW Leadbetter Drive

Control Type:	Two-way stop	Delay (sec / veh):	44.0
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.059

Intersection Setup

Name	NW Leadbetter Drive			NW Leadbetter Drive			NW Lake Road			NW Lake Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	135.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			No		

Volumes

Name	NW Leadbetter Drive			NW Leadbetter Drive			NW Lake Road			NW Lake Road		
Base Volume Input [veh/h]	7	14	131	4	5	13	15	841	8	61	509	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	14.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	12.00	0.00	1.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	14	131	4	5	13	15	841	8	61	509	7
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	4	36	1	1	4	4	231	2	17	140	2
Total Analysis Volume [veh/h]	8	15	144	4	5	14	16	924	9	67	559	8
Pedestrian Volume [ped/h]	2			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.11	0.37	0.04	0.03	0.02	0.02	0.01	0.00	0.09	0.01	0.00
d_M, Delay for Movement [s/veh]	44.00	43.51	26.82	43.48	27.02	12.08	8.60	0.00	0.00	10.35	0.00	0.00
Movement LOS	E	E	D	E	D	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	2.98	2.98	2.98	0.30	0.30	0.30	0.05	0.00	0.00	0.30	0.00	0.00
95th-Percentile Queue Length [ft/ln]	74.39	74.39	74.39	7.49	7.49	7.49	1.20	0.00	0.00	7.45	0.00	0.00
d_A, Approach Delay [s/veh]	29.14			20.79			0.15			1.09		
Approach LOS	D			C			A			A		
d_I, Intersection Delay [s/veh]	3.48											
Intersection LOS	E											

Intersection Level Of Service Report
Intersection 17: NW Parker Street & NW Lake Road

Control Type:	Signalized	Delay (sec / veh):	29.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.712

Intersection Setup

Name	NW Parker Street			NW Larkspur Street			NW Lake Road			NW Lake Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	1
Entry Pocket Length [ft]	265.00	100.00	100.00	80.00	100.00	100.00	110.00	100.00	100.00	75.00	100.00	85.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			25.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NW Parker Street			NW Larkspur Street			NW Lake Road			NW Lake Road		
Base Volume Input [veh/h]	248	130	156	61	93	21	25	663	303	60	446	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	1.00	2.00	0.00	0.00	0.00	1.00	0.00	2.00	1.00	3.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	248	130	156	61	93	21	25	663	303	60	446	35
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	35	42	16	25	6	7	178	81	16	120	9
Total Analysis Volume [veh/h]	267	140	168	66	100	23	27	713	326	65	480	38
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	3			1			1			4		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Overlap	ProtPer	Permiss	Permiss
Signal Group	7	4	0	3	8	0	5	2	7	1	6	0
Auxiliary Signal Groups									2,7			
Maximum Green [s]	15	30	0	15	20	0	15	45	15	25	45	0
Amber [s]	3.0	3.6	0.0	3.0	3.0	0.0	3.0	4.0	3.0	3.0	3.6	0.0
All red [s]	2.2	2.3	0.0	2.6	3.3	0.0	2.5	1.7	2.2	2.7	1.9	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	18	0	0	22	0	0	16	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.2	3.9	0.0	3.6	4.3	0.0	3.5	3.7	3.2	3.7	3.5	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	9	14	0	9	14	0	9	14	9	9	14	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	5	0	5	5	0	5	8	5	5	8	0
Vehicle Extension [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	Yes	No	No	Yes	
Maximum Recall	No	No		No	No		No	No	No	No	No	
Pedestrian Recall	No	No		No	No		No	No	No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C	C
C, Cycle Length [s]	81	81	81	81	81	81	81	81	81	81
L, Total Lost Time per Cycle [s]	5.55	5.90	5.95	6.30	5.60	5.70	5.70	5.60	5.50	5.50
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	3.90	0.00	4.30	0.00	3.70	0.00	0.00	3.50	3.50
g_i, Effective Green Time [s]	28	17	27	16	42	33	43	42	33	33
g / C, Green / Cycle	0.34	0.21	0.34	0.20	0.52	0.40	0.53	0.52	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.17	0.18	0.05	0.07	0.02	0.38	0.21	0.07	0.14	0.14
s, saturation flow rate [veh/h]	1526	1694	1385	1834	1137	1885	1588	882	1885	1829
c, Capacity [veh/h]	466	361	312	373	532	761	842	300	776	753
d1, Uniform Delay [s]	26.33	30.54	29.19	27.45	14.79	23.11	11.19	29.66	16.24	16.26
k, delay calibration	0.12	0.31	0.04	0.04	0.04	0.50	0.04	0.04	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.19	14.44	0.12	0.19	0.01	20.51	0.11	0.13	0.09	0.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.57	0.85	0.21	0.33	0.05	0.94	0.39	0.22	0.34	0.34
d, Delay for Lane Group [s/veh]	27.52	44.98	29.32	27.64	14.80	43.62	11.30	29.79	16.34	16.36
Lane Group LOS	C	D	C	C	B	D	B	C	B	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.79	6.91	0.84	2.02	0.21	16.07	3.05	0.52	3.08	3.02
50th-Percentile Queue Length [ft/ln]	94.78	172.83	21.11	50.54	5.21	401.75	76.25	13.07	76.95	75.41
95th-Percentile Queue Length [veh/ln]	6.82	11.23	1.52	3.64	0.38	22.64	5.49	0.94	5.54	5.43
95th-Percentile Queue Length [ft/ln]	170.61	280.64	37.99	90.98	9.38	566.11	137.24	23.52	138.51	135.74

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.52	44.98	44.98	29.32	27.64	27.64	14.80	43.62	11.30	29.79	16.35	16.36
Movement LOS	C	D	D	C	C	C	B	D	B	C	B	B
d_A, Approach Delay [s/veh]	36.87			28.23			33.00			17.85		
Approach LOS	D			C			C			B		
d_I, Intersection Delay [s/veh]	29.89											
Intersection LOS	C											
Intersection V/C	0.712											

Emissions

Vehicle Miles Traveled [mph]	123.72	142.72	4.54	8.46	23.88	630.72	288.38	46.33	186.61	182.60
Stops [stops/h]	169.44	308.97	37.73	90.36	9.32	718.20	136.30	23.36	137.56	134.81
Fuel consumption [US gal/h]	7.49	10.58	0.74	1.42	1.06	35.77	12.77	2.34	9.02	8.83
CO [g/h]	523.22	739.74	51.90	99.17	74.22	2500.39	892.41	163.26	630.36	617.01
NOx [g/h]	101.80	143.93	10.10	19.30	14.44	486.49	173.63	31.77	122.65	120.05
VOC [g/h]	121.26	171.44	12.03	22.98	17.20	579.49	206.83	37.84	146.09	143.00

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	31.78	31.78	31.78	31.78
l_p,int, Pedestrian LOS Score for Intersectio	2.420	2.076	3.019	2.642
Crosswalk LOS	B	B	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	745	497	1117	1117
d_b, Bicycle Delay [s]	15.89	22.77	7.85	7.86
l_b,int, Bicycle LOS Score for Intersection	2.508	1.871	3.319	2.041
Bicycle LOS	B	A	C	B

Sequence

Ring 1	2	1	4	3	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	5	8	7	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 18: NW Friberg-Strunk Street & NW Lake Road

Control Type:	Signalized	Delay (sec / veh):	18.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.780

Intersection Setup

Name	Private Driveway			NW Friberg-Strunk Street			NW 1st Street			NW Lake Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	140.00	220.00	100.00	100.00	85.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	20.00			40.00			40.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Private Driveway			NW Friberg-Strunk Street			NW 1st Street			NW Lake Road		
Base Volume Input [veh/h]	0	0	0	147	0	213	392	932	0	6	665	156
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	1.00	0.00	2.00	0.00	1.00	0.00	0.00	1.00	1.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	147	0	213	392	932	0	6	665	156
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	40	0	58	107	253	0	2	181	42
Total Analysis Volume [veh/h]	0	0	0	160	0	232	426	1013	0	7	723	170
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			2			4			2		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	4	0	0	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Maximum Green [s]	0	30	0	0	30	0	25	45	0	15	45	0
Amber [s]	0.0	3.0	0.0	0.0	4.0	0.0	3.0	4.0	0.0	3.0	4.0	0.0
All red [s]	0.0	2.9	0.0	0.0	2.0	0.0	2.6	1.5	0.0	2.8	1.6	0.0
Walk [s]	0	7	0	0	7	0	0	0	0	0	7	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	3.9	0.0	0.0	4.0	0.0	3.6	3.5	0.0	3.8	3.6	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	0	14	0	0	14	0	9	14	0	9	14	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	0	5	8	0	5	8	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	Yes		No	Yes	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	63	63	63	63	63	63	63	63	63
L, Total Lost Time per Cycle [s]	5.90	6.00	6.00	5.60	5.50	5.50	5.80	5.60	5.60
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	4.00	4.00	3.60	3.50	3.50	3.80	3.60	3.60
g_i, Effective Green Time [s]	11	11	11	17	34	34	1	18	18
g / C, Green / Cycle	0.18	0.18	0.18	0.26	0.54	0.54	0.01	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.00	0.11	0.15	0.24	0.27	0.27	0.00	0.24	0.25
s, saturation flow rate [veh/h]	1794	1504	1566	1810	1885	1885	1810	1885	1745
c, Capacity [veh/h]	303	383	280	479	1012	1012	17	534	494
d1, Uniform Delay [s]	0.00	23.51	24.85	22.26	9.23	9.23	31.03	21.43	21.50
k, delay calibration	0.04	0.04	0.04	0.06	0.04	0.04	0.04	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.00	0.27	2.40	3.23	0.14	0.14	6.12	1.68	1.95
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.00	0.42	0.83	0.89	0.50	0.50	0.42	0.86	0.87
d, Delay for Lane Group [s/veh]	0.00	23.77	27.25	25.49	9.37	9.37	37.15	23.11	23.45
Lane Group LOS	A	C	C	C	A	A	D	C	C
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.00	1.98	3.17	5.72	3.33	3.33	0.13	6.14	5.79
50th-Percentile Queue Length [ft/ln]	0.00	49.59	79.36	143.10	83.27	83.27	3.24	153.39	144.81
95th-Percentile Queue Length [veh/ln]	0.00	3.57	5.71	9.65	6.00	6.00	0.23	10.20	9.74
95th-Percentile Queue Length [ft/ln]	0.00	89.26	142.85	241.20	149.88	149.88	5.83	254.95	243.49

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	23.77	23.77	27.25	25.49	9.37	9.37	37.15	23.23	23.45
Movement LOS	A	A	A	C	C	C	C	A	A	D	C	C
d_A, Approach Delay [s/veh]	0.00			25.83			14.14			23.38		
Approach LOS	A			C			B			C		
d_I, Intersection Delay [s/veh]	18.86											
Intersection LOS	B											
Intersection V/C	0.780											

Emissions

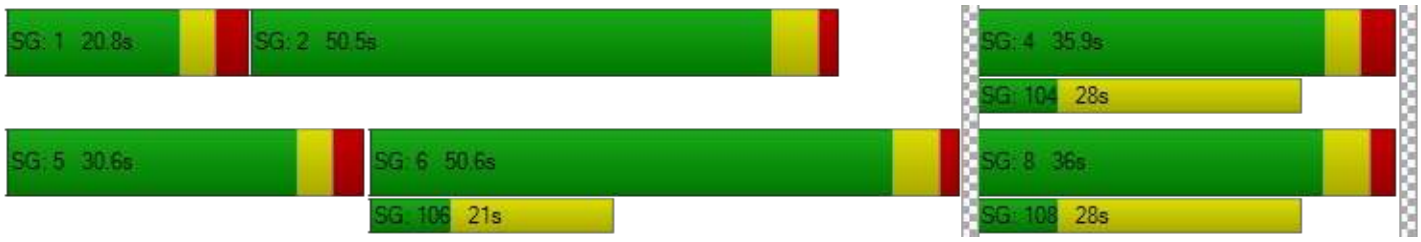
Vehicle Miles Traveled [mph]	0.00	11.34	16.44	46.13	54.85	54.85	6.19	408.17	381.78
Stops [stops/h]	0.00	113.61	181.82	327.87	190.77	190.77	7.43	351.45	331.79
Fuel consumption [US gal/h]	0.00	2.30	3.66	7.08	4.80	4.80	0.35	20.91	19.61
CO [g/h]	0.00	160.51	255.94	495.12	335.85	335.85	24.39	1461.91	1370.69
NOx [g/h]	0.00	31.23	49.80	96.33	65.34	65.34	4.74	284.43	266.69
VOC [g/h]	0.00	37.20	59.32	114.75	77.84	77.84	5.65	338.81	317.67

Other Modes

g_Walk,mi, Effective Walk Time [s]	8.5	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	23.50	21.39	21.39	21.39
l_p,int, Pedestrian LOS Score for Intersectio	1.701	2.348	2.902	2.912
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	955	955	1432	1432
d_b, Bicycle Delay [s]	8.59	8.59	2.54	2.54
l_b,int, Bicycle LOS Score for Intersection	1.560	2.206	2.747	2.302
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 19: NW Parker Street & NW Leadbetter Drive

Control Type:	Two-way stop	Delay (sec / veh):	27.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.285

Intersection Setup

Name	NW Parker Street		NW Parker Street		NW Leadbetter Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	80.00	100.00	100.00	180.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.02		-0.02		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	NW Parker Street		NW Parker Street		NW Leadbetter Drive	
Base Volume Input [veh/h]	427	152	65	296	57	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	1.00	1.00	0.00	0.00	4.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	427	152	65	296	57	52
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	120	43	18	83	16	15
Total Analysis Volume [veh/h]	480	171	73	333	64	58
Pedestrian Volume [ped/h]	0		0		13	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.08	0.00	0.29	0.11
d_M, Delay for Movement [s/veh]	0.00	0.00	9.24	0.00	27.31	12.92
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.26	0.00	1.13	0.38
95th-Percentile Queue Length [ft/ln]	0.00	0.00	6.43	0.00	28.31	9.51
d_A, Approach Delay [s/veh]	0.00		1.66		20.47	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.69					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 20: NW Parker Street & NW 38th Avenue

Control Type:	Signalized	Delay (sec / veh):	27.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.761

Intersection Setup

Name	NW Parker Street			NW Parker Street			NW 38th Avenue			NW 38th Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	130.00	100.00	100.00	245.00	100.00	130.00	130.00	100.00	100.00	130.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	NW Parker Street			NW Parker Street			NW 38th Avenue			NW 38th Avenue		
Base Volume Input [veh/h]	100	397	194	59	254	91	125	277	106	104	125	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	100	397	194	59	254	91	125	277	106	104	125	39
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	115	56	17	74	26	36	81	31	30	36	11
Total Analysis Volume [veh/h]	116	462	226	69	295	106	145	322	123	121	145	45
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	4			13			4			11		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	ProtPer	Permiss	Overlap	ProtPer	Permiss	Overlap	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Signal Group	1	6	7	5	2	3	3	8	0	7	4	0
Auxiliary Signal Groups			6,7			2,3						
Maximum Green [s]	15	25	15	15	25	15	15	20	0	15	20	0
Amber [s]	3.0	3.6	3.0	3.0	3.6	3.0	3.0	4.0	0.0	3.0	3.6	0.0
All red [s]	2.9	2.1	3.0	2.7	2.0	2.8	2.8	2.0	0.0	3.0	2.4	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	9	0	0	9	0	0	13	0	0	12	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	3.9	3.7	4.0	3.7	3.6	3.8	3.8	4.0	0.0	4.0	4.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	9	14	9	9	14	9	9	14	0	9	14	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	5	5	5	5	5	5	5	0	5	5	0
Vehicle Extension [s]	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	Yes	No	No	Yes	No	No	No		No	No	
Maximum Recall	No	No	No	No	No	No	No	No		No	No	
Pedestrian Recall	No	No	No	No	No	No	No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	L	C
C, Cycle Length [s]	74	74	74	74	74	74	74	74	74	74
L, Total Lost Time per Cycle [s]	5.80	5.70	5.70	5.65	5.60	5.60	5.90	6.00	6.00	6.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00
l2, Clearance Lost Time [s]	0.00	3.70	0.00	0.00	3.60	0.00	0.00	4.00	0.00	4.00
g_i, Effective Green Time [s]	31	21	32	32	21	32	31	20	30	20
g / C, Green / Cycle	0.43	0.29	0.43	0.43	0.29	0.44	0.42	0.27	0.41	0.26
(v / s)_i Volume / Saturation Flow Rate	0.09	0.25	0.14	0.06	0.16	0.07	0.10	0.25	0.16	0.11
s, saturation flow rate [veh/h]	1312	1885	1587	1184	1900	1566	1467	1797	742	1778
c, Capacity [veh/h]	452	536	680	359	548	684	518	484	355	471
d1, Uniform Delay [s]	22.22	25.04	14.05	25.32	22.11	12.56	20.54	26.19	25.38	22.31
k, delay calibration	0.04	0.16	0.04	0.04	0.14	0.04	0.04	0.28	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	6.20	0.11	0.10	1.05	0.04	0.11	16.43	0.22	0.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.26	0.86	0.33	0.19	0.54	0.15	0.28	0.92	0.34	0.40
d, Delay for Lane Group [s/veh]	22.33	31.24	14.16	25.42	23.16	12.60	20.65	42.62	25.60	22.52
Lane Group LOS	C	C	B	C	C	B	C	D	C	C
Critical Lane Group	No	Yes	Yes	Yes	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.08	7.97	2.27	0.63	4.16	0.96	1.38	9.09	1.15	2.52
50th-Percentile Queue Length [ft/ln]	27.12	199.34	56.87	15.64	104.04	24.12	34.41	227.17	28.72	62.98
95th-Percentile Queue Length [veh/ln]	1.95	12.60	4.09	1.13	7.49	1.74	2.48	14.03	2.07	4.53
95th-Percentile Queue Length [ft/ln]	48.82	315.11	102.37	28.15	187.27	43.41	61.94	350.76	51.69	113.36

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.33	31.24	14.16	25.42	23.16	12.60	20.65	42.62	42.62	25.60	22.52	22.52
Movement LOS	C	C	B	C	C	B	C	D	D	C	C	C
d_A, Approach Delay [s/veh]	25.15			21.11			37.22			23.72		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	27.35											
Intersection LOS	C											
Intersection V/C	0.761											

Emissions

Vehicle Miles Traveled [mph]	15.76	62.75	30.70	40.39	172.69	62.05	30.53	93.68	28.22	44.31
Stops [stops/h]	52.99	389.46	111.11	30.55	203.26	47.12	67.23	443.83	56.11	123.04
Fuel consumption [US gal/h]	1.53	8.26	2.66	2.13	9.50	2.99	2.36	11.58	2.19	3.67
CO [g/h]	106.68	577.23	185.71	148.63	664.17	209.11	165.18	809.10	153.24	256.29
NOx [g/h]	20.76	112.31	36.13	28.92	129.22	40.68	32.14	157.42	29.82	49.87
VOC [g/h]	24.72	133.78	43.04	34.45	153.93	48.46	38.28	187.52	35.52	59.40

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	28.40	28.40	28.40	28.40
l_p,int, Pedestrian LOS Score for Intersectio	2.643	2.611	2.484	2.415
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	678	678	543	543
d_b, Bicycle Delay [s]	16.12	16.20	19.61	19.67
l_b,int, Bicycle LOS Score for Intersection	2.886	2.335	2.533	2.073
Bicycle LOS	C	B	B	B

Sequence

Ring 1	2	1	4	3	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	5	8	7	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 21: N Shore Boulevard and NE 232nd Avenue

Control Type:	Two-way stop	Delay (sec / veh):	10.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.218

Intersection Setup

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		-0.02		0.02	
Crosswalk	No		No		No	

Volumes

Name	N Shore Boulevard		NE 232nd Avenue		NE 232nd Avenue	
Base Volume Input [veh/h]	16	5	10	138	138	25
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	5	10	138	138	25
Peak Hour Factor	0.7700	0.7700	0.7700	0.7700	0.7700	0.7700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	2	3	45	45	8
Total Analysis Volume [veh/h]	21	6	13	179	179	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.22	0.03
d_M, Delay for Movement [s/veh]	7.61	0.00	0.00	0.00	10.84	10.22
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	1.00	1.00
95th-Percentile Queue Length [ft/ln]	0.89	0.89	0.00	0.00	24.95	24.95
d_A, Approach Delay [s/veh]	5.92		0.00		10.74	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.64					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 22: SE 283rd Avenue & SE Nourse Road

Control Type:	Two-way stop	Delay (sec / veh):	13.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.034

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.02	
Crosswalk	No		No		No	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		NE 43rd Avenue	
Base Volume Input [veh/h]	101	128	110	6	14	142
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	4.00	4.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	101	128	110	6	14	142
Peak Hour Factor	0.9000	0.9000	0.9000	0.9000	0.9000	0.9000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	36	31	2	4	39
Total Analysis Volume [veh/h]	112	142	122	7	16	158
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.00	0.00	0.03	0.17
d_M, Delay for Movement [s/veh]	7.58	0.00	0.00	0.00	13.77	9.99
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.20	0.20	0.00	0.00	0.77	0.77
95th-Percentile Queue Length [ft/ln]	4.97	4.97	0.00	0.00	19.18	19.18
d_A, Approach Delay [s/veh]	3.34		0.00		10.34	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.75					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 23: SE 283rd Avenue & SE 23rd Street

Control Type:	Two-way stop	Delay (sec / veh):	13.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.062

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		SE 23rd Street	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	11.00	11.00	11.00	11.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		40.00	
Grade [%]	-0.02		0.02		-0.03	
Crosswalk	No		No		No	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		SE 23rd Street	
Base Volume Input [veh/h]	179	25	70	186	29	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	4.00	0.00	0.00	3.00	7.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	179	25	70	186	29	60
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	48	7	19	50	8	16
Total Analysis Volume [veh/h]	192	27	75	200	31	65
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.06	0.00	0.06	0.08
d_M, Delay for Movement [s/veh]	0.00	0.00	7.73	0.00	13.07	10.11
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.13	0.13	0.48	0.48
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.26	3.26	12.05	12.05
d_A, Approach Delay [s/veh]	0.00		2.11		11.06	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.78					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 24: SE 283rd Avenue and NE Woodburn Drive

Control Type:	Two-way stop	Delay (sec / veh):	15.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.031

Intersection Setup

Name	SE 283rd Avenue		SE 283rd Avenue		NE Woodburn Drive	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	1
Entry Pocket Length [ft]	175.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	-0.02		0.02		0.02	
Crosswalk	No		No		Yes	

Volumes

Name	SE 283rd Avenue		SE 283rd Avenue		NE Woodburn Drive	
Base Volume Input [veh/h]	95	223	210	16	10	88
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	1.00	3.00	0.00	0.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	95	223	210	16	10	88
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	61	58	4	3	24
Total Analysis Volume [veh/h]	104	245	231	18	11	97
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.00	0.00	0.03	0.12
d_M, Delay for Movement [s/veh]	7.94	0.00	0.00	0.00	15.56	10.21
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.25	0.00	0.00	0.00	0.10	0.42
95th-Percentile Queue Length [ft/ln]	6.36	0.00	0.00	0.00	2.41	10.47
d_A, Approach Delay [s/veh]	2.37		0.00		10.75	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.81					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 25: SE Crown Road & NE 3rd Avenue

Control Type:	Signalized	Delay (sec / veh):	12.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.661

Intersection Setup

Name	SE Crown Road			SE Crown Road			NE 3rd Avenue			NE 3rd Avenue		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	30.00	110.00	100.00	100.00	130.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SE Crown Road			SE Crown Road			NE 3rd Avenue			NE 3rd Avenue		
Base Volume Input [veh/h]	7	3	3	118	2	166	222	1087	4	0	760	174
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	0.00	0.00	2.00	1.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	60	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	3	3	118	2	106	222	1087	4	0	760	174
Peak Hour Factor	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900	0.8900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	1	1	33	1	30	62	305	1	0	213	49
Total Analysis Volume [veh/h]	8	3	3	133	2	119	249	1221	4	0	854	196
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			2			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	4	0	0	8	5	5	2	0	1	6	0
Auxiliary Signal Groups						5,8						
Maximum Green [s]	0	25	0	0	25	25	25	45	0	15	45	0
Amber [s]	0.0	3.0	0.0	0.0	4.0	3.0	3.0	3.0	0.0	3.0	4.0	0.0
All red [s]	0.0	3.8	0.0	0.0	2.0	2.6	2.6	2.0	0.0	2.2	1.3	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	11	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	4.8	0.0	0.0	4.0	3.6	3.6	3.0	0.0	3.2	3.3	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	0	14	0	0	14	9	9	14	0	9	14	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	5	0	0	5	5	5	8	0	5	8	0
Vehicle Extension [s]	0.0	2.0	0.0	0.0	2.0	2.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No	No	No	No		No	No	
Maximum Recall		No			No	No	No	No		No	No	
Pedestrian Recall		No			No	No	No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	C	R	L	C	C	L	C	C
C, Cycle Length [s]	45	45	45	45	45	45	45	45	45
L, Total Lost Time per Cycle [s]	6.80	6.00	5.60	5.60	5.00	5.00	5.20	5.30	5.30
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	4.80	0.00	0.00	3.60	3.00	3.00	3.20	3.30	3.30
g_i, Effective Green Time [s]	4	5	19	8	24	24	0	15	15
g / C, Green / Cycle	0.09	0.11	0.42	0.18	0.53	0.53	0.00	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.03	0.07	0.07	0.14	0.33	0.33	0.00	0.29	0.29
s, saturation flow rate [veh/h]	318	1811	1602	1810	1870	1868	1810	1870	1751
c, Capacity [veh/h]	166	277	672	321	996	995	0	636	595
d1, Uniform Delay [s]	18.92	19.26	8.25	17.81	7.37	7.37	0.00	13.91	13.92
k, delay calibration	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.06	0.49	0.05	1.54	0.23	0.23	0.00	1.29	1.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.07	0.49	0.18	0.78	0.62	0.62	0.00	0.85	0.85
d, Delay for Lane Group [s/veh]	18.99	19.75	8.30	19.35	7.60	7.60	0.00	15.20	15.29
Lane Group LOS	B	B	A	B	A	A	A	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.10	1.25	0.58	2.29	2.80	2.80	0.00	4.37	4.11
50th-Percentile Queue Length [ft/ln]	2.43	31.23	14.40	57.36	70.08	70.04	0.00	109.19	102.65
95th-Percentile Queue Length [veh/ln]	0.17	2.25	1.04	4.13	5.05	5.04	0.00	7.80	7.39
95th-Percentile Queue Length [ft/ln]	4.37	56.22	25.93	103.25	126.14	126.07	0.00	194.88	184.78

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	18.99	18.99	0.00	19.75	19.75	8.30	19.35	7.60	7.60	0.00	15.23	15.29
Movement LOS	B	B		B	B	A	B	A	A	A	B	B
d_A, Approach Delay [s/veh]	18.99			14.39			9.59			15.25		
Approach LOS	B			B			A			B		
d_I, Intersection Delay [s/veh]	12.19											
Intersection LOS	B											
Intersection V/C	0.661											

Emissions

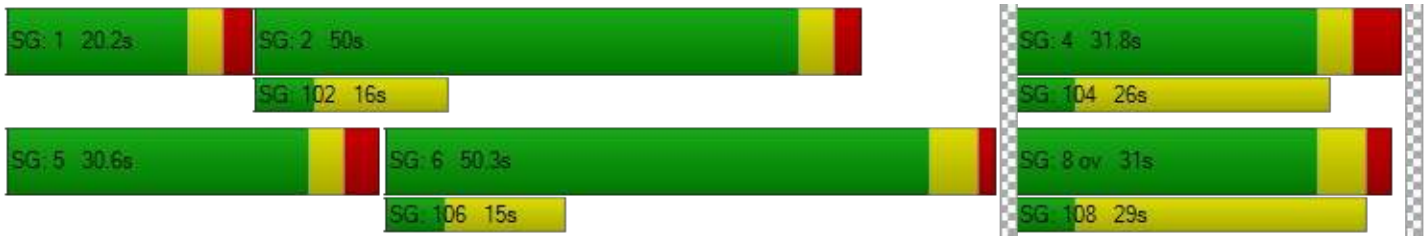
Vehicle Miles Traveled [mph]	0.67	9.05	7.98	19.31	47.52	47.48	0.00	49.10	45.99
Stops [stops/h]	7.73	99.33	45.81	182.42	222.87	222.74	0.00	347.25	326.46
Fuel consumption [US gal/h]	0.11	1.46	0.78	2.78	4.14	4.13	0.00	5.62	5.28
CO [g/h]	7.90	102.34	54.70	194.57	289.08	288.88	0.00	392.65	368.89
NOx [g/h]	1.54	19.91	10.64	37.86	56.24	56.20	0.00	76.39	71.77
VOC [g/h]	1.83	23.72	12.68	45.09	67.00	66.95	0.00	91.00	85.49

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.53	14.53	14.53	14.53
l_p,int, Pedestrian LOS Score for Intersectio	1.688	2.238	2.766	2.913
Crosswalk LOS	A	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1104	1104	1988	1988
d_b, Bicycle Delay [s]	4.54	4.54	0.00	0.00
l_b,int, Bicycle LOS Score for Intersection	1.578	2.078	2.776	2.426
Bicycle LOS	A	B	C	B

Sequence

Ring 1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 101: NE Everett Drive and Site Access

Control Type:	Two-way stop	Delay (sec / veh):	8.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.134

Intersection Setup

Name	NE Everett Drive		NE Everett Drive		Site Access	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Drive		NE Everett Drive		Site Access	
Base Volume Input [veh/h]	16	2	171	26	0	119
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	2	171	26	0	119
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	1	51	8	0	35
Total Analysis Volume [veh/h]	19	2	204	31	0	142
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.13	0.00	0.00	0.13
d_M, Delay for Movement [s/veh]	0.00	0.00	7.49	0.00	12.85	8.91
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.38	0.38	0.46	0.46
95th-Percentile Queue Length [ft/ln]	0.00	0.00	9.57	9.57	11.51	11.51
d_A, Approach Delay [s/veh]	0.00		6.51		8.91	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	7.02					
Intersection LOS	A					

Appendix H:Year 2030 Phased & Mitigated Total Traffic Conditions Analysis Worksheets

Weekday AM Peak Hour NE Everett Street/NE Everett Drive Westbound Approach Operations Summary by Development Phase (Results Reported in Table 9)

Weekday AM Peak Hour NE Everett Street/NE Everett Drive
Single Lane Westbound Approach with Phase 1

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	53.7
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.587

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	239	150	109	317	70	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	0.00	3.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	239	150	109	317	70	37
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	54	39	113	25	13
Total Analysis Volume [veh/h]	341	214	156	453	100	53
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.15	0.00	0.59	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	9.14	0.00	53.67	38.38
Movement LOS	A	A	A	A	F	E
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.54	0.00	4.24	4.24
95th-Percentile Queue Length [ft/ln]	0.00	0.00	13.39	0.00	106.12	106.12
d_A, Approach Delay [s/veh]	0.00		2.34		48.37	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	6.70					
Intersection LOS	F					

Weekday AM Peak Hour NE Everett Street/NE Everett Drive
Single Lane Westbound Approach with Phase 2

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	57.8
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.624

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	239	151	109	317	74	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	0.00	3.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	239	151	109	317	74	37
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	54	39	113	26	13
Total Analysis Volume [veh/h]	341	216	156	453	106	53
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.15	0.00	0.62	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	9.15	0.00	57.83	42.52
Movement LOS	A	A	A	A	F	E
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.54	0.00	4.66	4.66
95th-Percentile Queue Length [ft/ln]	0.00	0.00	13.42	0.00	116.58	116.58
d_A, Approach Delay [s/veh]	0.00		2.34		52.73	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	7.40					
Intersection LOS	F					

Weekday AM Peak Hour NE Everett Street/NE Everett Drive
Single Lane Westbound Approach with Phase 3

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	62.4
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.656

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	239	152	110	317	78	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	0.00	3.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	239	152	110	317	78	39
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	54	39	113	28	14
Total Analysis Volume [veh/h]	341	217	157	453	111	56
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.15	0.00	0.66	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	9.16	0.00	62.44	47.03
Movement LOS	A	A	A	A	F	E
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.54	0.00	5.14	5.14
95th-Percentile Queue Length [ft/ln]	0.00	0.00	13.53	0.00	128.41	128.41
d_A, Approach Delay [s/veh]	0.00		2.36		57.27	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	8.24					
Intersection LOS	F					

Weekday AM Peak Hour NE Everett Street/NE Everett Drive
Single Lane Westbound Approach with Phase 4A

Generated with PTV VISTRO

Camas Woods

Version 2024 (SP 0-1) | Scenario 14: 14 2030 Total AM Sensitivity Analysis | 2024 Existing AM Phase 4A One Lane

Intersection Level Of Service Report

Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	72.3
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.718

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	239	155	110	317	85	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	0.00	3.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	239	155	110	317	85	41
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	55	39	113	30	15
Total Analysis Volume [veh/h]	341	221	157	453	121	59
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.15	0.00	0.72	0.10
d_M, Delay for Movement [s/veh]	0.00	0.00	9.17	0.00	72.35	56.87
Movement LOS	A	A	A	A	F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.54	0.00	6.04	6.04
95th-Percentile Queue Length [ft/ln]	0.00	0.00	13.58	0.00	150.96	150.96
d_A, Approach Delay [s/veh]	0.00		2.36		67.28	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	10.02					
Intersection LOS	F					

Weekday AM Peak Hour NE Everett Street/NE Everett Drive
Single Lane Westbound Approach with Phase 4

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	165.9
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.047

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	239	168	113	317	120	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	0.00	3.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	239	168	113	317	120	49
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	60	40	113	43	18
Total Analysis Volume [veh/h]	341	240	161	453	171	70
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.16	0.00	1.05	0.12
d_M, Delay for Movement [s/veh]	0.00	0.00	9.27	0.00	165.89	149.80
Movement LOS	A	A	A	A	F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.57	0.00	11.85	11.85
95th-Percentile Queue Length [ft/ln]	0.00	0.00	14.26	0.00	296.24	296.24
d_A, Approach Delay [s/veh]	0.00		2.43		161.22	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	28.10					
Intersection LOS	F					

Weekday AM Peak Hour NE Everett Street/NE Everett Drive Westbound Approach with Separate Turn Lanes, Phase 1

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	52.5
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.587

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	239	150	109	317	70	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	0.00	3.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	239	150	109	317	70	37
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	54	39	113	25	13
Total Analysis Volume [veh/h]	341	214	156	453	100	53
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.15	0.00	0.59	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	9.14	0.00	52.49	11.41
Movement LOS	A	A	A	A	F	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.54	0.00	3.14	0.28
95th-Percentile Queue Length [ft/ln]	0.00	0.00	13.39	0.00	78.60	7.05
d_A, Approach Delay [s/veh]	0.00		2.34		38.26	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	5.53					
Intersection LOS	F					

Weekday AM Peak Hour NE Everett Street/NE Everett Drive
Westbound Approach with Separate Turn Lanes, Phase 2

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	56.0
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.624

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	239	151	109	317	74	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	0.00	3.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	239	151	109	317	74	37
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	54	39	113	26	13
Total Analysis Volume [veh/h]	341	216	156	453	106	53
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.15	0.00	0.62	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	9.15	0.00	56.01	11.41
Movement LOS	A	A	A	A	F	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.54	0.00	3.47	0.28
95th-Percentile Queue Length [ft/ln]	0.00	0.00	13.42	0.00	86.68	7.06
d_A, Approach Delay [s/veh]	0.00		2.34		41.14	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	6.01					
Intersection LOS	F					

Weekday AM Peak Hour NE Everett Street/NE Everett Drive Westbound Approach with Separate Turn Lanes, Phase 3

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	59.7
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.656

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	239	152	110	317	78	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	0.00	3.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	239	152	110	317	78	39
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	54	39	113	28	14
Total Analysis Volume [veh/h]	341	217	157	453	111	56
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.15	0.00	0.66	0.09
d_M, Delay for Movement [s/veh]	0.00	0.00	9.16	0.00	59.68	11.45
Movement LOS	A	A	A	A	F	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.54	0.00	3.77	0.30
95th-Percentile Queue Length [ft/ln]	0.00	0.00	13.53	0.00	94.25	7.50
d_A, Approach Delay [s/veh]	0.00		2.36		43.51	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	6.52					
Intersection LOS	F					

Weekday AM Peak Hour NE Everett Street/NE Everett Drive Westbound Approach with Separate Turn Lanes, Phase 4A

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	67.4
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.718

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	239	155	110	317	85	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	0.00	3.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	239	155	110	317	85	41
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	55	39	113	30	15
Total Analysis Volume [veh/h]	341	221	157	453	121	59
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.15	0.00	0.72	0.10
d_M, Delay for Movement [s/veh]	0.00	0.00	9.17	0.00	67.38	11.51
Movement LOS	A	A	A	A	F	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.54	0.00	4.39	0.32
95th-Percentile Queue Length [ft/ln]	0.00	0.00	13.58	0.00	109.72	7.96
d_A, Approach Delay [s/veh]	0.00		2.36		49.07	
Approach LOS	A		A		E	
d_I, Intersection Delay [s/veh]	7.60					
Intersection LOS	F					

Weekday AM Peak Hour NE Everett Street/NE Everett Drive
Westbound Approach with Separate Turn Lanes, Phase 4

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	140.2
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.047

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	239	168	113	317	120	49
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	0.00	3.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	239	168	113	317	120	49
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	85	60	40	113	43	18
Total Analysis Volume [veh/h]	341	240	161	453	171	70
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.16	0.00	1.05	0.12
d_M, Delay for Movement [s/veh]	0.00	0.00	9.27	0.00	140.16	11.73
Movement LOS	A	A	A	A	F	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.57	0.00	8.50	0.39
95th-Percentile Queue Length [ft/ln]	0.00	0.00	14.26	0.00	212.61	9.76
d_A, Approach Delay [s/veh]	0.00		2.43		102.86	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	18.30					
Intersection LOS	F					

Other Mitigated Intersection Operations Analysis Results

MOVEMENT SUMMARY

Site: 101 [Mitigation NE Everett St & NE Everett Dr_TotalAM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

SR500/NE Everett Drive
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: SR500															
8	T1	All MCs	341	3.0	341	3.0	0.580	5.9	LOS A	4.8	122.9	0.57	0.53	0.57	34.6
18	R2	All MCs	271	1.0	271	1.0	0.580	5.7	LOS A	4.8	122.9	0.57	0.53	0.57	34.3
Approach			613	2.1	613	2.1	0.580	5.8	LOS A	4.8	122.9	0.57	0.53	0.57	34.5
East: NE Everett Drive															
1	L2	All MCs	239	4.0	239	4.0	0.364	11.6	LOS B	2.2	56.3	0.59	0.68	0.59	32.4
16	R2	All MCs	89	0.0	89	0.0	0.364	6.4	LOS A	2.2	56.3	0.59	0.68	0.59	32.9
Approach			327	2.9	327	2.9	0.364	10.2	LOS B	2.2	56.3	0.59	0.68	0.59	32.6
North: SR500															
7	L2	All MCs	167	0.0	167	0.0	0.628	11.9	LOS B	5.6	143.1	0.68	0.64	0.72	33.0
4	T1	All MCs	453	3.0	453	3.0	0.628	7.2	LOS A	5.6	143.1	0.68	0.64	0.72	33.5
Approach			620	2.2	620	2.2	0.628	8.4	LOS A	5.6	143.1	0.68	0.64	0.72	33.4
All Vehicles			1560	2.3	1560	2.3	0.628	7.8	LOS A	5.6	143.1	0.62	0.60	0.63	33.6

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Mitigated School PM Peak Hour
Roundabout at Everett Street & Everett Drive

MOVEMENT SUMMARY

Site: 101 [Mitigation NE Everett St & NE Everett Dr_TotalSchoolPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

SR500/NE Everett Drive
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: SR500															
8	T1	All MCs	504	3.0	504	3.0	0.560	5.0	LOS A	4.7	119.6	0.34	0.44	0.34	35.1
18	R2	All MCs	151	0.0	151	0.0	0.560	4.8	LOS A	4.7	119.6	0.34	0.44	0.34	34.9
Approach			656	2.3	656	2.3	0.560	4.9	LOS A	4.7	119.6	0.34	0.44	0.34	35.1
East: NE Everett Drive															
1	L2	All MCs	117	0.0	117	0.0	0.187	12.1	LOS B	1.0	24.6	0.59	0.71	0.59	32.3
16	R2	All MCs	39	0.0	39	0.0	0.187	7.1	LOS A	1.0	24.6	0.59	0.71	0.59	32.6
Approach			156	0.0	156	0.0	0.187	10.8	LOS B	1.0	24.6	0.59	0.71	0.59	32.4
North: SR500															
7	L2	All MCs	63	0.0	63	0.0	0.407	10.0	LOS B	2.7	69.5	0.39	0.49	0.39	34.1
4	T1	All MCs	390	2.0	390	2.0	0.407	5.2	LOS A	2.7	69.5	0.39	0.49	0.39	34.7
Approach			453	1.7	453	1.7	0.407	5.9	LOS A	2.7	69.5	0.39	0.49	0.39	34.6
All Vehicles			1264	1.8	1264	1.8	0.560	6.0	LOS A	4.7	119.6	0.39	0.49	0.39	34.5

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: 101 [Mitigation NE Everett St & NE Everett Dr_TotalPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

SR500/NE Everett Drive
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: SR500															
8	T1	All MCs	382	0.0	382	0.0	0.468	4.8	LOS A	3.4	84.1	0.27	0.44	0.27	35.4
18	R2	All MCs	180	1.0	180	1.0	0.468	4.7	LOS A	3.4	84.1	0.27	0.44	0.27	35.1
Approach			562	0.3	562	0.3	0.468	4.7	LOS A	3.4	84.1	0.27	0.44	0.27	35.3
East: NE Everett Drive															
1	L2	All MCs	129	0.0	129	0.0	0.172	11.2	LOS B	0.9	21.4	0.50	0.67	0.50	32.6
16	R2	All MCs	32	0.0	32	0.0	0.172	6.2	LOS A	0.9	21.4	0.50	0.67	0.50	32.9
Approach			161	0.0	161	0.0	0.172	10.2	LOS B	0.9	21.4	0.50	0.67	0.50	32.6
North: SR500															
7	L2	All MCs	55	0.0	55	0.0	0.267	9.9	LOS A	1.5	38.4	0.34	0.50	0.34	34.1
4	T1	All MCs	239	3.0	239	3.0	0.267	5.1	LOS A	1.5	38.4	0.34	0.50	0.34	34.7
Approach			294	2.4	294	2.4	0.267	6.0	LOS A	1.5	38.4	0.34	0.50	0.34	34.6
All Vehicles			1017	0.9	1017	0.9	0.468	6.0	LOS A	3.4	84.1	0.33	0.49	0.33	34.7

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Intersection Level Of Service Report
Intersection 2: SR 500 & NE 28th Street

Control Type:	All-way stop	Delay (sec / veh):	24.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.820

Intersection Setup

Name	Private Driveway			SR 500			NE 28th Street			SR 500		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	20.00			45.00			40.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Private Driveway			SR 500			NE 28th Street			SR 500		
Base Volume Input [veh/h]	0	0	0	209	0	58	71	358	0	0	192	203
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	6.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	5.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	209	0	58	71	358	0	0	192	203
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	61	0	17	21	105	0	0	56	60
Total Analysis Volume [veh/h]	0	0	0	246	0	68	84	421	0	0	226	239
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	468	544	616	638
Degree of Utilization, x	0.00	0.58	0.82	0.73

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.00	3.64	8.49	6.26
95th-Percentile Queue Length [ft]	0.00	90.97	212.27	156.43
Approach Delay [s/veh]	0.00	18.27	30.03	22.29
Approach LOS	A	C	D	C
Intersection Delay [s/veh]	24.35			
Intersection LOS	C			

Mitigated School PM Peak Hour
Future Roundabout at Sierra Street & Lake Road

MOVEMENT SUMMARY

Site: 15 [Mitigation NW Sierra St & NE Lake Rd_TotalSchoolPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

NW Sierra St/NW Lake Rd
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NW Sierra St															
3	L2	All MCs	80	4.0	80	4.0	0.243	12.8	LOS B	1.3	34.4	0.62	0.68	0.62	33.1
18	R2	All MCs	123	4.0	123	4.0	0.243	6.8	LOS A	1.3	34.4	0.62	0.68	0.62	33.6
Approach			203	4.0	203	4.0	0.243	9.2	LOS A	1.3	34.4	0.62	0.68	0.62	33.4
East: NE Lake Rd															
1	L2	All MCs	114	1.0	114	1.0	0.424	10.3	LOS B	3.0	76.5	0.33	0.45	0.33	34.5
6	T1	All MCs	407	1.0	407	1.0	0.424	4.2	LOS A	3.0	76.5	0.33	0.45	0.33	35.2
Approach			521	1.0	521	1.0	0.424	5.5	LOS A	3.0	76.5	0.33	0.45	0.33	35.1
West: NW Lake Rd															
2	T1	All MCs	508	2.0	508	2.0	0.524	4.5	LOS A	3.9	99.6	0.41	0.43	0.41	35.5
12	R2	All MCs	117	2.0	117	2.0	0.524	4.7	LOS A	3.9	99.6	0.41	0.43	0.41	35.2
Approach			625	2.0	625	2.0	0.524	4.6	LOS A	3.9	99.6	0.41	0.43	0.41	35.5
All Vehicles			1349	1.9	1349	1.9	0.524	5.6	LOS A	3.9	99.6	0.41	0.48	0.41	35.0

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Mitigated PM Peak Hour
Future Roundabout at Sierra Street & Lake Road

MOVEMENT SUMMARY

Site: 15 [Mitigation NW Sierra St & NE Lake Rd_TotalPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

NW Sierra St/NW Lake Rd
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NW Sierra St															
3	L2	All MCs	65	2.0	65	2.0	0.692	25.7	LOS C	7.3	183.0	1.00	1.03	1.41	28.3
18	R2	All MCs	251	0.0	251	0.0	0.692	19.4	LOS B	7.3	183.0	1.00	1.03	1.41	28.6
Approach			316	0.4	316	0.4	0.692	20.7	LOS C	7.3	183.0	1.00	1.03	1.41	28.6
East: NE Lake Rd															
1	L2	All MCs	137	0.0	137	0.0	0.578	10.3	LOS B	5.8	146.3	0.41	0.44	0.41	34.3
6	T1	All MCs	577	1.0	577	1.0	0.578	4.2	LOS A	5.8	146.3	0.41	0.44	0.41	35.1
Approach			714	0.8	714	0.8	0.578	5.4	LOS A	5.8	146.3	0.41	0.44	0.41	34.9
West: NW Lake Rd															
2	T1	All MCs	917	1.0	917	1.0	0.903	8.6	LOS D	19.3	485.7	1.00	0.66	1.09	33.6
12	R2	All MCs	145	2.0	145	2.0	0.903	8.8	LOS D	19.3	485.7	1.00	0.66	1.09	33.3
Approach			1062	1.1	1062	1.1	0.903	8.6	LOS A	19.3	485.7	1.00	0.66	1.09	33.6
All Vehicles			2092	0.9	2092	0.9	0.903	9.3	LOS A	19.3	485.7	0.80	0.64	0.91	33.2

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options 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.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Alternative SE 8th Street Access Scenario Operations Analysis Results

Intersection Level Of Service Report
Intersection 3: NE Everett Street & SE 8th Street

Control Type:	Two-way stop	Delay (sec / veh):	85.0
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.769

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	85.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		SE 8th Street	
Base Volume Input [veh/h]	223	89	43	396	84	64
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	0.00	0.00	2.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	223	89	43	396	84	64
Peak Hour Factor	0.5900	0.5900	0.5900	0.5900	0.5900	0.5900
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	94	38	18	168	36	27
Total Analysis Volume [veh/h]	378	151	73	671	142	108
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.07	0.01	0.77	0.16
d_M, Delay for Movement [s/veh]	0.00	0.00	8.52	0.00	84.97	70.84
Movement LOS	A	A	A	A	F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.13	0.13	8.56	8.56
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.17	3.17	214.03	214.03
d_A, Approach Delay [s/veh]	0.00		0.84		78.86	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	13.35					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 4: NE Everett Street & NE Everett Drive

Control Type:	Two-way stop	Delay (sec / veh):	241.7
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.221

Intersection Setup

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	150.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.02		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	NE Everett Street (SR 500)		NE Everett Street (SR 500)		NE Everett Drive	
Base Volume Input [veh/h]	261	168	113	363	121	50
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	1.00	0.00	3.00	2.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	261	168	113	363	121	50
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	93	60	40	130	43	18
Total Analysis Volume [veh/h]	373	240	161	519	173	71
Pedestrian Volume [ped/h]	0		0		0	

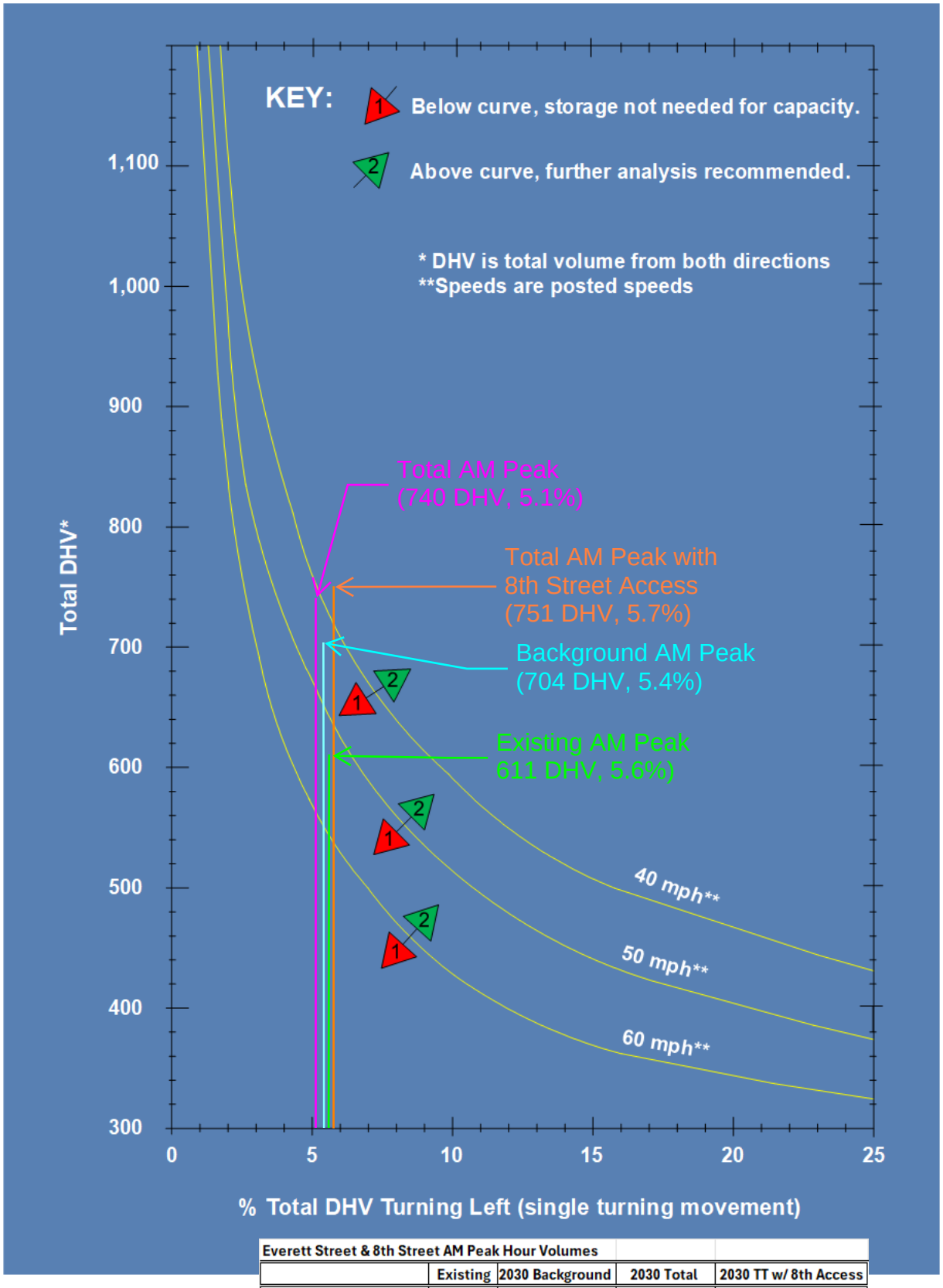
Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.16	0.01	1.22	0.12
d_M, Delay for Movement [s/veh]	0.00	0.00	9.42	0.00	241.70	222.49
Movement LOS	A	A	A	A	F	F
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.59	0.00	14.23	14.23
95th-Percentile Queue Length [ft/ln]	0.00	0.00	14.73	0.00	355.71	355.71
d_A, Approach Delay [s/veh]	0.00		2.23		236.11	
Approach LOS	A		A		F	
d_I, Intersection Delay [s/veh]	38.47					
Intersection LOS	F					

Exhibit 1310-9 Left-Turn Storage Guidelines: Two-Lane, Unsignalized



Everett Street & 8th Street AM Peak Hour Volumes				
	Existing	2030 Background	2030 Total	2030 TT w/ 8th Access
Northbound through	175	208	235	223
Northbound right-turn	60	67	67	89
Southbound left-turn	34	38	38	43
Southbound through	342	391	400	396
DHV	611	704	740	751
% Total DHV turning left	5.6%	5.4%	5.1%	5.7%