EXHIBIT 44

Appendix A Level of Service (LOS)

APPENDIX A LEVEL-OF-SERVICE CONCEPT

Level of service (LOS) is a concept developed to quantify the degree of comfort (including such elements as travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles) afforded to drivers as they travel through an intersection or roadway segment. Six grades are used to denote the various level of service from "A" to "F".[1]

SIGNALIZED INTERSECTIONS

The six level-of-service grades are described qualitatively for signalized intersections in Table A1. Additionally, Table A2 identifies the relationship between level of service and average control delay per vehicle. Control delay is defined to include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Using this definition, Level of Service "D" is generally considered to represent the minimum acceptable design standard.

Table A1 Level-of-Service Definitions (Signalized Intersections)

Level of Service	Average Delay per Vehicle
A	Very low average control delay, less than 10 seconds per vehicle. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	Average control delay is greater than 10 seconds per vehicle and less than or equal to 20 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for a level of service A, causing higher levels of average delay.
C	Average control delay is greater than 20 seconds per vehicle and less than or equal to 35 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D	Average control delay is greater than 35 seconds per vehicle and less than or equal to 55 seconds per vehicle. The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle length, or high volume/capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Average control delay is greater than 55 seconds per vehicle and less than or equal to 80 seconds per vehicle. This is usually considered to be the limit of acceptable delay. These high delay values generally (but not always) indicate poor progression, long cycle lengths, and high volume/capacity ratios. Individual cycle failures are frequent occurrences.
F	Average control delay is in excess of 80 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation. It may also occur at high volume/capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such high delay values.

[1] Most of the material in this appendix is adapted from the Transportation Research Board, *2000 Highway Capacity Manual*, (2000).

Table A2 Level-of-Service Criteria for Signalized Intersections

Level of Service	Average Control Delay per Vehicle (Seconds)
A	<10.0
B	>10 and ≤20
C	>20 and ≤35
D	>35 and ≤55
E	>55 and ≤80
F	>80

UNSIGNALIZED INTERSECTIONS

Unsignalized intersections include two-way stop-controlled (TWSC) and all-way stop-controlled (AWSC) intersections. The *2000 Highway Capacity Manual* (HCM) provides models for estimating control delay at both TWSC and AWSC intersections. A qualitative description of the various service levels associated with an unsignalized intersection is presented in Table A3. A quantitative definition of level of service for unsignalized intersections is presented in Table A4. Using this definition, Level of Service "E" is generally considered to represent the minimum acceptable design standard.

Table A3 Level-of-Service Criteria for Unsignalized Intersections

Level of Service	Average Delay per Vehicle to Minor Street
A	• Nearly all drivers find freedom of operation. • Very seldom is there more than one vehicle in queue.
B	• Some drivers begin to consider the delay an inconvenience. • Occasionally there is more than one vehicle in queue.
C	• Many times there is more than one vehicle in queue. • Most drivers feel restricted, but not objectionably so.
D	• Often there is more than one vehicle in queue. • Drivers feel quite restricted.
E	• Represents a condition in which the demand is near or equal to the probable maximum number of vehicles that can be accommodated by the movement. • There is almost always more than one vehicle in queue. • Drivers find the delays approaching intolerable levels.
F	• Forced flow. • Represents an intersection failure condition that is caused by geometric and/or operational constraints external to the intersection.

Table A4 Level-of-Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay per Vehicle (Seconds)
A	<10.0
B	>10.0 and ≤ 15.0
C	>15.0 and ≤ 25.0
D	>25.0 and ≤ 35.0
E	>35.0 and ≤ 50.0
F	>50.0

It should be noted that the level-of-service criteria for unsignalized intersections are somewhat different than the criteria used for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection. Additionally, there are a number of driver behavior considerations that combine to make delays at signalized intersections less galling than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, while drivers on the minor street approaches to TWSC intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized intersections than signalized intersections. For these reasons, it is considered that the control delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection. While overall intersection level of service is calculated for AWSC intersections, level of service is only calculated for the minor approaches and the major street left turn movements at TWSC intersections. No delay is assumed to the major street through movements. For TWSC intersections, the overall intersection level of service remains undefined: level of service is only calculated for each minor street lane.

In the performance evaluation of TWSC intersections, it is important to consider other measures of effectiveness (MOEs) in addition to delay, such as v/c ratios for individual movements, average queue lengths, and 95th-percentile queue lengths. By focusing on a single MOE for the worst movement only, such as delay for the minor-street left turn, users may make inappropriate traffic control decisions. The potential for making such inappropriate decisions is likely to be particularly pronounced when the HCM level-of-service thresholds are adopted as legal standards, as is the case in many public agencies.

Appendix B Crash Data

REPORTED COLLISIONS THAT OCCURRED AT THE FOLLOWING INTERSECTIONS IN VANCOUVER, CAMAS OR CLARK COUNTY.....1/1/08 - 11/30/13

UNDER 23 UNITED STATES CODE - SECTION 409, THIS DATA CANNOT BE USED IN DISCOVERY OR AS EVIDENCE AT TRIAL IN ANY ACTION FOR DAMAGES AGAINST THE WSDOT, OR ANY JURISDICTION INVOLVED IN THE DATA

NE 192ND AVE AT NE 13TH ST

Intersection	PRIMARY TRAFFICWAY	BLOCK NUMBER	MILE POST	INTERSECTING TRAFFICWAY	CO ONLY INTERSECTING COUNTY ROAD MILEPOST	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	*REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	#FAT	#VEH	#PEDS	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITIONS	LIGHTING CONDITIONS	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 TYPE	VEH 1 ACTION	MV DRIVER CONT CIRC 1 (UNIT 1)	MV DRIVER CONT CIRC 2 (UNIT 1)	VEH 1 COMP DIR FROM	VEH 1 COMP DIR TO	VEHICLE 2 TYPE	VEH 2 ACTION	VEH 2 COMP DIR FROM	VEH 2 COMP DIR TO	PEDESTRIAN ACTION (UNIT 2)	PEDESTRIAN CONT CIRC 1 (UNIT 2)	IMPACT LOCATION (City, County & Misc Trafficways 2010 forward)
1	NE 192ND AVE	19200		13TH ST NE						3327133	10/15/10	7:56 AM	Serious Injury	1	0	2		At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From opposite direction - one left turn - one straight	Truck (Flatbad,Van,etc)	Making Left Turn	Did Not Grant RW to Vehicle		North	East	Passenger Car	Going Straight Ahead	South	North			Lane of Primary Trafficway
1	NE 192 AV			NE 13 ST						3241854	12/09/09	7:33 AM	No Injury	0	0	2		At Intersection and Related	Clear or Partly Cloudy	Dry	Dawn	From opposite direction - one left turn - one straight	Passenger Car	Making Left Turn	Did Not Grant RW to Vehicle		North	East	School Bus	Going Straight Ahead	South	North			
1	NE 192ND AVE	1000		NE 13TH ST						3318835	04/11/12	9:36 AM	Possible Injury	1	0	2		At Intersection and Related	Raining	Wet	Daylight	From opposite direction - one left turn - one straight	Passenger Car	Making Left Turn	Did Not Grant RW to Vehicle		North	East	Passenger Car	Going Straight Ahead	South	North			Lane of Primary Trafficway
1	NE 192ND AVE	1000		NE 13TH ST						3432403	05/22/11	12:29 PM	No Injury	0	0	2		At Intersection and Related	Overcast	Dry	Daylight	From opposite direction - one left turn - one straight	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	Did Not Grant RW to Vehicle		North	East	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	South	North			Lane of Primary Trafficway
1	NE 13TH ST	19200		NE 192ND AVE						3133182	08/24/10	8:27 PM	No Injury	0	0	2		At Intersection and Related	Clear or Partly Cloudy	Dry	Dark-Street Lights On	From same direction - both going straight - one stopped - rear-end	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	Other		East	West	Passenger Car	Stopped at Signal or Stop Sign	East	Vehicle Stopped			Lane of Primary Trafficway
1	30620		0.00	93350	0.75					2474238	04/19/08	1:00 AM	Evident Injury	1	0	2		Not at Intersection and Not Related	Overcast	Dry	Dark-Street Lights On	Mailbox	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	Under Influence of Alcohol		South	North							
1	30620		0.00	93350	0.75					2576260	01/11/08	7:55 PM	No Injury	0	0	2		At Intersection and Related	Overcast	Dry	Dark-Street Lights On	From opposite direction - one left turn - one straight	Passenger Car	Making Left Turn	Did Not Grant RW to Vehicle		North	East	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	South	North			
1	30620		0.00	93350	0.75					2737144	05/31/08	8:06 PM	Evident Injury	1	0	2		At Intersection and Related	Raining	Wet	Daylight	From opposite direction - one left turn - one straight	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	Did Not Grant RW to Vehicle		North	East	Passenger Car	Going Straight Ahead	South	North			

NW FRIBERG ST AT NW LAKE RD

Intersection	PRIMARY TRAFFICWAY	BLOCK NUMBER	MILE POST	INTERSECTING TRAFFICWAY	CO ONLY INTERSECTING COUNTY ROAD MILEPOST	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	*REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	#FAT	#VEH	#PEDS	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITIONS	LIGHTING CONDITIONS	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 TYPE	VEH 1 ACTION	MV DRIVER CONT CIRC 1 (UNIT 1)	MV DRIVER CONT CIRC 2 (UNIT 1)	VEH 1 COMP DIR FROM	VEH 1 COMP DIR TO	VEHICLE 2 TYPE	VEH 2 ACTION	VEH 2 COMP DIR FROM	VEH 2 COMP DIR TO	PEDESTRIAN ACTION (UNIT 2)	PEDESTRIAN CONT CIRC 1 (UNIT 2)	IMPACT LOCATION (City, County & Misc Trafficways 2010 forward)
2	NW LAKE RD	5200				279	F	E	NW FRIBERG	E020091	05/18/09	2:20 PM	No Injury	0	0	1		Intersection Related but Not at Intersection	Clear or Partly Cloudy	Dry	Daylight	Wood Sign Post	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	Exceeding Reas. Safe Speed		North	East							
2	NW LAKE RD	5400				100	F	E	NW FRIBERG ST	3253047	07/15/09	6:18 PM	No Injury	0	0	1		Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	Tree or Stump (stationary)	Passenger Car	Going Straight Ahead	Other		East	West							
2	NW FRIBERG STRUNK WY	6201				150	F	N	SE 1 ST	3240453	09/03/09	2:30 PM	No Injury	0	0	2		Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - both moving - rear-end	Passenger Car	Going Straight Ahead	Follow Too Closely		North	South	Passenger Car	Slowing	North	South			
2	NW FRIBERG STRUNK ST	6200				170.4	F	N	SE 1ST ST	E158720	03/09/12	2:34 PM	No Injury	0	0	2		Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Passenger Car	Going Straight Ahead	Inattention	Follow Too Closely	North	South	Pickup,Panel Truck or Vanette under 10,000 lb	Stopped for Traffic	North	Vehicle Stopped			Lane of Primary Trafficway
2	NW LAKE RD			NE FRIBERG STRUCK RD						2474230	03/18/08	11:42 AM	No Injury	0	0	2		At Intersection and Related	Raining	Wet	Daylight	Entering at angle	Passenger Car	Going Straight Ahead	Disregard Stop and Go Light		East	West	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	North	East			
2	NW FRIBERG STRUNK ST	5900		NW LAKE RD SE 1 AVE						2983884	10/23/09	2:37 PM	No Injury	0	0	3		At Intersection and Related	Overcast	Wet	Daylight	From same direction - both going straight - one stopped - rear-end	Passenger Car	Going Straight Ahead	Follow Too Closely	Driver Interacting with Passengers, Anim	North	South	Passenger Car	Stopped for Traffic	North	Vehicle Stopped			

NE INGLE RD AT NE GOODWIN RD

Intersection	PRIMARY TRAFFICWAY	BLOCK NUMBER	MILE POST	INTERSECTING TRAFFICWAY	CO ONLY INTERSECTING COUNTY ROAD MILEPOST	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	*REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	#FAT	#VEH	#PEDS	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITIONS	LIGHTING CONDITIONS	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 TYPE	VEH 1 ACTION	MV DRIVER CONT CIRC 1 (UNIT 1)	MV DRIVER CONT CIRC 2 (UNIT 1)	VEH 1 COMP DIR FROM	VEH 1 COMP DIR TO	VEHICLE 2 TYPE	VEH 2 ACTION	VEH 2 COMP DIR FROM	VEH 2 COMP DIR TO	PEDESTRIAN ACTION (UNIT 2)	PEDESTRIAN CONT CIRC 1 (UNIT 2)	IMPACT LOCATION (City, County & Misc Trafficways 2010 forward)
3	93350		2.24	30730	1.87					E273386	09/28/13	3:33 PM	No Injury	0	0	1		At Intersection and Related	Raining	Wet	Daylight	Roadway Ditch	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	Other Driver Distractions Inside Vehicle		North	South							Past the Outside Shoulder of Primary Trafficway
3	NE GOODWIN RD	2400				40	F	SW	NE INGLE RD	E267479	08/27/13	5:37 PM	Evident Injury	1	0	3		Intersection Related but Not at Intersection	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Passenger Car	Going Straight Ahead	Inattention	Follow Too Closely	South	North	Pickup,Panel Truck or Vanette under 10,000 lb	Stopped for Traffic	Vehicle Stopped	Vehicle Stopped			Lane of Primary Trafficway
3	NE GOODWIN RD	2300		NE INGLE RD						3610088	08/04/13	11:28 PM	No Injury	0	0	2		At Intersection and Related	Clear or Partly Cloudy	Dry	Dark-No Street Lights	Entering at angle	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	Did Not Grant RW to Vehicle		North	East	Passenger Car	Going Straight Ahead	East	West			Lane of Primary Trafficway
3	NE GOODWIN RD	2300		NE INGLE RD						3673206	05/10/13	7:35 PM	No Injury	0	0	2		At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	Did Not Grant RW to Vehicle		South	East	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	East	West			Intersecting Trafficway (WITH Intent to Access)
3	NE INGLE RD	2800		NE GOODWIN RD						3252996	01/23/13	6:33 AM	Serious Injury	1	0	1		Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Dark-No Street Lights	Boulder (stationary)	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	Apparently Asleep		North	South							Past the Outside Shoulder of Primary Trafficway
3	NE 28TH ST	21800				272	F	NE	NE GOODWIN RD	3610117	10/14/12	11:02 PM	No Injury	0	0	1		Not at Intersection and Not Related	Raining	Wet	Dark-No Street Lights	Utility Pole	Passenger Car	Going Straight Ahead	Driver Distractions Outside Vehicle		East	West							Past the Outside Shoulder of Primary Trafficway
3	NE GOODWIN RD			NE INGLE RD						E163123	03/20/12	3:25 PM	Possible Injury	1	0	3		At Intersection and Related	Raining	Wet	Daylight	From same direction - both going straight - one stopped - rear-end	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	Exceeding Reas. Safe Speed		South	North	Pickup,Panel Truck or Vanette under 10,000 lb	Stopped for Traffic	South	Vehicle Stopped			Lane of Primary Trafficway
3	NE GOODWIN RD	2500				200	F	E	NE INGLES RD	2984324	10/16/11	6:35 AM	Serious Injury	1	0	1	1	Not at Intersection and Not Related	Overcast	Dry	Dark-No Street Lights	Vehicle going straight hits pedestrian	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	None		West	East					Xing - Non Intersection - No X Walk	Did Not Grant RW to Vehicle	Lane of Primary Trafficway
3	NE GOODWIN RD	2500				346	F	NE	NE INGLE RD	3411805	08/30/11	10:02 PM	No Injury	0	0	2		At Driveway	Clear or Partly Cloudy	Dry	Dark-No Street Lights	From same direction - one left turn - one straight	Pickup,Panel Truck or Vanette under 10,000 lb	Overtaking and Passing	Improper Passing		Northeast	Southwest	Passenger Car	Making Left Turn	Northeast	Southeast			Lane of Primary Trafficway
3	NE GOODWIN RD	2500				325	F	NE	NE INGLE RD	E108251	05/16/11	9:10 PM	No Injury	0	0	1		Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Dark-No Street Lights	Mailbox	Passenger Car	Going Straight Ahead	Exceeding Reas. Safe Speed	Over Center Line	Northeast	Southwest							Past the Outside Shoulder of Primary Trafficway
3	NE GOODWIN RD	2300		NE INGLE RD						3253123	01/19/10	2:40 PM	No Injury	0	0	2		At Intersection and Related	Raining	Wet	Daylight	Entering at angle	Pickup,Panel Truck or Vanette under 10,000 lb	Making Right Turn	Exceeding Reas. Safe Speed		East	North	Passenger Car	Stopped at Signal or Stop Sign	North	Vehicle Stopped			Intersecting Trafficway (WITH Intent to Access)
3	NE GOODWIN RD			NE INGLE RD						3252953	12/26/09	11:49 PM	No Injury	0	0	1		At Intersection and Related	Clear or Partly Cloudy	Dry	Dark-No Street Lights	Roadway Ditch	Passenger Car	Making Left Turn	Exceeding Stated Speed Limit		West	North							
3	NE INGLE RD	2800		NE GOODWIN RD						3308194	11/07/09	12:06 PM	No Injury	0	0	2		At Intersection and Related	Raining	Wet	Daylight	Entering at angle	Passenger Car	Making Right Turn	Exceeding Reas. Safe Speed		East	North	Pickup,Panel Truck or Vanette under 10,000 lb	Stopped at Signal or Stop Sign	North	Vehicle Stopped			
3	NE INGLE RD					50	F	NW	NE GOODWIN RD	E023009	07/06/09	8:37 AM	Possible Injury	1	0	2		Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - both moving - rear-end	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	Other		Southeast	Northwest	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	Southeast	Northwest			
3	NE GOODWIN RD			NE INGLES RD						E021022	06/10/09	4:58 PM	No Injury	0	0	2		At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Passenger Car	Making Right Turn	Did Not Grant RW to Vehicle	Driver Distractions Outside Vehicle	North	West	Passenger Car	Going Straight Ahead	East	West			
3	NE GOODWIN RD			NE INGLE RD						2984047	11/20/08	12:17 PM	No Injury	0	0	1		At Intersection and Related	Raining	Wet	Daylight	Wood Sign Post	Passenger Car	Going Straight Ahead	Inattention	Operating Defective Equipment	West	East							

NE 199TH AVE AT NE 58TH ST / SR 500

Intersection	PRIMARY TRAFFICWAY	BLOCK NUMBER	MILE POST	INTERSECTING TRAFFICWAY	CO ONLY INTERSECTING COUNTY ROAD MILEPOST	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	*REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	#FAT	#VEH	#PEDS	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITIONS	LIGHTING CONDITIONS	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 TYPE	VEH 1 ACTION	MV DRIVER CONT CIRC 1 (UNIT 1)	MV DRIVER CONT CIRC 2 (UNIT 1)	VEH 1 COMP DIR FROM	VEH 1 COMP DIR TO	VEHICLE 2 TYPE	VEH 2 ACTION	VEH 2 COMP DIR FROM	VEH 2 COMP DIR TO	PEDESTRIAN ACTION (UNIT 2)	PEDESTRIAN CONT CIRC 1 (UNIT 2)	IMPACT LOCATION (City, County & Misc Trafficways 2010 forward)
4	500		10.27							E252018	06/12/13	7:45 PM	Possible Injury	2	0	2		At Intersection and Related	Raining	Wet	Daylight	Entering at angle	Pickup,Panel Truck or Vanette under 10,000 lb	Making Right Turn	None		West	South	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	South	North			Intersecting Road Increasing Milepost
4	30730		0.01							E164963	04/18/12	6:00 AM	No Injury	0	0	1		At Intersection and Related	Overcast	Wet	Daylight	Utility Pole	Passenger Car	Making Right Turn	Exceeding Reas. Safe Speed	Improper Turn	West	South							Past the Outside Shoulder of Primary Trafficway
4	500		10.25							E165529	04/16/12	1:55 AM	No Injury	0	0	1		Not at Intersection and Not Related	Raining	Wet	Dark-Street Lights On	Utility Pole	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	Under Influence of Alcohol	Apparently Asleep	West	East							Past Right Shoulder Increasing Milepost
4	500		10.27							E072386	10/09/10	2:47 PM	No Injury	0	0	2		At Intersection and Related	Raining	Wet	Daylight	Entering at angle	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	Did Not Grant RW to Vehicle		Southeast	Southwest	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	Southwest	Northeast			Lane 1 Increasing Milepost
4	500		10.29							E062307	08/02/10	8:20 AM	No Injury	0	0	1		Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	Domestic animal other (cat, dog, etc)	Passenger Car	Going Straight Ahead	None		East	West							Lane 1 Decreasing Milepost
4	500		10.27							E039645	01/07/10	5:42 PM	No Injury	0	0	2		At Intersection and Related	Overcast	Dry	Dark-No Street Lights	Entering at angle	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	Did Not Grant RW to Vehicle		South	West	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	East	West			Lane 1 Decreasing Milepost
4	500		10.27							E022903	06/28/09	8:41 PM	Evident Injury	4	0	2		At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Passenger Car	Making Left Turn	Did Not Grant RW to Vehicle		South	West	Passenger Car	Going Straight Ahead	East	West			Lane 1 Decreasing Milepost

NW FRIBERG ST AT NE GOODWIN RD

Intersection	PRIMARY TRAFFICWAY	BLOCK NUMBER	MILE POST	INTERSECTING TRAFFICWAY	CO ONLY INTERSECTING COUNTY ROAD MILEPOST	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	*REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	#FAT	#VEH	#PEDS	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITIONS	LIGHTING CONDITIONS	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 TYPE	VEH 1 ACTION	MV DRIVER CONT CIRC 1 (UNIT 1)	MV DRIVER CONT CIRC 2 (UNIT 1)	VEH 1 COMP DIR FROM	VEH 1 COMP DIR TO	VEHICLE 2 TYPE	VEH 2 ACTION	VEH 2 COMP DIR FROM	VEH 2 COMP DIR TO	PEDESTRIAN ACTION (UNIT 2)	PEDESTRIAN CONT CIRC 1 (UNIT 2)	IMPACT LOCATION (City, County & Misc Trafficways 2010 forward)
5	93350		1.25	30638	0.00					E236292	04/01/13	12:17 PM	No Injury	0	0	2		At Intersection and Related	Overcast	Dry	Daylight	Entering at angle	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	Inattention	Disregard Stop and Go Light	East	West	Passenger Car	Going Straight Ahead	North	South			Lane of Primary Trafficway
5	93350		1.25	30610	0.00					E214923	12/19/12	6:51 PM	No Injury	0	0	2		At Intersection and Related	Raining	Wet	Dark-Street Lights On	From opposite direction - one left turn - one straight	Passenger Car	Making Left Turn	Under Influence of Drugs	Did Not Grant RW to Vehicle	East	South	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	West	East			Lane of Primary Trafficway
5	93350		1.25	30638	0.00					E138496	11/22/11	7:42 AM	Possible Injury	1	0	2		At Intersection and Related	Raining	Wet	Daylight	From opposite direction - one left turn - one straight	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	Did Not Grant RW to Vehicle		East	South	Passenger Car	Going Straight Ahead	West	East			Lane of Primary Trafficway
5	93350		1.25	30638	0.00					3411803	08/28/11	4:19 PM	Possible Injury	3	0	2		At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From opposite direction - one left turn - one straight	Passenger Car	Making Left Turn	Did Not Grant RW to Vehicle		East	South	Passenger Car	Going Straight Ahead	West	East			Lane of Primary Trafficway
5	93350		1.25	30610	0.00					3133178	07/12/10	7:38 PM	No Injury	0	0	2		At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Passenger Car	Going Straight Ahead	Inattention		East	West	Pickup,Panel Truck or Vanette under 10,000 lb	Stopped for Traffic	East	Vehicle Stopped			Lane of Primary Trafficway

NE 232ND AVE AT NE 28TH ST

Intersection	PRIMARY TRAFFICWAY	BLOCK NUMBER	MILE POST	INTERSECTING TRAFFICWAY	CO ONLY INTERSECTING COUNTY ROAD MILEPOST	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	*REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	#FAT	#VEH	#PEDS	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITIONS	LIGHTING CONDITIONS	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 TYPE	VEH 1 ACTION	MV DRIVER CONT CIRC 1 (UNIT 1)	MV DRIVER CONT CIRC 2 (UNIT 1)	VEH 1 COMP DIR FROM	VEH 1 COMP DIR TO	VEHICLE 2 TYPE	VEH 2 ACTION	VEH 2 COMP DIR FROM	VEH 2 COMP DIR TO	PEDESTRIAN ACTION (UNIT 2)	PEDESTRIAN CONT CIRC 1 (UNIT 2)	IMPACT LOCATION (City, County & Misc Trafficways 2010 forward)
6	93350		3.09	30950	2.89					2738387	10/17/10	2:07 AM	Possible Injury	1	0	1		At Intersection and Related	Clear or Partly Cloudy	Dry	Dark-No Street Lights	Wood Sign Post	Passenger Car	Going Straight Ahead	Under Influence of Alcohol	Disregard Stop Sign - Flashing Red	South	North							Past the Outside Shoulder of Primary Trafficway
6	93350		3.09	30950	2.89					3170191	08/18/10	3:34 AM	No Injury	0	0	1		At Intersection and Related	Clear or Partly Cloudy	Dry	Dark-Street Lights Off	Wood Sign Post	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	Disregard Stop Sign - Flashing Red		South	North							Past the Outside Shoulder of Primary Trafficway
6	93350		3.09	30950	2.89					3166051	08/16/08	1:33 PM	No Injury	0	0	3		At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	Did Not Grant RW to Vehicle		South	West	Passenger Car	Going Straight Ahead	West	East			

NW PARKER ST AT NE 38TH AVE

Intersection	PRIMARY TRAFFICWAY	BLOCK NUMBER	MILE POST	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	#FAT	#VEH	#PEDS	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITIONS	LIGHTING CONDITIONS	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 TYPE	VEH 1 ACTION	MV DRIVER CONT CIRC 1 (UNIT 1)	MV DRIVER CONT CIRC 2 (UNIT 1)	VEH 1 COMP DIR FROM	VEH 1 COMP DIR TO	VEHICLE 2 TYPE	VEH 2 ACTION
7	NW PARKER ST	3800		NW 38TH AVE					3411738	02/06/13	2:10 PM	No Injury	0	0	2	0	At Intersection and Related	Raining	Wet	Daylight	From opposite direction - one left turn - one straight	Passenger Car	Making Left Turn	Did Not Grant RW to Vehicle		East	South	Passenger Car	Going Straight Ahead
7	NW PARKER ST			NW 38TH AVE					E160269	03/13/12	7:25 AM	No Injury	0	0	2	0	At Intersection and Related	Overcast	Snow/Slush	Daylight	Entering at angle	Passenger Car	Going Straight Ahead	Disregard Stop and Go Light	Inattention	South	North	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead
7	NW 38 AVE	4000		NW PARKER ST					E116356	07/15/11	9:50 AM	Possible Injury	1	0	2	0	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From opposite direction - one left turn - one straight	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	Did Not Grant RW to Vehicle		North	East	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead
7	NW 38TH AVE			NW PARKER ST					2984301	06/17/11	5:04 PM	Possible Injury	1	0	2	0	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From opposite direction - one left turn - one straight	Passenger Car	Making Left Turn	Did Not Grant RW to Vehicle		East	South	Passenger Car	Going Straight Ahead
7	NW 38TH AVE			NW PARKER ST					2984222	01/06/11	5:43 PM	No Injury	0	0	2	0	At Intersection and Related	Overcast	Dry	Dark-Street Lights On	From opposite direction - one left turn - one straight	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	Did Not Grant RW to Vehicle		East	South	Passenger Car	Going Straight Ahead
7	NW 38TH AVE	3400		NW PARKER ST					2984233	11/12/10	5:10 PM	No Injury	0	0	2	0	At Intersection and Related	Clear or Partly Cloudy	Dry	Dark-Street Lights On	Entering at angle	Passenger Car	Going Straight Ahead	Disregard Stop and Go Light		East	West	Passenger Car	Going Straight Ahead
7	NW 38TH AVE	3400		NW PARKER ST					E042126	02/08/10	4:03 PM	No Injury	0	0	2	0	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	Disregard Stop and Go Light		South	North	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead
7	NW 38TH AVE	3400		NW PARKER ST					E040987	01/28/10	4:08 PM	Possible Injury	1	0	2	0	At Intersection and Related	Overcast	Dry	Dusk	Entering at angle	Passenger Car	Going Straight Ahead	Disregard Stop and Go Light		South	North	School Bus	Going Straight Ahead
7	NW 38TH AVE	3400		NW PARKER ST					2983886	10/29/09	8:27 PM	No Injury	0	0	2	0	At Intersection and Related	Raining	Wet	Dark-Street Lights On	From opposite direction - one left turn - one straight	Not Stated	Making Left Turn	Did Not Grant RW to Vehicle		East	South	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead

SR 500 AT NE 28TH ST

Intersection	PRIMARY TRAFFICWAY	BLOCK NUMBER	MILE POST	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	#FAT	#VEH	#PEDS	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITIONS	LIGHTING CONDITIONS	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 TYPE	VEH 1 ACTION	MV DRIVER CONT CIRC 1 (UNIT 1)	MV DRIVER CONT CIRC 2 (UNIT 1)	VEH 1 COMP DIR FROM	VEH 1 COMP DIR TO	VEHICLE 2 TYPE	VEH 2 ACTION
8	500		13.84						E141628	12/04/11	3:50 AM	No Injury	0	0	1	0	At Intersection and Related	Clear or Partly Cloudy	Dry	Dark-No Street Lights	Building	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	Under Influence of Alcohol	Exceeding Reas. Safe Speed	Southwest	Northeast		
8	500		13.84						3166248	06/27/10	5:12 PM	Possible Injury	1	0	2	0	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	Did Not Grant RW to Vehicle		North	East	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead
8	500		13.84						2750167	05/28/09	12:44 PM	Possible Injury	2	0	2	0	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	Did Not Grant RW to Vehicle		North	East	Passenger Car	Going Straight Ahead
8	500		13.84						3130839	01/29/09	5:55 PM	No Injury	0	0	1	0	At Intersection and Related	Fog or Smog or Smoke	Dry	Dark-No Street Lights	Roadway Ditch	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	Other		West	East		

NE EVERETT ST AT 43RD AVE

Intersection	PRIMARY TRAFFICWAY	BLOCK NUMBER	MILE POST	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	#FAT	#VEH	#PEDS	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITIONS	LIGHTING CONDITIONS	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 TYPE	VEH 1 ACTION	MV DRIVER CONT CIRC 1 (UNIT 1)	MV DRIVER CONT CIRC 2 (UNIT 1)	VEH 1 COMP DIR FROM	VEH 1 COMP DIR TO	VEHICLE 2 TYPE	VEH 2 ACTION
9	500		17.33						3411736	01/28/13	7:25 AM	Possible Injury	2	0	2	0	At Intersection and Related	Raining	Wet	Daylight	From opposite direction - one left turn - one straight	Passenger Car	Making Left Turn	Did Not Grant RW to Vehicle		North	East	Passenger Car	Going Straight Ahead
9	500		17.33						3411731	01/18/13	7:27 AM	Possible Injury	2	0	2	0	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From opposite direction - one left turn - one straight	School Bus	Making Left Turn	Did Not Grant RW to Vehicle		North	East	Passenger Car	Going Straight Ahead
9	500		17.33						E135644	10/25/11	2:30 PM	No Injury	0	0	2	0	At Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Passenger Car	Going Straight Ahead	Follow Too Closely	Driver Distractions Outside Vehicle	North	South	Pickup,Panel Truck or Vanette under 10,000 lb	Stopped for Traffic
9	500		17.33						2984283	01/21/11	7:54 AM	Evident Injury	1	0	2	0	At Intersection and Related	Raining	Wet	Dawn	From opposite direction - one left turn - one straight	Passenger Car	Making Left Turn	Did Not Grant RW to Vehicle		North	East	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead
9	500		17.33						2984210	09/26/10	7:33 PM	No Injury	0	0	1	0	At Intersection and Not Related	Clear or Partly Cloudy	Wet	Dusk	Vehicle Strikes Deer	Passenger Car	Going Straight Ahead	None		South	North		
9	500		17.33						E031616	11/02/09	7:11 AM	Evident Injury	1	0	2	0	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From opposite direction - one left turn - one straight	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead	None		South	North	Passenger Car	Making Left Turn
9	500		17.33						E018209	04/14/09	6:20 PM	No Injury	0	0	2	0	At Intersection and Related	Raining	Wet	Daylight	From opposite direction - one left turn - one straight	Pickup,Panel Truck or Vanette under 10,000 lb	Making Left Turn	Disregard Yield Sign - Flashing Yellow	Inattention	North	East	Pickup,Panel Truck or Vanette under 10,000 lb	Going Straight Ahead

*As of 1/1/2009 citizen reports are no longer being captured (Report # begins with "C")

Appendix C Traffic Counts

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: NE 199th Ave -- NE 58th St

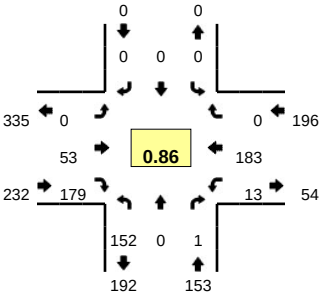
CITY/STATE: Vancouver, WA

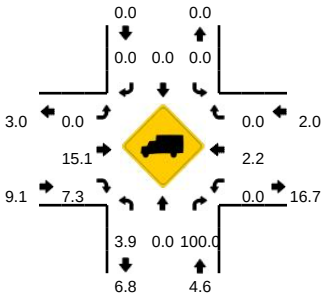
QC JOB #: 12426915

DATE: Thu, Feb 20 2014

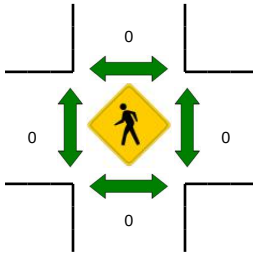
Peak-Hour: 7:10 AM -- 8:10 AM

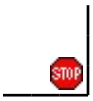
Peak 15-Min: 7:25 AM -- 7:40 AM

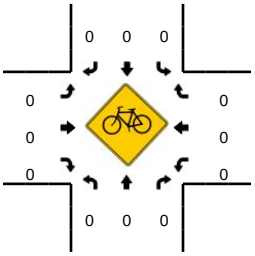


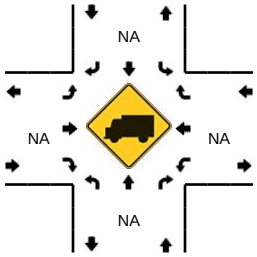


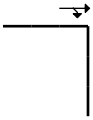
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

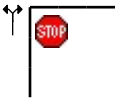


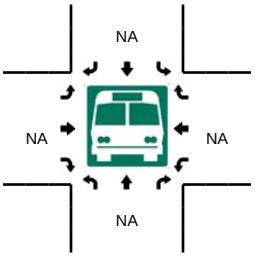












5-Min Count Period Beginning At	NE 199th Ave (Northbound)				NE 199th Ave (Southbound)				NE 58th St (Eastbound)				NE 58th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	7	0	0	0	0	0	0	0	0	2	7	0	0	10	0	0	26	
7:05 AM	10	0	0	0	0	0	0	0	0	3	17	0	1	7	0	0	38	
7:10 AM	12	0	0	0	0	0	0	0	0	7	14	0	1	24	0	0	58	
7:15 AM	8	0	0	0	0	0	0	0	0	4	26	0	1	19	0	0	58	
7:20 AM	14	0	0	0	0	0	0	0	0	3	16	0	2	12	0	0	47	
7:25 AM	8	0	0	0	0	0	0	0	0	4	23	0	2	19	0	0	56	
7:30 AM	12	0	0	0	0	0	0	0	0	4	19	0	1	19	0	0	55	
7:35 AM	15	0	1	0	0	0	0	0	0	8	17	0	2	15	0	0	58	
7:40 AM	9	0	0	0	0	0	0	0	0	2	8	0	0	21	0	0	40	
7:45 AM	27	0	0	0	0	0	0	0	0	2	13	0	0	13	0	0	55	
7:50 AM	14	0	0	0	0	0	0	0	0	2	13	0	1	11	0	0	41	
7:55 AM	12	0	0	0	0	0	0	0	0	5	12	0	1	9	0	0	39	571
8:00 AM	13	0	0	0	0	0	0	0	0	4	7	0	1	8	0	0	33	578
8:05 AM	8	0	0	0	0	0	0	0	0	8	11	0	1	13	0	0	41	581
8:10 AM	10	0	2	0	0	0	0	0	0	2	9	0	1	10	0	0	34	557
8:15 AM	13	0	1	0	0	0	0	0	0	5	10	0	2	8	0	0	39	538
8:20 AM	2	0	1	0	0	0	0	0	0	4	6	0	0	9	0	0	22	513
8:25 AM	11	0	1	0	0	0	0	0	0	1	3	0	0	15	0	0	31	488
8:30 AM	12	0	0	0	0	0	0	0	0	1	6	0	0	9	0	0	28	461
8:35 AM	8	0	0	0	0	0	0	0	0	5	12	0	0	12	0	0	37	440
8:40 AM	10	0	0	0	0	0	0	0	0	2	6	0	1	15	0	0	34	434
8:45 AM	12	0	1	0	0	0	0	0	0	1	6	0	2	12	0	0	34	413
8:50 AM	9	0	0	0	0	0	0	0	0	3	9	0	2	11	0	0	34	406
8:55 AM	6	0	0	0	0	0	0	0	0	7	8	0	0	10	0	0	31	398

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	140	0	4	0	0	0	0	0	0	64	236	0	20	212	0	0	676
Heavy Trucks	12	0	4		0	0	0		0	12	8		0	4	0		40
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/8/2014 11:05 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: NE 199th Ave -- NE 58th St

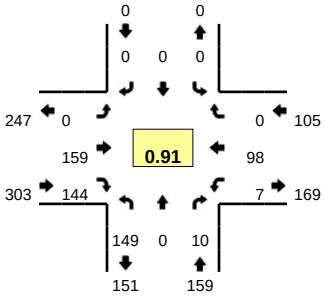
CITY/STATE: Vancouver, WA

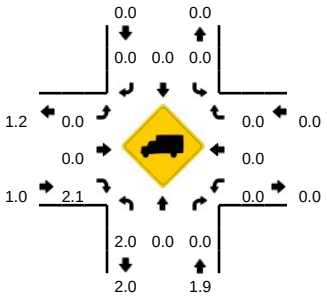
QC JOB #: 12426916

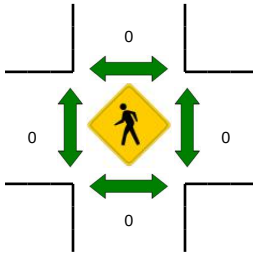
DATE: Thu, Feb 20 2014

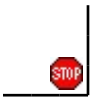
Peak-Hour: 4:30 PM -- 5:30 PM

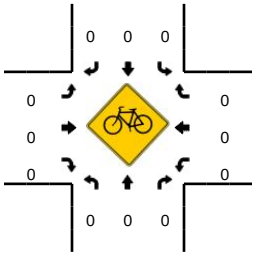
Peak 15-Min: 5:15 PM -- 5:30 PM

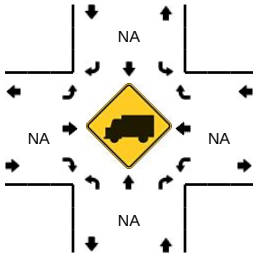


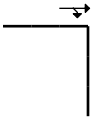


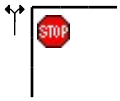


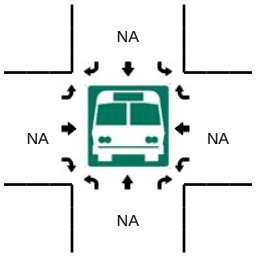












5-Min Count Period Beginning At	NE 199th Ave (Northbound)				NE 199th Ave (Southbound)				NE 58th St (Eastbound)				NE 58th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	9	0	1	0	0	0	0	0	0	21	4	0	0	8	0	0	43	
4:05 PM	9	0	1	0	0	0	0	0	0	14	12	0	0	11	0	0	47	
4:10 PM	9	0	4	0	0	0	0	0	0	14	9	0	1	7	0	0	44	
4:15 PM	13	0	0	0	0	0	0	0	0	16	15	0	1	3	0	0	48	
4:20 PM	13	0	0	0	0	0	0	0	0	12	10	0	0	9	0	0	44	
4:25 PM	4	0	0	0	0	0	0	0	0	13	7	0	0	8	0	0	32	
4:30 PM	12	0	0	0	0	0	0	0	0	15	16	0	1	5	0	0	49	
4:35 PM	9	0	2	0	0	0	0	0	0	12	14	0	1	4	0	0	42	
4:40 PM	18	0	0	0	0	0	0	0	0	16	8	0	2	13	0	0	57	
4:45 PM	8	0	1	0	0	0	0	0	0	9	11	0	0	10	0	0	39	
4:50 PM	8	0	2	0	0	0	0	0	0	16	7	0	1	8	0	0	42	
4:55 PM	12	0	2	0	0	0	0	0	0	13	10	0	0	8	0	0	45	532
5:00 PM	14	0	0	0	0	0	0	0	0	13	8	0	0	6	0	0	41	530
5:05 PM	18	0	1	0	0	0	0	0	0	12	11	0	0	11	0	0	53	536
5:10 PM	6	0	0	0	0	0	0	0	0	14	15	0	0	8	0	0	43	535
5:15 PM	11	0	1	0	0	0	0	0	0	12	14	0	0	10	0	0	48	535
5:20 PM	18	0	0	0	0	0	0	0	0	16	15	0	1	7	0	0	57	548
5:25 PM	15	0	1	0	0	0	0	0	0	11	15	0	1	8	0	0	51	567
5:30 PM	4	0	1	0	0	0	0	0	0	10	16	0	0	11	0	0	42	560
5:35 PM	8	0	1	0	0	0	0	0	0	13	12	0	1	7	0	0	42	560
5:40 PM	16	0	2	0	0	0	0	0	0	11	12	0	1	5	0	0	47	550
5:45 PM	9	0	3	0	0	0	0	0	0	6	12	0	0	7	0	0	37	548
5:50 PM	11	0	0	0	0	0	0	0	0	17	13	0	1	9	0	0	51	557
5:55 PM	6	0	1	0	0	0	0	0	0	10	5	0	0	6	0	0	28	540

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	176	0	8	0	0	0	0	0	0	156	176	0	8	100	0	0	624
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/28/2014 10:39 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

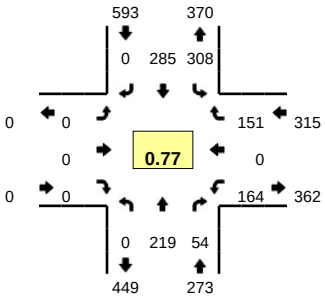
LOCATION: NE 192nd Ave -- NE 13th St

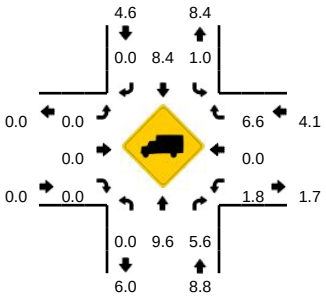
CITY/STATE: Vancouver, WA

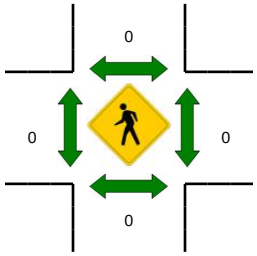
QC JOB #: 12426913

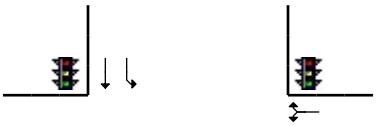
DATE: Thu, Feb 20 2014

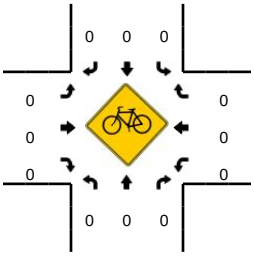
Peak-Hour: 7:10 AM -- 8:10 AM
Peak 15-Min: 7:30 AM -- 7:45 AM

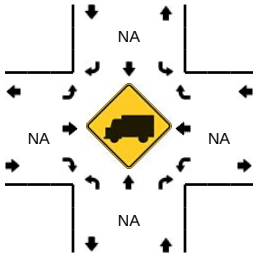


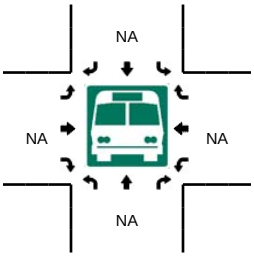












5-Min Count Period Beginning At	NE 192nd Ave (Northbound)				NE 192nd Ave (Southbound)				NE 13th St (Eastbound)				NE 13th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	9	3	0	8	21	0	0	0	0	0	0	5	0	2	0	48	
7:05 AM	0	8	1	0	16	14	0	0	0	0	0	0	11	0	3	0	53	
7:10 AM	0	25	2	0	25	23	0	0	0	0	0	0	13	0	6	0	94	
7:15 AM	0	14	3	0	25	22	0	0	0	0	0	0	14	0	10	0	88	
7:20 AM	0	14	2	0	28	22	0	0	0	0	0	0	10	0	15	0	91	
7:25 AM	0	15	3	0	47	21	0	0	0	0	0	0	15	0	9	0	110	
7:30 AM	0	19	4	0	52	20	0	0	0	0	0	0	12	0	15	0	122	
7:35 AM	0	23	6	0	57	27	0	0	0	0	0	0	10	0	14	0	137	
7:40 AM	0	23	7	0	27	25	0	0	0	0	0	0	20	0	24	0	126	
7:45 AM	0	21	3	0	10	29	0	0	0	0	0	0	17	0	22	0	102	
7:50 AM	0	19	2	0	7	31	0	0	0	0	0	0	16	0	14	0	89	
7:55 AM	0	12	5	0	14	26	0	0	0	0	0	0	14	0	9	0	80	1140
8:00 AM	0	15	6	0	11	22	0	0	0	0	0	0	8	0	7	0	69	1161
8:05 AM	0	19	11	0	5	17	0	0	0	0	0	0	15	0	6	0	73	1181
8:10 AM	0	18	7	0	5	21	0	0	0	0	0	0	10	0	2	0	63	1150
8:15 AM	0	7	4	0	6	14	0	0	0	0	0	0	9	0	3	0	43	1105
8:20 AM	0	12	7	0	6	14	0	0	0	0	0	0	7	0	11	0	57	1071
8:25 AM	0	15	7	0	9	13	0	0	0	0	0	0	8	0	3	0	55	1016
8:30 AM	0	11	3	0	7	19	0	0	0	0	0	0	9	0	2	0	51	945
8:35 AM	0	8	0	0	16	18	0	0	0	0	0	0	17	0	3	0	62	870
8:40 AM	0	11	9	0	18	12	0	0	0	0	0	0	16	0	3	0	69	813
8:45 AM	0	13	9	0	8	17	0	0	0	0	0	0	9	0	7	0	63	774
8:50 AM	0	9	3	0	6	11	0	0	0	0	0	0	16	0	11	0	56	741
8:55 AM	0	14	5	0	6	16	0	0	0	0	0	0	22	0	7	0	70	731

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	260	68	0	544	288	0	0	0	0	0	0	168	0	212	0	1540
Heavy Trucks	0	36	4		0	4	0		0	0	0		0	0	28		72
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/28/2014 10:33 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: NE 192nd Ave -- NE 13th St

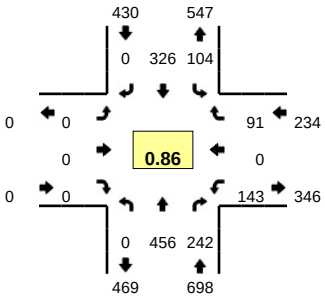
CITY/STATE: Vancouver, WA

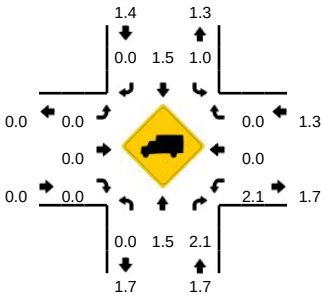
QC JOB #: 12426914

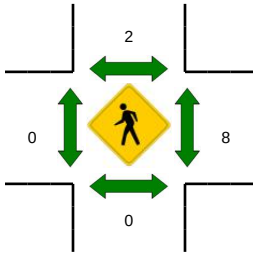
DATE: Thu, Feb 20 2014

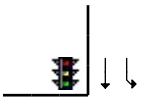
Peak-Hour: 4:50 PM -- 5:50 PM

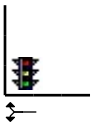
Peak 15-Min: 5:05 PM -- 5:20 PM

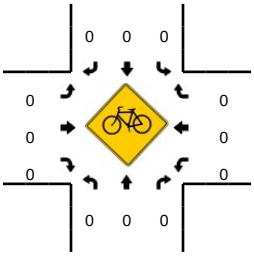


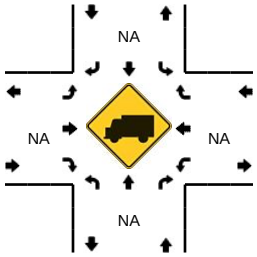


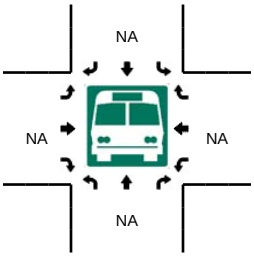












5-Min Count Period Beginning At	NE 192nd Ave (Northbound)				NE 192nd Ave (Southbound)				NE 13th St (Eastbound)				NE 13th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	28	11	0	12	15	0	0	0	0	0	0	10	0	9	0	85	
4:05 PM	0	34	13	0	5	23	0	0	0	0	0	0	10	0	7	0	92	
4:10 PM	0	37	15	0	8	29	0	0	0	0	0	0	13	0	13	0	115	
4:15 PM	0	35	10	0	10	15	0	0	0	0	0	0	4	0	11	0	85	
4:20 PM	0	38	23	0	7	17	0	0	0	0	0	0	7	0	5	0	97	
4:25 PM	0	36	16	0	9	25	0	0	0	0	0	0	14	0	8	0	108	
4:30 PM	0	24	18	0	4	21	0	0	0	0	0	0	7	0	7	0	81	
4:35 PM	0	40	15	0	9	20	0	0	0	0	0	0	12	0	6	0	102	
4:40 PM	0	33	20	0	6	36	0	0	0	0	0	0	10	0	4	0	109	
4:45 PM	0	35	12	0	12	27	0	0	0	0	0	0	16	0	3	0	105	
4:50 PM	0	39	19	0	5	35	0	0	0	0	0	0	11	0	6	0	115	
4:55 PM	0	38	22	0	12	25	0	0	0	0	0	0	15	0	11	0	123	1217
5:00 PM	0	33	27	0	10	22	0	0	0	0	0	0	7	0	6	0	105	1237
5:05 PM	0	48	17	0	8	34	0	0	0	0	0	0	6	0	8	0	121	1266
5:10 PM	0	51	17	0	14	29	0	0	0	0	0	0	22	0	9	0	142	1293
5:15 PM	0	47	21	0	13	23	0	0	0	0	0	0	20	0	10	0	134	1342
5:20 PM	0	41	19	0	7	20	0	0	0	0	0	0	13	0	5	0	105	1350
5:25 PM	0	22	15	0	6	20	0	0	0	0	0	0	17	0	9	0	89	1331
5:30 PM	0	36	19	0	6	33	0	0	0	0	0	0	6	0	7	0	107	1357
5:35 PM	0	27	27	0	7	28	0	0	0	0	0	0	8	0	8	0	105	1360
5:40 PM	0	44	18	0	6	30	0	0	0	0	0	0	8	0	2	0	108	1359
5:45 PM	0	30	21	0	10	27	0	0	0	0	0	0	10	0	10	0	108	1362
5:50 PM	0	20	20	0	7	16	0	0	0	0	0	0	16	0	13	0	92	1339
5:55 PM	0	41	17	0	5	22	0	0	0	0	0	0	14	0	11	0	110	1326

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	584	220	0	140	344	0	0	0	0	0	0	192	0	108	0	1588
Heavy Trucks	0	8	4		4	4	0		0	0	0		4	0	0		24
Pedestrians		0				8				0				8			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/28/2014 10:39 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: NW Friberg St -- NE Goodwin Rd

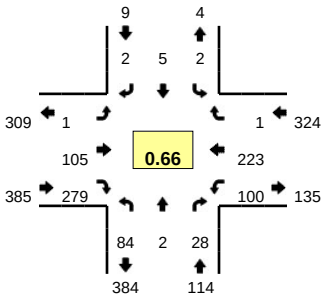
QC JOB #: 12426911

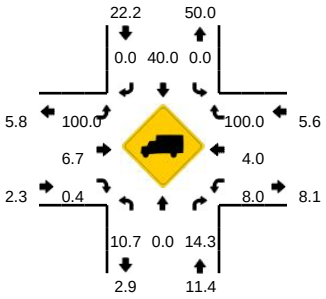
CITY/STATE: Camas, WA

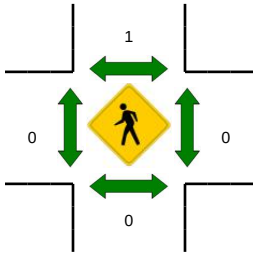
DATE: Tue, Feb 25 2014

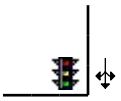
Peak-Hour: 7:05 AM -- 8:05 AM

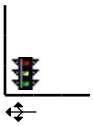
Peak 15-Min: 7:30 AM -- 7:45 AM

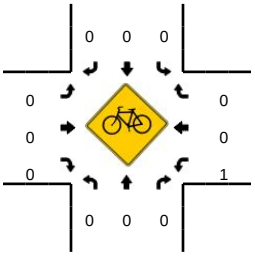


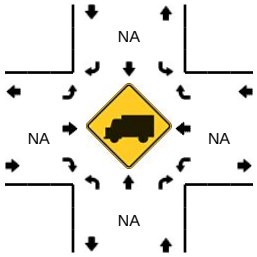


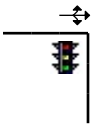


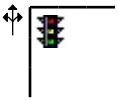


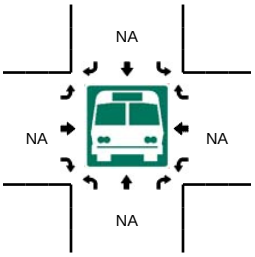












5-Min Count Period Beginning At	NW Friberg St (Northbound)				NW Friberg St (Southbound)				NE Goodwin Rd (Eastbound)				NE Goodwin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	0	2	0	0	2	1	0	0	11	5	0	6	13	0	0	41	
7:05 AM	2	1	1	0	0	0	0	0	0	8	12	0	3	20	0	0	47	
7:10 AM	4	0	3	0	0	1	0	0	0	7	16	0	8	17	0	0	56	
7:15 AM	6	0	1	0	0	1	0	0	1	11	25	0	8	11	0	0	64	
7:20 AM	4	0	0	0	0	1	0	0	0	5	24	0	22	20	0	0	76	
7:25 AM	6	0	6	0	1	1	0	0	0	6	36	0	5	13	0	0	74	
7:30 AM	8	1	3	0	0	0	0	0	0	7	48	0	12	24	0	0	103	
7:35 AM	14	0	7	0	0	0	1	0	0	7	56	0	19	14	0	0	118	
7:40 AM	13	0	3	0	0	0	0	0	0	9	38	0	9	24	0	0	96	
7:45 AM	13	0	2	0	0	0	0	0	0	8	14	0	4	20	0	0	61	
7:50 AM	7	0	0	0	0	1	0	0	0	8	4	0	4	20	1	0	45	
7:55 AM	3	0	1	0	0	0	0	0	0	10	4	0	4	18	0	0	40	821
8:00 AM	4	0	1	0	1	0	1	0	0	19	2	0	2	22	0	0	52	832
8:05 AM	2	0	1	0	0	0	0	0	0	5	2	0	1	16	0	0	27	812
8:10 AM	2	1	0	0	0	0	0	0	2	2	2	0	7	13	0	0	29	785
8:15 AM	0	0	1	0	0	0	0	0	0	5	2	0	2	13	0	0	23	744
8:20 AM	2	1	0	0	0	0	0	0	0	14	2	0	0	18	0	0	37	705
8:25 AM	1	0	1	0	0	1	0	0	0	12	3	0	3	10	0	0	31	662
8:30 AM	1	0	1	0	0	0	0	0	0	11	10	0	3	18	0	0	44	603
8:35 AM	0	0	2	0	0	0	1	0	0	6	6	0	3	17	0	0	35	520
8:40 AM	1	0	2	0	0	0	1	0	0	4	10	0	6	17	0	0	41	465
8:45 AM	2	0	1	0	0	0	0	0	1	10	4	0	1	12	0	0	31	435
8:50 AM	4	0	1	0	0	2	0	0	0	7	1	0	1	20	0	0	36	426
8:55 AM	2	0	2	0	0	0	0	0	0	6	2	0	1	18	0	0	31	417

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	140	4	52	0	0	0	4	0	0	92	568	0	160	248	0	0	1268
Heavy Trucks	16	0	4		0	0	0		0	4	0		0	8	0		32
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/28/2014 10:33 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: NW Friberg St -- NE Goodwin Rd

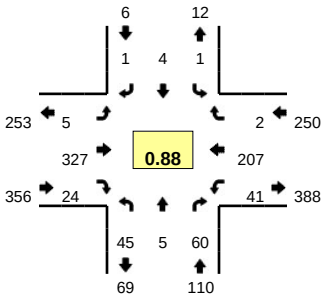
CITY/STATE: Camas, WA

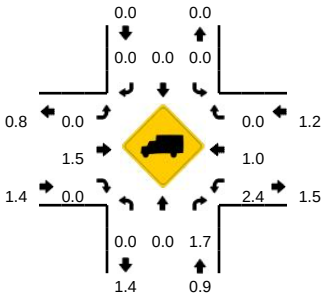
QC JOB #: 12426912

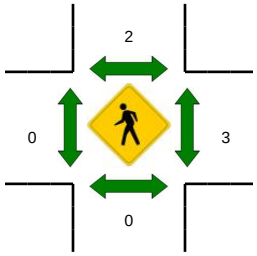
DATE: Tue, Feb 25 2014

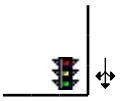
Peak-Hour: 4:45 PM -- 5:45 PM

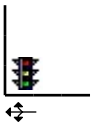
Peak 15-Min: 5:05 PM -- 5:20 PM

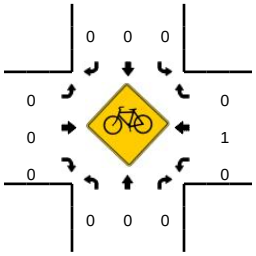


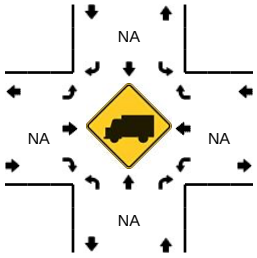


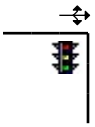


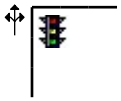


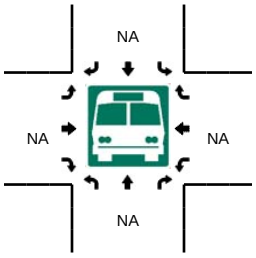












5-Min Count Period Beginning At	NW Friberg St (Northbound)				NW Friberg St (Southbound)				NE Goodwin Rd (Eastbound)				NE Goodwin Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	1	3	0	0	1	0	0	0	20	1	0	5	18	0	0	52	
4:05 PM	6	1	7	0	1	0	0	0	1	26	3	0	3	17	0	0	65	
4:10 PM	9	0	5	0	0	0	1	0	0	25	5	0	0	7	0	0	52	
4:15 PM	3	0	8	0	0	0	0	0	0	16	0	0	1	12	0	0	40	
4:20 PM	2	0	3	0	0	0	1	0	0	19	0	0	2	18	1	0	46	
4:25 PM	4	0	6	0	0	1	1	0	0	20	0	0	3	12	0	0	47	
4:30 PM	0	1	2	0	0	0	0	0	1	21	2	0	4	11	0	0	42	
4:35 PM	4	0	3	0	0	0	0	0	1	18	0	0	1	13	0	0	40	
4:40 PM	4	0	4	0	0	0	0	0	0	24	4	0	2	16	0	0	54	
4:45 PM	2	0	3	0	0	1	1	0	0	23	6	0	5	17	0	0	58	
4:50 PM	5	0	4	0	0	1	0	0	1	20	1	0	3	12	0	0	47	
4:55 PM	3	0	4	0	0	0	0	0	1	26	0	0	3	18	0	0	55	598
5:00 PM	9	0	3	0	0	1	0	0	0	30	4	0	5	11	0	0	63	609
5:05 PM	4	0	7	0	0	0	0	0	1	29	0	0	4	23	0	0	68	612
5:10 PM	5	2	5	0	0	0	0	0	0	32	4	0	3	17	0	0	68	628
5:15 PM	4	1	1	0	1	0	0	0	1	35	2	0	2	20	1	0	68	656
5:20 PM	3	0	7	0	0	0	0	0	1	24	1	0	1	18	0	0	55	665
5:25 PM	5	0	10	0	0	0	0	0	0	26	1	0	2	13	0	0	57	675
5:30 PM	0	1	9	0	0	0	0	0	0	20	1	0	3	14	1	0	49	682
5:35 PM	4	1	1	0	0	1	0	0	0	27	3	0	5	24	0	0	66	708
5:40 PM	1	0	6	0	0	0	0	0	0	35	1	0	5	20	0	0	68	722
5:45 PM	1	1	5	0	0	0	0	0	1	29	0	0	3	14	0	0	54	718
5:50 PM	3	1	8	0	0	0	0	0	0	23	0	0	1	10	0	0	46	717
5:55 PM	1	0	6	0	0	0	0	0	0	16	0	0	2	13	0	0	38	700

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	52	12	52	0	4	0	0	0	8	384	24	0	36	240	4	0	816
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	4	0		12
Pedestrians		0				0				0				8			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/28/2014 10:39 AM

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

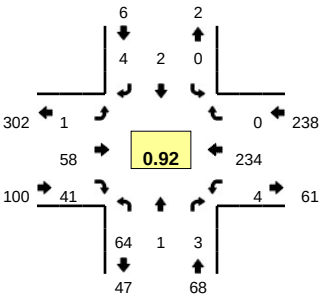
Type of peak hour being reported: Intersection Peak

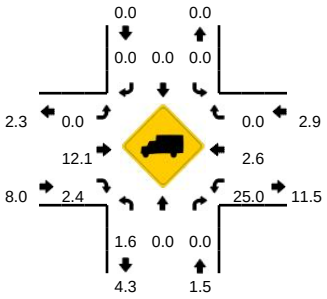
Method for determining peak hour: Total Entering Volume

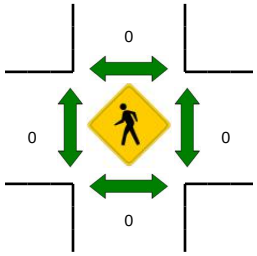
LOCATION: NE 232nd Ave -- NE 28th St
CITY/STATE: Camas, WA

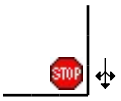
QC JOB #: 12426907
DATE: Thu, Feb 20 2014

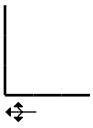
Peak-Hour: 7:05 AM -- 8:05 AM
Peak 15-Min: 7:10 AM -- 7:25 AM

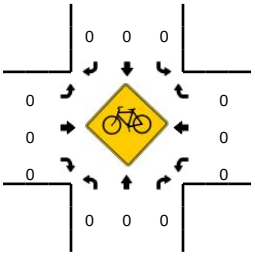


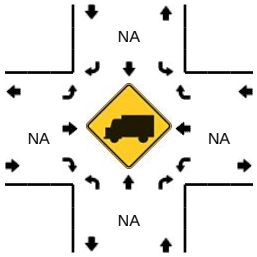


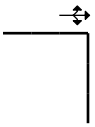


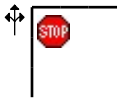


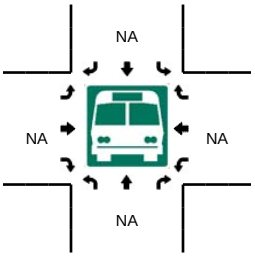












5-Min Count Period Beginning At	NE 232nd Ave (Northbound)				NE 232nd Ave (Southbound)				NE 28th St (Eastbound)				NE 28th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	3	0	0	0	0	0	0	0	0	4	2	0	0	13	0	0	22	
7:05 AM	6	0	0	0	0	0	0	0	0	4	4	0	1	17	0	0	32	
7:10 AM	2	0	0	0	0	0	0	0	0	12	9	0	0	20	0	0	43	
7:15 AM	7	0	0	0	0	0	0	0	0	6	3	0	0	20	0	0	36	
7:20 AM	5	0	1	0	0	0	0	0	0	5	1	0	1	20	0	0	33	
7:25 AM	5	0	0	0	0	2	0	0	0	3	3	0	0	20	0	0	33	
7:30 AM	5	0	0	0	0	0	0	0	0	5	2	0	0	20	0	0	32	
7:35 AM	5	0	0	0	0	0	1	0	0	4	3	0	1	22	0	0	36	
7:40 AM	4	1	1	0	0	0	0	0	0	5	4	0	0	18	0	0	33	
7:45 AM	4	0	0	0	0	0	2	0	0	1	2	0	1	28	0	0	38	
7:50 AM	8	0	0	0	0	0	0	0	1	4	4	0	0	18	0	0	35	
7:55 AM	5	0	0	0	0	0	0	0	0	3	3	0	0	13	0	0	24	397
8:00 AM	8	0	1	0	0	0	1	0	0	6	3	0	0	18	0	0	37	412
8:05 AM	1	0	0	0	0	0	0	0	0	6	0	0	1	16	0	0	24	404
8:10 AM	2	0	0	0	0	0	0	0	0	5	4	0	0	16	0	0	27	388
8:15 AM	1	0	0	0	0	0	0	0	0	6	3	0	0	16	0	0	26	378
8:20 AM	1	0	0	0	0	0	1	0	0	2	1	0	0	12	0	0	17	362
8:25 AM	5	0	2	0	0	0	0	0	0	5	1	0	0	16	0	0	29	358
8:30 AM	1	0	0	0	0	0	3	0	0	8	1	0	0	18	0	0	31	357
8:35 AM	4	0	0	0	0	0	1	0	0	6	3	0	0	13	0	0	27	348
8:40 AM	1	0	0	0	0	0	0	0	0	3	1	0	0	22	0	0	27	342
8:45 AM	3	0	0	0	0	0	0	0	0	12	3	0	0	21	0	0	39	343
8:50 AM	2	0	1	0	0	0	1	0	0	6	0	0	0	19	0	0	29	337
8:55 AM	2	0	0	0	0	0	0	0	0	3	2	0	2	20	0	0	29	342

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	0	4	0	0	0	0	0	0	92	52	0	4	240	0	0	448
Heavy Trucks	0	0	0		0	0	0		0	16	0		0	0	0		16
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/28/2014 10:33 AM

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

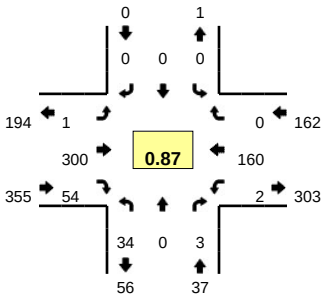
Type of peak hour being reported: Intersection Peak

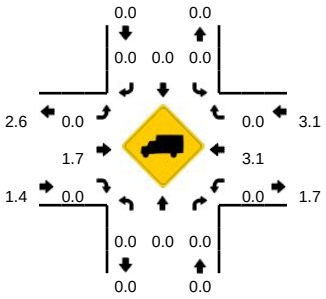
Method for determining peak hour: Total Entering Volume

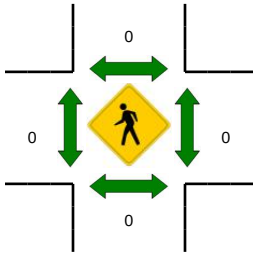
LOCATION: NE 232nd Ave -- NE 28th St
CITY/STATE: Camas, WA

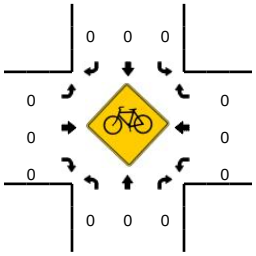
QC JOB #: 12426908
DATE: Thu, Feb 20 2014

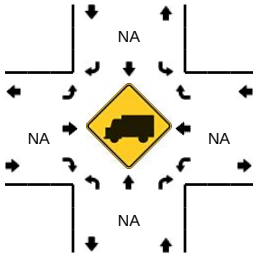
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:15 PM -- 5:30 PM

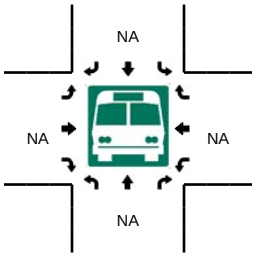












5-Min Count Period Beginning At	NE 232nd Ave (Northbound)				NE 232nd Ave (Southbound)				NE 28th St (Eastbound)				NE 28th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	0	0	0	0	0	0	0	0	17	5	0	0	11	0	0	37	
4:05 PM	0	0	0	0	0	0	0	0	0	19	3	0	0	18	0	0	40	
4:10 PM	6	0	0	0	0	0	0	0	1	22	2	0	0	11	0	0	42	
4:15 PM	5	0	1	0	0	0	0	0	0	18	1	0	0	12	0	0	37	
4:20 PM	2	0	1	0	0	0	0	0	0	18	7	0	1	8	0	0	37	
4:25 PM	4	0	0	0	0	0	0	0	1	29	3	0	0	8	0	0	45	
4:30 PM	5	0	0	0	1	0	0	0	0	19	3	0	1	12	0	0	41	
4:35 PM	2	0	0	0	0	0	1	0	0	23	2	0	1	8	0	0	37	
4:40 PM	1	0	1	0	0	0	0	0	2	23	5	0	1	15	0	0	48	
4:45 PM	4	0	0	0	0	0	1	0	0	18	3	0	0	7	0	0	33	
4:50 PM	2	0	1	0	0	0	0	0	1	19	5	0	1	21	0	0	50	
4:55 PM	3	0	0	0	0	0	0	0	0	21	1	0	0	10	0	0	35	482
5:00 PM	3	0	0	0	0	0	0	0	1	27	4	0	0	15	0	0	50	495
5:05 PM	2	0	0	0	0	0	0	0	0	26	3	0	0	15	0	0	46	501
5:10 PM	3	0	0	0	0	0	0	0	0	20	3	0	0	19	0	0	45	504
5:15 PM	5	0	0	0	0	0	0	0	0	25	10	0	0	11	0	0	51	518
5:20 PM	2	0	0	0	0	0	0	0	0	38	4	0	0	11	0	0	55	536
5:25 PM	2	0	1	0	0	0	0	0	0	27	5	0	0	19	0	0	54	545
5:30 PM	5	0	0	0	0	0	0	0	0	19	3	0	0	7	0	0	34	538
5:35 PM	0	0	2	0	0	0	0	0	0	26	3	0	1	10	0	0	42	543
5:40 PM	3	0	0	0	0	0	0	0	0	21	5	0	0	15	0	0	44	539
5:45 PM	3	0	0	0	0	0	0	0	0	23	6	0	0	12	0	0	44	550
5:50 PM	2	0	0	0	0	0	0	0	0	25	4	0	0	14	0	0	45	545
5:55 PM	4	0	0	0	0	0	0	0	0	23	4	0	1	12	0	0	44	554

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	36	0	4	0	0	0	0	0	0	360	76	0	0	164	0	0	640
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	0	0		4
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/28/2014 10:39 AM

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

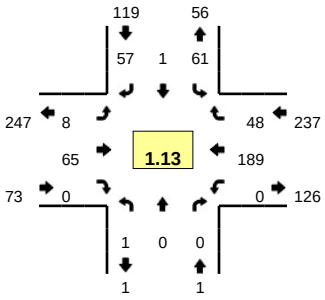
Type of peak hour being reported: System Peak

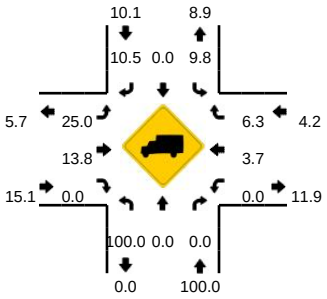
Method for determining peak hour: Total Entering Volume

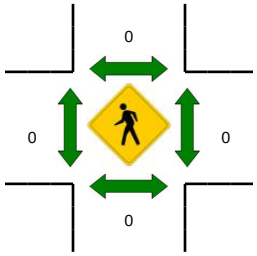
LOCATION: NE 242nd Ave -- NE 28th St
CITY/STATE: Camas, WA

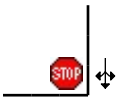
QC JOB #: 12470705
DATE: Thu, Apr 03 2014

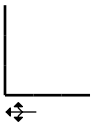
Peak-Hour: 7:05 AM -- 8:05 AM
Peak 15-Min: 7:40 AM -- 7:55 AM

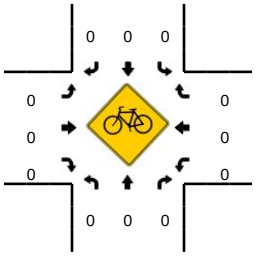


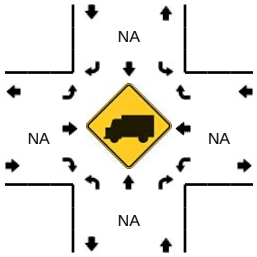


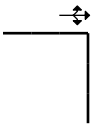


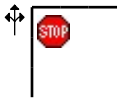


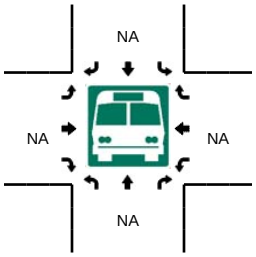












5-Min Count Period Beginning At	NE 242nd Ave (Northbound)				NE 242nd Ave (Southbound)				NE 28th St (Eastbound)				NE 28th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	3	0	1	0	1	1	1	0	0	11	0	0	18	
7:05 AM	0	0	0	0	2	0	6	0	1	14	0	0	0	24	2	0	49	
7:10 AM	0	0	0	0	7	0	1	0	1	4	0	0	0	12	3	0	28	
7:15 AM	0	0	0	0	7	1	6	0	0	3	0	0	0	12	5	0	34	
7:20 AM	0	0	0	0	9	0	4	0	0	1	0	0	0	15	6	0	35	
7:25 AM	0	0	0	0	9	0	3	0	0	8	0	0	0	17	3	0	40	
7:30 AM	1	0	0	0	9	0	6	0	2	11	0	0	0	29	7	0	65	
7:35 AM	0	0	0	0	2	0	5	0	0	2	0	0	0	15	4	0	28	
7:40 AM	0	0	0	0	7	0	7	0	0	5	0	0	0	8	2	0	29	
7:45 AM	0	0	0	0	4	0	5	0	0	6	0	0	0	18	5	0	38	
7:50 AM	0	0	0	0	1	0	4	0	1	3	0	0	0	17	2	0	28	
7:55 AM	0	0	0	0	3	0	6	0	2	2	0	0	0	10	4	0	27	419
8:00 AM	0	0	0	0	1	0	4	0	1	6	0	0	0	12	5	0	29	430
8:05 AM	0	0	0	0	1	0	3	0	0	7	0	0	0	20	1	0	32	413
8:10 AM	0	0	0	0	4	0	3	0	0	7	0	0	0	14	2	0	30	415
8:15 AM	0	0	0	0	3	0	6	0	0	3	0	0	0	7	1	0	20	401
8:20 AM	0	0	0	0	5	0	8	0	2	4	0	0	0	12	1	0	32	398
8:25 AM	0	0	0	0	3	0	3	0	1	3	0	1	0	19	3	0	33	391
8:30 AM	0	0	0	0	1	0	4	0	0	4	0	0	0	14	2	0	25	351
8:35 AM	0	0	0	0	3	0	5	0	1	9	0	0	0	12	3	0	33	356
8:40 AM	0	0	0	0	5	0	7	0	2	3	0	0	0	13	2	0	32	359
8:45 AM	0	0	0	0	4	0	2	0	2	6	0	0	0	12	3	0	29	350
8:50 AM	0	0	0	0	4	0	7	0	0	3	0	0	0	19	4	0	37	359
8:55 AM	0	0	0	0	4	0	3	0	0	2	0	0	0	14	3	0	26	358

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	48	0	64	0	4	56	0	0	0	172	36	0	380
Heavy Trucks	0	0	0		4	0	8		0	4	0		0	0	0		16
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/7/2014 4:44 PM

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

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: NE 242nd Ave -- NE 28th St

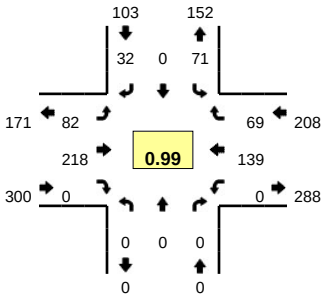
CITY/STATE: Camas, WA

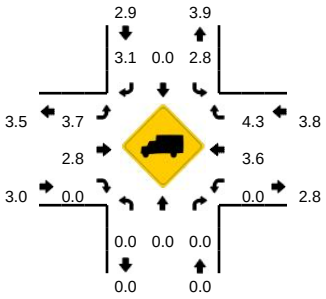
QC JOB #: 12470706

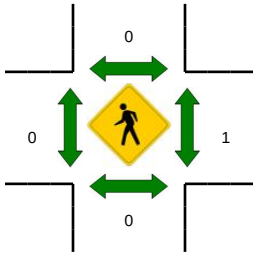
DATE: Wed, Apr 02 2014

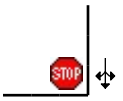
Peak-Hour: 4:50 PM -- 5:50 PM

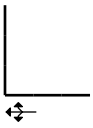
Peak 15-Min: 5:30 PM -- 5:45 PM

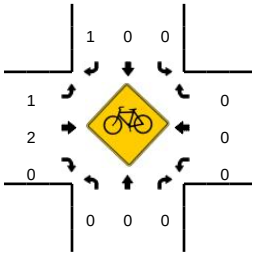


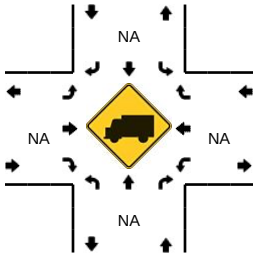


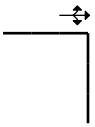


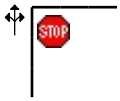


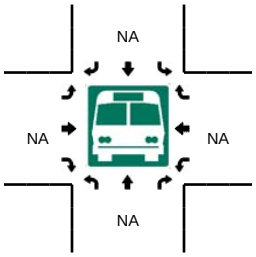












5-Min Count Period Beginning At	NE 242nd Ave (Northbound)				NE 242nd Ave (Southbound)				NE 28th St (Eastbound)				NE 28th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	5	0	3	0	6	8	0	0	0	11	8	0	41	
4:05 PM	0	0	0	0	5	0	4	0	4	11	0	0	0	11	5	0	40	
4:10 PM	0	0	0	0	3	0	2	0	9	17	0	0	0	15	3	0	49	
4:15 PM	0	0	0	0	13	0	5	0	3	22	0	0	0	15	3	0	61	
4:20 PM	0	0	0	0	6	0	5	0	8	17	1	0	0	11	4	0	52	
4:25 PM	1	0	0	0	7	0	0	1	2	24	0	0	1	11	6	0	53	
4:30 PM	0	0	0	0	6	0	2	0	7	14	0	0	0	7	4	0	40	
4:35 PM	0	0	0	0	9	0	2	0	3	21	0	0	1	13	6	0	55	
4:40 PM	0	0	0	0	10	0	6	0	6	8	0	0	0	11	10	0	51	
4:45 PM	0	0	0	0	6	0	3	0	9	17	0	0	0	12	5	0	52	
4:50 PM	0	0	0	0	5	0	5	0	7	13	0	0	0	9	10	0	49	
4:55 PM	0	0	0	0	9	0	5	1	6	19	0	0	0	9	7	0	56	599
5:00 PM	0	0	0	0	7	0	1	0	11	16	0	0	0	10	2	0	47	605
5:05 PM	0	0	0	0	6	0	2	0	7	19	0	0	0	12	10	0	56	621
5:10 PM	0	0	0	0	3	0	0	0	3	14	0	0	0	16	6	0	42	614
5:15 PM	0	0	0	0	6	0	4	0	2	25	0	0	0	12	6	0	55	608
5:20 PM	0	0	0	0	2	0	3	0	3	16	0	0	0	12	6	0	42	598
5:25 PM	0	0	0	0	4	0	5	0	11	18	0	0	0	9	8	0	55	600
5:30 PM	0	0	0	0	5	0	0	0	9	14	0	0	0	13	3	0	44	604
5:35 PM	0	0	0	0	6	0	1	0	6	17	0	0	0	14	5	0	49	598
5:40 PM	0	0	0	0	7	0	3	0	9	26	0	0	0	12	4	0	61	608
5:45 PM	0	0	0	0	10	0	3	0	8	21	0	0	0	11	2	0	55	611
5:50 PM	0	0	0	0	3	0	3	0	7	18	0	0	0	9	9	0	49	611
5:55 PM	0	0	0	0	7	0	1	0	5	15	0	0	0	8	3	0	39	594

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	72	0	16	0	96	228	0	0	0	156	48	0	616
Heavy Trucks	0	0	0		0	0	0		4	8	0		0	0	4		16
Pedestrians		0				0				0				4			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/7/2014 4:44 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 St -- NW Lake Rd

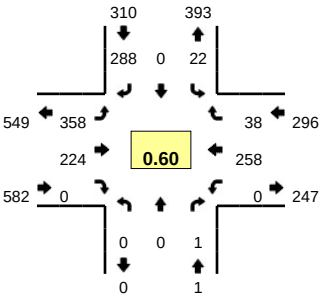
CITY/STATE: Vancouver, WA

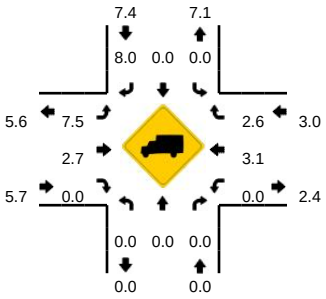
QC JOB #: 12426905

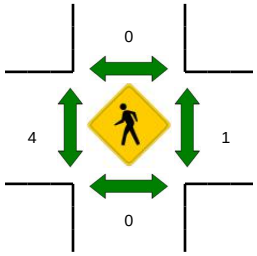
DATE: Thu, Feb 20 2014

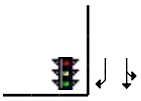
Peak-Hour: 7:05 AM -- 8:05 AM

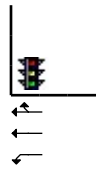
Peak 15-Min: 7:30 AM -- 7:45 AM

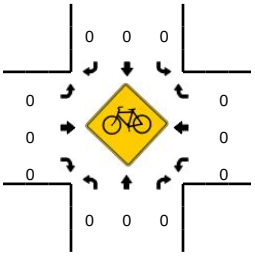


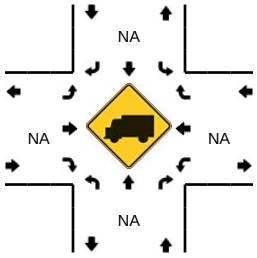


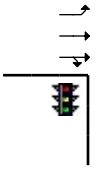


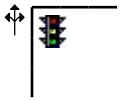


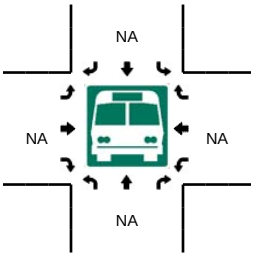












5-Min Count Period Beginning At	NW Friberg St (Northbound)				NW Friberg St (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	1	0	0	0	8	13	0	0	0	17	3	0	42	
7:05 AM	0	0	0	0	2	0	4	0	12	16	0	0	0	12	6	0	52	
7:10 AM	0	0	0	0	0	0	3	0	17	24	0	2	0	19	1	0	66	
7:15 AM	0	0	1	0	1	0	9	0	25	9	0	0	0	14	0	0	59	
7:20 AM	0	0	0	0	1	0	11	0	32	4	0	0	0	19	4	0	71	
7:25 AM	0	0	0	0	2	0	38	0	53	10	0	0	0	9	2	0	114	
7:30 AM	0	0	0	0	0	0	46	0	71	15	0	1	0	18	6	0	157	
7:35 AM	0	0	0	0	7	0	59	0	60	17	0	0	0	19	5	0	167	
7:40 AM	0	0	0	0	1	0	56	0	56	33	0	0	0	21	3	0	170	
7:45 AM	0	0	0	0	1	0	41	0	15	22	0	0	0	39	4	0	122	
7:50 AM	0	0	0	0	3	0	9	0	8	28	0	0	0	36	2	0	86	
7:55 AM	0	0	0	0	0	0	7	0	2	21	0	0	0	29	3	0	62	1168
8:00 AM	0	0	0	0	4	0	5	0	4	25	0	0	0	23	2	0	63	1189
8:05 AM	0	0	0	0	3	0	3	0	6	6	0	0	0	20	1	0	39	1176
8:10 AM	0	0	0	0	2	0	3	0	2	22	0	0	0	19	0	0	48	1158
8:15 AM	0	0	0	0	2	0	4	0	3	11	0	0	0	17	2	0	39	1138
8:20 AM	0	0	0	0	1	0	2	0	5	12	0	0	0	21	3	0	44	1111
8:25 AM	0	0	0	0	1	0	2	0	2	13	0	0	0	16	0	0	34	1031
8:30 AM	0	0	0	0	0	0	0	0	6	14	0	0	0	14	0	0	34	908
8:35 AM	0	0	0	0	2	0	2	0	14	13	0	0	0	19	1	0	51	792
8:40 AM	0	0	0	0	1	0	5	0	8	11	0	0	0	15	0	0	40	662
8:45 AM	0	0	0	0	4	0	5	0	3	20	0	0	0	25	2	0	59	599
8:50 AM	1	0	0	0	2	0	5	0	3	15	0	0	0	31	2	0	59	572
8:55 AM	0	0	0	0	2	0	6	0	5	14	0	0	0	30	0	0	57	567

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	32	0	644	0	748	260	0	4	0	232	56	0	1976
Heavy Trucks	0	0	0		0	0	56		0	8	0		0	4	0		68
Pedestrians		0				0				12				4			16
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/28/2014 10:33 AM

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

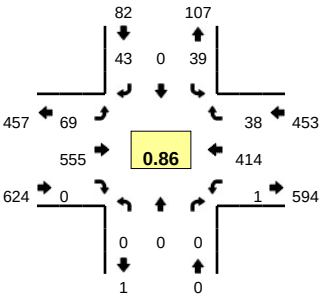
Type of peak hour being reported: Intersection Peak

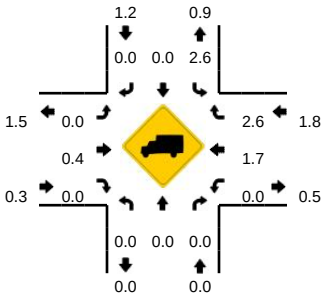
Method for determining peak hour: Total Entering Volume

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

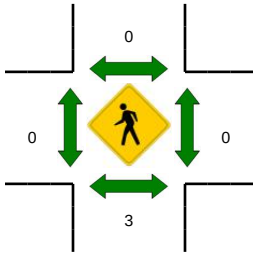
QC JOB #: 12426906
DATE: Tue, Feb 25 2014

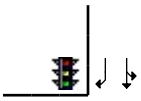
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:00 PM -- 5:15 PM

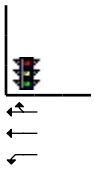


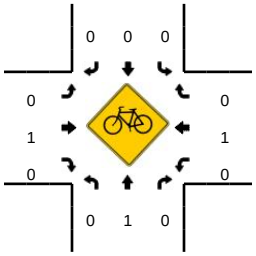


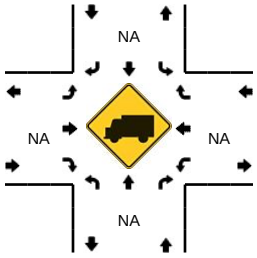
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

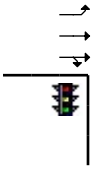


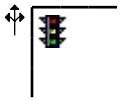


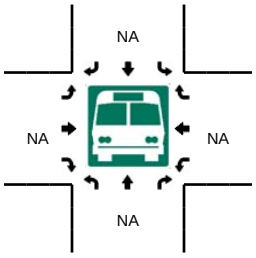












5-Min Count Period Beginning At	NW Friberg St (Northbound)				NW Friberg St (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	1	0	12	0	4	31	0	0	0	53	5	0	106	
4:05 PM	0	0	0	0	1	0	12	0	5	35	0	0	0	45	3	0	101	
4:10 PM	0	1	0	0	2	0	6	0	10	34	1	0	0	33	1	0	88	
4:15 PM	0	0	0	0	0	0	8	0	6	36	0	0	0	36	1	0	87	
4:20 PM	0	0	0	0	0	0	6	0	5	29	0	0	0	26	4	0	70	
4:25 PM	0	0	0	0	0	0	6	0	5	31	0	0	0	32	4	0	78	
4:30 PM	0	0	0	0	1	0	7	0	2	38	0	0	0	26	2	0	76	
4:35 PM	0	0	0	0	1	0	4	0	6	35	0	0	0	26	2	0	74	
4:40 PM	0	0	0	0	2	0	3	0	2	38	0	1	0	35	2	0	83	
4:45 PM	0	0	0	0	5	0	2	0	2	51	0	0	1	32	1	0	94	
4:50 PM	0	0	0	0	7	0	4	0	7	40	0	0	0	32	4	0	94	
4:55 PM	0	0	0	0	1	0	4	0	5	54	0	0	0	32	2	0	98	1049
5:00 PM	0	0	0	0	3	0	8	0	2	46	0	0	0	31	5	0	95	1038
5:05 PM	0	0	0	0	3	0	5	0	6	44	0	0	0	77	4	0	139	1076
5:10 PM	0	0	0	0	3	0	2	0	8	44	0	0	0	39	6	0	102	1090
5:15 PM	0	0	0	0	2	0	3	0	5	43	0	0	0	24	4	0	81	1084
5:20 PM	0	0	0	0	2	0	3	0	9	48	0	0	0	34	0	0	96	1110
5:25 PM	0	0	0	0	2	0	4	0	8	58	0	0	0	29	6	0	107	1139
5:30 PM	0	0	0	0	2	0	1	0	7	42	0	0	0	32	2	0	86	1149
5:35 PM	0	0	0	0	6	0	2	0	2	35	0	0	0	24	2	0	71	1146
5:40 PM	0	0	0	0	3	0	5	0	8	50	0	0	0	28	2	0	96	1159
5:45 PM	0	0	0	0	2	0	3	0	7	51	0	0	0	29	2	0	94	1159
5:50 PM	0	0	0	0	1	0	4	0	10	26	0	0	0	34	3	0	78	1143
5:55 PM	0	0	0	0	0	0	4	0	3	51	0	0	0	28	2	0	88	1133

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	36	0	60	0	64	536	0	0	0	588	60	0	1344
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	8	0		12
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	1	0		0	1	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/28/2014 10:39 AM

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

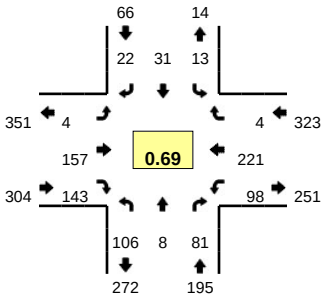
Type of peak hour being reported: Intersection Peak

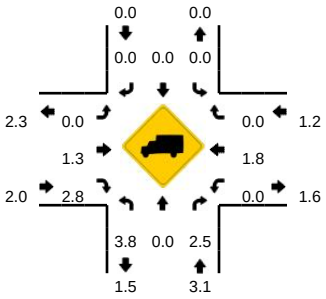
Method for determining peak hour: Total Entering Volume

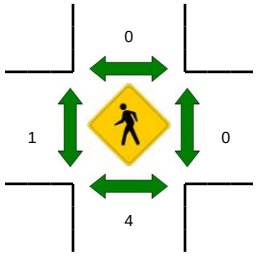
LOCATION: NW Parker St -- NW Lake Rd
CITY/STATE: Camas, WA

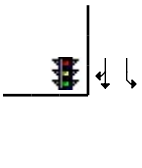
QC JOB #: 12426903
DATE: Thu, Feb 20 2014

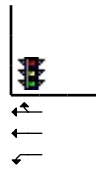
Peak-Hour: 7:10 AM -- 8:10 AM
Peak 15-Min: 7:40 AM -- 7:55 AM

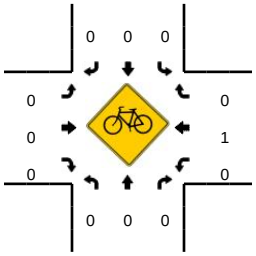


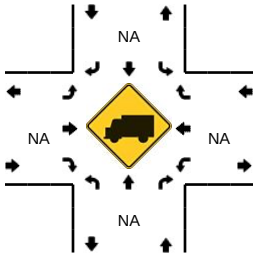


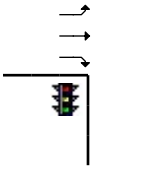


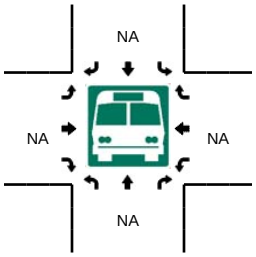












5-Min Count Period Beginning At	NW Parker St (Northbound)				NW Parker St (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	10	0	1	0	0	0	0	0	1	10	2	0	3	12	0	0	39	
7:05 AM	11	0	5	0	1	2	2	0	1	10	5	0	1	9	1	0	48	
7:10 AM	6	0	9	0	3	2	2	0	0	17	4	0	3	12	0	0	58	
7:15 AM	4	0	2	0	2	1	2	0	1	14	3	0	6	16	0	0	51	
7:20 AM	9	0	2	0	0	3	0	0	0	8	6	0	8	17	0	0	53	
7:25 AM	5	1	1	0	0	1	3	0	0	6	10	0	5	14	0	0	46	
7:30 AM	9	0	4	0	1	4	0	0	0	11	7	0	7	20	1	0	64	
7:35 AM	10	0	4	0	0	2	1	0	0	14	14	0	8	15	1	0	69	
7:40 AM	10	0	11	0	1	6	4	0	0	10	21	1	15	25	1	0	105	
7:45 AM	14	1	13	0	0	2	2	0	1	19	16	0	14	23	0	0	105	
7:50 AM	13	2	16	0	1	3	0	0	0	15	20	0	8	32	0	0	110	
7:55 AM	11	3	9	0	2	2	2	0	0	16	15	0	10	18	0	0	88	836
8:00 AM	7	1	8	0	2	1	3	0	0	15	21	0	6	19	1	0	84	881
8:05 AM	8	0	2	0	1	4	3	0	0	12	6	1	8	10	0	0	55	888
8:10 AM	2	1	2	0	1	0	1	0	0	14	11	0	4	19	0	0	55	885
8:15 AM	5	0	1	0	1	2	1	0	0	12	6	0	4	17	1	0	50	884
8:20 AM	5	0	4	0	1	3	2	0	0	7	6	0	2	18	0	0	48	879
8:25 AM	1	0	6	0	1	0	2	0	0	10	3	0	2	11	0	0	36	869
8:30 AM	1	0	1	0	0	1	2	0	1	8	9	0	3	18	0	0	44	849
8:35 AM	8	0	2	0	0	3	0	0	1	9	8	0	6	16	0	0	53	833
8:40 AM	4	1	5	0	0	1	1	0	0	7	6	0	3	15	1	0	44	772
8:45 AM	12	0	1	0	1	1	2	0	1	16	4	0	4	16	0	0	58	725
8:50 AM	11	0	3	0	1	0	2	0	0	13	4	0	8	22	0	0	64	679
8:55 AM	8	0	4	0	0	1	2	0	1	12	6	0	2	32	1	0	69	660

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	148	12	160	0	8	44	24	0	4	176	228	4	148	320	4	0	1280
Heavy Trucks	8	0	4		0	0	0		0	0	4		0	4	0		20
Pedestrians		8				0				0				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/28/2014 10:33 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: NW Parker St -- NW Lake Rd

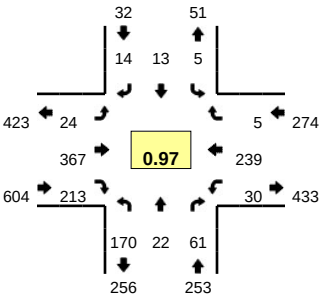
CITY/STATE: Camas, WA

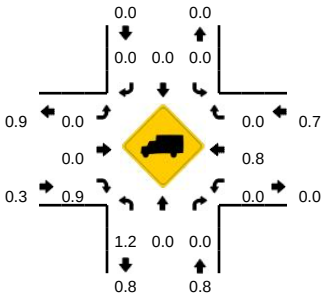
QC JOB #: 12426904

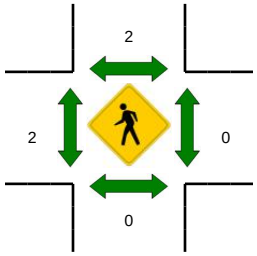
DATE: Thu, Feb 20 2014

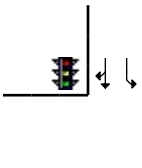
Peak-Hour: 4:45 PM -- 5:45 PM

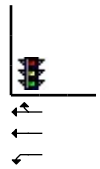
Peak 15-Min: 5:30 PM -- 5:45 PM

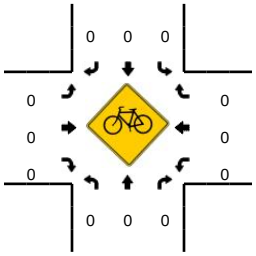


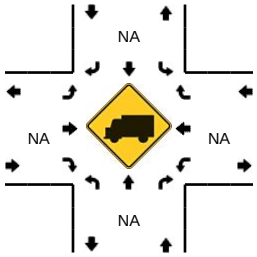


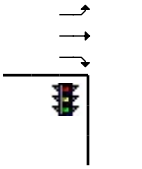


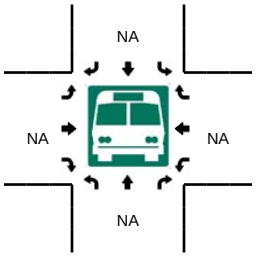












5-Min Count Period Beginning At	NW Parker St (Northbound)				NW Parker St (Southbound)				NW Lake Rd (Eastbound)				NW Lake Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	11	3	3	0	3	1	2	0	0	27	8	0	5	18	0	0	81	
4:05 PM	9	1	7	0	1	5	1	0	2	27	7	0	1	26	0	0	87	
4:10 PM	9	1	6	0	0	0	1	0	2	24	9	1	3	20	0	0	76	
4:15 PM	7	2	7	0	0	1	1	0	2	22	7	0	5	14	2	0	70	
4:20 PM	6	4	5	0	0	0	1	0	2	33	10	0	5	18	1	0	85	
4:25 PM	7	2	2	0	0	0	1	0	1	32	9	2	2	20	0	0	78	
4:30 PM	9	2	1	0	0	0	2	0	0	24	12	0	2	21	0	0	73	
4:35 PM	7	0	2	0	0	0	2	0	1	34	14	0	6	25	0	0	91	
4:40 PM	6	1	3	0	0	2	1	0	1	26	7	0	3	26	0	0	76	
4:45 PM	9	1	7	0	0	1	2	0	2	31	16	0	3	16	0	0	88	
4:50 PM	24	1	1	0	0	1	1	0	2	34	22	0	0	16	0	0	102	
4:55 PM	17	3	5	0	1	2	0	0	5	31	15	0	3	14	1	0	97	1004
5:00 PM	12	1	4	0	2	1	5	0	3	35	11	0	0	24	0	0	98	1021
5:05 PM	11	1	3	0	0	1	0	0	1	24	17	0	1	29	0	0	88	1022
5:10 PM	17	2	8	0	0	0	1	0	4	26	20	0	5	19	0	0	102	1048
5:15 PM	18	2	3	0	0	0	0	0	3	38	10	0	0	17	0	0	91	1069
5:20 PM	13	3	9	0	0	1	1	0	1	23	20	0	3	24	1	0	99	1083
5:25 PM	15	2	4	0	1	3	1	0	0	37	15	0	3	14	2	0	97	1102
5:30 PM	10	4	6	0	0	0	3	0	1	32	22	0	3	21	1	0	103	1132
5:35 PM	13	2	4	0	0	2	0	0	0	28	22	0	1	25	0	0	97	1138
5:40 PM	11	0	7	0	1	1	0	0	2	28	23	0	8	20	0	0	101	1163
5:45 PM	16	1	3	0	0	0	2	0	0	22	18	0	2	20	1	0	85	1160
5:50 PM	18	1	3	0	0	0	4	0	2	24	8	0	1	20	0	0	81	1139
5:55 PM	18	2	3	0	1	1	0	0	5	30	8	1	3	17	0	0	89	1131

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	136	24	68	0	4	12	12	0	12	352	268	0	48	264	4	0	1204
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	4	0		4
Pedestrians		0				0				8				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/28/2014 10:39 AM

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

Type of peak hour being reported: Intersection Peak

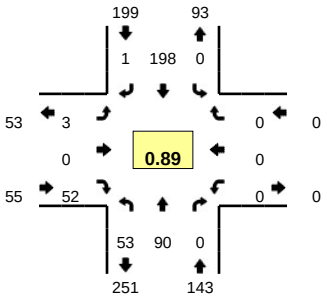
Method for determining peak hour: Total Entering Volume

LOCATION: NE Everett St -- SE Leadbetter Rd

CITY/STATE: Camas, WA

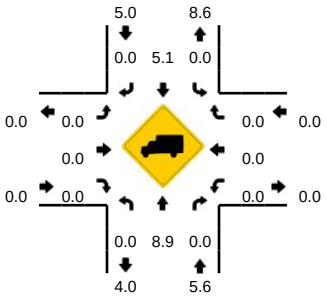
QC JOB #: 12426901

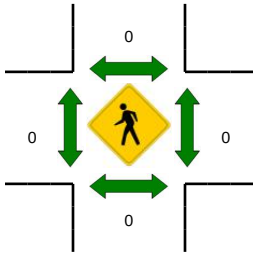
DATE: Thu, Feb 20 2014

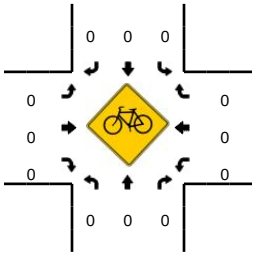


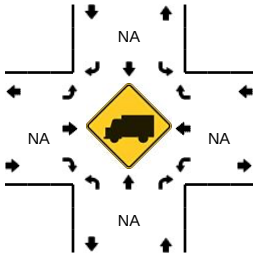
Peak-Hour: 7:05 AM -- 8:05 AM

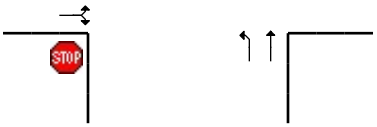
Peak 15-Min: 7:10 AM -- 7:25 AM

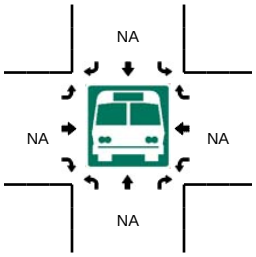












5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				SE Leadbetter Rd (Eastbound)				SE Leadbetter Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	5	8	0	0	0	7	0	0	0	0	3	0	0	0	0	0	23	
7:05 AM	1	6	0	0	0	15	0	0	1	0	4	0	0	0	0	0	27	
7:10 AM	6	7	0	0	0	20	0	0	0	0	8	0	0	0	0	0	41	
7:15 AM	6	4	0	0	0	12	0	0	1	0	4	0	0	0	0	0	27	
7:20 AM	4	5	0	1	0	28	0	0	0	0	5	0	0	0	0	0	43	
7:25 AM	5	7	0	0	0	12	0	0	1	0	4	0	0	0	0	0	29	
7:30 AM	4	6	0	0	0	12	1	0	0	0	4	0	0	0	0	0	27	
7:35 AM	3	9	0	0	0	20	0	0	0	0	2	0	0	0	0	0	34	
7:40 AM	5	10	0	0	0	15	0	0	0	0	3	0	0	0	0	0	33	
7:45 AM	8	4	0	0	0	23	0	0	0	0	6	0	0	0	0	0	41	
7:50 AM	2	12	0	0	0	17	0	0	0	0	5	0	0	0	0	0	36	
7:55 AM	5	12	0	0	0	14	0	0	0	0	1	0	0	0	0	0	32	393
8:00 AM	3	8	0	0	0	10	0	0	0	0	6	0	0	0	0	0	27	397
8:05 AM	1	14	0	0	0	6	0	0	0	0	4	0	0	0	0	0	25	395
8:10 AM	0	6	0	0	0	8	0	0	0	0	5	0	0	0	0	0	19	373
8:15 AM	2	5	0	0	0	15	0	0	1	0	1	0	0	0	0	0	24	370
8:20 AM	2	8	0	0	0	7	0	0	1	0	2	0	0	0	0	0	20	347
8:25 AM	0	11	0	0	0	15	0	0	0	0	3	0	0	0	0	0	29	347
8:30 AM	1	17	0	0	0	13	0	0	0	0	1	0	0	0	0	0	32	352
8:35 AM	1	17	0	0	0	18	0	0	1	0	1	0	0	0	0	0	38	356
8:40 AM	1	20	0	0	0	23	0	0	2	0	2	0	0	0	0	0	48	371
8:45 AM	3	6	0	0	0	32	0	0	1	0	2	0	0	0	0	0	44	374
8:50 AM	2	21	0	0	0	17	0	0	1	0	4	0	0	0	0	0	45	383
8:55 AM	1	3	0	0	0	20	1	0	0	0	2	0	0	0	0	0	27	378

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	64	0	4	0	240	0	0	4	0	68	0	0	0	0	0	444
Heavy Trucks	0	4	0		0	32	0		0	0	0		0	0	0		36
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/28/2014 10:33 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

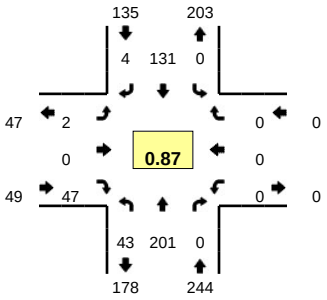
LOCATION: NE Everett St -- SE Leadbetter Rd

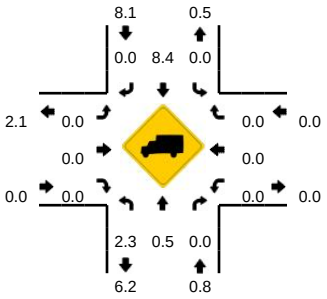
QC JOB #: 12426902

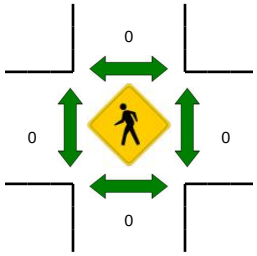
CITY/STATE: Camas, WA

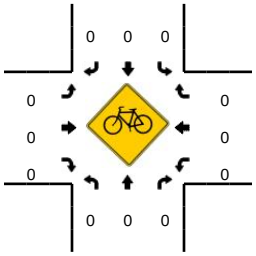
DATE: Thu, Feb 20 2014

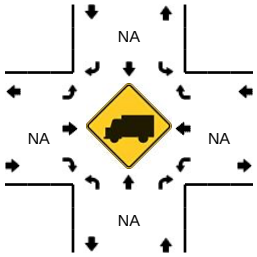
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:20 PM -- 4:35 PM

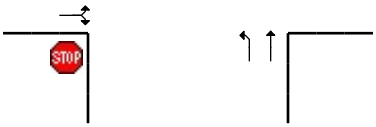


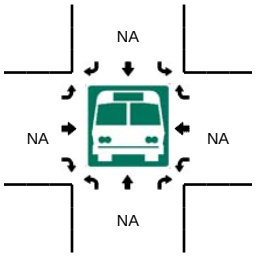












5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				SE Leadbetter Rd (Eastbound)				SE Leadbetter Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	14	0	0	0	11	0	0	0	0	6	0	0	0	0	0	33	
4:05 PM	6	19	0	0	0	10	0	0	0	0	4	0	0	0	0	0	39	
4:10 PM	6	11	0	0	0	13	0	0	0	0	2	0	0	0	0	0	32	
4:15 PM	2	20	0	0	0	11	1	0	1	0	0	0	0	0	0	0	35	
4:20 PM	4	15	0	0	0	15	0	0	1	0	2	0	0	0	0	0	37	
4:25 PM	3	17	0	0	0	16	1	0	0	0	12	0	0	0	0	0	49	
4:30 PM	5	19	0	0	0	11	0	0	0	0	2	0	0	0	0	0	37	
4:35 PM	1	17	0	0	0	11	0	0	0	0	2	0	0	0	0	0	31	
4:40 PM	4	18	0	0	0	5	1	0	0	0	2	0	0	0	0	0	30	
4:45 PM	3	16	0	0	0	8	1	0	0	0	4	0	0	0	0	0	32	
4:50 PM	4	21	0	0	0	9	0	0	0	0	5	0	0	0	0	0	39	
4:55 PM	3	14	0	0	0	11	0	0	0	0	6	0	0	0	0	0	34	428
5:00 PM	4	12	0	0	0	8	0	0	0	0	1	0	0	0	0	0	25	420
5:05 PM	3	17	0	0	0	9	0	0	0	0	1	0	0	0	0	0	30	411
5:10 PM	5	18	0	0	0	8	0	0	0	0	4	0	0	0	0	0	35	414
5:15 PM	1	19	0	0	0	9	0	0	0	0	3	0	0	0	0	0	32	411
5:20 PM	4	16	0	0	0	10	0	0	0	0	6	0	0	0	0	0	36	410
5:25 PM	2	17	0	0	0	8	0	0	0	0	3	0	0	0	0	0	30	391
5:30 PM	3	12	0	0	0	8	0	0	0	0	2	0	0	0	0	0	25	379
5:35 PM	3	26	0	0	0	10	0	0	0	0	3	0	0	0	0	0	42	390
5:40 PM	4	17	0	0	0	8	0	0	0	0	3	0	0	0	0	0	32	392
5:45 PM	1	11	0	0	0	14	1	0	0	0	3	0	0	0	0	0	30	390
5:50 PM	1	12	0	0	0	12	0	0	0	0	7	0	0	0	0	0	32	383
5:55 PM	2	20	0	0	0	6	0	0	0	0	2	0	0	0	0	0	30	379

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	204	0	0	0	168	4	0	4	0	64	0	0	0	0	0	492
Heavy Trucks	0	0	0		0	32	0		0	0	0		0	0	0		32
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 2/28/2014 10:39 AM

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

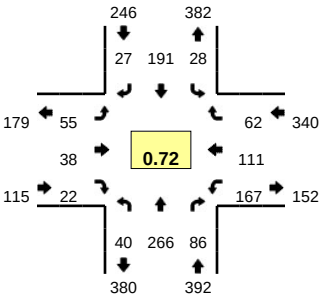
Type of peak hour being reported: System Peak

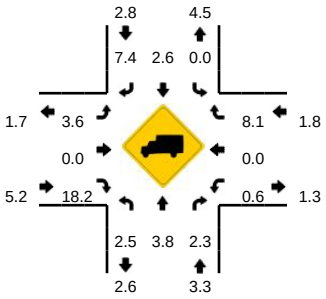
Method for determining peak hour: Total Entering Volume

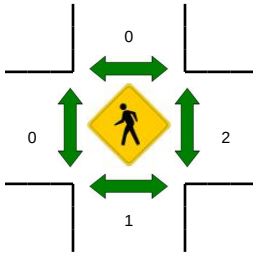
LOCATION: NW Parker St -- NW 38th Ave
CITY/STATE: Camas, WA

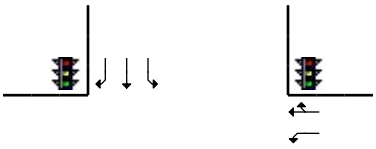
QC JOB #: 12470703
DATE: Thu, Apr 03 2014

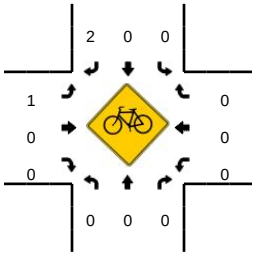
Peak-Hour: 7:05 AM -- 8:05 AM
Peak 15-Min: 7:40 AM -- 7:55 AM

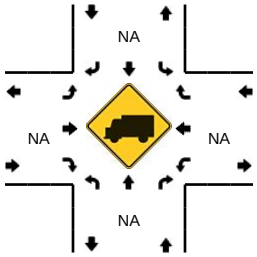


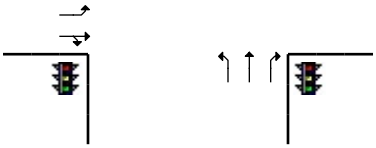


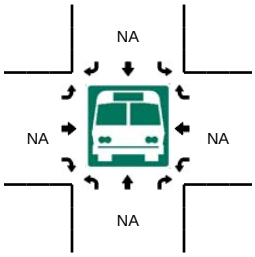












5-Min Count Period Beginning At	NW Parker St (Northbound)				NW Parker St (Southbound)				NW 38th Ave (Eastbound)				NW 38th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	5	12	2	0	2	10	5	0	1	1	1	0	11	8	1	0	59	
7:05 AM	2	9	7	0	0	7	1	0	3	2	1	0	11	10	1	0	54	
7:10 AM	4	17	8	0	0	10	2	0	2	2	1	0	10	6	2	0	64	
7:15 AM	3	10	7	0	0	10	1	0	2	3	0	0	14	6	1	0	57	
7:20 AM	1	11	1	0	0	8	0	0	1	4	1	0	16	9	1	0	53	
7:25 AM	4	16	6	0	2	8	1	0	1	4	2	0	12	7	1	0	64	
7:30 AM	4	24	5	0	0	14	3	0	2	5	4	0	9	7	5	0	82	
7:35 AM	8	18	6	0	1	14	2	0	10	6	1	0	13	15	8	0	102	
7:40 AM	3	40	4	0	4	13	3	0	5	0	4	0	12	11	11	0	110	
7:45 AM	3	44	3	0	4	23	4	0	9	4	1	1	9	8	9	0	122	
7:50 AM	3	37	17	0	4	30	3	0	6	4	1	0	16	7	17	0	145	
7:55 AM	3	20	16	0	3	33	6	0	7	2	4	0	23	12	5	0	134	1046
8:00 AM	2	20	6	0	10	21	1	0	6	2	2	0	22	13	1	0	106	1093
8:05 AM	6	14	7	0	1	15	1	0	1	2	0	0	16	17	4	0	84	1123
8:10 AM	2	14	3	0	2	10	1	0	2	5	0	0	6	6	0	0	51	1110
8:15 AM	2	8	6	0	1	11	0	0	5	5	5	0	11	6	1	0	61	1114
8:20 AM	4	9	2	0	0	13	3	0	3	2	0	0	8	6	0	0	50	1111
8:25 AM	4	14	6	0	1	11	1	0	2	2	1	0	16	8	2	0	68	1115
8:30 AM	0	13	4	0	1	4	2	0	4	1	0	0	8	5	1	0	43	1076
8:35 AM	5	8	8	0	1	8	1	0	4	3	0	0	11	12	2	0	63	1037
8:40 AM	5	12	11	0	0	8	1	0	3	4	2	0	12	9	0	0	67	994
8:45 AM	3	6	9	0	1	5	1	0	3	6	0	0	11	11	2	0	58	930
8:50 AM	3	12	13	0	2	7	2	0	0	10	1	0	11	15	1	0	77	862
8:55 AM	5	9	12	0	0	7	1	0	1	5	4	0	26	12	0	0	82	810

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	36	484	96	0	48	264	40	0	80	32	24	4	148	104	148	0	1508
Heavy Trucks	0	20	4		0	4	4		0	0	4		0	0	8		44
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	1		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/7/2014 4:44 PM

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

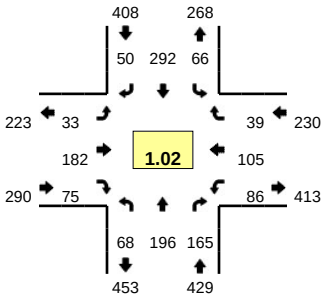
Type of peak hour being reported: System Peak

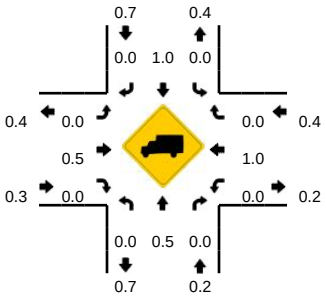
Method for determining peak hour: Total Entering Volume

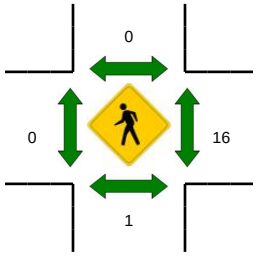
LOCATION: NW Parker St -- NW 38th Ave
CITY/STATE: Camas, WA

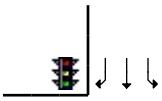
QC JOB #: 12470704
DATE: Wed, Apr 02 2014

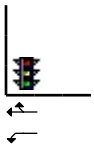
Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:30 PM -- 5:45 PM

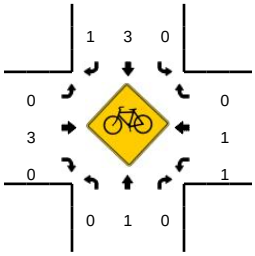


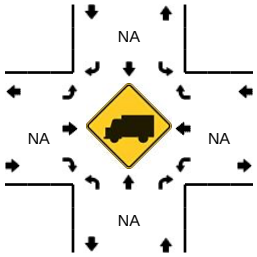


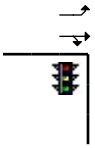


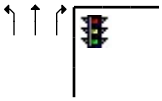


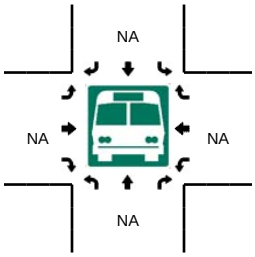












5-Min Count Period Beginning At	NW Parker St (Northbound)				NW Parker St (Southbound)				NW 38th Ave (Eastbound)				NW 38th Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	16	11	0	1	15	3	0	2	6	1	0	5	8	2	0	74	
4:05 PM	2	10	13	0	3	15	0	0	4	15	2	0	6	8	3	0	81	
4:10 PM	4	14	14	0	2	11	2	0	3	16	3	0	8	7	3	0	87	
4:15 PM	5	15	13	0	2	13	6	0	2	10	1	0	9	5	5	0	86	
4:20 PM	3	20	12	0	3	9	0	0	1	16	7	0	6	6	3	0	86	
4:25 PM	3	29	12	0	3	12	2	0	6	13	7	0	2	8	7	0	104	
4:30 PM	5	30	11	0	2	13	2	0	7	16	1	0	2	6	9	0	104	
4:35 PM	4	17	13	0	4	24	2	0	5	11	5	0	11	10	6	0	112	
4:40 PM	3	33	19	0	8	31	2	0	4	12	5	0	14	14	3	0	148	
4:45 PM	3	25	8	0	10	27	4	0	3	18	4	0	10	9	8	0	129	
4:50 PM	9	22	14	0	9	45	2	0	2	7	5	0	7	18	3	0	143	
4:55 PM	4	16	7	0	9	41	3	0	2	8	10	0	2	7	5	0	114	1268
5:00 PM	6	13	15	0	11	17	4	0	1	14	4	0	8	15	5	0	113	1307
5:05 PM	3	10	13	0	3	27	1	0	2	16	6	0	6	2	1	0	90	1316
5:10 PM	7	13	12	0	5	23	4	0	4	22	6	0	10	11	4	0	121	1350
5:15 PM	4	20	19	0	1	20	4	0	3	19	8	0	6	9	5	0	118	1382
5:20 PM	9	23	11	0	4	22	9	0	5	13	5	0	9	6	2	0	118	1414
5:25 PM	2	21	9	0	10	14	7	0	4	18	6	0	7	12	1	0	111	1421
5:30 PM	7	21	13	0	2	25	5	0	3	14	4	0	9	9	2	0	114	1431
5:35 PM	4	16	15	0	3	17	3	0	3	17	11	0	9	3	3	0	104	1423
5:40 PM	5	12	18	0	4	27	3	0	3	19	5	0	5	7	5	0	113	1388
5:45 PM	8	9	19	0	5	14	5	0	1	15	5	0	8	6	3	0	98	1357
5:50 PM	6	11	13	0	4	15	5	0	1	11	4	0	14	9	2	0	95	1309
5:55 PM	0	12	11	0	5	12	2	0	4	20	6	0	8	7	0	0	87	1282

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	196	184	0	36	276	44	0	36	200	80	0	92	76	40	0	1324
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Pedestrians		0				0				0				20			20
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/7/2014 4:44 PM

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

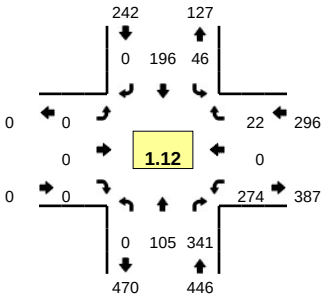
Type of peak hour being reported: System Peak

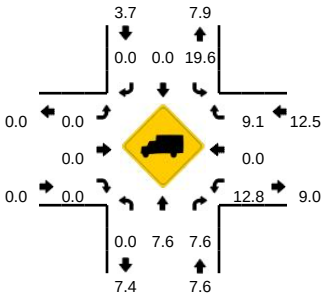
Method for determining peak hour: Total Entering Volume

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

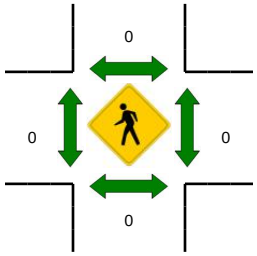
QC JOB #: 12470701
DATE: Thu, Apr 03 2014

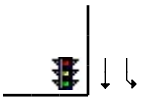
Peak-Hour: 7:05 AM -- 8:05 AM
Peak 15-Min: 7:40 AM -- 7:55 AM

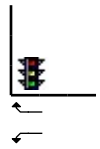


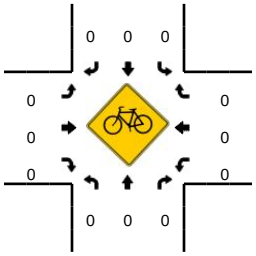


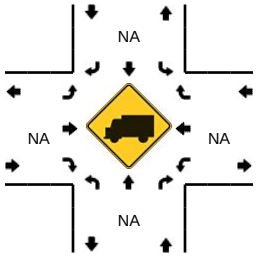
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

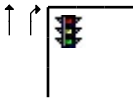


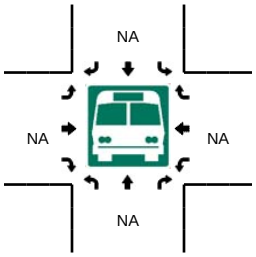












5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				NE 43rd Ave (Eastbound)				NE 43rd Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	6	28	0	2	12	0	0	0	0	0	0	7	0	1	0	56	
7:05 AM	0	11	44	0	3	10	0	0	0	0	0	0	9	0	1	0	78	
7:10 AM	0	5	55	0	7	11	0	0	0	0	0	0	14	0	2	0	94	
7:15 AM	0	10	45	0	5	19	0	0	0	0	0	0	29	0	1	0	109	
7:20 AM	0	4	59	0	14	17	0	0	0	0	0	0	26	0	1	0	121	
7:25 AM	0	8	46	0	10	16	0	0	0	0	0	0	37	0	2	0	119	
7:30 AM	0	7	26	0	2	17	0	0	0	0	0	0	34	0	2	0	88	
7:35 AM	0	11	10	0	0	24	0	0	0	0	0	0	29	0	5	0	79	
7:40 AM	0	8	19	0	2	15	0	0	0	0	0	0	48	0	5	0	97	
7:45 AM	0	11	11	0	0	26	0	0	0	0	0	0	27	0	2	0	77	
7:50 AM	0	13	5	0	1	15	0	0	0	0	0	0	11	0	0	0	45	
7:55 AM	0	11	12	0	0	20	0	0	0	0	0	0	5	0	1	0	49	1012
8:00 AM	0	6	9	0	2	6	0	0	0	0	0	0	5	0	0	0	28	984
8:05 AM	0	8	6	0	0	10	0	0	0	0	0	0	3	0	0	0	27	933
8:10 AM	0	5	2	0	0	6	0	0	0	0	0	0	3	0	2	0	18	857
8:15 AM	0	11	7	0	0	14	0	0	0	0	0	0	3	0	0	0	35	783
8:20 AM	0	5	9	0	1	15	0	0	0	0	0	0	2	0	0	0	32	694
8:25 AM	0	3	9	0	0	16	0	0	0	0	0	0	3	0	1	0	32	607
8:30 AM	0	7	6	0	1	11	0	0	0	0	0	0	9	0	1	0	35	554
8:35 AM	0	4	6	0	1	11	0	0	0	0	0	0	10	0	1	0	33	508
8:40 AM	0	5	7	0	4	13	0	0	0	0	0	0	10	0	1	0	40	451
8:45 AM	0	5	6	0	2	10	0	0	0	0	0	0	13	0	2	0	38	412
8:50 AM	0	8	7	0	1	23	0	0	0	0	0	0	15	0	2	0	56	423
8:55 AM	0	12	6	0	0	14	0	0	0	0	0	0	14	0	3	0	49	423

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	128	140	0	12	224	0	0	0	0	0	0	344	0	28	0	876
Heavy Trucks	0	8	16		0	0	0		0	0	0		24	0	0		48
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/7/2014 4:44 PM

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

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

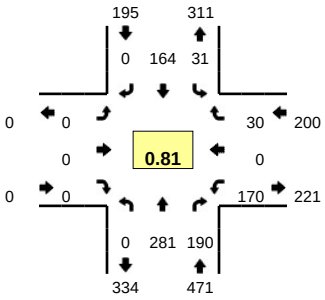
LOCATION: NE Everett St -- NE 43rd Ave

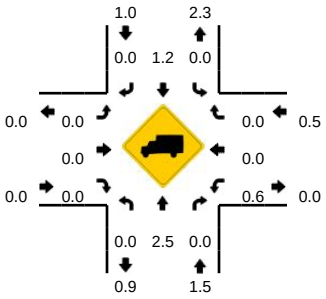
QC JOB #: 12470702

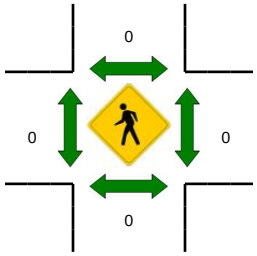
CITY/STATE: Camas, WA

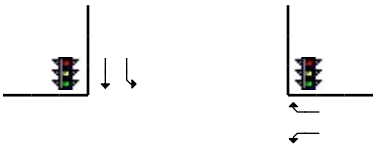
DATE: Wed, Apr 02 2014

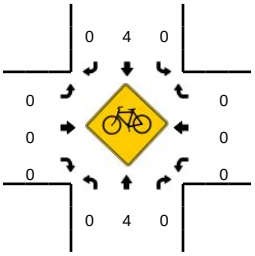
Peak-Hour: 4:50 PM -- 5:50 PM
Peak 15-Min: 5:30 PM -- 5:45 PM

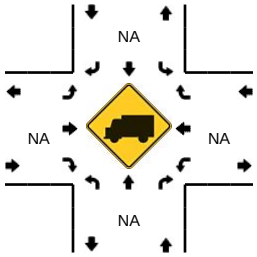


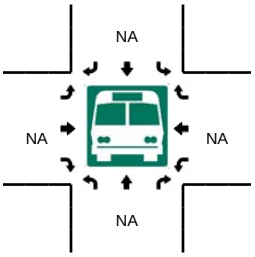












5-Min Count Period Beginning At	NE Everett St (Northbound)				NE Everett St (Southbound)				NE 43rd Ave (Eastbound)				NE 43rd Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	23	14	0	2	14	0	0	0	0	0	0	17	0	2	0	72	
4:05 PM	0	19	10	0	3	6	0	0	0	0	0	0	14	0	0	0	52	
4:10 PM	0	24	16	0	5	18	0	0	0	0	0	0	8	0	3	0	74	
4:15 PM	0	22	10	0	0	15	0	0	0	0	0	0	13	0	0	0	60	
4:20 PM	0	21	12	0	2	11	0	0	0	0	0	0	11	0	1	0	58	
4:25 PM	0	20	10	0	3	17	0	0	0	0	0	0	7	0	3	0	60	
4:30 PM	0	16	11	0	3	17	0	0	0	0	0	0	13	0	6	0	66	
4:35 PM	0	22	14	0	2	23	0	0	0	0	0	0	13	0	1	0	75	
4:40 PM	0	15	6	0	1	24	0	0	0	0	0	0	10	0	0	0	56	
4:45 PM	0	16	8	0	1	20	0	0	0	0	0	0	10	0	1	0	56	
4:50 PM	0	32	14	0	1	13	0	0	0	0	0	0	9	0	3	0	72	
4:55 PM	0	21	18	0	1	7	0	0	0	0	0	0	10	0	1	0	58	759
5:00 PM	0	17	20	0	3	16	0	0	0	0	0	0	7	0	0	0	63	750
5:05 PM	0	22	17	0	1	14	0	0	0	0	0	0	9	0	1	0	64	762
5:10 PM	0	25	15	0	1	5	0	0	0	0	0	0	12	0	1	0	59	747
5:15 PM	0	30	15	0	5	15	0	0	0	0	0	0	9	0	1	0	75	762
5:20 PM	0	24	21	0	2	11	0	0	0	0	0	0	8	0	1	0	67	771
5:25 PM	0	27	6	0	2	6	0	0	0	0	0	0	7	0	1	0	49	760
5:30 PM	0	25	15	0	5	22	0	0	0	0	0	0	21	0	9	0	97	791
5:35 PM	0	19	16	0	3	19	0	0	0	0	0	0	22	0	2	0	81	797
5:40 PM	0	18	13	0	4	17	0	0	0	0	0	0	33	0	4	0	89	830
5:45 PM	0	21	20	0	3	19	0	0	0	0	0	0	23	0	6	0	92	866
5:50 PM	0	19	17	0	2	16	0	0	0	0	0	0	34	0	7	0	95	889
5:55 PM	0	15	11	0	1	11	0	0	0	0	0	0	19	0	1	0	58	889

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	248	176	0	48	232	0	0	0	0	0	0	304	0	60	0	1068
Heavy Trucks	0	4	0		0	4	0		0	0	0		0	0	0		8
Pedestrians		0				0				0				0			0
Bicycles	0	1	0		0	3	0		0	0	0		0	0	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 4/7/2014 4:44 PM

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

Appendix D Existing Conditions Worksheets

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	53	179	13	183	152	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	62	208	15	213	177	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			270		409	166
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			270		409	166
tC, single (s)			4.1		6.4	7.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	4.2
p0 queue free %			99		70	100
cM capacity (veh/h)			1305		588	677

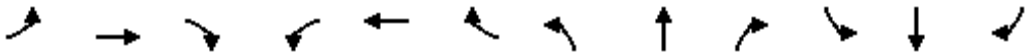
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	270	228	178
Volume Left	0	15	177
Volume Right	208	0	1
cSH	1700	1305	589
Volume to Capacity	0.16	0.01	0.30
Queue Length 95th (ft)	0	1	32
Control Delay (s)	0.0	0.6	13.7
Lane LOS		A	B
Approach Delay (s)	0.0	0.6	13.7
Approach LOS			B

Intersection Summary			
Average Delay		3.8	
Intersection Capacity Utilization		35.5%	ICU Level of Service A
Analysis Period (min)		15	

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	168	212	260	68	544	288
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.4		5.7	5.4
Lane Util. Factor	1.00		1.00		1.00	1.00
Frt	0.92		0.97		1.00	1.00
Flt Protected	0.98		1.00		0.95	1.00
Satd. Flow (prot)	1603		1644		1805	1881
Flt Permitted	0.98		1.00		0.28	1.00
Satd. Flow (perm)	1603		1644		535	1881
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	168	212	260	68	544	288
RTOR Reduction (vph)	30	0	8	0	0	0
Lane Group Flow (vph)	350	0	320	0	544	288
Heavy Vehicles (%)	0%	13%	14%	6%	0%	1%
Turn Type					pm+pt	
Protected Phases	6		4		3	8
Permitted Phases					8	
Actuated Green, G (s)	24.8		22.4		48.0	48.0
Effective Green, g (s)	24.8		22.4		48.0	48.0
Actuated g/C Ratio	0.30		0.27		0.57	0.57
Clearance Time (s)	5.8		5.4		5.7	5.4
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Lane Grp Cap (vph)	473		438		607	1075
v/s Ratio Prot	c0.22		0.19		c0.21	0.15
v/s Ratio Perm					c0.30	
v/c Ratio	0.74		0.73		0.90	0.27
Uniform Delay, d1	26.7		28.1		13.7	9.1
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	5.4		5.3		15.4	0.0
Delay (s)	32.1		33.4		29.1	9.2
Level of Service	C		C		C	A
Approach Delay (s)	32.1		33.4			22.2
Approach LOS	C		C			C

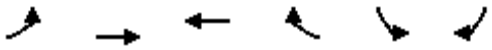
Intersection Summary			
HCM Average Control Delay	27.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	84.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	84.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	105	279	100	223	1	84	2	28	2	5	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.90			1.00			0.97			0.97	
Flt Protected		1.00			0.98			0.96			0.99	
Satd. Flow (prot)		1676			1770			1589			1486	
Flt Permitted		1.00			0.74			0.77			0.95	
Satd. Flow (perm)		1675			1332			1275			1424	
Peak-hour factor, PHF	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Adj. Flow (vph)	2	159	423	152	338	2	127	3	42	3	8	3
RTOR Reduction (vph)	0	104	0	0	0	0	0	14	0	0	2	0
Lane Group Flow (vph)	0	481	0	0	492	0	0	158	0	0	12	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	100%	7%	0%	8%	4%	100%	11%	0%	14%	0%	40%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		30.5			30.5			12.7			12.7	
Effective Green, g (s)		30.5			30.5			12.7			12.7	
Actuated g/C Ratio		0.60			0.60			0.25			0.25	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		998			793			316			353	
v/s Ratio Prot												
v/s Ratio Perm		0.29			c0.37			c0.12			0.01	
v/c Ratio		0.48			0.62			0.50			0.03	
Uniform Delay, d1		5.9			6.6			16.5			14.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.4			1.5			1.2			0.0	
Delay (s)		6.2			8.2			17.8			14.6	
Level of Service		A			A			B			B	
Approach Delay (s)		6.2			8.2			17.8			14.6	
Approach LOS		A			A			B			B	

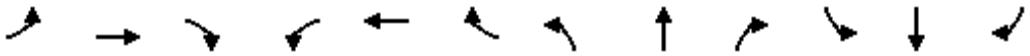
Intersection Summary			
HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	51.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	52	64	209	104	36	169
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	58	72	235	117	40	190
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	352				482	293
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	352				482	293
tC, single (s)	4.2				6.5	6.2
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.3
p0 queue free %	95				92	74
cM capacity (veh/h)	1175				506	739

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	130	352	40	190
Volume Left	58	0	40	0
Volume Right	0	117	0	190
cSH	1175	1700	506	739
Volume to Capacity	0.05	0.21	0.08	0.26
Queue Length 95th (ft)	4	0	6	26
Control Delay (s)	3.9	0.0	12.7	11.5
Lane LOS	A		B	B
Approach Delay (s)	3.9	0.0	11.8	
Approach LOS			B	

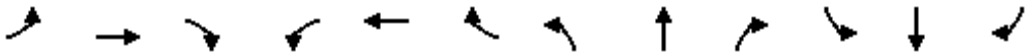
Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	36.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	58	41	4	234	0	64	1	3	0	2	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	63	45	4	254	0	70	1	3	0	2	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	254			108			356	351	85	354	373	254
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	254			108			356	351	85	354	373	254
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			88	100	100	100	100	99
cM capacity (veh/h)	1322			1351			592	575	979	600	558	789

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	109	259	74	7
Volume Left	1	4	70	0
Volume Right	45	0	3	4
cSH	1322	1351	603	694
Volume to Capacity	0.00	0.00	0.12	0.01
Queue Length 95th (ft)	0	0	10	1
Control Delay (s)	0.1	0.2	11.8	10.2
Lane LOS	A	A	B	B
Approach Delay (s)	0.1	0.2	11.8	10.2
Approach LOS			B	B

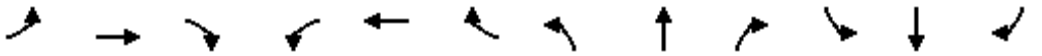
Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	31.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	65	0	0	189	48	1	0	0	61	1	57
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Hourly flow rate (vph)	10	84	0	0	245	62	1	0	0	79	1	74
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	308			84			456	413	84	382	382	277
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	308			84			456	413	84	382	382	277
tC, single (s)	4.3			4.1			8.1	6.5	6.2	7.2	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.4			2.2			4.4	4.0	3.3	3.6	4.0	3.4
p0 queue free %	99			100			100	100	100	86	100	90
cM capacity (veh/h)	1133			1525			341	528	980	558	549	741

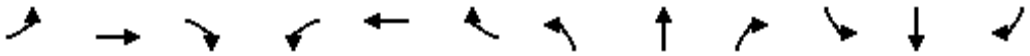
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	95	308	1	155
Volume Left	10	0	1	79
Volume Right	0	62	0	74
cSH	1133	1525	341	633
Volume to Capacity	0.01	0.00	0.00	0.24
Queue Length 95th (ft)	1	0	0	24
Control Delay (s)	1.0	0.0	15.6	12.5
Lane LOS	A		C	B
Approach Delay (s)	1.0	0.0	15.6	12.5
Approach LOS			C	B

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	25.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	358	224	0	0	258	38	0	0	1	22	0	288
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00			0.99			1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	1.00			0.98			0.86			1.00	0.85
Flt Protected	0.95	1.00			1.00			1.00			0.95	1.00
Satd. Flow (prot)	1671	3505			3438			1623			1804	1491
Flt Permitted	0.95	1.00			1.00			1.00			1.00	1.00
Satd. Flow (perm)	1671	3505			3438			1623			1899	1491
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Adj. Flow (vph)	597	373	0	0	430	63	0	0	2	37	0	480
RTOR Reduction (vph)	0	0	0	0	13	0	0	2	0	0	0	92
Lane Group Flow (vph)	597	373	0	0	480	0	0	0	0	0	37	388
Confl. Peds. (#/hr)							4		1	1		4
Heavy Vehicles (%)	8%	3%	0%	0%	3%	3%	0%	0%	0%	0%	0%	8%
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	7	4		3	8			2			6	7
Permitted Phases							2			6		6
Actuated Green, G (s)	17.8	33.3			11.5			2.6			2.6	20.4
Effective Green, g (s)	17.8	33.3			11.5			2.6			2.6	20.4
Actuated g/C Ratio	0.41	0.76			0.26			0.06			0.06	0.46
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	678	2659			901			96			112	829
v/s Ratio Prot	c0.36	0.11			c0.14			0.00				c0.19
v/s Ratio Perm											0.02	0.07
v/c Ratio	0.88	0.14			0.53			0.00			0.33	0.47
Uniform Delay, d1	12.1	1.4			13.9			19.4			19.8	8.0
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	12.8	0.0			0.6			0.0			1.7	0.4
Delay (s)	24.8	1.5			14.5			19.4			21.5	8.5
Level of Service	C	A			B			B			C	A
Approach Delay (s)		15.8			14.5			19.4			9.4	
Approach LOS		B			B			B			A	

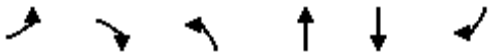
Intersection Summary			
HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	43.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	157	143	98	221	4	106	8	81	13	31	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86		1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1881	1532	1805	3529		1735	1612		1805	1772	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.71	1.00		0.67	1.00	
Satd. Flow (perm)	1805	1881	1532	1805	3529		1291	1612		1281	1772	
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Adj. Flow (vph)	6	228	207	142	320	6	154	12	117	19	45	32
RTOR Reduction (vph)	0	0	133	0	1	0	0	90	0	0	24	0
Lane Group Flow (vph)	6	228	74	142	325	0	154	39	0	19	53	0
Confl. Peds. (#/hr)			4	4			1					1
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	0%	1%	3%	0%	2%	0%	4%	0%	2%	0%	0%	0%
Turn Type	Prot		Perm	Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2			6		
Actuated Green, G (s)	0.9	17.1	17.1	7.7	23.9		11.3	11.3		11.3	11.3	
Effective Green, g (s)	0.9	17.1	17.1	7.7	23.9		11.3	11.3		11.3	11.3	
Actuated g/C Ratio	0.02	0.36	0.36	0.16	0.50		0.23	0.23		0.23	0.23	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	34	669	545	289	1753		303	379		301	416	
v/s Ratio Prot	0.00	c0.12		c0.08	0.09			0.02			0.03	
v/s Ratio Perm			0.05				c0.12			0.01		
v/c Ratio	0.18	0.34	0.14	0.49	0.19		0.51	0.10		0.06	0.13	
Uniform Delay, d1	23.2	11.4	10.5	18.4	6.7		16.0	14.4		14.3	14.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.5	0.3	0.1	1.3	0.1		1.3	0.1		0.1	0.1	
Delay (s)	25.7	11.7	10.6	19.7	6.8		17.3	14.6		14.4	14.6	
Level of Service	C	B	B	B	A		B	B		B	B	
Approach Delay (s)		11.4			10.7			16.1			14.6	
Approach LOS		B			B			B			B	

Intersection Summary					
HCM Average Control Delay	12.4	HCM Level of Service		B	
HCM Volume to Capacity ratio	0.43				
Actuated Cycle Length (s)	48.1	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	38.2%	ICU Level of Service		A	
Analysis Period (min)	15				

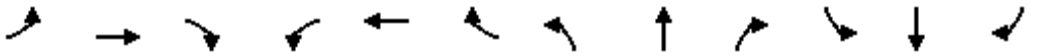
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	52	53	90	198	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	3	58	60	101	222	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				358		
pX, platoon unblocked						
vC, conflicting volume	443	223	224			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	443	223	224			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	93	96			
cM capacity (veh/h)	550	822	1357			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	62	60	101	224
Volume Left	3	60	0	0
Volume Right	58	0	0	1
cSH	800	1357	1700	1700
Volume to Capacity	0.08	0.04	0.06	0.13
Queue Length 95th (ft)	6	3	0	0
Control Delay (s)	9.9	7.8	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	9.9	2.9		0.0
Approach LOS	A			

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	27.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	38	21	172	118	65	44	271	86	29	199	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	1671		1787	1749		1805	1827	1546	1751	1845	1509
Flt Permitted	0.60	1.00		0.46	1.00		0.47	1.00	1.00	0.40	1.00	1.00
Satd. Flow (perm)	1091	1671		865	1749		893	1827	1546	746	1845	1509
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Adj. Flow (vph)	76	54	30	246	169	93	63	387	123	41	284	39
RTOR Reduction (vph)	0	26	0	0	29	0	0	0	78	0	0	26
Lane Group Flow (vph)	76	58	0	246	233	0	63	387	46	41	284	13
Confl. Peds. (#/hr)			1	1					3	3		
Heavy Vehicles (%)	4%	0%	19%	1%	0%	8%	0%	4%	2%	3%	3%	7%
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	10.4	7.6		20.4	13.6		21.5	18.7	18.7	19.3	17.6	17.6
Effective Green, g (s)	10.4	7.6		20.4	13.6		21.5	18.7	18.7	19.3	17.6	17.6
Actuated g/C Ratio	0.20	0.14		0.39	0.26		0.41	0.35	0.35	0.37	0.33	0.33
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	249	241		488	451		412	647	548	305	615	503
v/s Ratio Prot	0.02	0.03		c0.08	c0.13		c0.01	c0.21		0.00	0.15	
v/s Ratio Perm	0.04			0.11			0.05		0.03	0.04		0.01
v/c Ratio	0.31	0.24		0.50	0.52		0.15	0.60	0.08	0.13	0.46	0.03
Uniform Delay, d1	17.8	20.0		11.7	16.8		9.7	14.0	11.3	11.1	13.9	11.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.5		0.8	1.0		0.2	1.5	0.1	0.2	0.6	0.0
Delay (s)	18.5	20.6		12.5	17.8		9.9	15.5	11.4	11.3	14.4	11.9
Level of Service	B	C		B	B		A	B	B	B	B	B
Approach Delay (s)		19.6			15.2			14.0			13.8	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	14.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	52.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	276	23	120	360	46	204
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1597	1482	1743	1509	1504	1900
Flt Permitted	0.95	1.00	1.00	1.00	0.48	1.00
Satd. Flow (perm)	1597	1482	1743	1509	756	1900
Peak-hour factor, PHF	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	383	32	167	500	64	283
RTOR Reduction (vph)	0	15	0	363	0	0
Lane Group Flow (vph)	383	17	167	137	64	283
Heavy Vehicles (%)	13%	9%	9%	7%	20%	0%
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	18.4	18.4	13.7	13.7	22.7	22.7
Effective Green, g (s)	18.4	18.4	13.7	13.7	22.7	22.7
Actuated g/C Ratio	0.37	0.37	0.27	0.27	0.45	0.45
Clearance Time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	587	544	477	413	402	861
v/s Ratio Prot	c0.24		0.10		0.01	c0.15
v/s Ratio Perm		0.01		0.09	0.06	
v/c Ratio	0.65	0.03	0.35	0.33	0.16	0.33
Uniform Delay, d1	13.2	10.1	14.6	14.5	8.1	8.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.0	0.4	0.5	0.2	0.2
Delay (s)	15.8	10.2	15.1	15.0	8.3	9.0
Level of Service	B	B	B	B	A	A
Approach Delay (s)	15.4		15.0			8.9
Approach LOS	B		B			A

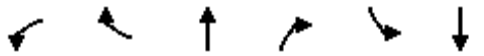
Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	50.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	159	144	7	98	149	10
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	175	158	8	108	164	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			333		377	254
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			333		377	254
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		74	99
cM capacity (veh/h)			1238		621	790

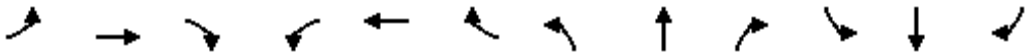
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	333	115	175
Volume Left	0	8	164
Volume Right	158	0	11
cSH	1700	1238	629
Volume to Capacity	0.20	0.01	0.28
Queue Length 95th (ft)	0	0	28
Control Delay (s)	0.0	0.6	12.9
Lane LOS		A	B
Approach Delay (s)	0.0	0.6	12.9
Approach LOS			B

Intersection Summary			
Average Delay		3.7	
Intersection Capacity Utilization		32.7%	ICU Level of Service A
Analysis Period (min)		15	



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	192	108	584	220	140	344
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.4		5.7	5.4
Lane Util. Factor	1.00		1.00		1.00	1.00
Frpb, ped/bikes	0.99		0.99		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.95		0.96		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	1714		1785		1752	1881
Flt Permitted	0.97		1.00		0.15	1.00
Satd. Flow (perm)	1714		1785		271	1881
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	192	108	584	220	140	344
RTOR Reduction (vph)	15	0	7	0	0	0
Lane Group Flow (vph)	285	0	797	0	140	344
Confl. Peds. (#/hr)		2		8	8	
Heavy Vehicles (%)	2%	0%	1%	2%	3%	1%
Turn Type					pm+pt	
Protected Phases	6		4		3	8
Permitted Phases					8	
Actuated Green, G (s)	20.0		55.5		69.0	69.0
Effective Green, g (s)	20.0		55.5		69.0	69.0
Actuated g/C Ratio	0.20		0.55		0.69	0.69
Clearance Time (s)	5.8		5.4		5.7	5.4
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Lane Grp Cap (vph)	342		989		302	1295
v/s Ratio Prot	c0.17		c0.45		c0.04	0.18
v/s Ratio Perm					0.28	
v/c Ratio	0.83		0.81		0.46	0.27
Uniform Delay, d1	38.5		18.0		13.6	5.9
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	15.1		4.6		0.4	0.0
Delay (s)	53.6		22.6		14.0	6.0
Level of Service	D		C		B	A
Approach Delay (s)	53.6		22.6			8.3
Approach LOS	D		C			A

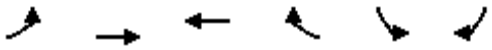
Intersection Summary			
HCM Average Control Delay	24.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.2	Sum of lost time (s)	16.9
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	327	24	41	207	2	45	5	60	1	4	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			1.00			0.93			0.98	
Flt Protected		1.00			0.99			0.98			0.99	
Satd. Flow (prot)		1848			1861			1686			1850	
Flt Permitted		1.00			0.91			0.86			0.95	
Satd. Flow (perm)		1841			1702			1487			1763	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	6	372	27	47	235	2	51	6	68	1	5	1
RTOR Reduction (vph)	0	3	0	0	0	0	0	56	0	0	1	0
Lane Group Flow (vph)	0	402	0	0	284	0	0	69	0	0	6	0
Confl. Peds. (#/hr)	2					2			3	3		
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	0%	2%	0%	2%	1%	0%	0%	0%	2%	0%	0%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		19.6			19.6			6.0			6.0	
Effective Green, g (s)		19.6			19.6			6.0			6.0	
Actuated g/C Ratio		0.58			0.58			0.18			0.18	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1074			993			266			315	
v/s Ratio Prot												
v/s Ratio Perm		c0.22			0.17			c0.05			0.00	
v/c Ratio		0.37			0.29			0.26			0.02	
Uniform Delay, d1		3.7			3.5			11.9			11.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.2			0.5			0.0	
Delay (s)		4.0			3.7			12.4			11.4	
Level of Service		A			A			B			B	
Approach Delay (s)		4.0			3.7			12.4			11.4	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM Average Control Delay	5.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	33.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

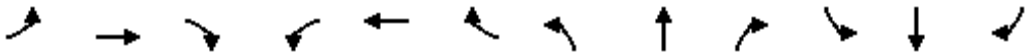
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	93	274	144	52	101	57
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	107	315	166	60	116	66
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	225				724	195
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	225				724	195
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				68	92
cM capacity (veh/h)	1355				362	851

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	422	225	116	66
Volume Left	107	0	116	0
Volume Right	0	60	0	66
cSH	1355	1700	362	851
Volume to Capacity	0.08	0.13	0.32	0.08
Queue Length 95th (ft)	6	0	34	6
Control Delay (s)	2.6	0.0	19.6	9.6
Lane LOS	A		C	A
Approach Delay (s)	2.6	0.0	16.0	
Approach LOS			C	

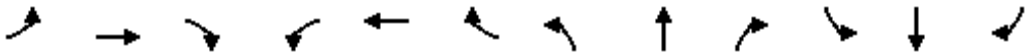
Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	300	54	2	160	0	34	0	3	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	1	345	62	2	184	0	39	0	3	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	184			407			567	567	376	570	598	184
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	184			407			567	567	376	570	598	184
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			91	100	99	100	100	100
cM capacity (veh/h)	1403			1163			437	435	675	432	417	864

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	408	186	43	0
Volume Left	1	2	39	0
Volume Right	62	0	3	0
cSH	1403	1163	449	1700
Volume to Capacity	0.00	0.00	0.09	0.00
Queue Length 95th (ft)	0	0	8	0
Control Delay (s)	0.0	0.1	13.8	0.0
Lane LOS	A	A	B	A
Approach Delay (s)	0.0	0.1	13.8	0.0
Approach LOS			B	A

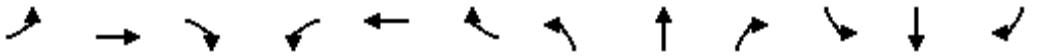
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	29.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	78	207	1	2	135	70	1	0	0	89	0	38
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	83	220	1	2	144	74	1	0	0	95	0	40
Pedestrians					1							
Lane Width (ft)					12.0							
Walking Speed (ft/s)					4.0							
Percent Blockage					0							
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	218			221			612	609	222	573	572	181
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	218			221			612	609	222	573	572	181
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.4
p0 queue free %	94			100			100	100	100	77	100	95
cM capacity (veh/h)	1334			1360			370	386	822	408	405	847

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	304	220	1	135
Volume Left	83	2	1	95
Volume Right	1	74	0	40
cSH	1334	1360	370	483
Volume to Capacity	0.06	0.00	0.00	0.28
Queue Length 95th (ft)	5	0	0	28
Control Delay (s)	2.6	0.1	14.8	15.3
Lane LOS	A	A	B	C
Approach Delay (s)	2.6	0.1	14.8	15.3
Approach LOS			B	C

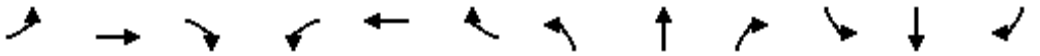
Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	43.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	555	0	1	414	38	0	0	0	39	0	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0						4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00						1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00						1.00	1.00
Frt	1.00	1.00		1.00	0.99						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)	1805	3610		1804	3486						1752	1615
Flt Permitted	0.95	1.00		0.95	1.00						1.00	1.00
Satd. Flow (perm)	1805	3610		1804	3486						1845	1615
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	80	645	0	1	481	44	0	0	0	45	0	50
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	0	0	0	40
Lane Group Flow (vph)	80	645	0	1	520	0	0	0	0	0	45	10
Confl. Peds. (#/hr)			3	3								
Confl. Bikes (#/hr)			1			1			1			
Heavy Vehicles (%)	0%	0%	0%	0%	2%	3%	0%	0%	0%	3%	0%	0%
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	7	4		3	8			2			6	7
Permitted Phases							2			6		6
Actuated Green, G (s)	6.0	26.0		0.9	20.9						2.7	8.7
Effective Green, g (s)	6.0	26.0		0.9	20.9						2.7	8.7
Actuated g/C Ratio	0.14	0.62		0.02	0.50						0.06	0.21
Clearance Time (s)	4.0	4.0		4.0	4.0						4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0						3.0	3.0
Lane Grp Cap (vph)	260	2256		39	1751						120	493
v/s Ratio Prot	c0.04	c0.18		0.00	0.15							0.00
v/s Ratio Perm											c0.02	0.00
v/c Ratio	0.31	0.29		0.03	0.30						0.38	0.02
Uniform Delay, d1	15.9	3.6		19.9	6.1						18.6	13.1
Progression Factor	1.00	1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2	0.7	0.1		0.3	0.1						2.0	0.0
Delay (s)	16.6	3.6		20.2	6.1						20.6	13.1
Level of Service	B	A		C	A						C	B
Approach Delay (s)		5.1			6.2			0.0			16.6	
Approach LOS		A			A			A			B	

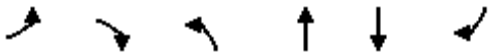
Intersection Summary			
HCM Average Control Delay	6.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	41.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	367	213	30	239	5	170	22	61	5	13	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.89		1.00	0.92	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1900	1599	1805	3563		1786	1691		1805	1741	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.74	1.00		0.70	1.00	
Satd. Flow (perm)	1805	1900	1599	1805	3563		1390	1691		1332	1741	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	25	378	220	31	246	5	175	23	63	5	13	14
RTOR Reduction (vph)	0	0	125	0	2	0	0	47	0	0	10	0
Lane Group Flow (vph)	25	378	95	31	249	0	175	39	0	5	17	0
Confl. Peds. (#/hr)	2					2	2					2
Heavy Vehicles (%)	0%	0%	1%	0%	1%	0%	1%	0%	0%	0%	0%	0%
Turn Type	Prot		Perm	Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2			6		
Actuated Green, G (s)	1.1	19.9	19.9	2.3	21.1		11.9	11.9		11.9	11.9	
Effective Green, g (s)	1.1	19.9	19.9	2.3	21.1		11.9	11.9		11.9	11.9	
Actuated g/C Ratio	0.02	0.43	0.43	0.05	0.46		0.26	0.26		0.26	0.26	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	43	820	690	90	1631		359	437		344	449	
v/s Ratio Prot	0.01	c0.20		c0.02	0.07			0.02			0.01	
v/s Ratio Perm			0.06				c0.13			0.00		
v/c Ratio	0.58	0.46	0.14	0.34	0.15		0.49	0.09		0.01	0.04	
Uniform Delay, d1	22.3	9.3	7.9	21.2	7.3		14.5	13.0		12.7	12.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	18.4	0.4	0.1	2.3	0.0		1.0	0.1		0.0	0.0	
Delay (s)	40.7	9.7	8.0	23.5	7.3		15.6	13.1		12.8	12.8	
Level of Service	D	A	A	C	A		B	B		B	B	
Approach Delay (s)		10.4			9.1			14.7			12.8	
Approach LOS		B			A			B			B	

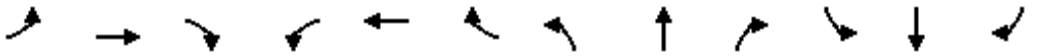
Intersection Summary			
HCM Average Control Delay	11.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	46.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	2	52	53	249	147	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	2	60	61	286	169	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				358		
pX, platoon unblocked	0.92					
vC, conflicting volume	579	171	174			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	499	171	174			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	93	96			
cM capacity (veh/h)	470	878	1403			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	62	61	286	174
Volume Left	2	61	0	0
Volume Right	60	0	0	5
cSH	850	1403	1700	1700
Volume to Capacity	0.07	0.04	0.17	0.10
Queue Length 95th (ft)	6	3	0	0
Control Delay (s)	9.6	7.7	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	9.6	1.3		0.0
Approach LOS	A			

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	24.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	172	68	99	122	45	61	234	153	76	316	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00	0.96	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1806		1735	1790		1805	1881	1557	1798	1881	1579
Flt Permitted	0.63	1.00		0.41	1.00		0.39	1.00	1.00	0.45	1.00	1.00
Satd. Flow (perm)	1204	1806		743	1790		741	1881	1557	843	1881	1579
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	45	202	80	116	144	53	72	275	180	89	372	55
RTOR Reduction (vph)	0	21	0	0	18	0	0	0	126	0	0	37
Lane Group Flow (vph)	45	261	0	116	179	0	72	275	54	89	372	18
Confl. Peds. (#/hr)			1	1					12	12		
Confl. Bikes (#/hr)			3			1			1			2
Heavy Vehicles (%)	0%	0%	0%	4%	1%	2%	0%	1%	0%	0%	1%	0%
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	18.0	15.0		20.6	16.3		19.8	16.8	16.8	22.4	18.1	18.1
Effective Green, g (s)	18.0	15.0		20.6	16.3		19.8	16.8	16.8	22.4	18.1	18.1
Actuated g/C Ratio	0.32	0.27		0.37	0.29		0.35	0.30	0.30	0.40	0.32	0.32
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	416	480		347	517		317	560	464	408	604	507
v/s Ratio Prot	0.01	c0.14		c0.03	0.10		0.01	0.15		c0.02	c0.20	
v/s Ratio Perm	0.03			0.10			0.07		0.03	0.07		0.01
v/c Ratio	0.11	0.54		0.33	0.35		0.23	0.49	0.12	0.22	0.62	0.03
Uniform Delay, d1	13.4	17.8		12.4	15.8		12.6	16.3	14.4	11.0	16.2	13.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	1.3		0.6	0.4		0.4	0.7	0.1	0.3	1.9	0.0
Delay (s)	13.5	19.0		13.0	16.2		12.9	17.0	14.5	11.2	18.1	13.2
Level of Service	B	B		B	B		B	B	B	B	B	B
Approach Delay (s)		18.3			15.0			15.6			16.4	
Approach LOS		B			B			B			B	

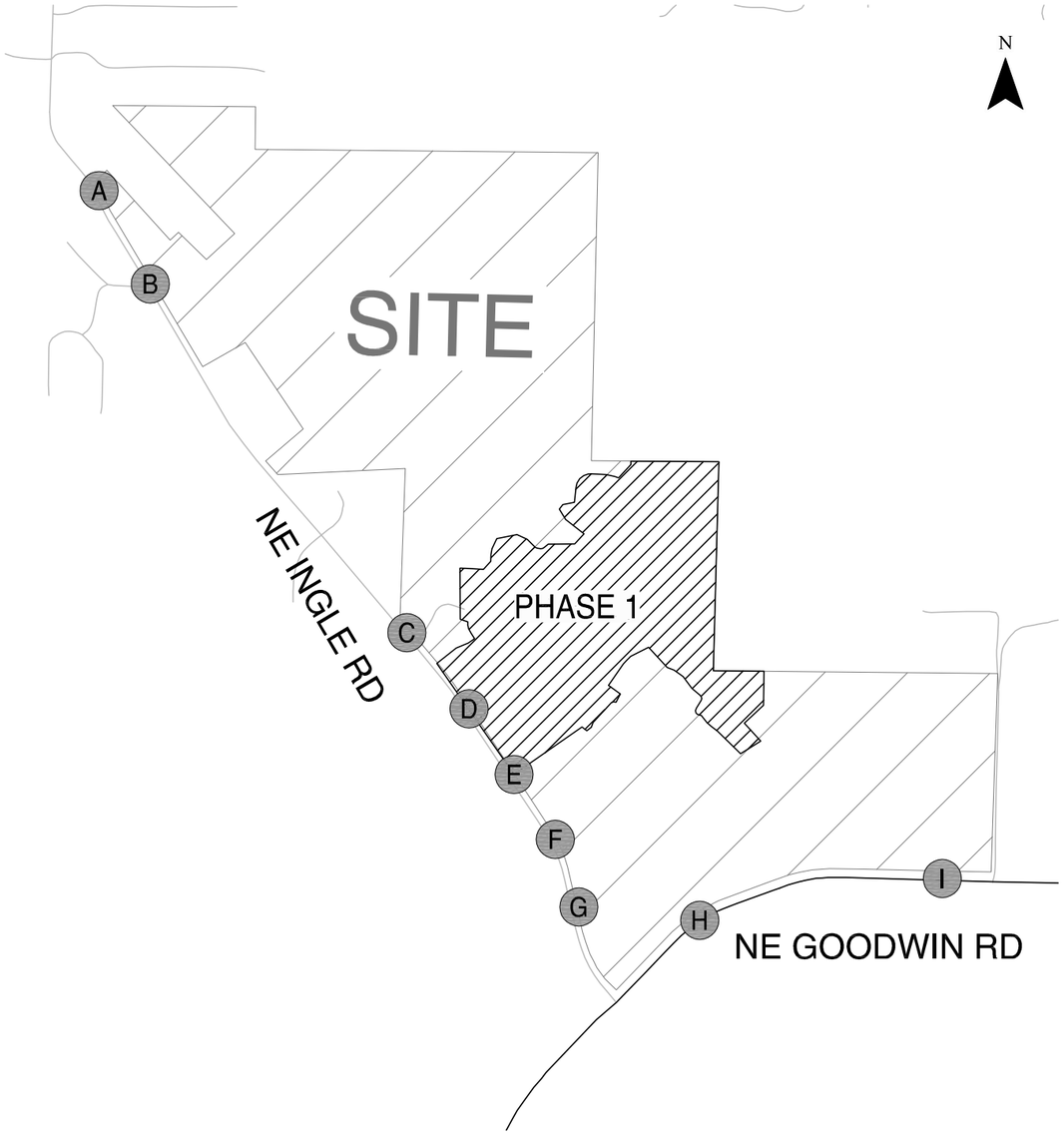
Intersection Summary			
HCM Average Control Delay	16.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	56.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.4%	ICU Level of Service	A
Analysis Period (min)	15		

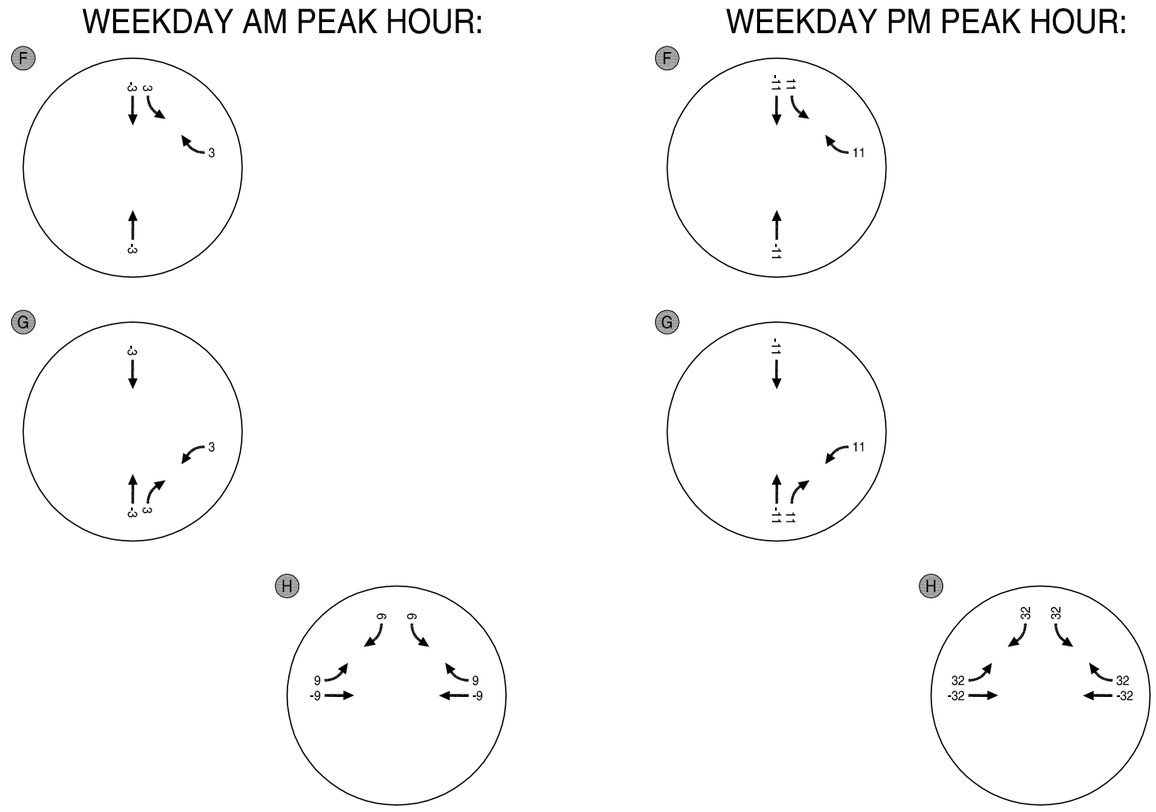
c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	195	34	268	193	32	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	1615	1845	1569	1805	1881
Flt Permitted	0.95	1.00	1.00	1.00	0.38	1.00
Satd. Flow (perm)	1787	1615	1845	1569	716	1881
Peak-hour factor, PHF	0.81	0.81	0.81	0.81	0.81	0.81
Adj. Flow (vph)	241	42	331	238	40	206
RTOR Reduction (vph)	0	30	0	157	0	0
Lane Group Flow (vph)	241	12	331	81	40	206
Confl. Bikes (#/hr)				8		
Heavy Vehicles (%)	1%	0%	3%	0%	0%	1%
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	12.8	12.8	14.7	14.7	21.6	21.6
Effective Green, g (s)	12.8	12.8	14.7	14.7	21.6	21.6
Actuated g/C Ratio	0.29	0.29	0.34	0.34	0.50	0.50
Clearance Time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	527	476	625	531	404	936
v/s Ratio Prot	c0.13		c0.18		0.00	c0.11
v/s Ratio Perm		0.01		0.05	0.04	
v/c Ratio	0.46	0.03	0.53	0.15	0.10	0.22
Uniform Delay, d1	12.5	10.9	11.6	10.0	6.1	6.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.0	0.8	0.1	0.1	0.1
Delay (s)	13.1	10.9	12.4	10.1	6.2	6.3
Level of Service	B	B	B	B	A	A
Approach Delay (s)	12.8		11.4			6.3
Approach LOS	B		B			A

Intersection Summary			
HCM Average Control Delay	10.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	43.4	Sum of lost time (s)	14.0
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Appendix E Pass-by Trip Assignment





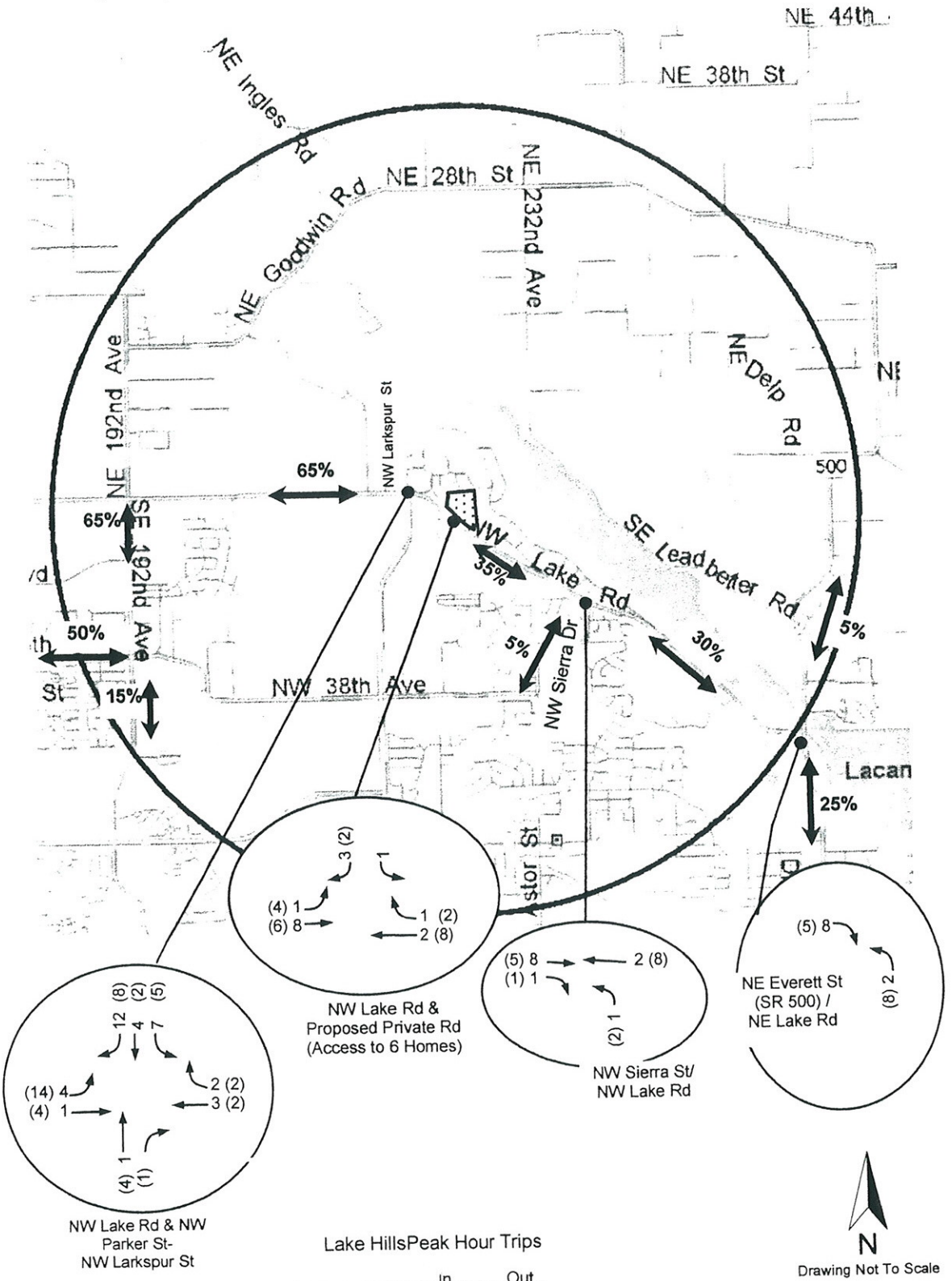
Note: Retail Component (source of pass-by trips) uses driveways F, G, and H

Pass-by Trips for Full Build-Out Scenario
Camas, Washington

Figure
E1

Appendix F In-Process Developments

Figure 8: Weekday Peak Hour Trip Assignment Of New Peak Hour Vehicle Trips Generated by Proposed Lake Hills Residential Development (2-mile Radius)



Lake HillsPeak Hour Trips

	In	Out
AM Peak	10	30
PM Peak	34	20

Proposed Site

AM (PM) Peak Hour Volumes

12.06.C01 Lake Hills Residential Development

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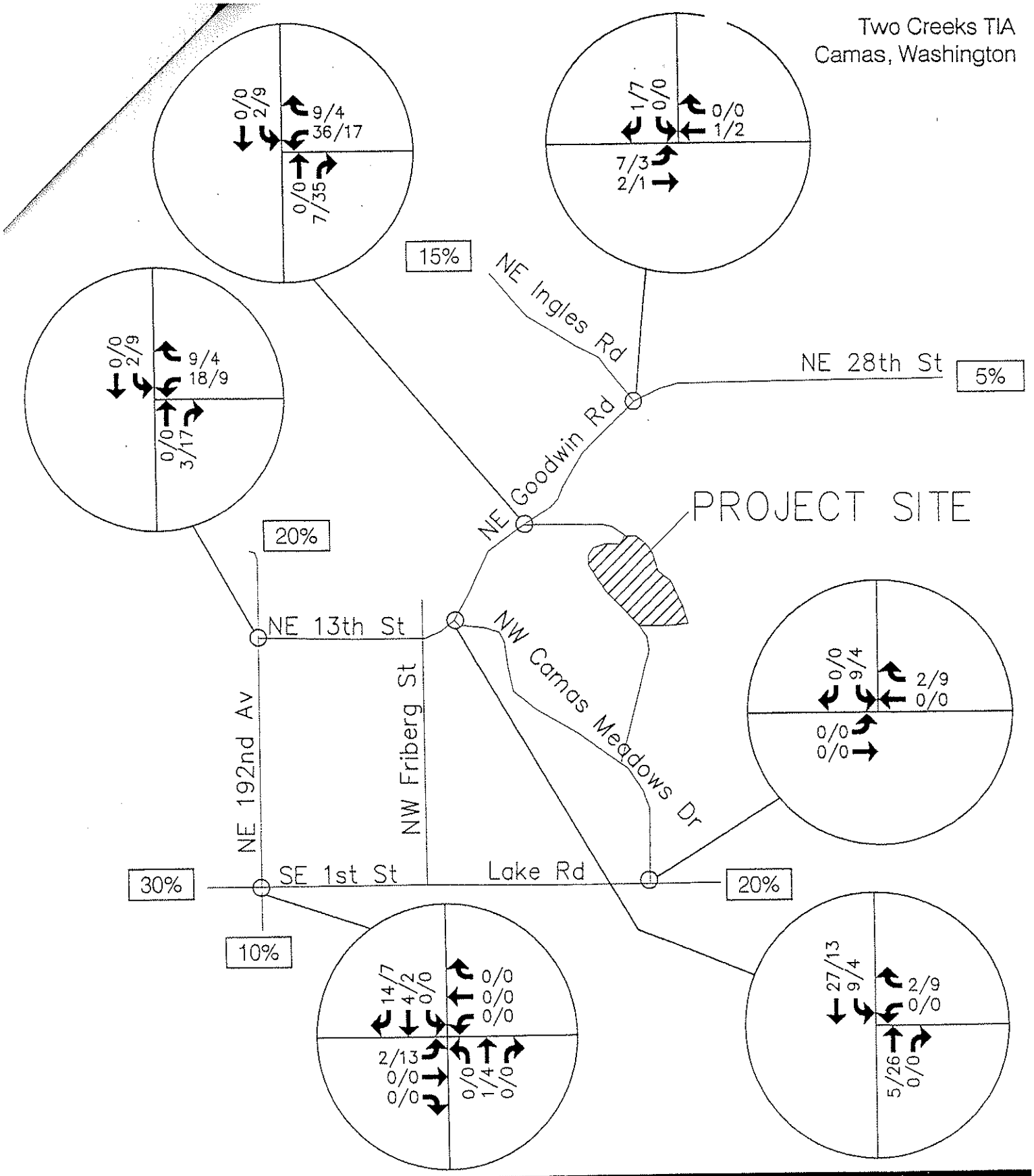
Two Creeks TIA
Camas, Washington



LEGEND

5/10 A.M. and P.M. Peak Hour Traffic Volumes

40% A.M. and P.M. Peak Hour Trip Distribution

NOT TO SCALE

FIGURE 6
Trip Distribution and Assignment
Alternative 2 (123 UNITS)

ALT. #1 WAS 112 UNITS

304031.0Figures.dwg

Figure 3: Recent Weekday Peak Hour Traffic Volumes In The Vicinity Of The Summit at Columbia Vista

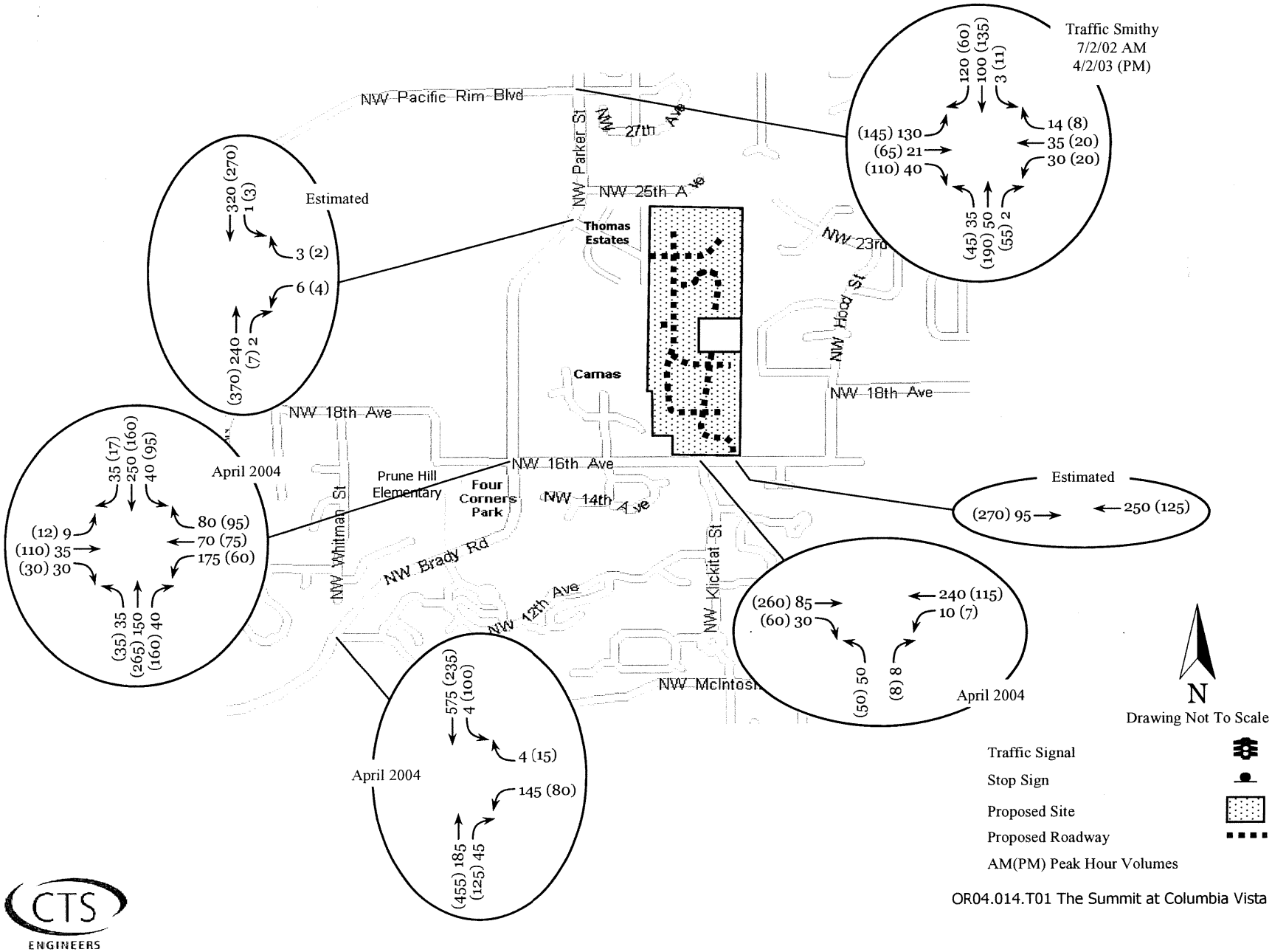
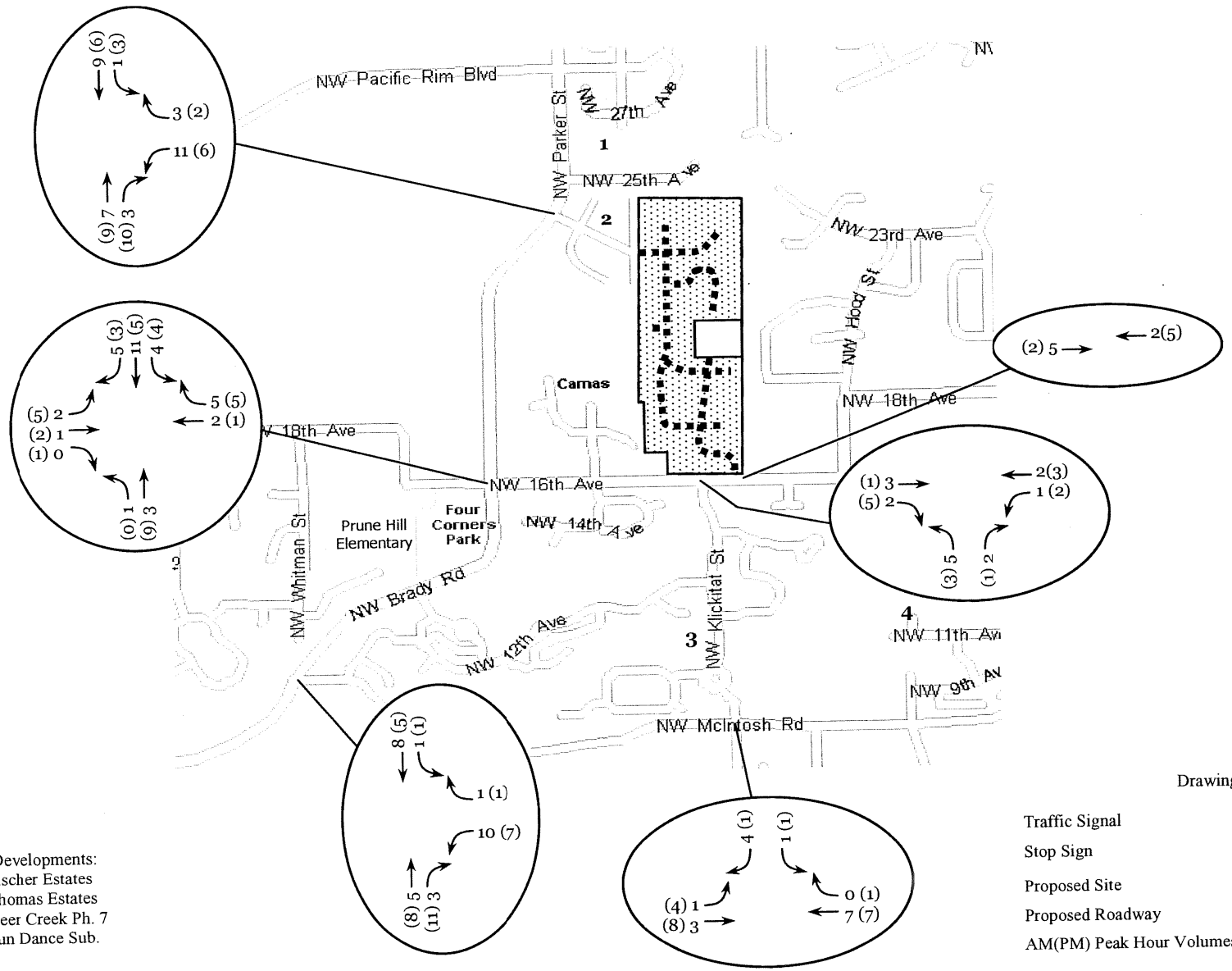


Figure 6: Weekday Peak Hour In-Process Traffic Volumes In The Vicinity Of The Summit at Columbia Vista



Other Developments:
1) Fischer Estates
2) Thomas Estates
3) Deer Creek Ph. 7
4) Sun Dance Sub.

N

Drawing Not To Scale

Traffic Signal

Stop Sign

Proposed Site

Proposed Roadway

AM(PM) Peak Hour Volumes

OR04.014.T01 The Summit at Columbia Vista

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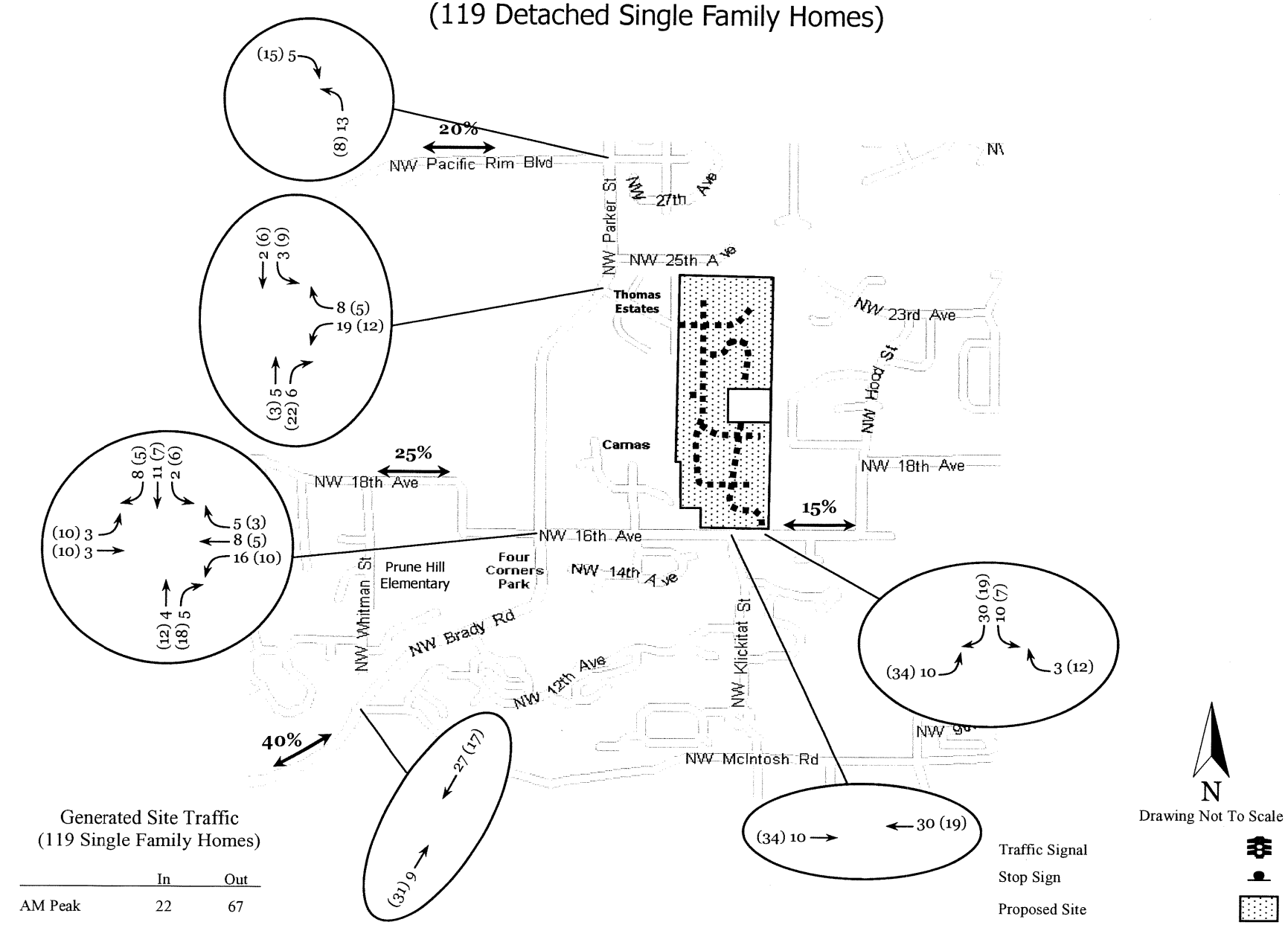
Figure 9: Weekday Peak Hour Traffic Volumes Generated The Summit at Columbia Vista (119 Detached Single Family Homes)



Generated Site Traffic
(119 Single Family Homes)

	In	Out
AM Peak	22	67
PM Peak	77	43

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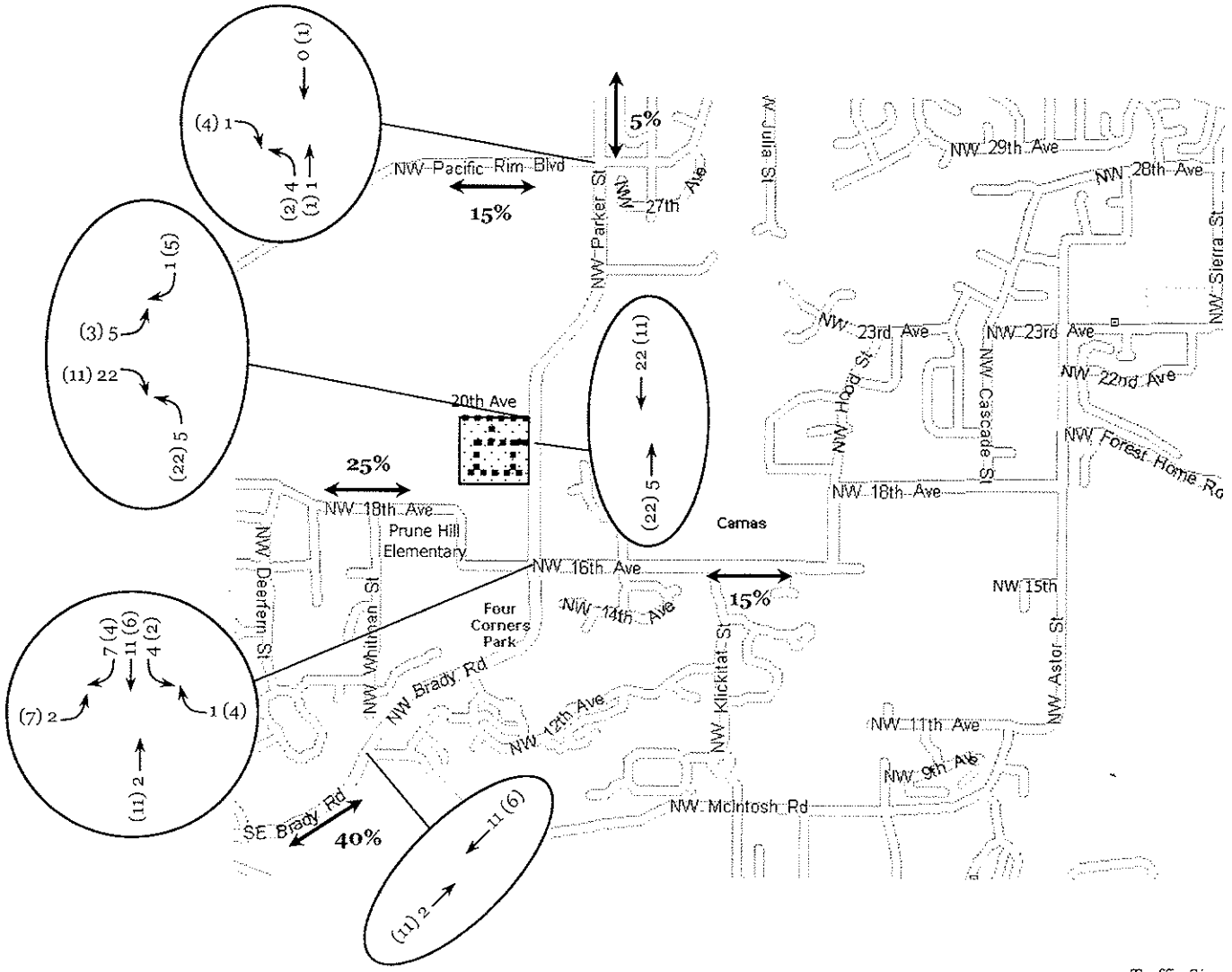
OR04.014.T01 The Summit at Columbia Vista

Figure 8: Weekday Peak Hour Traffic Volumes Generated By Parker Village (Residential Development)



N

Drawing Not To Scale

Generated Site Traffic

	In	Out
AM Peak	6	27
PM Peak	27	14

Traffic Signal

Stop Sign

Proposed Site

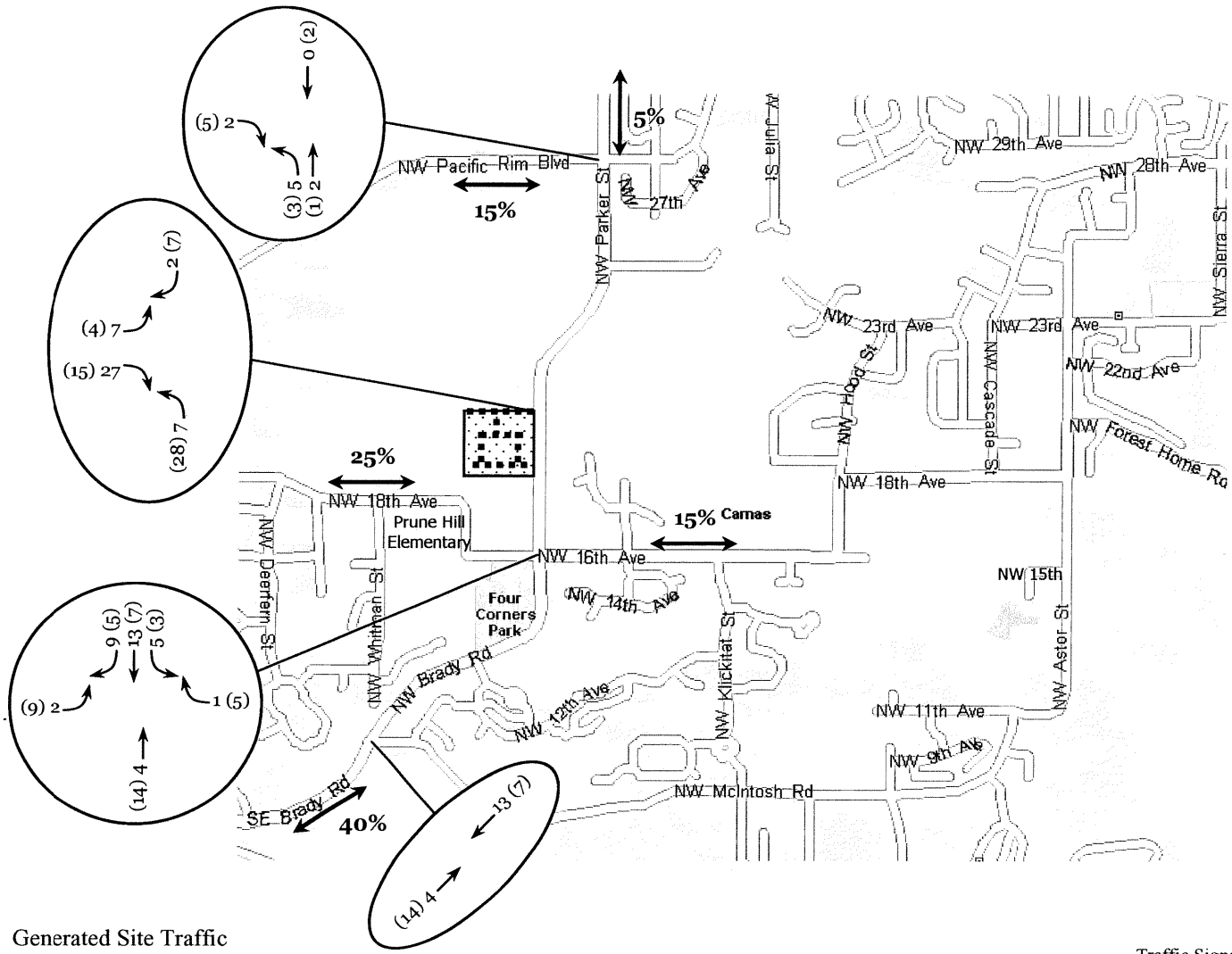
Proposed Roadway

AM(PM) Peak Hour Volumes

OR04.093.T01 Parker Village

CTS

Figure 9: Weekday Peak Hour Traffic Volumes Generated By Parker Village



N

Drawing Not To Scale

Generated Site Traffic

	In	Out
AM Peak	9	33
PM Peak	34	19

Traffic Signal

Stop Sign

Proposed Site

Proposed Roadway

AM(PM) Peak Hour Volumes

OR04.093.T01 Parker Village

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Table 1 Projected Trip Generation for Residential

ITE Land Use	Units (#)	Weekday						
		ADT	AM Peak Hour			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit
Single-Family (#210)	295							
Generation Rate [1]		9.57	0.75	25%	75%	1.01	63%	37%
Site Trips		**2823**	**221**	55	166	**298**	188	110
Apartment (#220)	128							
Generation Rate [2]		3.12	0.22	20%	80%	0.30	65%	35%
Site Trips		**920**	**66**	13	53	**88**	57	31
Total Estimated Trip Generation		**3743**	**287**	68	219	**386**	245	141

[1] Source: *Trip Generation*, 7th Edition, ITE, 2003, average rates.

[2] Source: *Trip Generation*, 7th Edition, ITE, 2003. Rate shown based on fitted curve evaluation. ADT: $T = 6.01X + 150.35$. AM: $T = 0.49X + 3.73$. PM: $T = 0.55X + 17.65$.

Alternative No. 2 (elementary school alternative) will include 248 single-family units and 128 apartment units. This scenario adds the future 600-student elementary school being planned by the Camas School District. The trip generation is projected to yield an ADT of 4,067 trips with 504 AM peak hour trips and 382 trips in the PM peak hour.

Table 2 Projected Trip Generation for Residential & New Elementary School

ITE Land Use	Units	Weekday									
		ADT	AM Peak Hour			Mid-Afternoon Peak			PM Peak Hour		
			Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit
Single-Family (#210)	248 homes										
Generation Rate [1]		9.57	0.75	25%	75%				1.01	63%	37%
Site Trips		**2373**	**186**	47	139				**250**	158	92
Apartment (#220)	128 apartments										
Generation Rate [2]		3.71	0.27	20%	80%				0.35	65%	35%
Site Trips		**920**	**66**	13	53				**88**	57	31
Elementary School (#520)	600 students										
Generation Rate[3,4]		1.29	0.42	55%	45%	0.28	45%	55%	0.074	45%	55%
Site Trips		**774**	**252**	139	113	**168**	76	92	**44**	20	24
Total Estimated Trip Generation		**4067**	**504**	199	305	**168**	76	92	**382**	235	147

[1] Source: *Trip Generation*, 7th Edition, ITE, 2003, average rates.

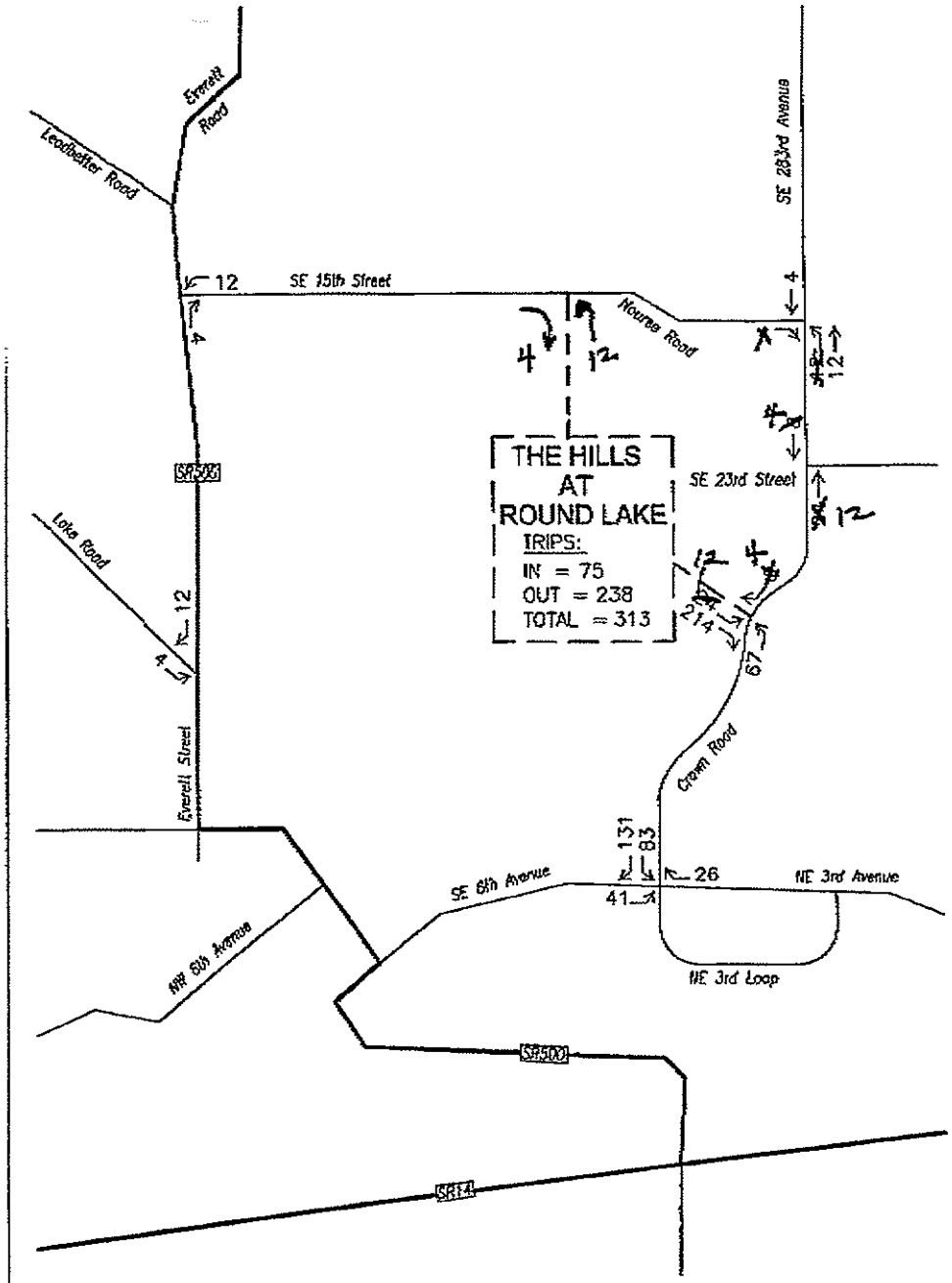
[2] Source: *Trip Generation*, 7th Edition, ITE, 2003. Rate shown based on fitted curve evaluation. ADT: $T = 6.01X + 150.35$. AM: $T = 0.49X + 3.73$. PM: $T = 0.55X + 17.65$.

[3] Source: *Trip Generation*, 7th Edition, ITE, 2003, ADT, AM peak, and Mid-afternoon peak average rates.

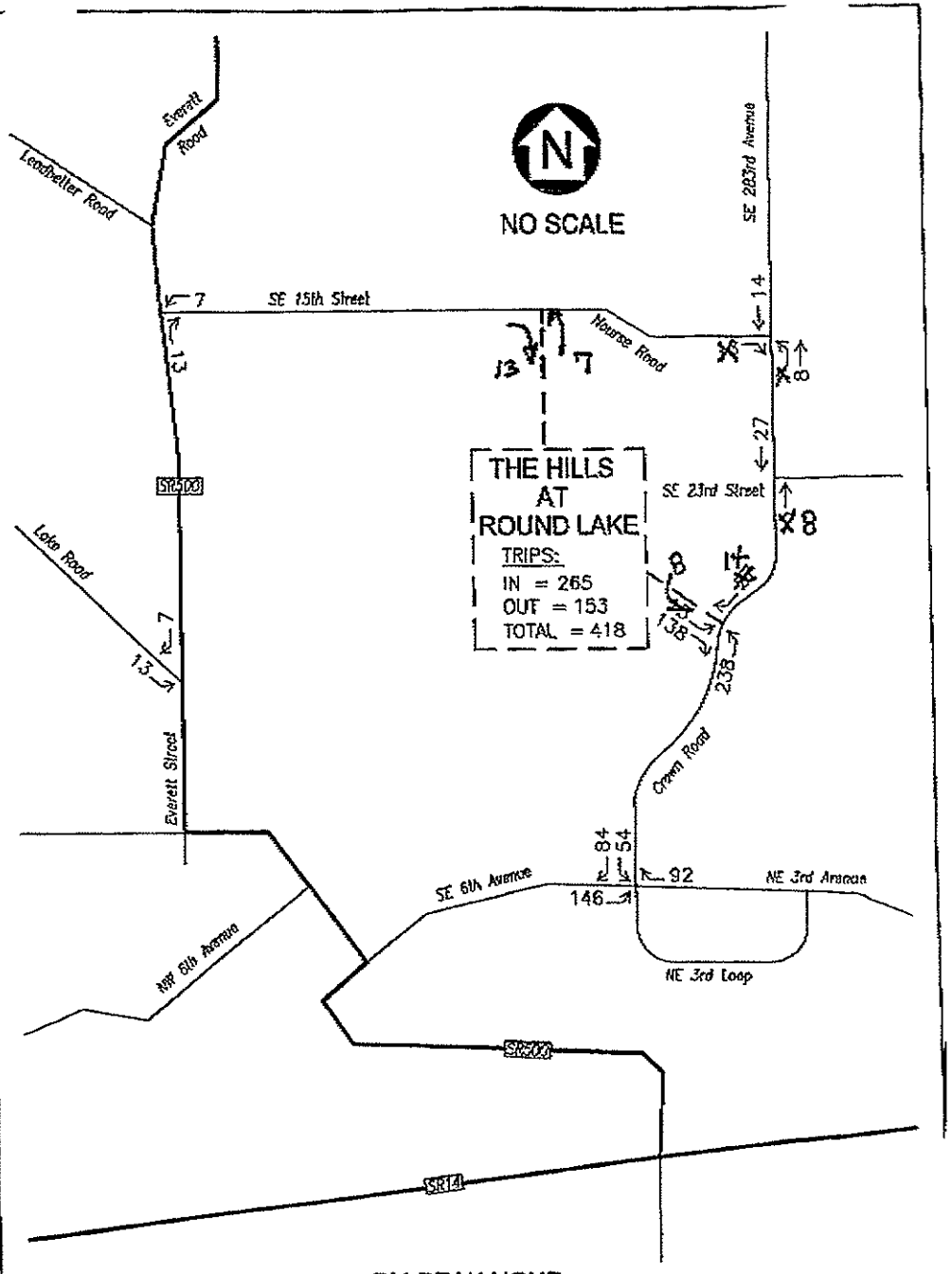
[4] Source: PM peak trip rate calculated from Sherwood, Oregon elementary schools, May 1999.

If you should have any questions regarding this information, please contact Frank Charbonneau, P.E.

PLOT DATE: 02.10.0[illegible] FILE: 0504flow.dwg



AM PEAK HOUR



PM PEAK HOUR

CHARBONNEAU ENGINEERING LLC PROJECT: 05-04	NOTES: Trip generation based on Single-Family Residential (ITE 210) and Apartment (ITE 220) trip rates.	Updated w/North Access 12/7/05 F.C. TRIP ASSIGNMENT THE HILLS AT ROUND LAKE	FIGURE 5

NE 43rd Avenue/SE Nourse Road is a two-lane arterial roadway with additional turn pockets at major intersections. The posted speed limit is 25 mph from NE Everett Street to SE 271st Avenue. East of SE 271st Avenue, the speed limit changes to 40 mph. Intermittent sidewalks exist along both sides of the roadway.

SE 283rd Avenue/SE Crown Road is a two-lane arterial roadway with a posted speed limit of 40 mph. Some intermittent shoulders exist along the roadway.

NE 3rd Avenue is a four-lane arterial roadway with additional turn pockets at major intersections. The posted speed limit is 25 mph west of East First Avenue. East of East First Avenue, the speed limit changes to 40 mph. Sidewalks exist along both sides of the roadway.

TRIP GENERATION

Estimates of daily, A.M. peak hour, and P.M. peak hour trips generated by the proposed project were developed from rates published in "Trip Generation, 8th Edition" (Institute of Transportation Engineers, 2008). The proposed development is expected to generate 478 new daily trips, 37 new A.M. peak hour (10 in, 27 out), and 51 new P.M. peak hour (32 in, 19 out) trips. Table 1 summarizes the trip generation for North Hills Subdivision developmentt.

Table 1. Trip Generation Summary for North Hills Subdivision

	Average Daily	A.M. Peak			P.M. Peak		
		In	Out	Total	In	Out	Total
Single Family Residential (ITE Code 210)							
Rate per unit	9.57	0.19	0.56	0.75	0.64	0.37	1.01
	488	10	28	38	33	19	52
Existing Single family (ITE Code 210)							
Rate per unit	9.57	0.19	0.56	0.75	0.64	0.37	1.01
1 existing single family unit	10	0	1	1	1	0	1
Net new trips	478	10	27	37	32	19	51

TRIP DISTRIBUTION

A generalized trip distribution pattern for the A.M. and P.M. peak hour was developed from the existing traffic counts, previous traffic studies, locations of major employment centers, and logical travel paths to and from major travel corridors. The trip distribution patter is listed below:

- SE 283rd Avenue to and from the north – 5%
- NE Everett Street to and from the north – 10%
- Camas High School – 5%
- NE Lake Road – 10%
- NE Everett Street to and from the south – 20%
- SE Crown Road to and from the south – 50%

Based on the trip distribution pattern above, the project-generated trip impact at the following study area intersection was calculated:

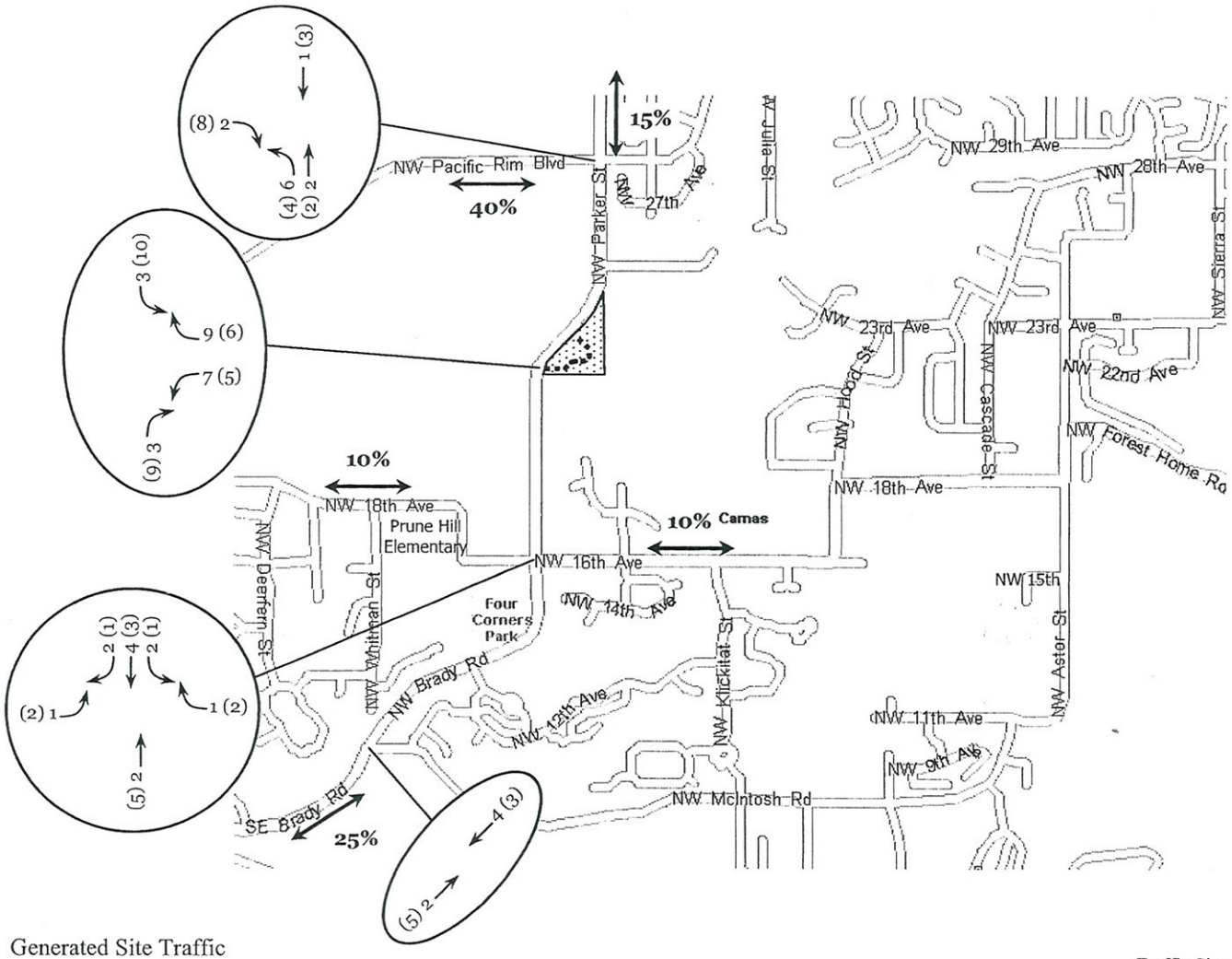
- NE Everett Street (SR 500)/NE 43rd Avenue
- NE Everett Street (SR 500)/NE Lake Road
- SE 277th Avenue/ SE Nourse Road
- SE 283rd Avenue/SE Crown Road/SE Nourse Road
- SE Crown Road/NE 3rd Avenue

Table 2 summarizes the A.M. and P.M. peak hour traffic impacts created by the North Hills Subdivision at the study area intersections.

Table 2. Project Trip Impact Summary

	A.M. Peak			P.M. Peak		
	In	Out	Total	In	Out	Total
NE Everett St/NE 43rd Av	4	11	15	12	8	20
NE Everett St/NE Lake Rd	3	8	11	9	6	15
SE 277th Av/SE Nourse Rd	10	27	37	32	19	51
SE 283rd Av/SE Crown Rd/SE Nourse Rd	5	15	20	18	10	28
SE Crown Rd/NE 3rd Av	5	14	19	16	9	25

Figure 8: Weekday Peak Hour Traffic Volumes Generated By Brady Road Subdivision



N

Drawing Not To Scale

Generated Site Traffic

	In	Out
AM Peak	6	16
PM Peak	19	10

Traffic Signal

Stop Sign

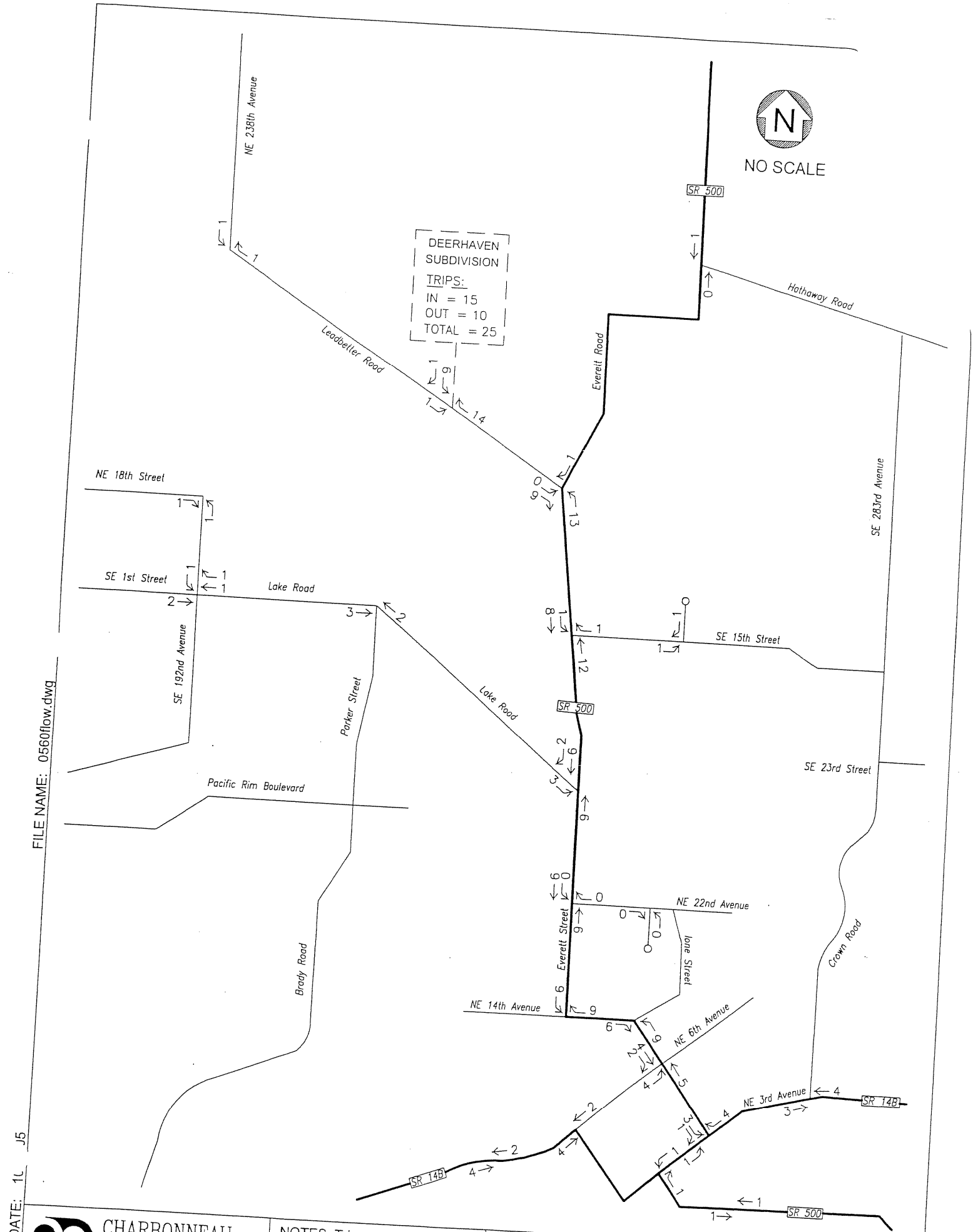
Proposed Site

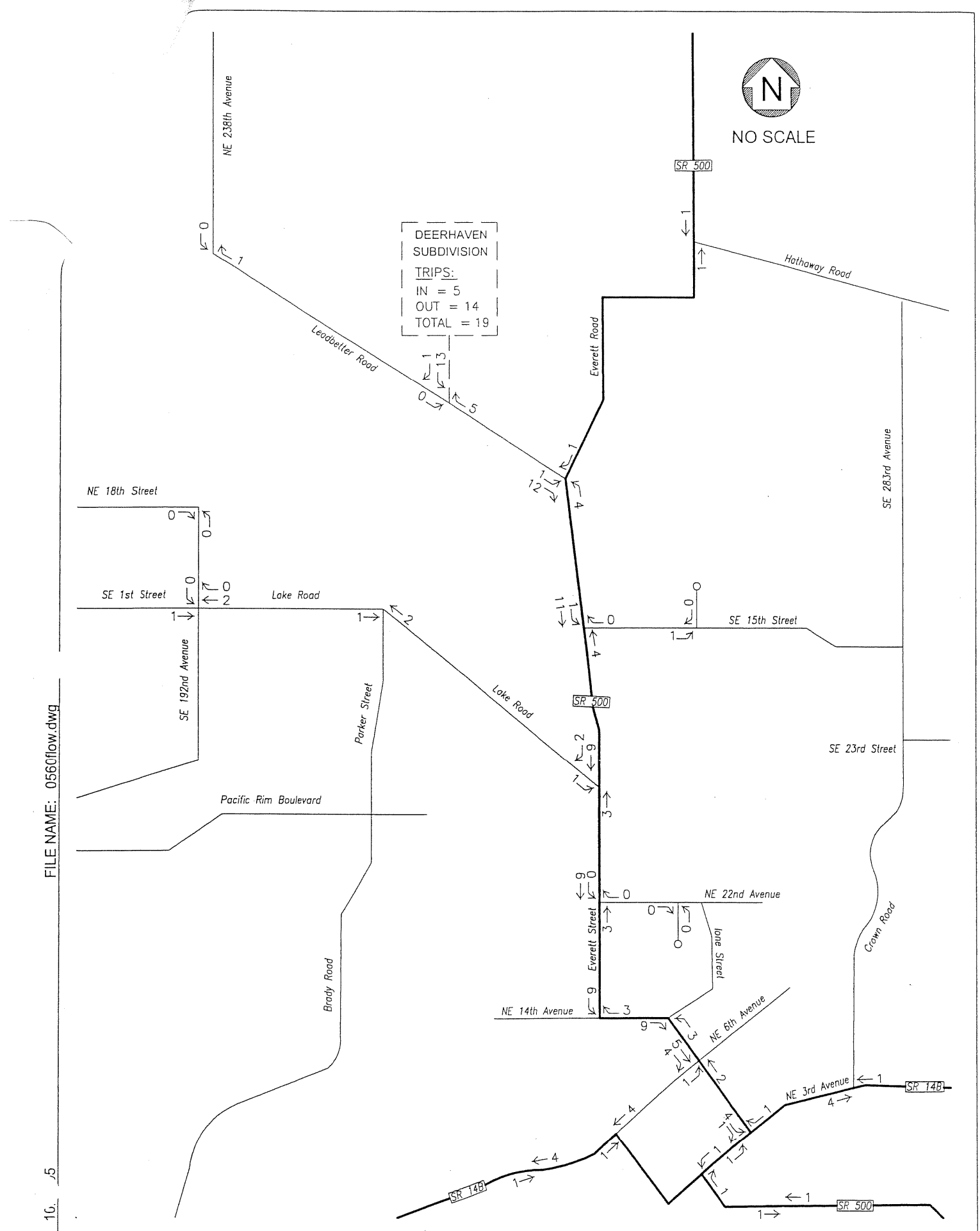
Proposed Roadway

AM(PM) Peak Hour Volumes

OR05.080.T01 Brady Road Subdivision

CTS Engineers


NO SCALE
N
DEERHAVEN SUBDIVISION
TRIPS:
IN = 15
OUT = 10
TOTAL = 25
NE 238th Avenue
Leadbetter Road
Everett Road
Hathaway Road
SR 500
NE 18th Street
SE 1st Street
Lake Road
SE 192nd Avenue
Parker Street
Pacific Rim Boulevard
Brady Road
SE 15th Street
SE 283rd Avenue
SE 23rd Street
NE 22nd Avenue
Everett Street
Ione Street
Crown Road
NE 14th Avenue
NE 6th Avenue
NE 3rd Avenue
SR 14B
FILE NAME: 0560flow.dwg
PLOT DATE: 1L J5
CHARBONNEAU ENGINEERING LLC
PROJECT: 05-60
NOTES: Trip generation based on Single-Family Residential (ITE 210) trip rates.
TRIP ASSIGNMENT
PM PEAK HOUR
FIGURE

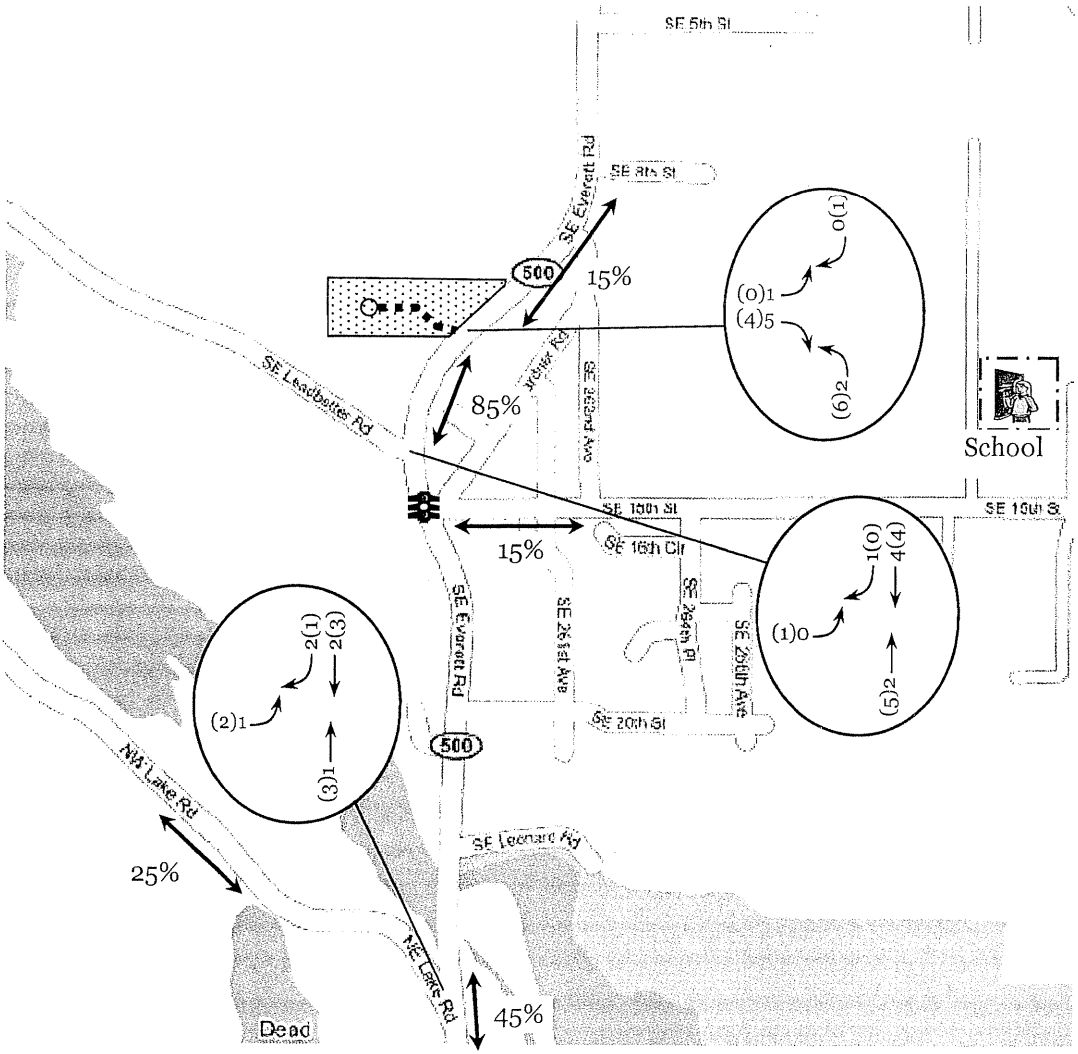


FILE NAME: 0560flow.dwg

PLOT DATE: 16 JUN 05

CHARBONNEAU ENGINEERING LLC PROJECT: 05-60	NOTES: Trip generation based on Single-Family Residential (ITE 210) trip rates.	TRIP ASSIGNMENT AM PEAK HOUR DEERHAVEN SUBDIVISION	FIGURE 5a

Figure 4: Weekday Peak Hour Traffic Volumes Generated By Hadley's Glen



Site Generated Traffic

	In	Out
AM Peak	2	6
PM Peak	7	4

Net New Generated Site Traffic

	In	Out
AM Peak	2	5
PM Peak	6	4

N

Drawing Not To Scale

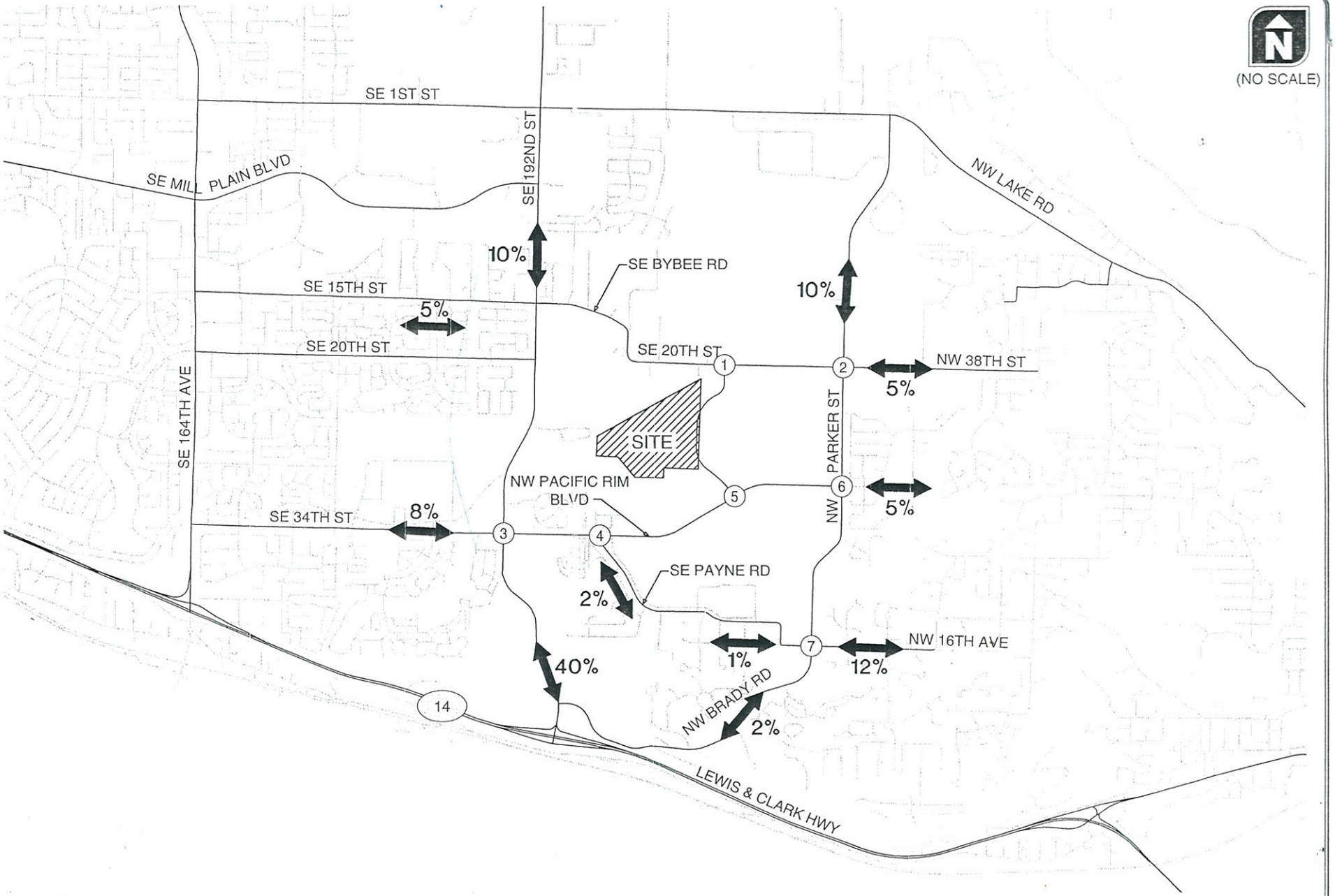
Proposed Site

Proposed Roadway

AM(PM) Peak Hour Volumes

OR05.050.T11 Hadley's Glen

CTS ENGINEERS



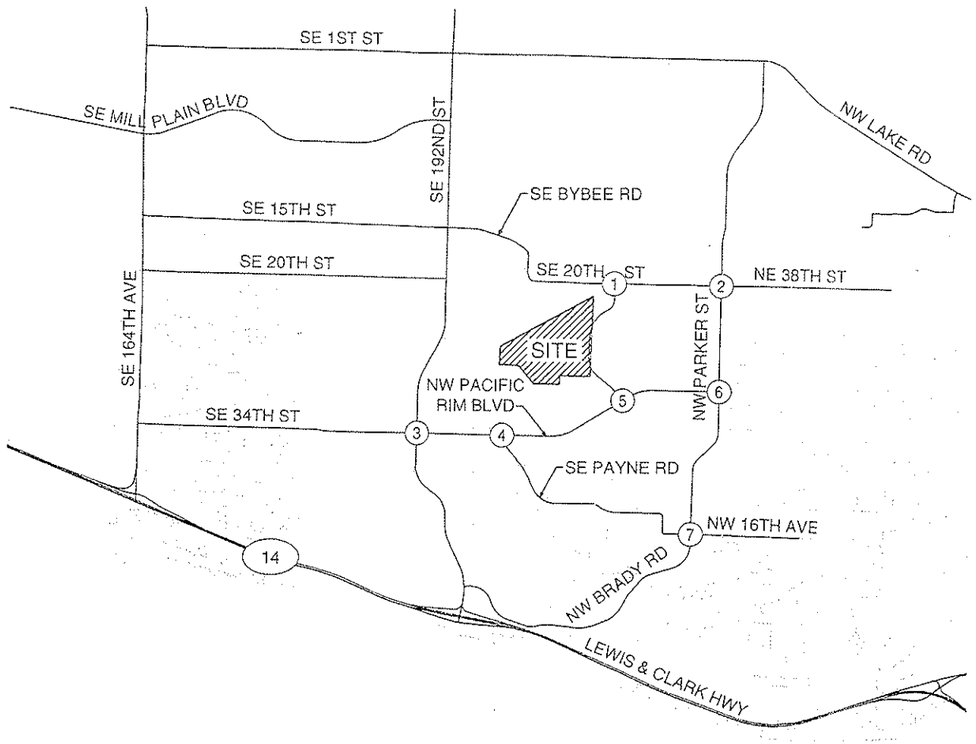
ESTIMATED TRIP DISTRIBUTION
CAMAS, WASHINGTON

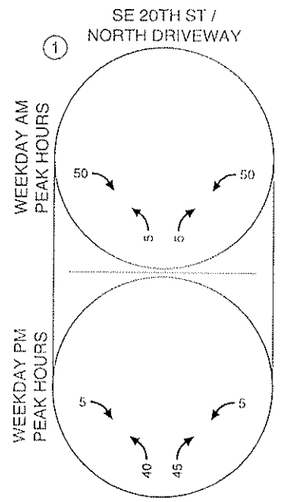
FIGURE 3

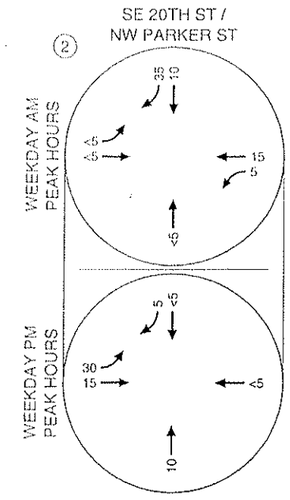
KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING

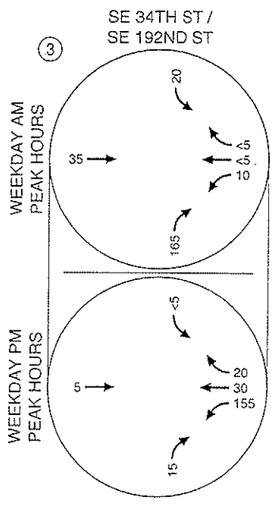
H:\proj\file\9468 - Fisher Creek Campus\dwgs\figs\9468Fig01.dwg Sep 11, 2008 - 3:22pm - ddaly Layout Tab: Fig03

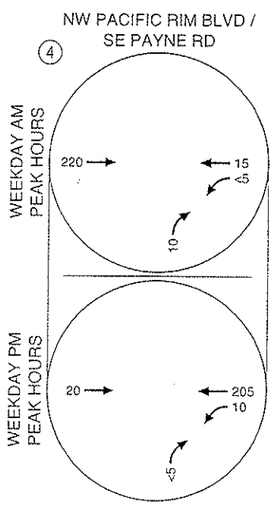
Fisher Cr. Campus Bldgs. 1 & 2

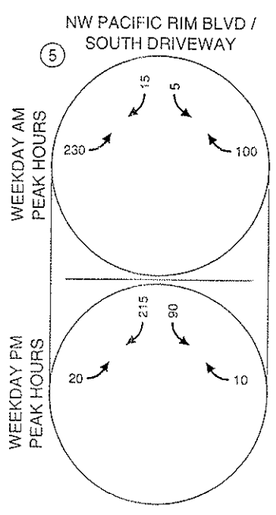


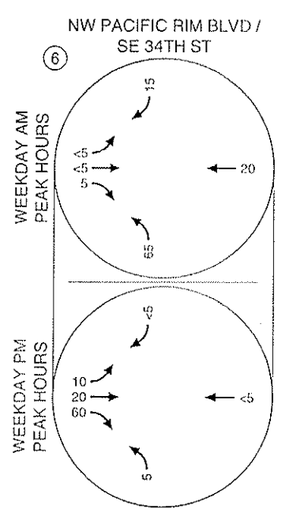


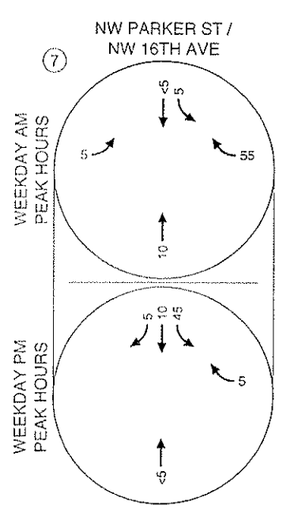






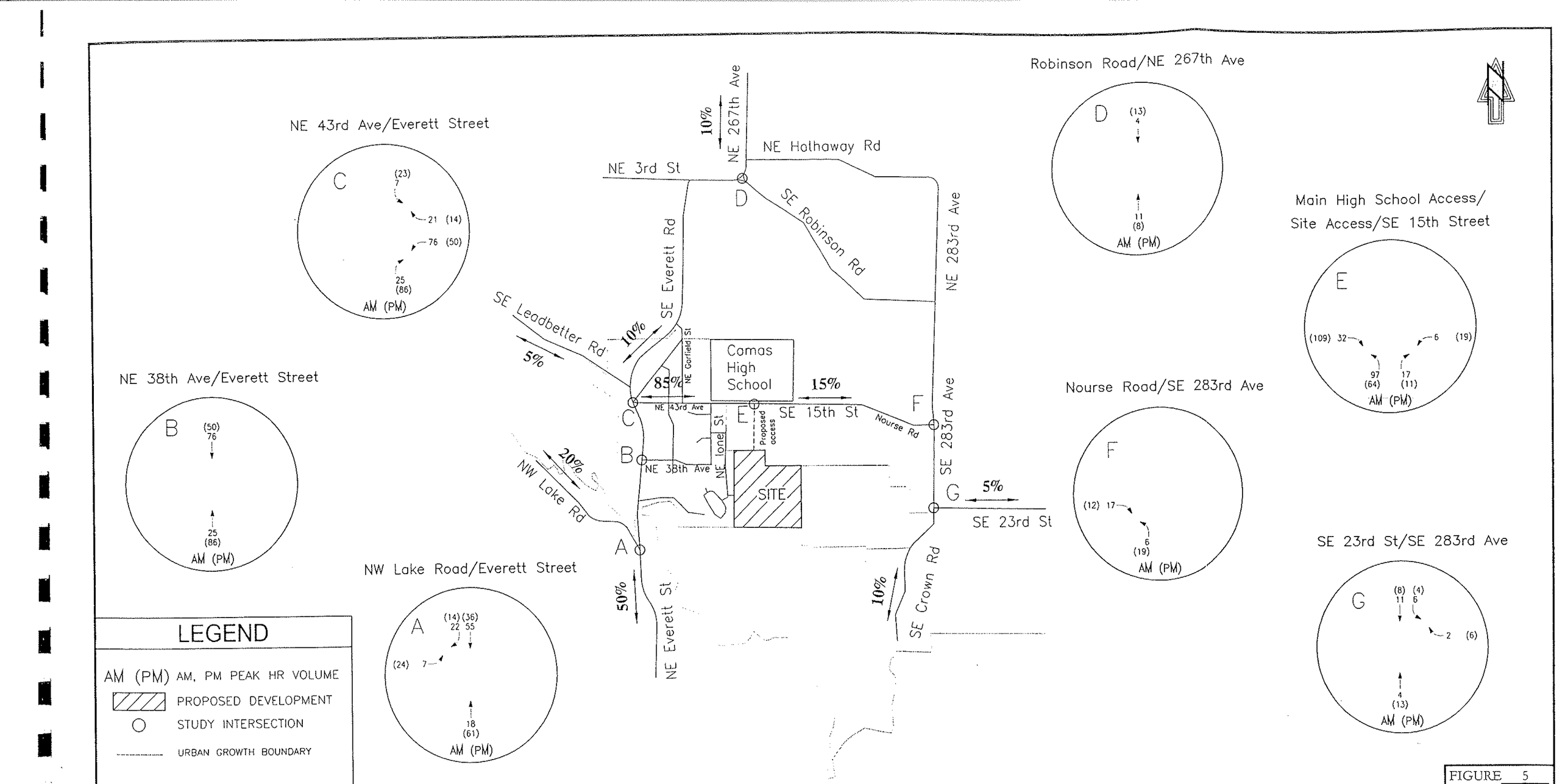






PHASE 1-2 WEEKDAY AM AND PM PEAK HOUR SITE-GENERATED TRIPS
CAMAS, WASHINGTON

FIGURE 5



LEGEND

AM (PM) AM, PM PEAK HR VOLUME

PROPOSED DEVELOPMENT

STUDY INTERSECTION

URBAN GROWTH BOUNDARY

FIGURE 5

SITE GENERATED TRIPS & TRIP DISTRIBUTION
MILLSHORE DOWNS

HOPPER DENNIS JELLISON P.L.L.C.

ENGINEERS & PLANNERS

314 W. 15th Street
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FAX (360) 695-8767

Internet: www.hdjengineers.com

Generally, a crash rate greater than one crash per million entering vehicles (MEV) at an intersection is an indicator that a potential geometric or operational issue may exist and that further evaluation should be considered. Table 2 summarizes the intersection crash history.

Table 2 Intersection Crash Histories (January 1, 2006 through December 31, 2010)

Intersection	Number of Crashes	Collision Type					Severity			Crash Rate[2] (per MEV[3])
		Rear End	Turning/ Side Swipe	Angle	Fixed Object	Other	PDO[1]	Injury	Fatal	
NW 38th Avenue/ SE 192nd Avenue	5	2	1	0	2	0	3	2	0	0.14
NW 38th Avenue/ NW Parker Street	6	0	1	4	1	0	5	1	0	0.32
NW Pacific Rim Blvd./ NW Parker Street	2	0	0	1	1	0	1	1	0	0.13
NW 16th Avenue/ NW Brady Road	2	0	0	1	1	0	1	1	0	0.13

[1] Property Damage Only
[2] Crash Rate = (Total Crashes) / (365 days/year x daily entering vehicles / 1,000,000)
[3] MEV – Million Entering Vehicles

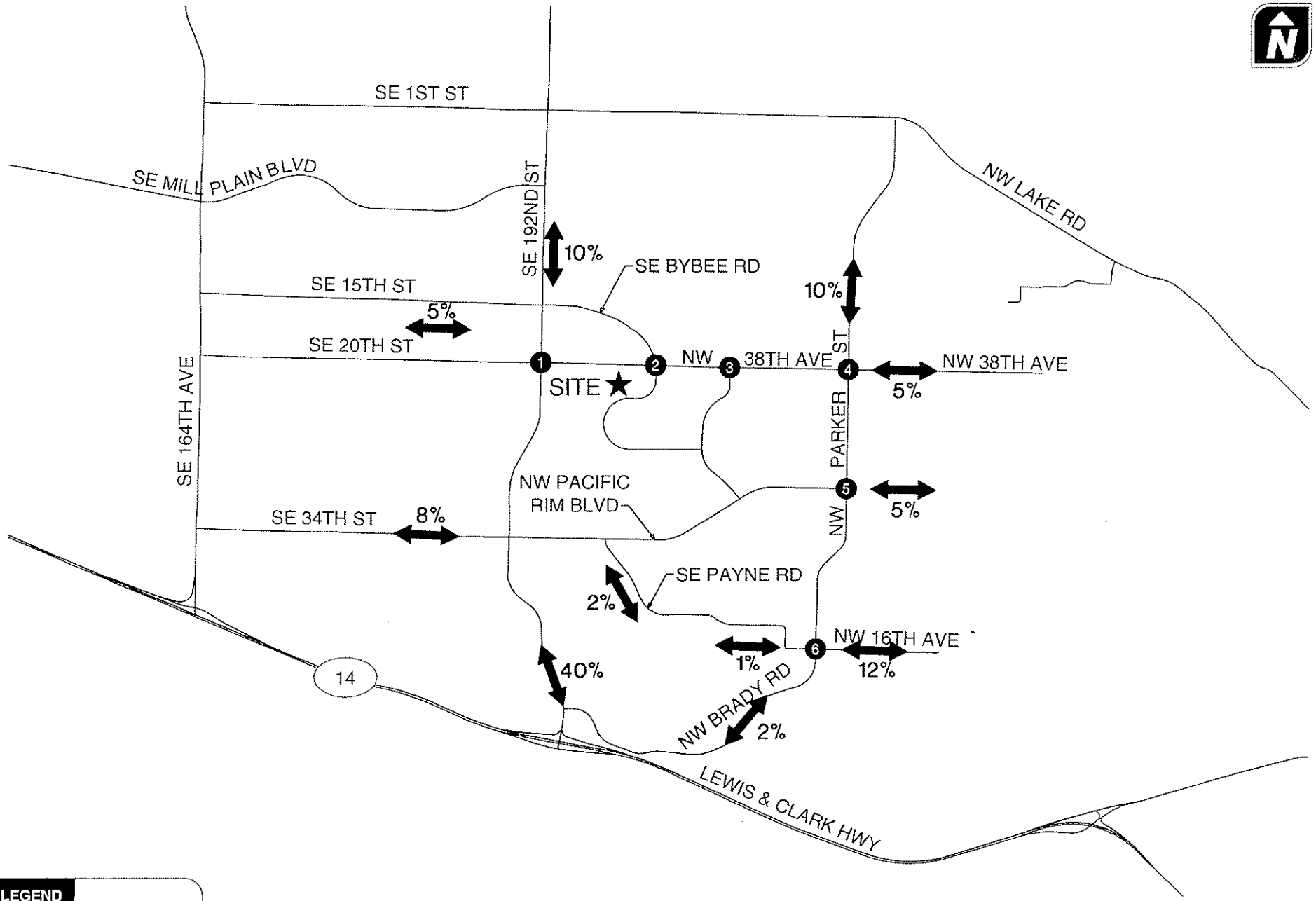
As shown in Table 2, each study intersection's crash rate is less than 1.0 crashes/MEV, there were no fatalities reported during the time periods studied, and no correctable safety issues were identified on the basis of the crash rate comparison alone. *Attachment "A" contains the crash data.*

Proposed Development Trip Generation Estimate

Estimates of daily and weekday a.m. and p.m. peak hour vehicle trip ends for the proposed Fisher Creek Campus were calculated from empirical observations at other similar developments. These observations were obtained from the standard reference manual, *Trip Generation, 8th Edition*, published by the Institute of Transportation Engineers (ITE, Reference 3). Table 3 shows the estimated trip generation associated the proposed buildings. The daily trips shown in Table 3 were rounded to the nearest even number while the weekday a.m. and p.m. peak hour trips were rounded to the nearest trip.

Table 3 Trip Generation Estimate

ITE Land Use	ITE Code	Size (square feet)	Daily	Weekday AM Peak Hour			Weekday PM Peak Hour		
				Total	In	Out	Total	In	Out
Corporate Headquarters Building	714	107,256	856	160	149	11	150	15	135



ESTIMATED TRIP DISTRIBUTION PATTERN
CAMAS, WASHINGTON

FIGURE 2

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING

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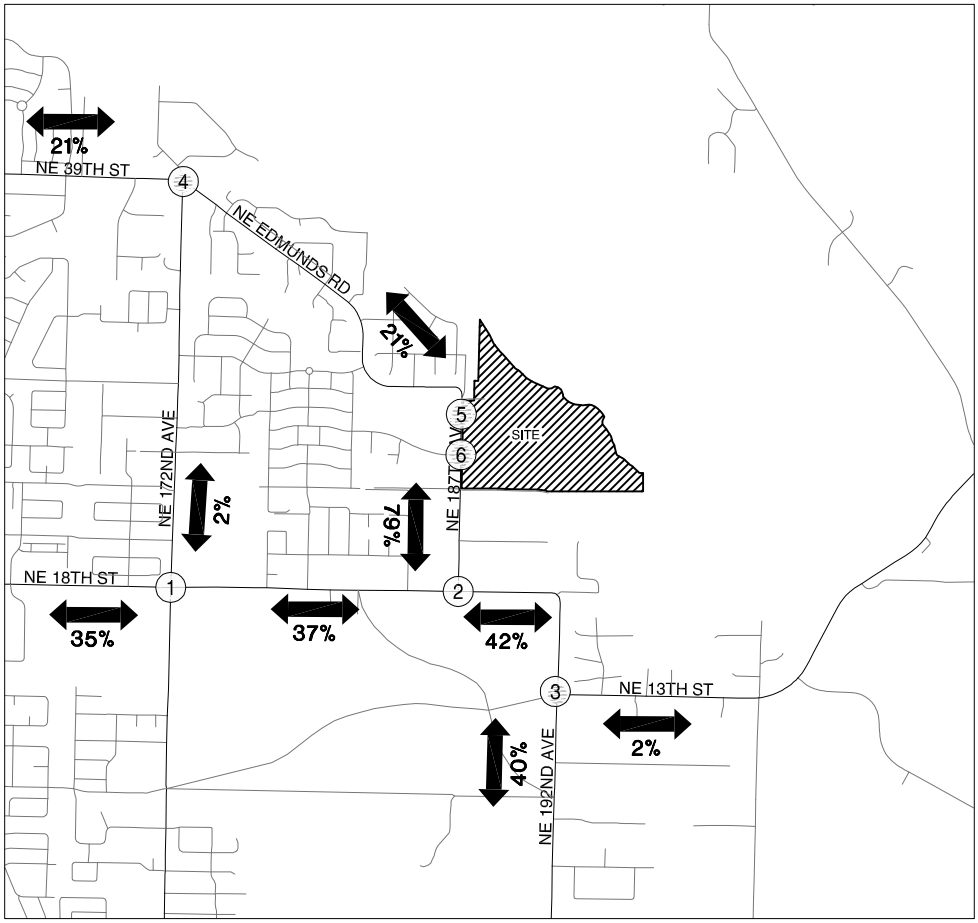
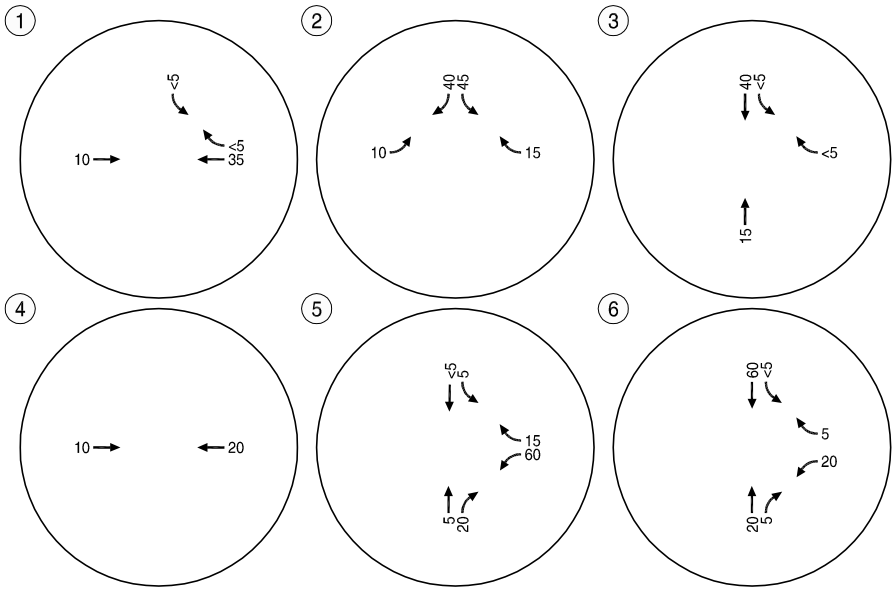
(NO SCALE)

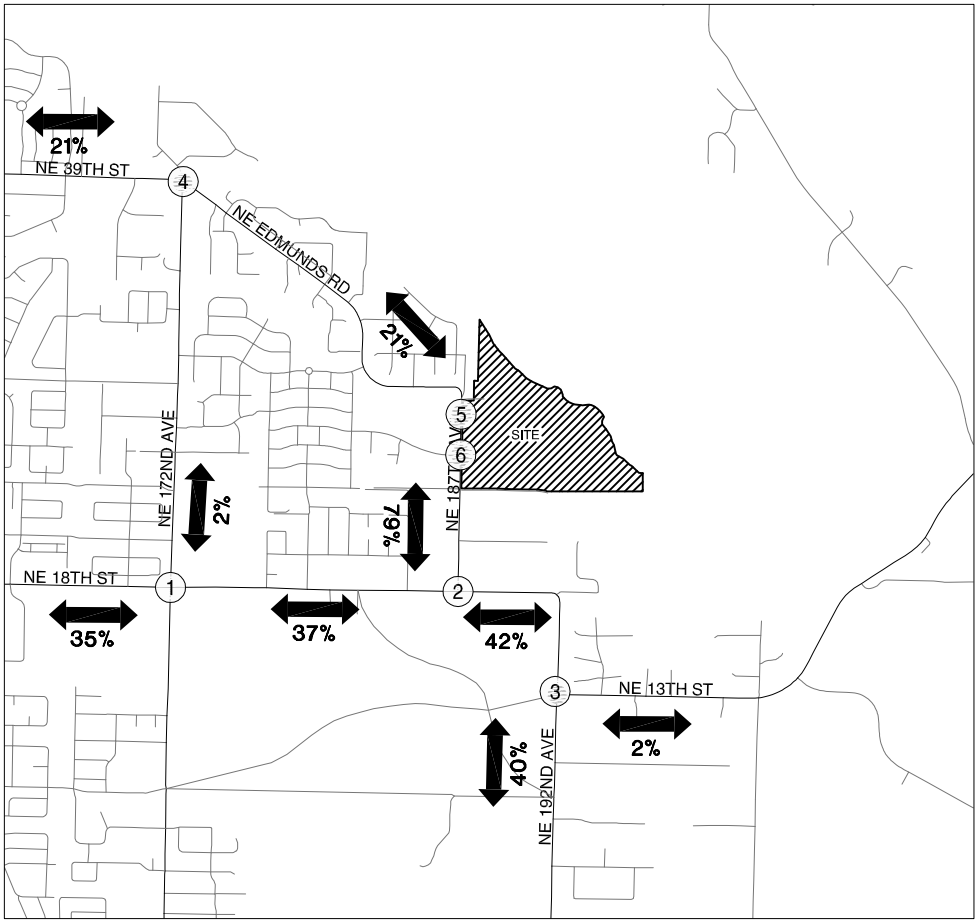


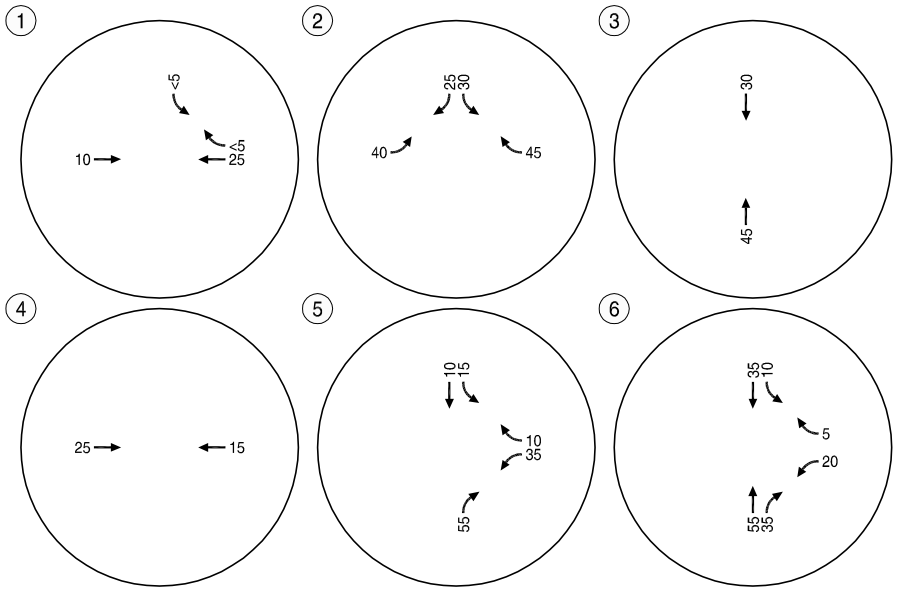


ESTIMATED TRIP DISTRIBUTION PATTERN & SITE-GENERATED TRIPS
WEEKDAY AM PEAK HOURS
CLARK COUNTY, WASHINGTON

FIGURE **10**

(NO SCALE)





ESTIMATED TRIP DISTRIBUTION PATTERN & SITE-GENERATED TRIPS
WEEKDAY PM PEAK HOURS
CLARK COUNTY, WASHINGTON

FIGURE 11

PLOT DATE: 06.13.13 FILE NAME: 1310flow.dwg

CHARBONNEAU ENGINEERING LLC

PROJECT: 13-10

NOTES: Trip distribution based on RTC's EMME/2 model.

TRIP DISTRIBUTION
AM PEAK HOUR & PM PEAK HOUR
192ND PLAZA WEST

FIGURE 4C

SEE FIGURE 4d

SEE FIGURE 4b

SEE FIGURE 4b

SEE FIGURE 4d

NO SCALE

N

EVERGREEN HIGHWAY

SR 14

BRADY ROAD

SE 192ND AV

PACIFIC RIM BOULEVARD

PAYNE ROAD

SE 34TH STREET

SITE

SE 176TH AVENUE

SE 20TH STREET

SE 20TH STREET

BYBEE ROAD

SE 196TH AVENUE

SE 195TH AVENUE

SE 15TH STREET

MILL PLAIN BOULEVARD

SE 1ST STREET

SE 1ST STREET

FRIBERG STREET

NE 192ND AVENUE

NE 13TH STREET

NE 172ND AVENUE

NE 18TH STREET

NE 187TH AVENUE

GOODWIN ROAD

NICLE ROAD

EDMUNDS ROAD

NE 199TH AVENUE

NE 39TH STREET

Appendix G 2018 Background Conditions Worksheets

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	53	180	14	183	158	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	62	209	16	213	184	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			271		412	166
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			271		412	166
tC, single (s)			4.1		6.4	7.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	4.2
p0 queue free %			99		69	99
cM capacity (veh/h)			1304		585	676

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	271	229	188
Volume Left	0	16	184
Volume Right	209	0	5
cSH	1700	1304	587
Volume to Capacity	0.16	0.01	0.32
Queue Length 95th (ft)	0	1	34
Control Delay (s)	0.0	0.7	14.0
Lane LOS		A	B
Approach Delay (s)	0.0	0.7	14.0
Approach LOS			B

Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	36.8%	ICU Level of Service	A
Analysis Period (min)	15		

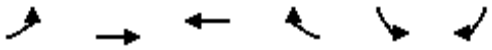
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	188	223	307	74	548	358
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.4		5.7	5.4
Lane Util. Factor	1.00		1.00		1.00	1.00
Frt	0.93		0.97		1.00	1.00
Flt Protected	0.98		1.00		0.95	1.00
Satd. Flow (prot)	1608		1645		1805	1881
Flt Permitted	0.98		1.00		0.23	1.00
Satd. Flow (perm)	1608		1645		428	1881
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	188	223	307	74	548	358
RTOR Reduction (vph)	27	0	7	0	0	0
Lane Group Flow (vph)	384	0	374	0	548	358
Heavy Vehicles (%)	0%	13%	14%	6%	0%	1%
Turn Type					pm+pt	
Protected Phases	6		4		3	8
Permitted Phases					8	
Actuated Green, G (s)	30.4		27.1		55.2	55.2
Effective Green, g (s)	30.4		27.1		55.2	55.2
Actuated g/C Ratio	0.31		0.28		0.57	0.57
Clearance Time (s)	5.8		5.4		5.7	5.4
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Lane Grp Cap (vph)	505		461		563	1073
v/s Ratio Prot	c0.24		0.23		c0.23	0.19
v/s Ratio Perm					c0.33	
v/c Ratio	0.76		0.81		0.97	0.33
Uniform Delay, d1	29.9		32.5		21.1	11.0
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	5.8		9.9		30.9	0.1
Delay (s)	35.7		42.3		52.0	11.1
Level of Service	D		D		D	B
Approach Delay (s)	35.7		42.3			35.9
Approach LOS	D		D			D

Intersection Summary			
HCM Average Control Delay	37.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	96.8	Sum of lost time (s)	11.5
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	115	279	100	254	1	84	2	28	2	5	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt		1.00	0.85	1.00	1.00			1.00	0.85		0.97	
Flt Protected		1.00	1.00	0.95	1.00			0.95	1.00		0.99	
Satd. Flow (prot)		1757	1615	1671	1817			1636	1417		1486	
Flt Permitted		1.00	1.00	0.95	1.00			0.72	1.00		0.94	
Satd. Flow (perm)		1751	1615	1671	1817			1237	1417		1407	
Peak-hour factor, PHF	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Adj. Flow (vph)	2	174	423	152	385	2	127	3	42	3	8	3
RTOR Reduction (vph)	0	0	271	0	0	0	0	0	34	0	2	0
Lane Group Flow (vph)	0	176	152	152	387	0	0	130	8	0	12	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	100%	7%	0%	8%	4%	100%	11%	0%	14%	0%	40%	0%
Turn Type	Perm		Perm	Prot			Perm		Perm	Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4				2		2	6		
Actuated Green, G (s)		16.0	16.0	7.9	27.9			8.5	8.5		8.5	
Effective Green, g (s)		16.0	16.0	7.9	27.9			8.5	8.5		8.5	
Actuated g/C Ratio		0.36	0.36	0.18	0.63			0.19	0.19		0.19	
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		631	582	297	1142			237	271		269	
v/s Ratio Prot				c0.09	c0.21							
v/s Ratio Perm		0.10	0.09					c0.11	0.01		0.01	
v/c Ratio		0.28	0.26	0.51	0.34			0.55	0.03		0.04	
Uniform Delay, d1		10.1	10.0	16.5	3.9			16.2	14.6		14.6	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.2	0.2	1.5	0.2			2.6	0.0		0.1	
Delay (s)		10.3	10.3	18.0	4.1			18.8	14.6		14.7	
Level of Service		B	B	B	A			B	B		B	
Approach Delay (s)		10.3			8.0			17.8			14.7	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	44.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	61	69	213	104	36	171
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	69	78	239	117	40	192
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	356				512	298
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	356				512	298
tC, single (s)	4.2				6.5	6.2
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.3
p0 queue free %	94				92	74
cM capacity (veh/h)	1170				481	735

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	146	356	40	192
Volume Left	69	0	40	0
Volume Right	0	117	0	192
cSH	1170	1700	481	735
Volume to Capacity	0.06	0.21	0.08	0.26
Queue Length 95th (ft)	5	0	7	26
Control Delay (s)	4.1	0.0	13.2	11.6
Lane LOS	A		B	B
Approach Delay (s)	4.1	0.0	11.9	
Approach LOS			B	

Intersection Summary			
Average Delay	4.6		
Intersection Capacity Utilization	37.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Volume (veh/h)	1	63	41	4	236	0	64	1	3	0	2	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	68	45	4	257	0	70	1	3	0	2	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	257			113			364	358	91	362	380	257
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	257			113			364	358	91	362	380	257
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			88	100	100	100	100	99
cM capacity (veh/h)	1320			1345			585	569	972	593	553	787

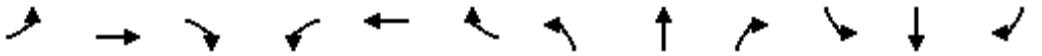
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	114	261	74	7
Volume Left	1	4	70	0
Volume Right	45	0	3	4
cSH	1320	1345	596	690
Volume to Capacity	0.00	0.00	0.12	0.01
Queue Length 95th (ft)	0	0	11	1
Control Delay (s)	0.1	0.2	11.9	10.3
Lane LOS	A	A	B	B
Approach Delay (s)	0.1	0.2	11.9	10.3
Approach LOS			B	B

Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	32.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	67	3	0	190	48	2	0	0	61	1	57
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Hourly flow rate (vph)	10	87	4	0	247	62	3	0	0	79	1	74
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	309			91			462	419	89	388	390	278
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	309			91			462	419	89	388	390	278
tC, single (s)	4.3			4.1			8.1	6.5	6.2	7.2	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.4			2.2			4.4	4.0	3.3	3.6	4.0	3.4
p0 queue free %	99			100			99	100	100	86	100	90
cM capacity (veh/h)	1132			1517			338	524	975	553	544	740

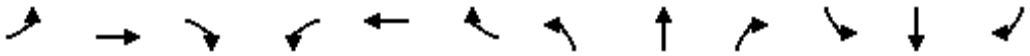
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	101	309	3	155
Volume Left	10	0	3	79
Volume Right	4	62	0	74
cSH	1132	1517	338	629
Volume to Capacity	0.01	0.00	0.01	0.25
Queue Length 95th (ft)	1	0	1	24
Control Delay (s)	0.9	0.0	15.7	12.6
Lane LOS	A		C	B
Approach Delay (s)	0.9	0.0	15.7	12.6
Approach LOS			C	B

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	25.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	358	260	0	0	281	38	0	0	1	22	0	288
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00			0.99			1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	1.00			0.98			0.86			1.00	0.85
Flt Protected	0.95	1.00			1.00			1.00			0.95	1.00
Satd. Flow (prot)	1671	3505			3442			1623			1804	1491
Flt Permitted	0.95	1.00			1.00			1.00			1.00	1.00
Satd. Flow (perm)	1671	3505			3442			1623			1899	1491
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Adj. Flow (vph)	597	433	0	0	468	63	0	0	2	37	0	480
RTOR Reduction (vph)	0	0	0	0	12	0	0	2	0	0	0	78
Lane Group Flow (vph)	597	433	0	0	519	0	0	0	0	0	37	402
Confl. Peds. (#/hr)							4		1	1		4
Heavy Vehicles (%)	8%	3%	0%	0%	3%	3%	0%	0%	0%	0%	0%	8%
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	7	4		3	8			2			6	7
Permitted Phases							2			6		6
Actuated Green, G (s)	17.8	34.0			12.2			2.6			2.6	20.4
Effective Green, g (s)	17.8	34.0			12.2			2.6			2.6	20.4
Actuated g/C Ratio	0.40	0.76			0.27			0.06			0.06	0.46
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	667	2672			942			95			111	816
v/s Ratio Prot	c0.36	0.12			c0.15			0.00				c0.20
v/s Ratio Perm											0.02	0.07
v/c Ratio	0.90	0.16			0.55			0.00			0.33	0.49
Uniform Delay, d1	12.5	1.4			13.9			19.8			20.2	8.5
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	14.5	0.0			0.7			0.0			1.8	0.5
Delay (s)	27.0	1.5			14.6			19.8			21.9	8.9
Level of Service	C	A			B			B			C	A
Approach Delay (s)		16.3			14.6			19.8			9.9	
Approach LOS		B			B			B			A	

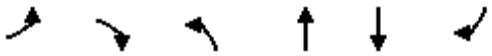
Intersection Summary			
HCM Average Control Delay	14.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	44.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	168	174	128	228	6	111	9	85	20	35	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1881	1531	1805	3525		1735	1613		1805	1750	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.69	1.00		0.67	1.00	
Satd. Flow (perm)	1805	1881	1531	1805	3525		1264	1613		1273	1750	
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Adj. Flow (vph)	12	243	252	186	330	9	161	13	123	29	51	49
RTOR Reduction (vph)	0	0	172	0	2	0	0	94	0	0	37	0
Lane Group Flow (vph)	12	243	80	186	337	0	161	42	0	29	63	0
Confl. Peds. (#/hr)			4	4			1					1
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	0%	1%	3%	0%	2%	0%	4%	0%	2%	0%	0%	0%
Turn Type	Prot		Perm	Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2			6		
Actuated Green, G (s)	1.0	16.1	16.1	10.7	25.8		12.0	12.0		12.0	12.0	
Effective Green, g (s)	1.0	16.1	16.1	10.7	25.8		12.0	12.0		12.0	12.0	
Actuated g/C Ratio	0.02	0.32	0.32	0.21	0.51		0.24	0.24		0.24	0.24	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	36	596	485	380	1790		299	381		301	413	
v/s Ratio Prot	0.01	c0.13		c0.10	0.10			0.03			0.04	
v/s Ratio Perm			0.05				c0.13			0.02		
v/c Ratio	0.33	0.41	0.16	0.49	0.19		0.54	0.11		0.10	0.15	
Uniform Delay, d1	24.6	13.6	12.5	17.6	6.8		17.0	15.2		15.2	15.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.4	0.5	0.2	1.0	0.1		1.9	0.1		0.1	0.2	
Delay (s)	30.0	14.1	12.7	18.6	6.9		18.8	15.3		15.3	15.5	
Level of Service	C	B	B	B	A		B	B		B	B	
Approach Delay (s)		13.7			11.0			17.2			15.5	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	50.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		

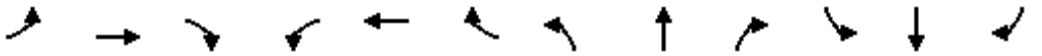
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	67	64	112	210	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	4	75	72	126	236	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				358		
pX, platoon unblocked						
vC, conflicting volume	507	238	239			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	507	238	239			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	91	95			
cM capacity (veh/h)	500	806	1339			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	80	72	126	239
Volume Left	4	72	0	0
Volume Right	75	0	0	3
cSH	779	1339	1700	1700
Volume to Capacity	0.10	0.05	0.07	0.14
Queue Length 95th (ft)	9	4	0	0
Control Delay (s)	10.1	7.8	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	10.1	2.9		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	29.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	41	22	177	140	65	59	278	86	29	214	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	1679		1786	1765		1805	1827	1546	1751	1845	1509
Flt Permitted	0.58	1.00		0.51	1.00		0.39	1.00	1.00	0.42	1.00	1.00
Satd. Flow (perm)	1061	1679		968	1765		741	1827	1546	771	1845	1509
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Adj. Flow (vph)	80	59	31	253	200	93	84	397	123	41	306	110
RTOR Reduction (vph)	0	25	0	0	24	0	0	0	75	0	0	75
Lane Group Flow (vph)	80	65	0	253	269	0	84	397	48	41	306	35
Confl. Peds. (#/hr)			1	1					3	3		
Heavy Vehicles (%)	4%	0%	19%	1%	0%	8%	0%	4%	2%	3%	3%	7%
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	14.2	11.2		22.8	15.8		25.1	20.7	20.7	19.9	18.1	18.1
Effective Green, g (s)	14.2	11.2		22.8	15.8		25.1	20.7	20.7	19.9	18.1	18.1
Actuated g/C Ratio	0.25	0.20		0.40	0.28		0.44	0.36	0.36	0.35	0.32	0.32
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	298	328		494	487		406	660	559	299	583	477
v/s Ratio Prot	0.01	0.04		c0.07	c0.15		c0.02	c0.22		0.00	0.17	
v/s Ratio Perm	0.05			0.14			0.07		0.03	0.04		0.02
v/c Ratio	0.27	0.20		0.51	0.55		0.21	0.60	0.09	0.14	0.52	0.07
Uniform Delay, d1	17.0	19.3		12.3	17.7		9.9	14.9	12.1	12.6	16.1	13.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.3		0.9	1.4		0.3	1.6	0.1	0.2	0.9	0.1
Delay (s)	17.5	19.6		13.2	19.1		10.2	16.5	12.1	12.8	16.9	13.8
Level of Service	B	B		B	B		B	B	B	B	B	B
Approach Delay (s)		18.6			16.3			14.7			15.8	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	15.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	57.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	368	50	126	389	58	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1597	1482	1743	1509	1504	1900
Flt Permitted	0.95	1.00	1.00	1.00	0.48	1.00
Satd. Flow (perm)	1597	1482	1743	1509	764	1900
Peak-hour factor, PHF	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	511	69	175	540	81	304
RTOR Reduction (vph)	0	22	0	410	0	0
Lane Group Flow (vph)	511	47	175	130	81	304
Heavy Vehicles (%)	13%	9%	9%	7%	20%	0%
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	26.7	26.7	14.9	14.9	26.1	26.1
Effective Green, g (s)	26.7	26.7	14.9	14.9	26.1	26.1
Actuated g/C Ratio	0.43	0.43	0.24	0.24	0.42	0.42
Clearance Time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	690	640	420	364	397	802
v/s Ratio Prot	c0.32		0.10		0.02	c0.16
v/s Ratio Perm		0.03		0.09	0.07	
v/c Ratio	0.74	0.07	0.42	0.36	0.20	0.38
Uniform Delay, d1	14.7	10.3	19.8	19.5	11.1	12.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.3	0.0	0.7	0.6	0.3	0.3
Delay (s)	18.9	10.3	20.5	20.1	11.4	12.6
Level of Service	B	B	C	C	B	B
Approach Delay (s)	17.9		20.2			12.3
Approach LOS	B		C			B

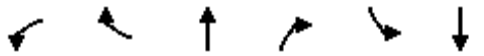
Intersection Summary			
HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	61.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	159	148	10	98	152	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	175	163	11	108	167	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			337		386	256
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			337		386	256
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		73	98
cM capacity (veh/h)			1233		612	787

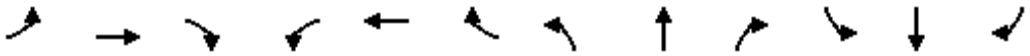
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	337	119	179
Volume Left	0	11	167
Volume Right	163	0	12
cSH	1700	1233	621
Volume to Capacity	0.20	0.01	0.29
Queue Length 95th (ft)	0	1	30
Control Delay (s)	0.0	0.8	13.1
Lane LOS		A	B
Approach Delay (s)	0.0	0.8	13.1
Approach LOS			B

Intersection Summary			
Average Delay		3.9	
Intersection Capacity Utilization		33.2%	ICU Level of Service A
Analysis Period (min)		15	



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	204	112	692	241	149	409
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.4		5.7	5.4
Lane Util. Factor	1.00		1.00		1.00	1.00
Frpb, ped/bikes	0.99		0.99		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.95		0.97		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	1715		1799		1752	1881
Flt Permitted	0.97		1.00		0.07	1.00
Satd. Flow (perm)	1715		1799		120	1881
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	204	112	692	241	149	409
RTOR Reduction (vph)	14	0	6	0	0	0
Lane Group Flow (vph)	302	0	927	0	149	409
Confl. Peds. (#/hr)		2		8	8	
Heavy Vehicles (%)	2%	0%	1%	2%	3%	1%
Turn Type					pm+pt	
Protected Phases	6		4		3	8
Permitted Phases					8	
Actuated Green, G (s)	21.4		55.6		69.6	69.6
Effective Green, g (s)	21.4		55.6		69.6	69.6
Actuated g/C Ratio	0.21		0.54		0.68	0.68
Clearance Time (s)	5.8		5.4		5.7	5.4
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Lane Grp Cap (vph)	359		979		214	1281
v/s Ratio Prot	c0.18		c0.52		c0.06	0.22
v/s Ratio Perm					0.42	
v/c Ratio	0.84		0.95		0.70	0.32
Uniform Delay, d1	38.8		21.9		25.6	6.6
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	15.5		17.0		7.7	0.1
Delay (s)	54.2		38.9		33.3	6.7
Level of Service	D		D		C	A
Approach Delay (s)	54.2		38.9			13.8
Approach LOS	D		D			B

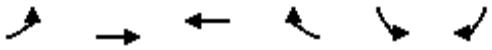
Intersection Summary			
HCM Average Control Delay	33.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	102.2	Sum of lost time (s)	16.9
Intersection Capacity Utilization	91.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	357	24	41	223	2	45	5	60	1	4	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	0.98		1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt		1.00	0.85	1.00	1.00			1.00	0.85		0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.96	1.00		0.99	
Satd. Flow (prot)		1862	1615	1770	1879			1819	1548		1850	
Flt Permitted		1.00	1.00	0.95	1.00			0.74	1.00		0.95	
Satd. Flow (perm)		1856	1615	1770	1879			1413	1548		1779	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	6	406	27	47	253	2	51	6	68	1	5	1
RTOR Reduction (vph)	0	0	13	0	0	0	0	0	59	0	1	0
Lane Group Flow (vph)	0	412	14	47	255	0	0	57	9	0	6	0
Confl. Peds. (#/hr)	2					2			3	3		
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	0%	2%	0%	2%	1%	0%	0%	0%	2%	0%	0%	0%
Turn Type	Perm		Perm	Prot			Perm		Perm	Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4				2		2	6		
Actuated Green, G (s)		22.3	22.3	2.6	28.9			5.9	5.9		5.9	
Effective Green, g (s)		22.3	22.3	2.6	28.9			5.9	5.9		5.9	
Actuated g/C Ratio		0.52	0.52	0.06	0.68			0.14	0.14		0.14	
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		967	841	108	1269			195	213		245	
v/s Ratio Prot				c0.03	0.14							
v/s Ratio Perm		c0.22	0.01					c0.04	0.01		0.00	
v/c Ratio		0.43	0.02	0.44	0.20			0.29	0.04		0.03	
Uniform Delay, d1		6.3	5.0	19.4	2.6			16.6	16.0		16.0	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.3	0.0	2.8	0.1			0.8	0.1		0.0	
Delay (s)		6.6	5.0	22.2	2.7			17.4	16.1		16.0	
Level of Service		A	A	C	A			B	B		B	
Approach Delay (s)		6.5			5.7			16.7			16.0	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM Average Control Delay	7.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	42.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	97	278	148	52	101	64
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	111	320	170	60	116	74
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	230				743	200
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	230				743	200
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				67	91
cM capacity (veh/h)	1350				351	846

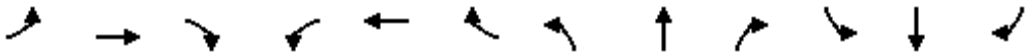
Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	431	230	116	74
Volume Left	111	0	116	0
Volume Right	0	60	0	74
cSH	1350	1700	351	846
Volume to Capacity	0.08	0.14	0.33	0.09
Queue Length 95th (ft)	7	0	35	7
Control Delay (s)	2.6	0.0	20.2	9.7
Lane LOS	A		C	A
Approach Delay (s)	2.6	0.0	16.1	
Approach LOS			C	

Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	304	54	2	164	0	34	0	3	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	1	349	62	2	189	0	39	0	3	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	189			411			576	576	380	579	607	189
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	189			411			576	576	380	579	607	189
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			91	100	99	100	100	100
cM capacity (veh/h)	1398			1158			431	430	671	426	412	859

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	413	191	43	0
Volume Left	1	2	39	0
Volume Right	62	0	3	0
cSH	1398	1158	443	1700
Volume to Capacity	0.00	0.00	0.10	0.00
Queue Length 95th (ft)	0	0	8	0
Control Delay (s)	0.0	0.1	14.0	0.0
Lane LOS	A	A	B	A
Approach Delay (s)	0.0	0.1	14.0	0.0
Approach LOS			B	A

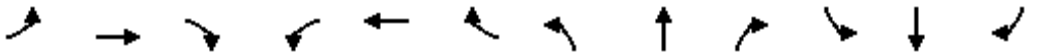
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	29.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	79	208	3	2	137	70	3	0	0	89	0	38
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	84	221	3	2	146	74	3	0	0	95	0	40
Pedestrians					1							
Lane Width (ft)					12.0							
Walking Speed (ft/s)					4.0							
Percent Blockage					0							
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	220			224			619	615	224	579	580	183
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	220			224			619	615	224	579	580	183
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.4
p0 queue free %	94			100			99	100	100	77	100	95
cM capacity (veh/h)	1331			1356			366	383	820	403	401	844

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	309	222	3	135
Volume Left	84	2	3	95
Volume Right	3	74	0	40
cSH	1331	1356	366	478
Volume to Capacity	0.06	0.00	0.01	0.28
Queue Length 95th (ft)	5	0	1	29
Control Delay (s)	2.6	0.1	14.9	15.5
Lane LOS	A	A	B	C
Approach Delay (s)	2.6	0.1	14.9	15.5
Approach LOS			B	C

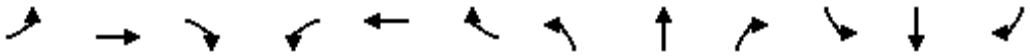
Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	582	0	1	455	38	0	0	0	39	0	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0						4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00						1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00						1.00	1.00
Frt	1.00	1.00		1.00	0.99						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)	1805	3610		1804	3492						1752	1615
Flt Permitted	0.95	1.00		0.95	1.00						1.00	1.00
Satd. Flow (perm)	1805	3610		1804	3492						1845	1615
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	80	677	0	1	529	44	0	0	0	45	0	50
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	0	0	0	40
Lane Group Flow (vph)	80	677	0	1	568	0	0	0	0	0	45	10
Confl. Peds. (#/hr)			3	3								
Confl. Bikes (#/hr)			1			1			1			
Heavy Vehicles (%)	0%	0%	0%	0%	2%	3%	0%	0%	0%	3%	0%	0%
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	7	4		3	8			2			6	7
Permitted Phases							2			6		6
Actuated Green, G (s)	6.1	27.1		0.9	21.9						2.8	8.9
Effective Green, g (s)	6.1	27.1		0.9	21.9						2.8	8.9
Actuated g/C Ratio	0.14	0.63		0.02	0.51						0.07	0.21
Clearance Time (s)	4.0	4.0		4.0	4.0						4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0						3.0	3.0
Lane Grp Cap (vph)	257	2286		38	1787						121	487
v/s Ratio Prot	c0.04	c0.19		0.00	0.16							0.00
v/s Ratio Perm											c0.02	0.00
v/c Ratio	0.31	0.30		0.03	0.32						0.37	0.02
Uniform Delay, d1	16.5	3.5		20.5	6.1						19.2	13.5
Progression Factor	1.00	1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2	0.7	0.1		0.3	0.1						1.9	0.0
Delay (s)	17.2	3.6		20.8	6.2						21.1	13.5
Level of Service	B	A		C	A						C	B
Approach Delay (s)		5.0			6.2			0.0			17.1	
Approach LOS		A			A			A			B	

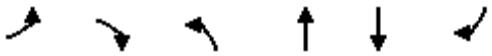
Intersection Summary			
HCM Average Control Delay	6.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	42.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	378	221	36	252	7	199	26	89	10	15	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.88		1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1900	1599	1805	3559		1786	1680		1805	1714	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.73	1.00		0.68	1.00	
Satd. Flow (perm)	1805	1900	1599	1805	3559		1376	1680		1293	1714	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	39	390	228	37	260	7	205	27	92	10	15	23
RTOR Reduction (vph)	0	0	134	0	2	0	0	65	0	0	16	0
Lane Group Flow (vph)	39	390	94	37	265	0	205	54	0	10	22	0
Confl. Peds. (#/hr)	2					2	2					2
Heavy Vehicles (%)	0%	0%	1%	0%	1%	0%	1%	0%	0%	0%	0%	0%
Turn Type	Prot		Perm	Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2			6		
Actuated Green, G (s)	2.2	19.7	19.7	2.3	19.8		13.8	13.8		13.8	13.8	
Effective Green, g (s)	2.2	19.7	19.7	2.3	19.8		13.8	13.8		13.8	13.8	
Actuated g/C Ratio	0.05	0.41	0.41	0.05	0.41		0.29	0.29		0.29	0.29	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	83	783	659	87	1474		397	485		373	495	
v/s Ratio Prot	c0.02	c0.21		0.02	0.07			0.03			0.01	
v/s Ratio Perm			0.06				c0.15			0.01		
v/c Ratio	0.47	0.50	0.14	0.43	0.18		0.52	0.11		0.03	0.04	
Uniform Delay, d1	22.2	10.4	8.8	22.1	8.9		14.2	12.5		12.2	12.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.2	0.5	0.1	3.3	0.1		1.1	0.1		0.0	0.0	
Delay (s)	26.4	10.9	8.9	25.4	8.9		15.3	12.6		12.2	12.3	
Level of Service	C	B	A	C	A		B	B		B	B	
Approach Delay (s)		11.1			10.9			14.3			12.3	
Approach LOS		B			B			B			B	

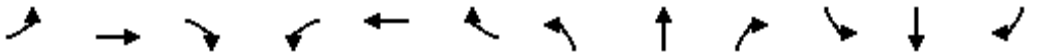
Intersection Summary			
HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	47.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	50.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	69	71	267	178	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	3	79	82	307	205	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				358		
pX, platoon unblocked	0.90					
vC, conflicting volume	678	207	210			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	586	207	210			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	91	94			
cM capacity (veh/h)	403	838	1360			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	83	82	307	210
Volume Left	3	82	0	0
Volume Right	79	0	0	6
cSH	802	1360	1700	1700
Volume to Capacity	0.10	0.06	0.18	0.12
Queue Length 95th (ft)	9	5	0	0
Control Delay (s)	10.0	7.8	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	10.0	1.6		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	28.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	81	194	82	99	125	45	62	252	153	76	325	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00	0.96	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1802		1735	1791		1805	1881	1557	1799	1881	1579
Flt Permitted	0.58	1.00		0.38	1.00		0.38	1.00	1.00	0.42	1.00	1.00
Satd. Flow (perm)	1105	1802		689	1791		713	1881	1557	790	1881	1579
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	95	228	96	116	147	53	73	296	180	89	382	64
RTOR Reduction (vph)	0	22	0	0	18	0	0	0	126	0	0	43
Lane Group Flow (vph)	95	302	0	116	182	0	73	296	54	89	382	21
Confl. Peds. (#/hr)			1	1					12	12		
Confl. Bikes (#/hr)			3			1			1			2
Heavy Vehicles (%)	0%	0%	0%	4%	1%	2%	0%	1%	0%	0%	1%	0%
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	20.1	15.8		20.1	15.8		20.5	17.5	17.5	23.1	18.8	18.8
Effective Green, g (s)	20.1	15.8		20.1	15.8		20.5	17.5	17.5	23.1	18.8	18.8
Actuated g/C Ratio	0.35	0.27		0.35	0.27		0.35	0.30	0.30	0.40	0.32	0.32
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	436	492		317	489		309	569	471	390	611	513
v/s Ratio Prot	0.02	c0.17		c0.03	0.10		0.01	0.16		c0.02	c0.20	
v/s Ratio Perm	0.06			0.10			0.07		0.03	0.07		0.01
v/c Ratio	0.22	0.61		0.37	0.37		0.24	0.52	0.12	0.23	0.63	0.04
Uniform Delay, d1	13.0	18.4		13.5	17.0		12.8	16.7	14.6	11.3	16.6	13.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	2.3		0.7	0.5		0.4	0.9	0.1	0.3	2.0	0.0
Delay (s)	13.3	20.7		14.2	17.5		13.2	17.6	14.7	11.6	18.6	13.4
Level of Service	B	C		B	B		B	B	B	B	B	B
Approach Delay (s)		19.0			16.3			16.1			16.8	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	17.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	57.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	256	53	285	292	68	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	1615	1845	1569	1805	1881
Flt Permitted	0.95	1.00	1.00	1.00	0.35	1.00
Satd. Flow (perm)	1787	1615	1845	1569	657	1881
Peak-hour factor, PHF	0.81	0.81	0.81	0.81	0.81	0.81
Adj. Flow (vph)	316	65	352	360	84	221
RTOR Reduction (vph)	0	40	0	238	0	0
Lane Group Flow (vph)	316	25	352	122	84	221
Confl. Bikes (#/hr)				8		
Heavy Vehicles (%)	1%	0%	3%	0%	0%	1%
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	16.5	16.5	18.4	18.4	28.7	28.7
Effective Green, g (s)	16.5	16.5	18.4	18.4	28.7	28.7
Actuated g/C Ratio	0.30	0.30	0.34	0.34	0.53	0.53
Clearance Time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	544	492	626	533	460	996
v/s Ratio Prot	c0.18		c0.19		0.02	c0.12
v/s Ratio Perm		0.02		0.08	0.08	
v/c Ratio	0.58	0.05	0.56	0.23	0.18	0.22
Uniform Delay, d1	15.9	13.3	14.6	12.8	7.1	6.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	0.0	1.2	0.2	0.2	0.1
Delay (s)	17.5	13.4	15.8	13.0	7.2	6.9
Level of Service	B	B	B	B	A	A
Approach Delay (s)	16.8		14.4			7.0
Approach LOS	B		B			A

Intersection Summary			
HCM Average Control Delay	13.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	54.2	Sum of lost time (s)	14.0
Intersection Capacity Utilization	44.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Appendix H 2018 Total Traffic Conditions Worksheets

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	53	188	14	183	182	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	62	219	16	213	212	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			280		416	171
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			280		416	171
tC, single (s)			4.1		6.4	7.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	4.2
p0 queue free %			99		64	99
cM capacity (veh/h)			1294		582	672

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	280	229	216
Volume Left	0	16	212
Volume Right	219	0	5
cSH	1700	1294	583
Volume to Capacity	0.16	0.01	0.37
Queue Length 95th (ft)	0	1	43
Control Delay (s)	0.0	0.7	14.8
Lane LOS		A	B
Approach Delay (s)	0.0	0.7	14.8
Approach LOS			B

Intersection Summary			
Average Delay	4.6		
Intersection Capacity Utilization	38.2%	ICU Level of Service	A
Analysis Period (min)	15		

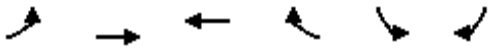
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	218	247	307	84	556	358
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.4		5.7	5.4
Lane Util. Factor	1.00		1.00		1.00	1.00
Frt	0.93		0.97		1.00	1.00
Flt Protected	0.98		1.00		0.95	1.00
Satd. Flow (prot)	1612		1643		1805	1881
Flt Permitted	0.98		1.00		0.19	1.00
Satd. Flow (perm)	1612		1643		358	1881
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	218	247	307	84	556	358
RTOR Reduction (vph)	25	0	8	0	0	0
Lane Group Flow (vph)	440	0	383	0	556	358
Heavy Vehicles (%)	0%	13%	14%	6%	0%	1%
Turn Type					pm+pt	
Protected Phases	6		4		3	8
Permitted Phases					8	
Actuated Green, G (s)	35.8		28.1		58.6	58.6
Effective Green, g (s)	35.8		28.1		58.6	58.6
Actuated g/C Ratio	0.34		0.27		0.55	0.55
Clearance Time (s)	5.8		5.4		5.7	5.4
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Lane Grp Cap (vph)	546		437		538	1044
v/s Ratio Prot	c0.27		0.23		c0.24	0.19
v/s Ratio Perm					c0.33	
v/c Ratio	0.81		0.88		1.03	0.34
Uniform Delay, d1	31.7		37.1		26.5	12.9
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	8.0		17.1		47.7	0.1
Delay (s)	39.7		54.2		74.1	13.0
Level of Service	D		D		E	B
Approach Delay (s)	39.7		54.2			50.2
Approach LOS	D		D			D

Intersection Summary			
HCM Average Control Delay	48.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	105.6	Sum of lost time (s)	11.5
Intersection Capacity Utilization	93.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	133	279	126	308	1	84	2	37	2	5	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt		1.00	0.85	1.00	1.00			1.00	0.85		0.97	
Flt Protected		1.00	1.00	0.95	1.00			0.95	1.00		0.99	
Satd. Flow (prot)		1760	1615	1671	1818			1636	1417		1486	
Flt Permitted		1.00	1.00	0.95	1.00			0.72	1.00		0.94	
Satd. Flow (perm)		1754	1615	1671	1818			1237	1417		1409	
Peak-hour factor, PHF	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Adj. Flow (vph)	2	202	423	191	467	2	127	3	56	3	8	3
RTOR Reduction (vph)	0	0	265	0	0	0	0	0	46	0	2	0
Lane Group Flow (vph)	0	204	158	191	469	0	0	130	10	0	12	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	100%	7%	0%	8%	4%	100%	11%	0%	14%	0%	40%	0%
Turn Type	Perm		Perm	Prot			Perm		Perm	Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4				2		2	6		
Actuated Green, G (s)		17.7	17.7	8.9	30.6			8.8	8.8		8.8	
Effective Green, g (s)		17.7	17.7	8.9	30.6			8.8	8.8		8.8	
Actuated g/C Ratio		0.37	0.37	0.19	0.65			0.19	0.19		0.19	
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		655	603	314	1174			230	263		262	
v/s Ratio Prot				c0.11	c0.26							
v/s Ratio Perm		0.12	0.10					c0.11	0.01		0.01	
v/c Ratio		0.31	0.26	0.61	0.40			0.57	0.04		0.04	
Uniform Delay, d1		10.5	10.3	17.7	4.0			17.6	15.8		15.8	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.3	0.2	3.3	0.2			3.2	0.1		0.1	
Delay (s)		10.8	10.5	21.0	4.2			20.7	15.9		15.9	
Level of Service		B	B	C	A			C	B		B	
Approach Delay (s)		10.6			9.1			19.3			15.9	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM Average Control Delay	11.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	47.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	88	69	213	109	52	251
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	99	78	239	122	58	282
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	362				576	301
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	362				576	301
tC, single (s)	4.2				6.5	6.2
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.3
p0 queue free %	92				86	61
cM capacity (veh/h)	1164				429	732

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	99	78	362	58	282
Volume Left	99	0	0	58	0
Volume Right	0	0	122	0	282
cSH	1164	1700	1700	429	732
Volume to Capacity	0.08	0.05	0.21	0.14	0.39
Queue Length 95th (ft)	7	0	0	12	46
Control Delay (s)	8.4	0.0	0.0	14.7	13.0
Lane LOS	A			B	B
Approach Delay (s)	4.7		0.0	13.3	
Approach LOS				B	

Intersection Summary			
Average Delay	6.1		
Intersection Capacity Utilization	40.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	65	54	4	237	0	68	1	3	0	2	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	71	59	4	258	0	74	1	3	0	2	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	258			129			374	368	100	372	398	258
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	258			129			374	368	100	372	398	258
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			87	100	100	100	100	99
cM capacity (veh/h)	1319			1326			576	562	961	584	541	786

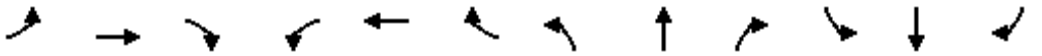
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	130	262	78	7
Volume Left	1	4	74	0
Volume Right	59	0	3	4
cSH	1319	1326	586	683
Volume to Capacity	0.00	0.00	0.13	0.01
Queue Length 95th (ft)	0	0	11	1
Control Delay (s)	0.1	0.2	12.1	10.3
Lane LOS	A	A	B	B
Approach Delay (s)	0.1	0.2	12.1	10.3
Approach LOS			B	B

Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	32.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	69	3	0	191	48	2	0	0	61	1	57
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Hourly flow rate (vph)	10	90	4	0	248	62	3	0	0	79	1	74
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	310			94			466	423	92	392	394	279
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	310			94			466	423	92	392	394	279
tC, single (s)	4.3			4.1			8.1	6.5	6.2	7.2	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.4			2.2			4.4	4.0	3.3	3.6	4.0	3.4
p0 queue free %	99			100			99	100	100	86	100	90
cM capacity (veh/h)	1131			1513			335	521	971	550	541	739

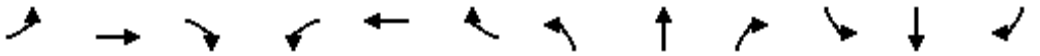
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	104	310	3	155
Volume Left	10	0	3	79
Volume Right	4	62	0	74
cSH	1131	1513	335	626
Volume to Capacity	0.01	0.00	0.01	0.25
Queue Length 95th (ft)	1	0	1	24
Control Delay (s)	0.9	0.0	15.8	12.6
Lane LOS	A		C	B
Approach Delay (s)	0.9	0.0	15.8	12.6
Approach LOS			C	B

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	25.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	362	260	0	0	281	43	0	0	1	36	0	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00			0.99			1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	1.00			0.98			0.86			1.00	0.85
Flt Protected	0.95	1.00			1.00			1.00			0.95	1.00
Satd. Flow (prot)	1671	3505			3435			1623			1804	1488
Flt Permitted	0.95	1.00			1.00			1.00			0.87	1.00
Satd. Flow (perm)	1671	3505			3435			1623			1651	1488
Peak-hour factor, PHF	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Adj. Flow (vph)	603	433	0	0	468	72	0	0	2	60	0	500
RTOR Reduction (vph)	0	0	0	0	14	0	0	2	0	0	0	76
Lane Group Flow (vph)	603	433	0	0	526	0	0	0	0	0	60	424
Confl. Peds. (#/hr)							4		1	1		4
Heavy Vehicles (%)	8%	3%	0%	0%	3%	3%	0%	0%	0%	0%	0%	8%
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	7	4		3	8			2			6	7
Permitted Phases							2			6		6
Actuated Green, G (s)	17.9	35.0			13.1			4.6			4.6	22.5
Effective Green, g (s)	17.9	35.0			13.1			4.6			4.6	22.5
Actuated g/C Ratio	0.38	0.74			0.28			0.10			0.10	0.47
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	628	2577			945			157			160	828
v/s Ratio Prot	c0.36	0.12			c0.15			0.00				c0.19
v/s Ratio Perm											0.04	0.09
v/c Ratio	0.96	0.17			0.56			0.00			0.38	0.51
Uniform Delay, d1	14.5	1.9			14.8			19.4			20.2	8.7
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	26.2	0.0			0.7			0.0			1.5	0.5
Delay (s)	40.8	1.9			15.5			19.4			21.6	9.3
Level of Service	D	A			B			B			C	A
Approach Delay (s)		24.5			15.5			19.4			10.6	
Approach LOS		C			B			B			B	

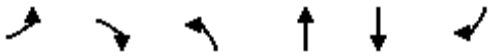
Intersection Summary			
HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	47.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	170	186	128	229	6	115	9	85	20	35	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1881	1531	1805	3525		1735	1613		1805	1750	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.69	1.00		0.67	1.00	
Satd. Flow (perm)	1805	1881	1531	1805	3525		1264	1613		1273	1750	
Peak-hour factor, PHF	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Adj. Flow (vph)	12	246	270	186	332	9	167	13	123	29	51	49
RTOR Reduction (vph)	0	0	183	0	2	0	0	94	0	0	37	0
Lane Group Flow (vph)	12	246	87	186	339	0	167	42	0	29	63	0
Confl. Peds. (#/hr)			4	4			1					1
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	0%	1%	3%	0%	2%	0%	4%	0%	2%	0%	0%	0%
Turn Type	Prot		Perm	Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2			6		
Actuated Green, G (s)	1.0	16.5	16.5	10.7	26.2		12.3	12.3		12.3	12.3	
Effective Green, g (s)	1.0	16.5	16.5	10.7	26.2		12.3	12.3		12.3	12.3	
Actuated g/C Ratio	0.02	0.32	0.32	0.21	0.51		0.24	0.24		0.24	0.24	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	35	603	491	375	1793		302	385		304	418	
v/s Ratio Prot	0.01	c0.13		c0.10	0.10			0.03			0.04	
v/s Ratio Perm			0.06				c0.13			0.02		
v/c Ratio	0.34	0.41	0.18	0.50	0.19		0.55	0.11		0.10	0.15	
Uniform Delay, d1	24.9	13.7	12.6	18.0	6.9		17.2	15.3		15.3	15.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.8	0.5	0.2	1.0	0.1		2.2	0.1		0.1	0.2	
Delay (s)	30.7	14.1	12.8	19.1	6.9		19.4	15.4		15.4	15.6	
Level of Service	C	B	B	B	A		B	B		B	B	
Approach Delay (s)		13.8			11.2			17.6			15.6	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	51.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		

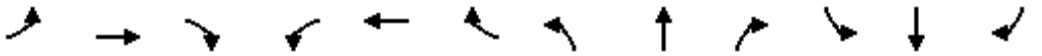
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	68	64	112	211	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	4	76	72	126	237	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				358		
pX, platoon unblocked						
vC, conflicting volume	508	239	240			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	508	239	240			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	91	95			
cM capacity (veh/h)	500	805	1338			

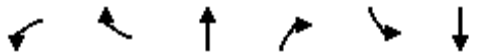
Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	81	72	126	240
Volume Left	4	72	0	0
Volume Right	76	0	0	3
cSH	779	1338	1700	1700
Volume to Capacity	0.10	0.05	0.07	0.14
Queue Length 95th (ft)	9	4	0	0
Control Delay (s)	10.2	7.8	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	10.2	2.9		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	29.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	58	41	22	177	140	65	59	280	86	29	226	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	1679		1786	1765		1805	1827	1546	1751	1845	1509
Flt Permitted	0.53	1.00		0.54	1.00		0.38	1.00	1.00	0.41	1.00	1.00
Satd. Flow (perm)	962	1679		1019	1765		713	1827	1546	752	1845	1509
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Adj. Flow (vph)	83	59	31	253	200	93	84	400	123	41	323	110
RTOR Reduction (vph)	0	25	0	0	25	0	0	0	75	0	0	75
Lane Group Flow (vph)	83	65	0	253	268	0	84	400	48	41	323	35
Confl. Peds. (#/hr)			1	1					3	3		
Heavy Vehicles (%)	4%	0%	19%	1%	0%	8%	0%	4%	2%	3%	3%	7%
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	15.7	11.4		22.3	14.7		25.1	20.8	20.8	20.3	18.4	18.4
Effective Green, g (s)	15.7	11.4		22.3	14.7		25.1	20.8	20.8	20.3	18.4	18.4
Actuated g/C Ratio	0.27	0.20		0.39	0.25		0.44	0.36	0.36	0.35	0.32	0.32
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	319	332		495	450		392	659	557	297	588	481
v/s Ratio Prot	0.02	0.04		c0.07	c0.15		c0.02	c0.22		0.00	0.18	
v/s Ratio Perm	0.05			0.13			0.08		0.03	0.04		0.02
v/c Ratio	0.26	0.20		0.51	0.60		0.21	0.61	0.09	0.14	0.55	0.07
Uniform Delay, d1	16.1	19.3		12.8	18.9		10.1	15.1	12.2	12.6	16.2	13.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.3		0.9	2.1		0.3	1.6	0.1	0.2	1.1	0.1
Delay (s)	16.5	19.6		13.7	21.0		10.4	16.7	12.2	12.8	17.3	13.8
Level of Service	B	B		B	C		B	B	B	B	B	B
Approach Delay (s)		18.1			17.6			14.9			16.1	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	16.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	57.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	368	50	126	389	58	221
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1597	1482	1743	1509	1504	1900
Flt Permitted	0.95	1.00	1.00	1.00	0.48	1.00
Satd. Flow (perm)	1597	1482	1743	1509	764	1900
Peak-hour factor, PHF	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	511	69	175	540	81	307
RTOR Reduction (vph)	0	22	0	410	0	0
Lane Group Flow (vph)	511	47	175	130	81	307
Heavy Vehicles (%)	13%	9%	9%	7%	20%	0%
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	26.7	26.7	14.9	14.9	26.1	26.1
Effective Green, g (s)	26.7	26.7	14.9	14.9	26.1	26.1
Actuated g/C Ratio	0.43	0.43	0.24	0.24	0.42	0.42
Clearance Time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	690	640	420	364	397	802
v/s Ratio Prot	c0.32		0.10		0.02	c0.16
v/s Ratio Perm		0.03		0.09	0.07	
v/c Ratio	0.74	0.07	0.42	0.36	0.20	0.38
Uniform Delay, d1	14.7	10.3	19.8	19.5	11.1	12.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.3	0.0	0.7	0.6	0.3	0.3
Delay (s)	18.9	10.3	20.5	20.1	11.4	12.6
Level of Service	B	B	C	C	B	B
Approach Delay (s)	17.9		20.2			12.3
Approach LOS	B		C			B

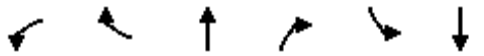
Intersection Summary			
HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	61.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	159	175	10	98	168	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	175	192	11	108	185	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			367		401	271
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			367		401	271
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		69	98
cM capacity (veh/h)			1203		600	773

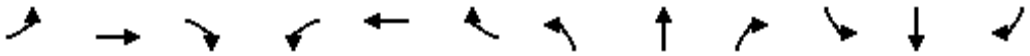
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	367	119	197
Volume Left	0	11	185
Volume Right	192	0	12
cSH	1700	1203	608
Volume to Capacity	0.22	0.01	0.32
Queue Length 95th (ft)	0	1	35
Control Delay (s)	0.0	0.8	13.7
Lane LOS		A	B
Approach Delay (s)	0.0	0.8	13.7
Approach LOS			B

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	35.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	220	128	692	261	176	409
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.4		5.7	5.4
Lane Util. Factor	1.00		1.00		1.00	1.00
Frpb, ped/bikes	0.99		0.99		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.95		0.96		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	1712		1793		1752	1881
Flt Permitted	0.97		1.00		0.07	1.00
Satd. Flow (perm)	1712		1793		120	1881
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	220	128	692	261	176	409
RTOR Reduction (vph)	15	0	8	0	0	0
Lane Group Flow (vph)	333	0	945	0	176	409
Confl. Peds. (#/hr)		2		8	8	
Heavy Vehicles (%)	2%	0%	1%	2%	3%	1%
Turn Type					pm+pt	
Protected Phases	6		4		3	8
Permitted Phases					8	
Actuated Green, G (s)	24.6		55.6		71.5	71.5
Effective Green, g (s)	24.6		55.6		71.5	71.5
Actuated g/C Ratio	0.23		0.52		0.67	0.67
Clearance Time (s)	5.8		5.4		5.7	5.4
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Lane Grp Cap (vph)	392		929		235	1253
v/s Ratio Prot	c0.19		c0.53		c0.07	0.22
v/s Ratio Perm					0.43	
v/c Ratio	0.85		1.02		0.75	0.33
Uniform Delay, d1	39.6		25.8		30.7	7.6
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	15.0		34.0		10.8	0.1
Delay (s)	54.6		59.8		41.6	7.7
Level of Service	D		E		D	A
Approach Delay (s)	54.6		59.8			17.9
Approach LOS	D		E			B

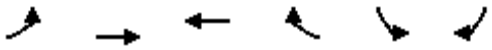
Intersection Summary			
HCM Average Control Delay	45.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	107.3	Sum of lost time (s)	16.9
Intersection Capacity Utilization	96.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	404	24	63	255	2	45	5	103	1	4	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	0.98		1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt		1.00	0.85	1.00	1.00			1.00	0.85		0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.96	1.00		0.99	
Satd. Flow (prot)		1862	1615	1770	1879			1819	1548		1850	
Flt Permitted		1.00	1.00	0.95	1.00			0.74	1.00		0.95	
Satd. Flow (perm)		1856	1615	1770	1879			1413	1548		1778	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	6	459	27	72	290	2	51	6	117	1	5	1
RTOR Reduction (vph)	0	0	13	0	0	0	0	0	102	0	1	0
Lane Group Flow (vph)	0	465	14	72	292	0	0	57	15	0	6	0
Confl. Peds. (#/hr)	2					2			3	3		
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	0%	2%	0%	2%	1%	0%	0%	0%	2%	0%	0%	0%
Turn Type	Perm		Perm	Prot			Perm		Perm	Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4				2		2	6		
Actuated Green, G (s)		22.8	22.8	4.5	31.3			5.9	5.9		5.9	
Effective Green, g (s)		22.8	22.8	4.5	31.3			5.9	5.9		5.9	
Actuated g/C Ratio		0.50	0.50	0.10	0.69			0.13	0.13		0.13	
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		936	815	176	1301			184	202		232	
v/s Ratio Prot				c0.04	0.16							
v/s Ratio Perm		c0.25	0.01					c0.04	0.01		0.00	
v/c Ratio		0.50	0.02	0.41	0.22			0.31	0.08		0.03	
Uniform Delay, d1		7.4	5.6	19.1	2.5			17.8	17.3		17.1	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.4	0.0	1.5	0.1			1.0	0.2		0.0	
Delay (s)		7.8	5.6	20.7	2.6			18.8	17.4		17.2	
Level of Service		A	A	C	A			B	B		B	
Approach Delay (s)		7.7			6.2			17.9			17.2	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	45.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	187	278	148	70	111	118
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	215	320	170	80	128	136
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	251				960	210
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	251				960	210
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	84				47	84
cM capacity (veh/h)	1327				239	835

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	215	320	251	128	136
Volume Left	215	0	0	128	0
Volume Right	0	0	80	0	136
cSH	1327	1700	1700	239	835
Volume to Capacity	0.16	0.19	0.15	0.53	0.16
Queue Length 95th (ft)	14	0	0	71	14
Control Delay (s)	8.2	0.0	0.0	36.2	10.1
Lane LOS	A			E	B
Approach Delay (s)	3.3		0.0	22.8	
Approach LOS				C	

Intersection Summary			
Average Delay	7.4		
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	306	63	2	167	0	49	0	3	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	1	352	72	2	192	0	56	0	3	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	192			424			587	587	388	590	623	192
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	192			424			587	587	388	590	623	192
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			87	100	99	100	100	100
cM capacity (veh/h)	1394			1146			423	423	665	419	404	855

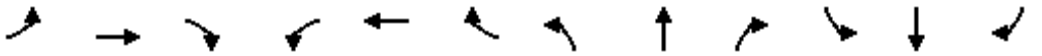
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	425	194	60	0
Volume Left	1	2	56	0
Volume Right	72	0	3	0
cSH	1394	1146	432	1700
Volume to Capacity	0.00	0.00	0.14	0.00
Queue Length 95th (ft)	0	0	12	0
Control Delay (s)	0.0	0.1	14.7	0.0
Lane LOS	A	A	B	A
Approach Delay (s)	0.0	0.1	14.7	0.0
Approach LOS			B	A

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	79	210	3	2	140	70	3	0	0	89	0	38
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	84	223	3	2	149	74	3	0	0	95	0	40
Pedestrians					1							
Lane Width (ft)					12.0							
Walking Speed (ft/s)					4.0							
Percent Blockage					0							
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	223			227			624	621	226	585	585	186
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	223			227			624	621	226	585	585	186
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.4
p0 queue free %	94			100			99	100	100	76	100	95
cM capacity (veh/h)	1328			1354			363	380	818	400	398	841

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	311	226	3	135
Volume Left	84	2	3	95
Volume Right	3	74	0	40
cSH	1328	1354	363	475
Volume to Capacity	0.06	0.00	0.01	0.28
Queue Length 95th (ft)	5	0	1	29
Control Delay (s)	2.6	0.1	15.0	15.6
Lane LOS	A	A	C	C
Approach Delay (s)	2.6	0.1	15.0	15.6
Approach LOS			C	C

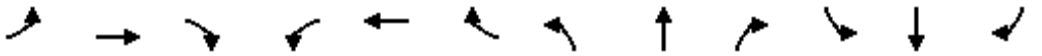
Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	43.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	96	582	0	1	455	54	0	0	0	49	0	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0						4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00						1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00						1.00	1.00
Frt	1.00	1.00		1.00	0.98						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)	1805	3610		1804	3474						1752	1615
Flt Permitted	0.95	1.00		0.95	1.00						0.91	1.00
Satd. Flow (perm)	1805	3610		1804	3474						1677	1615
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	112	677	0	1	529	63	0	0	0	57	0	64
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	0	48
Lane Group Flow (vph)	112	677	0	1	585	0	0	0	0	0	57	16
Confl. Peds. (#/hr)			3	3								
Confl. Bikes (#/hr)			1			1			1			
Heavy Vehicles (%)	0%	0%	0%	0%	2%	3%	0%	0%	0%	3%	0%	0%
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	7	4		3	8			2			6	7
Permitted Phases							2			6		6
Actuated Green, G (s)	6.8	27.0		0.8	21.0						4.4	11.2
Effective Green, g (s)	6.8	27.0		0.8	21.0						4.4	11.2
Actuated g/C Ratio	0.15	0.61		0.02	0.48						0.10	0.25
Clearance Time (s)	4.0	4.0		4.0	4.0						4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0						3.0	3.0
Lane Grp Cap (vph)	278	2205		33	1651						167	555
v/s Ratio Prot	c0.06	0.19		0.00	c0.17							0.00
v/s Ratio Perm											c0.03	0.01
v/c Ratio	0.40	0.31		0.03	0.35						0.34	0.03
Uniform Delay, d1	16.9	4.1		21.3	7.3						18.5	12.4
Progression Factor	1.00	1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2	1.0	0.1		0.4	0.1						1.2	0.0
Delay (s)	17.8	4.2		21.7	7.5						19.8	12.4
Level of Service	B	A		C	A						B	B
Approach Delay (s)		6.1			7.5			0.0			15.9	
Approach LOS		A			A			A			B	

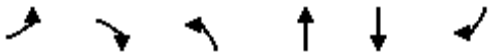
Intersection Summary			
HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	44.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	33.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	380	229	36	255	7	213	26	89	10	15	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.88		1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1900	1599	1805	3559		1786	1680		1805	1714	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.73	1.00		0.68	1.00	
Satd. Flow (perm)	1805	1900	1599	1805	3559		1376	1680		1293	1714	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	39	392	236	37	263	7	220	27	92	10	15	23
RTOR Reduction (vph)	0	0	140	0	2	0	0	65	0	0	16	0
Lane Group Flow (vph)	39	392	96	37	268	0	220	54	0	10	22	0
Confl. Peds. (#/hr)	2					2	2					2
Heavy Vehicles (%)	0%	0%	1%	0%	1%	0%	1%	0%	0%	0%	0%	0%
Turn Type	Prot		Perm	Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2			6		
Actuated Green, G (s)	2.2	19.9	19.9	2.4	20.1		14.5	14.5		14.5	14.5	
Effective Green, g (s)	2.2	19.9	19.9	2.4	20.1		14.5	14.5		14.5	14.5	
Actuated g/C Ratio	0.05	0.41	0.41	0.05	0.41		0.30	0.30		0.30	0.30	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	81	775	652	89	1466		409	499		384	509	
v/s Ratio Prot	c0.02	c0.21		0.02	0.08			0.03			0.01	
v/s Ratio Perm			0.06				c0.16			0.01		
v/c Ratio	0.48	0.51	0.15	0.42	0.18		0.54	0.11		0.03	0.04	
Uniform Delay, d1	22.7	10.8	9.1	22.5	9.1		14.3	12.5		12.1	12.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.5	0.5	0.1	3.1	0.1		1.4	0.1		0.0	0.0	
Delay (s)	27.2	11.3	9.2	25.6	9.2		15.7	12.6		12.2	12.2	
Level of Service	C	B	A	C	A		B	B		B	B	
Approach Delay (s)		11.5			11.2			14.6			12.2	
Approach LOS		B			B			B			B	

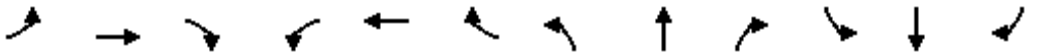
Intersection Summary			
HCM Average Control Delay	12.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	48.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	70	72	268	179	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	3	80	83	308	206	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				358		
pX, platoon unblocked	0.90					
vC, conflicting volume	682	209	211			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	591	209	211			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	90	94			
cM capacity (veh/h)	400	837	1359			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	84	83	308	211
Volume Left	3	83	0	0
Volume Right	80	0	0	6
cSH	801	1359	1700	1700
Volume to Capacity	0.10	0.06	0.18	0.12
Queue Length 95th (ft)	9	5	0	0
Control Delay (s)	10.0	7.8	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	10.0	1.7		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	28.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	194	82	99	125	45	62	261	153	76	333	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00	0.96	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1802		1735	1791		1805	1881	1557	1799	1881	1579
Flt Permitted	0.58	1.00		0.37	1.00		0.36	1.00	1.00	0.41	1.00	1.00
Satd. Flow (perm)	1101	1802		683	1791		693	1881	1557	769	1881	1579
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	100	228	96	116	147	53	73	307	180	89	392	64
RTOR Reduction (vph)	0	22	0	0	18	0	0	0	125	0	0	43
Lane Group Flow (vph)	100	302	0	116	182	0	73	307	55	89	392	21
Confl. Peds. (#/hr)			1	1					12	12		
Confl. Bikes (#/hr)			3			1			1			2
Heavy Vehicles (%)	0%	0%	0%	4%	1%	2%	0%	1%	0%	0%	1%	0%
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	20.1	15.8		20.1	15.8		20.9	17.9	17.9	23.5	19.2	19.2
Effective Green, g (s)	20.1	15.8		20.1	15.8		20.9	17.9	17.9	23.5	19.2	19.2
Actuated g/C Ratio	0.34	0.27		0.34	0.27		0.36	0.31	0.31	0.40	0.33	0.33
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	432	488		313	485		306	578	478	386	619	520
v/s Ratio Prot	0.02	c0.17		c0.03	0.10		0.01	0.16		c0.02	c0.21	
v/s Ratio Perm	0.06			0.10			0.07		0.04	0.08		0.01
v/c Ratio	0.23	0.62		0.37	0.37		0.24	0.53	0.12	0.23	0.63	0.04
Uniform Delay, d1	13.3	18.6		13.7	17.2		12.8	16.7	14.5	11.2	16.6	13.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	2.3		0.7	0.5		0.4	0.9	0.1	0.3	2.1	0.0
Delay (s)	13.5	21.0		14.4	17.7		13.2	17.7	14.6	11.5	18.7	13.3
Level of Service	B	C		B	B		B	B	B	B	B	B
Approach Delay (s)		19.2			16.5			16.1			16.9	
Approach LOS		B			B			B			B	

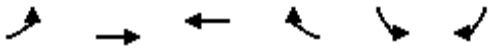
Intersection Summary			
HCM Average Control Delay	17.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	58.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	256	54	286	292	68	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	1615	1845	1569	1805	1881
Flt Permitted	0.95	1.00	1.00	1.00	0.34	1.00
Satd. Flow (perm)	1787	1615	1845	1569	655	1881
Peak-hour factor, PHF	0.81	0.81	0.81	0.81	0.81	0.81
Adj. Flow (vph)	316	67	353	360	84	223
RTOR Reduction (vph)	0	42	0	238	0	0
Lane Group Flow (vph)	316	25	353	122	84	223
Confl. Bikes (#/hr)				8		
Heavy Vehicles (%)	1%	0%	3%	0%	0%	1%
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	16.5	16.5	18.4	18.4	28.7	28.7
Effective Green, g (s)	16.5	16.5	18.4	18.4	28.7	28.7
Actuated g/C Ratio	0.30	0.30	0.34	0.34	0.53	0.53
Clearance Time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	544	492	626	533	459	996
v/s Ratio Prot	c0.18		c0.19		0.02	c0.12
v/s Ratio Perm		0.02		0.08	0.08	
v/c Ratio	0.58	0.05	0.56	0.23	0.18	0.22
Uniform Delay, d1	15.9	13.3	14.6	12.8	7.1	6.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	0.0	1.2	0.2	0.2	0.1
Delay (s)	17.5	13.4	15.8	13.0	7.2	6.9
Level of Service	B	B	B	B	A	A
Approach Delay (s)	16.8		14.4			7.0
Approach LOS	B		B			A

Intersection Summary			
HCM Average Control Delay	13.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	54.2	Sum of lost time (s)	14.0
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

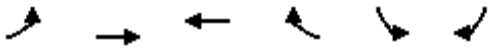
Appendix I Sensitivity Analysis at NE Ingle Road/NE Goodwin Road



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	97	278	148	52	101	64
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	111	320	170	60	116	74
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	230				743	200
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	230				743	200
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				67	91
cM capacity (veh/h)	1350				351	846

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	431	230	116	74
Volume Left	111	0	116	0
Volume Right	0	60	0	74
cSH	1350	1700	351	846
Volume to Capacity	0.08	0.14	0.33	0.09
Queue Length 95th (ft)	7	0	35	7
Control Delay (s)	2.6	0.0	20.2	9.7
Lane LOS	A		C	A
Approach Delay (s)	2.6	0.0	16.1	
Approach LOS			C	

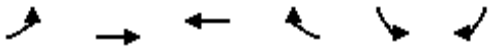
Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	181	278	148	68	111	114
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	208	320	170	78	128	131
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	248				945	209
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	248				945	209
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	84				48	84
cM capacity (veh/h)	1329				245	836

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	208	320	248	128	131
Volume Left	208	0	0	128	0
Volume Right	0	0	78	0	131
cSH	1329	1700	1700	245	836
Volume to Capacity	0.16	0.19	0.15	0.52	0.16
Queue Length 95th (ft)	14	0	0	69	14
Control Delay (s)	8.2	0.0	0.0	34.6	10.1
Lane LOS	A			D	B
Approach Delay (s)	3.2		0.0	22.2	
Approach LOS				C	

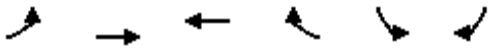
Intersection Summary			
Average Delay	7.2		
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	184	278	148	69	111	114
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	211	320	170	79	128	131
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	249				952	210
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	249				952	210
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	84				47	84
cM capacity (veh/h)	1328				242	836

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	211	320	249	128	131
Volume Left	211	0	0	128	0
Volume Right	0	0	79	0	131
cSH	1328	1700	1700	242	836
Volume to Capacity	0.16	0.19	0.15	0.53	0.16
Queue Length 95th (ft)	14	0	0	70	14
Control Delay (s)	8.2	0.0	0.0	35.4	10.1
Lane LOS	A			E	B
Approach Delay (s)	3.3		0.0	22.6	
Approach LOS				C	

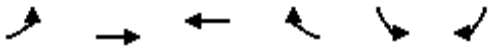
Intersection Summary			
Average Delay	7.3		
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	187	278	148	70	111	118
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	215	320	170	80	128	136
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	251				960	210
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	251				960	210
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	84				47	84
cM capacity (veh/h)	1327				239	835

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	215	320	251	128	136
Volume Left	215	0	0	128	0
Volume Right	0	0	80	0	136
cSH	1327	1700	1700	239	835
Volume to Capacity	0.16	0.19	0.15	0.53	0.16
Queue Length 95th (ft)	14	0	0	71	14
Control Delay (s)	8.2	0.0	0.0	36.2	10.1
Lane LOS	A			E	B
Approach Delay (s)	3.3		0.0	22.8	
Approach LOS				C	

Intersection Summary			
Average Delay	7.4		
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	187	278	148	70	111	118
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	215	320	170	80	128	136
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	251				920	170
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	251				920	170
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	84				49	85
cM capacity (veh/h)	1327				252	879

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	215	320	170	80	128	136
Volume Left	215	0	0	0	128	0
Volume Right	0	0	0	80	0	136
cSH	1327	1700	1700	1700	252	879
Volume to Capacity	0.16	0.19	0.10	0.05	0.51	0.15
Queue Length 95th (ft)	14	0	0	0	66	14
Control Delay (s)	8.2	0.0	0.0	0.0	33.0	9.8
Lane LOS	A				D	A
Approach Delay (s)	3.3		0.0		21.1	
Approach LOS					C	

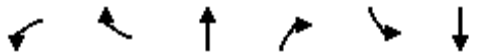
Intersection Summary			
Average Delay	7.0		
Intersection Capacity Utilization	34.3%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix J 2029 Background Conditions Worksheets

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	59	209	16	204	200	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	69	243	19	237	233	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			312		465	190
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			312		465	190
tC, single (s)			4.1		6.4	7.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	4.2
p0 queue free %			99		57	99
cM capacity (veh/h)			1260		544	653

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	312	256	237
Volume Left	0	19	233
Volume Right	243	0	5
cSH	1700	1260	546
Volume to Capacity	0.18	0.01	0.43
Queue Length 95th (ft)	0	1	55
Control Delay (s)	0.0	0.7	16.6
Lane LOS		A	C
Approach Delay (s)	0.0	0.7	16.6
Approach LOS			C

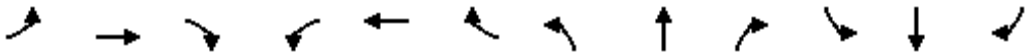
Intersection Summary			
Average Delay		5.1	
Intersection Capacity Utilization		41.9%	ICU Level of Service A
Analysis Period (min)		15	



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	237	272	376	92	619	434
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.4		5.7	5.4
Lane Util. Factor	1.00		1.00		1.00	1.00
Frt	0.93		0.97		1.00	1.00
Flt Protected	0.98		1.00		0.95	1.00
Satd. Flow (prot)	1611		1645		1805	1881
Flt Permitted	0.98		1.00		0.15	1.00
Satd. Flow (perm)	1611		1645		286	1881
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	237	272	376	92	619	434
RTOR Reduction (vph)	28	0	7	0	0	0
Lane Group Flow (vph)	481	0	461	0	619	434
Heavy Vehicles (%)	0%	13%	14%	6%	0%	1%
Turn Type					pm+pt	
Protected Phases	6		4		3	8
Permitted Phases					8	
Actuated Green, G (s)	35.4		38.1		77.4	77.4
Effective Green, g (s)	35.4		38.1		77.4	77.4
Actuated g/C Ratio	0.29		0.31		0.62	0.62
Clearance Time (s)	5.8		5.4		5.7	5.4
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Lane Grp Cap (vph)	460		505		590	1174
v/s Ratio Prot	c0.30		0.28		c0.28	0.23
v/s Ratio Perm					c0.37	
v/c Ratio	1.05		0.91		1.05	0.37
Uniform Delay, d1	44.3		41.4		33.2	11.4
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	54.5		20.6		50.6	0.1
Delay (s)	98.8		61.9		83.8	11.5
Level of Service	F		E		F	B
Approach Delay (s)	98.8		61.9			54.0
Approach LOS	F		E			D

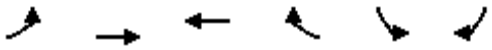
Intersection Summary			
HCM Average Control Delay	67.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	124.0	Sum of lost time (s)	11.5
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	145	311	138	334	1	94	2	40	2	6	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt		1.00	0.85	1.00	1.00			1.00	0.85		0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.95	1.00		0.99	
Satd. Flow (prot)		1767	1615	1671	1822			1634	1417		1454	
Flt Permitted		1.00	1.00	0.95	1.00			0.72	1.00		0.95	
Satd. Flow (perm)		1764	1615	1671	1822			1237	1417		1395	
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	1	181	389	172	418	1	118	2	50	2	8	2
RTOR Reduction (vph)	0	0	248	0	0	0	0	0	41	0	2	0
Lane Group Flow (vph)	0	182	141	172	419	0	0	120	9	0	10	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	100%	7%	0%	8%	4%	100%	11%	0%	14%	0%	40%	0%
Turn Type	Perm		Perm	Prot			Perm		Perm	Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4				2		2	6		
Actuated Green, G (s)		16.2	16.2	8.3	28.5			8.2	8.2		8.2	
Effective Green, g (s)		16.2	16.2	8.3	28.5			8.2	8.2		8.2	
Actuated g/C Ratio		0.36	0.36	0.19	0.64			0.18	0.18		0.18	
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		639	585	310	1162			227	260		256	
v/s Ratio Prot				c0.10	c0.23							
v/s Ratio Perm		0.10	0.09					c0.10	0.01		0.01	
v/c Ratio		0.28	0.24	0.55	0.36			0.53	0.04		0.04	
Uniform Delay, d1		10.1	10.0	16.5	3.8			16.5	15.0		15.0	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.2	0.2	2.1	0.2			2.2	0.1		0.1	
Delay (s)		10.4	10.2	18.7	4.0			18.7	15.1		15.1	
Level of Service		B	B	B	A			B	B		B	
Approach Delay (s)		10.2			8.3			17.6			15.1	
Approach LOS		B			A			B			B	

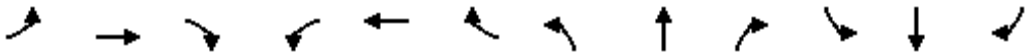
Intersection Summary			
HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	44.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	94	76	237	121	56	271
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	106	85	266	136	63	304
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	402				563	266
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	402				563	266
tC, single (s)	4.2				6.5	6.2
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.3
p0 queue free %	91				85	60
cM capacity (veh/h)	1125				433	765

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	106	85	266	136	63	304
Volume Left	106	0	0	0	63	0
Volume Right	0	0	0	136	0	304
cSH	1125	1700	1700	1700	433	765
Volume to Capacity	0.09	0.05	0.16	0.08	0.15	0.40
Queue Length 95th (ft)	8	0	0	0	13	48
Control Delay (s)	8.5	0.0	0.0	0.0	14.7	12.8
Lane LOS	A				B	B
Approach Delay (s)	4.7		0.0		13.1	
Approach LOS					B	

Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	35.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	72	59	4	264	0	76	1	3	0	2	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	78	64	4	287	0	83	1	3	0	2	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	287			142			414	408	110	412	440	287
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	287			142			414	408	110	412	440	287
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			85	100	100	100	100	99
cM capacity (veh/h)	1287			1311			542	534	949	549	512	757

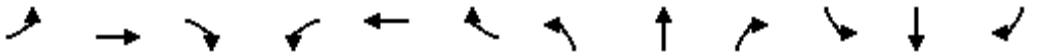
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	143	291	87	7
Volume Left	1	4	83	0
Volume Right	64	0	3	4
cSH	1287	1311	551	653
Volume to Capacity	0.00	0.00	0.16	0.01
Queue Length 95th (ft)	0	0	14	1
Control Delay (s)	0.1	0.1	12.8	10.6
Lane LOS	A	A	B	B
Approach Delay (s)	0.1	0.1	12.8	10.6
Approach LOS			B	B

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	34.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	9	77	3	0	213	54	2	0	0	68	1	64
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	11	96	4	0	266	68	2	0	0	85	1	80
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	334			100			501	454	98	421	422	300
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	334			100			501	454	98	421	422	300
tC, single (s)	4.3			4.1			8.1	6.5	6.2	7.2	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.4			2.2			4.4	4.0	3.3	3.6	4.0	3.4
p0 queue free %	99			100			99	100	100	84	100	89
cM capacity (veh/h)	1108			1505			312	500	963	525	521	719

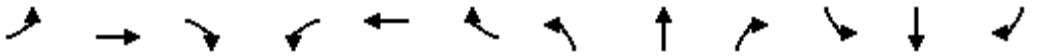
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	111	334	2	166
Volume Left	11	0	2	85
Volume Right	4	68	0	80
cSH	1108	1505	312	603
Volume to Capacity	0.01	0.00	0.01	0.28
Queue Length 95th (ft)	1	0	1	28
Control Delay (s)	0.9	0.0	16.6	13.2
Lane LOS	A		C	B
Approach Delay (s)	0.9	0.0	16.6	13.2
Approach LOS			C	B

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	28.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	403	286	0	0	311	47	0	0	1	39	0	333
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00			0.99			1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	1.00			0.98			0.86			1.00	0.85
Flt Protected	0.95	1.00			1.00			1.00			0.95	1.00
Satd. Flow (prot)	1671	3505			3436			1623			1804	1489
Flt Permitted	0.95	1.00			1.00			1.00			0.91	1.00
Satd. Flow (perm)	1671	3505			3436			1623			1727	1489
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	537	381	0	0	415	63	0	0	1	52	0	444
RTOR Reduction (vph)	0	0	0	0	14	0	0	1	0	0	0	94
Lane Group Flow (vph)	537	381	0	0	464	0	0	0	0	0	52	350
Confl. Peds. (#/hr)							4		1	1		4
Heavy Vehicles (%)	8%	3%	0%	0%	3%	3%	0%	0%	0%	0%	0%	8%
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	7	4		3	8			2			6	7
Permitted Phases							2			6		6
Actuated Green, G (s)	17.8	33.5			11.7			4.4			4.4	22.2
Effective Green, g (s)	17.8	33.5			11.7			4.4			4.4	22.2
Actuated g/C Ratio	0.39	0.73			0.25			0.10			0.10	0.48
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	648	2558			876			156			166	850
v/s Ratio Prot	c0.32	0.11			c0.14			0.00				c0.16
v/s Ratio Perm											0.03	0.08
v/c Ratio	0.83	0.15			0.53			0.00			0.31	0.41
Uniform Delay, d1	12.7	1.9			14.7			18.8			19.3	7.6
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	8.6	0.0			0.6			0.0			1.1	0.3
Delay (s)	21.3	1.9			15.3			18.8			20.4	8.0
Level of Service	C	A			B			B			C	A
Approach Delay (s)		13.2			15.3			18.8			9.3	
Approach LOS		B			B			B			A	

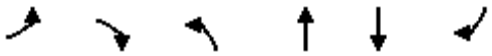
Intersection Summary			
HCM Average Control Delay	12.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	45.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	189	203	139	254	6	127	10	94	22	39	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1881	1531	1805	3527		1735	1613		1805	1751	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.69	1.00		0.67	1.00	
Satd. Flow (perm)	1805	1881	1531	1805	3527		1263	1613		1271	1751	
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	11	252	271	185	339	8	169	13	125	29	52	49
RTOR Reduction (vph)	0	0	178	0	2	0	0	94	0	0	37	0
Lane Group Flow (vph)	11	252	93	185	345	0	169	44	0	29	64	0
Confl. Peds. (#/hr)			4	4			1					1
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	0%	1%	3%	0%	2%	0%	4%	0%	2%	0%	0%	0%
Turn Type	Prot		Perm	Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2			6		
Actuated Green, G (s)	1.0	17.5	17.5	8.5	25.0		12.8	12.8		12.8	12.8	
Effective Green, g (s)	1.0	17.5	17.5	8.5	25.0		12.8	12.8		12.8	12.8	
Actuated g/C Ratio	0.02	0.34	0.34	0.17	0.49		0.25	0.25		0.25	0.25	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	36	648	527	302	1736		318	406		320	441	
v/s Ratio Prot	0.01	c0.13		c0.10	0.10			0.03			0.04	
v/s Ratio Perm			0.06				c0.13			0.02		
v/c Ratio	0.31	0.39	0.18	0.61	0.20		0.53	0.11		0.09	0.15	
Uniform Delay, d1	24.6	12.6	11.6	19.6	7.3		16.4	14.6		14.5	14.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.8	0.4	0.2	3.7	0.1		1.7	0.1		0.1	0.2	
Delay (s)	29.3	13.0	11.8	23.3	7.3		18.1	14.7		14.7	14.9	
Level of Service	C	B	B	C	A		B	B		B	B	
Approach Delay (s)		12.7			12.9			16.6			14.9	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	13.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	50.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		

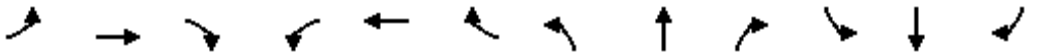
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	74	71	123	234	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	4	83	80	138	263	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				358		
pX, platoon unblocked						
vC, conflicting volume	562	265	266			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	562	265	266			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	89	94			
cM capacity (veh/h)	461	779	1309			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	88	80	138	266
Volume Left	4	80	0	0
Volume Right	83	0	0	3
cSH	752	1309	1700	1700
Volume to Capacity	0.12	0.06	0.08	0.16
Queue Length 95th (ft)	10	5	0	0
Control Delay (s)	10.4	7.9	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	10.4	2.9		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	31.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	45	24	197	154	73	64	311	96	32	249	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	1677		1786	1763		1805	1827	1546	1751	1845	1509
Flt Permitted	0.51	1.00		0.54	1.00		0.39	1.00	1.00	0.35	1.00	1.00
Satd. Flow (perm)	929	1677		1016	1763		734	1827	1546	643	1845	1509
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	85	60	32	263	205	97	85	415	128	43	332	107
RTOR Reduction (vph)	0	26	0	0	24	0	0	0	77	0	0	72
Lane Group Flow (vph)	85	66	0	263	278	0	85	415	51	43	332	35
Confl. Peds. (#/hr)			1	1					3	3		
Heavy Vehicles (%)	4%	0%	19%	1%	0%	8%	0%	4%	2%	3%	3%	7%
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	16.0	11.7		22.8	15.1		24.5	20.2	20.2	21.9	18.9	18.9
Effective Green, g (s)	16.0	11.7		22.8	15.1		24.5	20.2	20.2	21.9	18.9	18.9
Actuated g/C Ratio	0.27	0.20		0.39	0.26		0.42	0.34	0.34	0.37	0.32	0.32
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	313	335		496	454		385	630	533	297	595	487
v/s Ratio Prot	0.02	0.04		c0.07	c0.16		c0.02	c0.23		0.01	0.18	
v/s Ratio Perm	0.05			0.14			0.08		0.03	0.05		0.02
v/c Ratio	0.27	0.20		0.53	0.61		0.22	0.66	0.10	0.14	0.56	0.07
Uniform Delay, d1	16.3	19.5		12.9	19.2		10.8	16.3	13.0	12.1	16.4	13.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.3		1.1	2.4		0.3	2.5	0.1	0.2	1.1	0.1
Delay (s)	16.8	19.8		14.0	21.6		11.1	18.8	13.1	12.4	17.5	13.8
Level of Service	B	B		B	C		B	B	B	B	B	B
Approach Delay (s)		18.4			18.1			16.6			16.3	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	17.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	58.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	400	53	140	431	63	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1597	1482	1743	1509	1504	1900
Flt Permitted	0.95	1.00	1.00	1.00	0.47	1.00
Satd. Flow (perm)	1597	1482	1743	1509	748	1900
Peak-hour factor, PHF	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	556	74	194	599	88	340
RTOR Reduction (vph)	0	23	0	441	0	0
Lane Group Flow (vph)	556	51	194	158	88	340
Heavy Vehicles (%)	13%	9%	9%	7%	20%	0%
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	27.4	27.4	16.2	16.2	24.9	24.9
Effective Green, g (s)	27.4	27.4	16.2	16.2	24.9	24.9
Actuated g/C Ratio	0.45	0.45	0.26	0.26	0.41	0.41
Clearance Time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	714	662	461	399	349	772
v/s Ratio Prot	c0.35		0.11		0.02	c0.18
v/s Ratio Perm		0.03		0.10	0.09	
v/c Ratio	0.78	0.08	0.42	0.40	0.25	0.44
Uniform Delay, d1	14.4	9.7	18.7	18.5	11.7	13.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.4	0.1	0.6	0.7	0.4	0.4
Delay (s)	19.7	9.8	19.3	19.2	12.1	13.6
Level of Service	B	A	B	B	B	B
Approach Delay (s)	18.6		19.2			13.3
Approach LOS	B		B			B

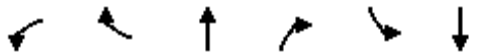
Intersection Summary			
HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	61.3	Sum of lost time (s)	9.0
Intersection Capacity Utilization	44.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	177	192	11	109	185	12
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	195	211	12	120	203	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			405		444	300
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			405		444	300
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		64	98
cM capacity (veh/h)			1164		566	744

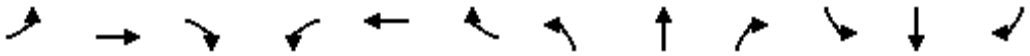
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	405	132	216
Volume Left	0	12	203
Volume Right	211	0	13
cSH	1700	1164	574
Volume to Capacity	0.24	0.01	0.38
Queue Length 95th (ft)	0	1	44
Control Delay (s)	0.0	0.8	15.0
Lane LOS		A	C
Approach Delay (s)	0.0	0.8	15.0
Approach LOS			C

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	242	140	846	287	192	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.4		5.7	5.4
Lane Util. Factor	1.00		1.00		1.00	1.00
Frpb, ped/bikes	0.99		0.99		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.95		0.97		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	1712		1800		1752	1881
Flt Permitted	0.97		1.00		0.07	1.00
Satd. Flow (perm)	1712		1800		120	1881
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	242	140	846	287	192	500
RTOR Reduction (vph)	14	0	7	0	0	0
Lane Group Flow (vph)	368	0	1126	0	192	500
Confl. Peds. (#/hr)		2		8	8	
Heavy Vehicles (%)	2%	0%	1%	2%	3%	1%
Turn Type					pm+pt	
Protected Phases	6		4		3	8
Permitted Phases					8	
Actuated Green, G (s)	28.1		55.6		72.8	72.8
Effective Green, g (s)	28.1		55.6		72.8	72.8
Actuated g/C Ratio	0.25		0.50		0.65	0.65
Clearance Time (s)	5.8		5.4		5.7	5.4
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Lane Grp Cap (vph)	429		893		245	1222
v/s Ratio Prot	c0.21		c0.63		c0.08	0.27
v/s Ratio Perm					0.43	
v/c Ratio	0.86		1.26		0.78	0.41
Uniform Delay, d1	40.1		28.2		33.1	9.4
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	14.9		126.4		14.0	0.1
Delay (s)	55.0		154.7		47.1	9.5
Level of Service	E		F		D	A
Approach Delay (s)	55.0		154.7			19.9
Approach LOS	E		F			B

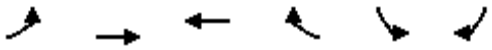
Intersection Summary			
HCM Average Control Delay	95.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	112.1	Sum of lost time (s)	16.9
Intersection Capacity Utilization	109.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	442	27	67	279	2	50	6	110	1	4	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	0.98		1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt		1.00	0.85	1.00	1.00			1.00	0.85		0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.96	1.00		0.99	
Satd. Flow (prot)		1862	1615	1770	1879			1819	1548		1850	
Flt Permitted		1.00	1.00	0.95	1.00			0.74	1.00		0.96	
Satd. Flow (perm)		1855	1615	1770	1879			1414	1548		1780	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	7	502	31	76	317	2	57	7	125	1	5	1
RTOR Reduction (vph)	0	0	15	0	0	0	0	0	109	0	1	0
Lane Group Flow (vph)	0	509	16	76	319	0	0	64	16	0	6	0
Confl. Peds. (#/hr)	2					2			3	3		
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	0%	2%	0%	2%	1%	0%	0%	0%	2%	0%	0%	0%
Turn Type	Perm		Perm	Prot			Perm		Perm	Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4				2		2	6		
Actuated Green, G (s)		25.3	25.3	4.5	33.8			6.2	6.2		6.2	
Effective Green, g (s)		25.3	25.3	4.5	33.8			6.2	6.2		6.2	
Actuated g/C Ratio		0.53	0.53	0.09	0.70			0.13	0.13		0.13	
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		978	851	166	1323			183	200		230	
v/s Ratio Prot				c0.04	0.17							
v/s Ratio Perm		c0.27	0.01					c0.05	0.01		0.00	
v/c Ratio		0.52	0.02	0.46	0.24			0.35	0.08		0.03	
Uniform Delay, d1		7.4	5.4	20.6	2.5			19.1	18.4		18.3	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.5	0.0	2.0	0.1			1.2	0.2		0.0	
Delay (s)		7.9	5.4	22.6	2.6			20.2	18.6		18.3	
Level of Service		A	A	C	A			C	B		B	
Approach Delay (s)		7.8			6.5			19.1			18.3	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM Average Control Delay	9.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	48.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	198	310	165	76	123	124
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	228	356	190	87	141	143
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	277				1001	190
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	277				1001	190
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	82				36	83
cM capacity (veh/h)	1298				222	857

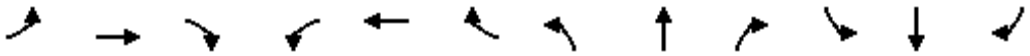
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	228	356	190	87	141	143
Volume Left	228	0	0	0	141	0
Volume Right	0	0	0	87	0	143
cSH	1298	1700	1700	1700	222	857
Volume to Capacity	0.18	0.21	0.11	0.05	0.64	0.17
Queue Length 95th (ft)	16	0	0	0	95	15
Control Delay (s)	8.4	0.0	0.0	0.0	46.0	10.0
Lane LOS	A				E	B
Approach Delay (s)	3.3		0.0		27.9	
Approach LOS					D	

Intersection Summary			
Average Delay	8.6		
Intersection Capacity Utilization	36.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	340	69	2	185	0	53	0	3	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	1	391	79	2	213	0	61	0	3	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	213			470			650	650	430	653	690	213
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	213			470			650	650	430	653	690	213
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			84	100	99	100	100	100
cM capacity (veh/h)	1370			1102			384	390	629	380	370	832

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	471	215	64	0
Volume Left	1	2	61	0
Volume Right	79	0	3	0
cSH	1370	1102	392	1700
Volume to Capacity	0.00	0.00	0.16	0.00
Queue Length 95th (ft)	0	0	15	0
Control Delay (s)	0.0	0.1	16.0	0.0
Lane LOS	A	A	C	A
Approach Delay (s)	0.0	0.1	16.0	0.0
Approach LOS			C	A

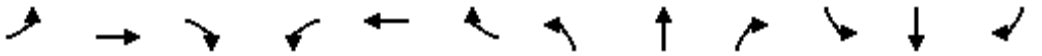
Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	32.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	88	234	3	2	155	78	3	0	0	99	0	42
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	94	249	3	2	165	83	3	0	0	105	0	45
Pedestrians					1							
Lane Width (ft)					12.0							
Walking Speed (ft/s)					4.0							
Percent Blockage					0							
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	248			252			693	690	252	649	650	206
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	248			252			693	690	252	649	650	206
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.4
p0 queue free %	93			100			99	100	100	71	100	95
cM capacity (veh/h)	1301			1325			322	344	791	359	362	819

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	346	250	3	150
Volume Left	94	2	3	105
Volume Right	3	83	0	45
cSH	1301	1325	322	432
Volume to Capacity	0.07	0.00	0.01	0.35
Queue Length 95th (ft)	6	0	1	38
Control Delay (s)	2.7	0.1	16.3	17.7
Lane LOS	A	A	C	C
Approach Delay (s)	2.7	0.1	16.3	17.7
Approach LOS			C	C

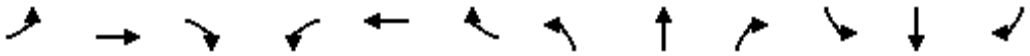
Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	104	646	0	1	503	59	0	0	0	53	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0						4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00						1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00						1.00	1.00
Frt	1.00	1.00		1.00	0.98						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)	1805	3610		1804	3475						1752	1615
Flt Permitted	0.95	1.00		0.95	1.00						0.87	1.00
Satd. Flow (perm)	1805	3610		1804	3475						1604	1615
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	121	751	0	1	585	69	0	0	0	62	0	70
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	0	52
Lane Group Flow (vph)	121	751	0	1	647	0	0	0	0	0	62	18
Confl. Peds. (#/hr)			3	3								
Confl. Bikes (#/hr)			1			1			1			
Heavy Vehicles (%)	0%	0%	0%	0%	2%	3%	0%	0%	0%	3%	0%	0%
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	7	4		3	8			2			6	7
Permitted Phases							2			6		6
Actuated Green, G (s)	7.2	29.0		0.8	22.6						4.6	11.8
Effective Green, g (s)	7.2	29.0		0.8	22.6						4.6	11.8
Actuated g/C Ratio	0.16	0.63		0.02	0.49						0.10	0.25
Clearance Time (s)	4.0	4.0		4.0	4.0						4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0						3.0	3.0
Lane Grp Cap (vph)	280	2256		31	1693						159	550
v/s Ratio Prot	c0.07	0.21		0.00	c0.19							0.01
v/s Ratio Perm											c0.04	0.01
v/c Ratio	0.43	0.33		0.03	0.38						0.39	0.03
Uniform Delay, d1	17.7	4.1		22.4	7.5						19.6	13.0
Progression Factor	1.00	1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2	1.1	0.1		0.4	0.1						1.6	0.0
Delay (s)	18.8	4.2		22.8	7.6						21.2	13.0
Level of Service	B	A		C	A						C	B
Approach Delay (s)		6.2			7.7			0.0			16.9	
Approach LOS		A			A			A			B	

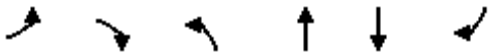
Intersection Summary			
HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	46.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	422	254	39	282	8	232	29	96	11	17	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.88		1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1900	1599	1805	3559		1786	1681		1805	1721	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.73	1.00		0.67	1.00	
Satd. Flow (perm)	1805	1900	1599	1805	3559		1370	1681		1281	1721	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	42	435	262	40	291	8	239	30	99	11	18	25
RTOR Reduction (vph)	0	0	155	0	2	0	0	68	0	0	17	0
Lane Group Flow (vph)	42	435	107	40	297	0	239	61	0	11	26	0
Confl. Peds. (#/hr)	2					2	2					2
Heavy Vehicles (%)	0%	0%	1%	0%	1%	0%	1%	0%	0%	0%	0%	0%
Turn Type	Prot		Perm	Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2			6		
Actuated Green, G (s)	2.3	21.0	21.0	2.4	21.1		15.8	15.8		15.8	15.8	
Effective Green, g (s)	2.3	21.0	21.0	2.4	21.1		15.8	15.8		15.8	15.8	
Actuated g/C Ratio	0.04	0.41	0.41	0.05	0.41		0.31	0.31		0.31	0.31	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	81	779	656	85	1467		423	519		395	531	
v/s Ratio Prot	c0.02	c0.23		0.02	0.08			0.04			0.01	
v/s Ratio Perm			0.07				c0.17			0.01		
v/c Ratio	0.52	0.56	0.16	0.47	0.20		0.57	0.12		0.03	0.05	
Uniform Delay, d1	23.9	11.6	9.5	23.8	9.7		14.8	12.7		12.3	12.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.5	0.9	0.1	4.1	0.1		1.7	0.1		0.0	0.0	
Delay (s)	29.4	12.4	9.7	27.9	9.7		16.6	12.8		12.4	12.5	
Level of Service	C	B	A	C	A		B	B		B	B	
Approach Delay (s)		12.4			11.9			15.2			12.4	
Approach LOS		B			B			B			B	

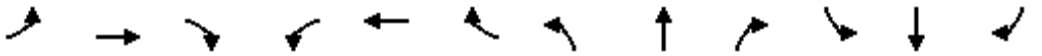
Intersection Summary			
HCM Average Control Delay	13.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	51.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	76	78	297	196	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	3	87	90	341	225	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				358		
pX, platoon unblocked	0.87					
vC, conflicting volume	749	228	231			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	641	228	231			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	89	93			
cM capacity (veh/h)	361	816	1337			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	91	90	341	231
Volume Left	3	90	0	0
Volume Right	87	0	0	6
cSH	779	1337	1700	1700
Volume to Capacity	0.12	0.07	0.20	0.14
Queue Length 95th (ft)	10	5	0	0
Control Delay (s)	10.2	7.9	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	10.2	1.6		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	29.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	214	90	110	139	50	69	288	171	85	370	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00	0.96	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1802		1735	1792		1805	1881	1556	1799	1881	1579
Flt Permitted	0.54	1.00		0.33	1.00		0.26	1.00	1.00	0.39	1.00	1.00
Satd. Flow (perm)	1030	1802		607	1792		498	1881	1556	742	1881	1579
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	105	252	106	129	164	59	81	339	201	100	435	69
RTOR Reduction (vph)	0	21	0	0	18	0	0	0	138	0	0	47
Lane Group Flow (vph)	105	337	0	129	205	0	81	339	63	100	435	22
Confl. Peds. (#/hr)			1	1					12	12		
Confl. Bikes (#/hr)			3			1			1			2
Heavy Vehicles (%)	0%	0%	0%	4%	1%	2%	0%	1%	0%	0%	1%	0%
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	21.6	17.4		21.6	17.4		23.4	19.2	19.2	23.4	19.2	19.2
Effective Green, g (s)	21.6	17.4		21.6	17.4		23.4	19.2	19.2	23.4	19.2	19.2
Actuated g/C Ratio	0.35	0.29		0.35	0.29		0.38	0.31	0.31	0.38	0.31	0.31
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	418	514		293	511		281	592	490	357	592	497
v/s Ratio Prot	0.02	c0.19		c0.03	0.11		c0.02	0.18		0.02	c0.23	
v/s Ratio Perm	0.07			0.13			0.09		0.04	0.09		0.01
v/c Ratio	0.25	0.65		0.44	0.40		0.29	0.57	0.13	0.28	0.73	0.04
Uniform Delay, d1	13.6	19.2		14.2	17.6		12.9	17.5	14.9	12.6	18.6	14.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	3.0		1.1	0.5		0.6	1.3	0.1	0.4	4.7	0.0
Delay (s)	13.9	22.2		15.2	18.1		13.5	18.8	15.0	13.0	23.3	14.6
Level of Service	B	C		B	B		B	B	B	B	C	B
Approach Delay (s)		20.3			17.1			16.9			20.6	
Approach LOS		C			B			B			C	

Intersection Summary			
HCM Average Control Delay	18.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	61.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	279	58	317	314	72	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	1615	1845	1569	1805	1881
Flt Permitted	0.95	1.00	1.00	1.00	0.31	1.00
Satd. Flow (perm)	1787	1615	1845	1569	593	1881
Peak-hour factor, PHF	0.81	0.81	0.81	0.81	0.81	0.81
Adj. Flow (vph)	344	72	391	388	89	247
RTOR Reduction (vph)	0	41	0	252	0	0
Lane Group Flow (vph)	344	31	391	136	89	247
Confl. Bikes (#/hr)				8		
Heavy Vehicles (%)	1%	0%	3%	0%	0%	1%
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	18.2	18.2	20.4	20.4	30.9	30.9
Effective Green, g (s)	18.2	18.2	20.4	20.4	30.9	30.9
Actuated g/C Ratio	0.31	0.31	0.35	0.35	0.53	0.53
Clearance Time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	560	506	648	551	430	1000
v/s Ratio Prot	c0.19		c0.21		0.02	c0.13
v/s Ratio Perm		0.02		0.09	0.09	
v/c Ratio	0.61	0.06	0.60	0.25	0.21	0.25
Uniform Delay, d1	17.0	14.0	15.5	13.4	7.7	7.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.0	0.1	1.6	0.2	0.2	0.1
Delay (s)	19.0	14.0	17.1	13.6	8.0	7.5
Level of Service	B	B	B	B	A	A
Approach Delay (s)	18.1		15.4			7.6
Approach LOS	B		B			A

Intersection Summary			
HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	58.1	Sum of lost time (s)	14.0
Intersection Capacity Utilization	47.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Appendix K 2029 Total Traffic Conditions Worksheets

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	59	254	22	204	312	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	69	295	26	237	363	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			364		505	216
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			364		505	216
tC, single (s)			4.1		6.4	7.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	4.2
p0 queue free %			98		29	99
cM capacity (veh/h)			1206		512	629

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	364	263	371
Volume Left	0	26	363
Volume Right	295	0	8
cSH	1700	1206	514
Volume to Capacity	0.21	0.02	0.72
Queue Length 95th (ft)	0	2	146
Control Delay (s)	0.0	1.0	28.0
Lane LOS		A	D
Approach Delay (s)	0.0	1.0	28.0
Approach LOS			D

Intersection Summary			
Average Delay	10.7		
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

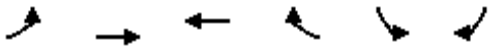
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	371	379	376	135	654	434
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.4		5.7	5.4
Lane Util. Factor	1.00		1.00		1.00	1.00
Frt	0.93		0.96		1.00	1.00
Flt Protected	0.98		1.00		0.95	1.00
Satd. Flow (prot)	1621		1638		1805	1881
Flt Permitted	0.98		1.00		0.13	1.00
Satd. Flow (perm)	1621		1638		246	1881
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	371	379	376	135	654	434
RTOR Reduction (vph)	25	0	10	0	0	0
Lane Group Flow (vph)	725	0	501	0	654	434
Heavy Vehicles (%)	0%	13%	14%	6%	0%	1%
Turn Type					pm+pt	
Protected Phases	6		4		3	8
Permitted Phases					8	
Actuated Green, G (s)	35.2		42.3		83.2	83.2
Effective Green, g (s)	35.2		42.3		83.2	83.2
Actuated g/C Ratio	0.27		0.33		0.64	0.64
Clearance Time (s)	5.8		5.4		5.7	5.4
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Lane Grp Cap (vph)	440		535		581	1208
v/s Ratio Prot	c0.45		0.31		c0.31	0.23
v/s Ratio Perm					c0.42	
v/c Ratio	1.65		0.94		1.13	0.36
Uniform Delay, d1	47.2		42.3		36.1	10.8
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	301.8		23.7		76.9	0.1
Delay (s)	349.0		66.0		113.0	10.9
Level of Service	F		E		F	B
Approach Delay (s)	349.0		66.0			72.3
Approach LOS	F		E			E

Intersection Summary			
HCM Average Control Delay	159.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	129.6	Sum of lost time (s)	11.5
Intersection Capacity Utilization	121.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	224	311	258	575	1	94	2	82	2	6	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt		1.00	0.85	1.00	1.00			1.00	0.85		0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.95	1.00		0.99	
Satd. Flow (prot)		1770	1615	1671	1824			1634	1417		1454	
Flt Permitted		1.00	1.00	0.95	1.00			0.72	1.00		0.96	
Satd. Flow (perm)		1768	1615	1671	1824			1237	1417		1411	
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	1	280	389	322	719	1	118	2	102	2	8	2
RTOR Reduction (vph)	0	0	224	0	0	0	0	0	85	0	2	0
Lane Group Flow (vph)	0	281	165	322	720	0	0	120	17	0	10	0
Confl. Peds. (#/hr)	1					1						
Heavy Vehicles (%)	100%	7%	0%	8%	4%	100%	11%	0%	14%	0%	40%	0%
Turn Type	Perm		Perm	Prot			Perm		Perm	Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4				2		2	6		
Actuated Green, G (s)		30.1	30.1	17.0	51.1			11.9	11.9		11.9	
Effective Green, g (s)		30.1	30.1	17.0	51.1			11.9	11.9		11.9	
Actuated g/C Ratio		0.42	0.42	0.24	0.72			0.17	0.17		0.17	
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		750	685	400	1313			207	237		236	
v/s Ratio Prot				c0.19	c0.39							
v/s Ratio Perm		0.16	0.10					c0.10	0.01		0.01	
v/c Ratio		0.37	0.24	0.81	0.55			0.58	0.07		0.04	
Uniform Delay, d1		14.0	13.1	25.4	4.6			27.2	24.9		24.8	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.3	0.2	11.2	1.7			3.9	0.1		0.1	
Delay (s)		14.3	13.3	36.6	6.3			31.1	25.0		24.9	
Level of Service		B	B	D	A			C	C		C	
Approach Delay (s)		13.7			15.6			28.3			24.9	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	71.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	167	124	384	133	104	485
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	188	139	431	149	117	545
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	TWLTL			
Median storage veh)			2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	581				946	431
vC1, stage 1 conf vol					431	
vC2, stage 2 conf vol					515	
vCu, unblocked vol	581				946	431
tC, single (s)	4.2				6.5	6.2
tC, 2 stage (s)					5.5	
tF (s)	2.3				3.6	3.3
p0 queue free %	81				72	12
cM capacity (veh/h)	964				419	618

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	188	139	481	100	117	545
Volume Left	188	0	0	0	117	0
Volume Right	0	0	50	100	0	545
cSH	964	1700	1700	1700	419	618
Volume to Capacity	0.19	0.08	0.28	0.06	0.28	0.88
Queue Length 95th (ft)	18	0	0	0	28	261
Control Delay (s)	9.6	0.0	0.0	0.0	16.9	39.3
Lane LOS	A				C	E
Approach Delay (s)	5.5		0.0		35.3	
Approach LOS					E	

Intersection Summary			
Average Delay	16.0		
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	91	124	4	285	0	108	1	3	0	2	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	99	135	4	310	0	117	1	3	0	2	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	310			234			492	487	166	491	554	310
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	310			234			492	487	166	491	554	310
tC, single (s)	4.1			4.3			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			76	100	100	100	100	99
cM capacity (veh/h)	1262			1210			480	482	883	487	441	735

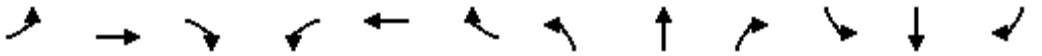
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	235	314	122	7
Volume Left	1	4	117	0
Volume Right	135	0	3	4
cSH	1262	1210	486	601
Volume to Capacity	0.00	0.00	0.25	0.01
Queue Length 95th (ft)	0	0	25	1
Control Delay (s)	0.0	0.1	14.9	11.1
Lane LOS	A	A	B	B
Approach Delay (s)	0.0	0.1	14.9	11.1
Approach LOS			B	B

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	37.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	94	3	0	230	54	2	0	0	68	1	67
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	12	118	4	0	288	68	2	0	0	85	1	84
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	355			121			550	499	119	466	468	321
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	355			121			550	499	119	466	468	321
tC, single (s)	4.3			4.1			8.1	6.5	6.2	7.2	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.4			2.2			4.4	4.0	3.3	3.6	4.0	3.4
p0 queue free %	99			100			99	100	100	83	100	88
cM capacity (veh/h)	1087			1479			284	471	938	490	490	699

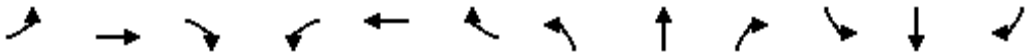
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	134	355	2	170
Volume Left	12	0	2	85
Volume Right	4	68	0	84
cSH	1087	1479	284	574
Volume to Capacity	0.01	0.00	0.01	0.30
Queue Length 95th (ft)	1	0	1	31
Control Delay (s)	0.9	0.0	17.8	13.9
Lane LOS	A		C	B
Approach Delay (s)	0.9	0.0	17.8	13.9
Approach LOS			C	B

Intersection Summary				
Average Delay	3.8			
Intersection Capacity Utilization	29.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	423	286	0	0	311	70	0	0	1	104	0	388
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00			0.99			1.00	0.99
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	1.00			0.97			0.86			1.00	0.85
Flt Protected	0.95	1.00			1.00			1.00			0.95	1.00
Satd. Flow (prot)	1671	3505			3409			1623			1804	1484
Flt Permitted	0.95	1.00			1.00			1.00			0.76	1.00
Satd. Flow (perm)	1671	3505			3409			1623			1438	1484
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	564	381	0	0	415	93	0	0	1	139	0	517
RTOR Reduction (vph)	0	0	0	0	22	0	0	1	0	0	0	80
Lane Group Flow (vph)	564	381	0	0	486	0	0	0	0	0	139	437
Confl. Peds. (#/hr)							4		1	1		4
Heavy Vehicles (%)	8%	3%	0%	0%	3%	3%	0%	0%	0%	0%	0%	8%
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	7	4		3	8			2			6	7
Permitted Phases							2			6		6
Actuated Green, G (s)	17.8	35.1			13.3			8.8			8.8	26.6
Effective Green, g (s)	17.8	35.1			13.3			8.8			8.8	26.6
Actuated g/C Ratio	0.34	0.68			0.26			0.17			0.17	0.51
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	573	2370			874			275			244	875
v/s Ratio Prot	c0.34	0.11			c0.14			0.00				c0.17
v/s Ratio Perm											0.10	0.12
v/c Ratio	0.98	0.16			0.56			0.00			0.57	0.50
Uniform Delay, d1	16.9	3.1			16.7			17.9			19.8	8.3
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	33.3	0.0			0.8			0.0			3.0	0.4
Delay (s)	50.2	3.1			17.5			17.9			22.8	8.7
Level of Service	D	A			B			B			C	A
Approach Delay (s)		31.2			17.5			17.9			11.7	
Approach LOS		C			B			B			B	

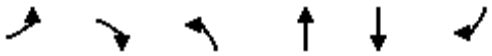
Intersection Summary			
HCM Average Control Delay	21.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	51.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	200	256	139	259	6	145	10	94	22	39	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.86		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1881	1531	1805	3527		1735	1613		1805	1751	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.69	1.00		0.67	1.00	
Satd. Flow (perm)	1805	1881	1531	1805	3527		1263	1613		1271	1751	
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	11	267	341	185	345	8	193	13	125	29	52	49
RTOR Reduction (vph)	0	0	230	0	1	0	0	93	0	0	36	0
Lane Group Flow (vph)	11	267	111	185	352	0	193	45	0	29	65	0
Confl. Peds. (#/hr)			4	4			1					1
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	0%	1%	3%	0%	2%	0%	4%	0%	2%	0%	0%	0%
Turn Type	Prot		Perm	Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2			6		
Actuated Green, G (s)	1.0	17.9	17.9	11.0	27.9		14.1	14.1		14.1	14.1	
Effective Green, g (s)	1.0	17.9	17.9	11.0	27.9		14.1	14.1		14.1	14.1	
Actuated g/C Ratio	0.02	0.33	0.33	0.20	0.51		0.26	0.26		0.26	0.26	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	33	612	498	361	1789		324	414		326	449	
v/s Ratio Prot	0.01	c0.14		c0.10	0.10			0.03			0.04	
v/s Ratio Perm			0.07				c0.15			0.02		
v/c Ratio	0.33	0.44	0.22	0.51	0.20		0.60	0.11		0.09	0.14	
Uniform Delay, d1	26.7	14.6	13.5	19.6	7.4		17.9	15.6		15.6	15.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.9	0.5	0.2	1.2	0.1		2.9	0.1		0.1	0.1	
Delay (s)	32.6	15.1	13.7	20.8	7.5		20.9	15.8		15.7	15.9	
Level of Service	C	B	B	C	A		C	B		B	B	
Approach Delay (s)		14.6			12.1			18.7			15.9	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	14.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	44.6%	ICU Level of Service	A
Analysis Period (min)	15		

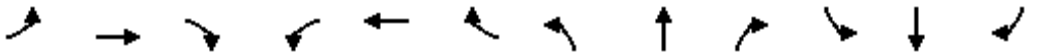
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	80	74	126	240	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	4	90	83	142	270	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				358		
pX, platoon unblocked						
vC, conflicting volume	579	271	273			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	579	271	273			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	88	94			
cM capacity (veh/h)	450	772	1302			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	94	83	142	273
Volume Left	4	83	0	0
Volume Right	90	0	0	3
cSH	747	1302	1700	1700
Volume to Capacity	0.13	0.06	0.08	0.16
Queue Length 95th (ft)	11	5	0	0
Control Delay (s)	10.5	8.0	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	10.5	2.9		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	32.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	45	24	197	154	74	64	312	96	39	247	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.98	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.95		1.00	0.95		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	1677		1786	1761		1805	1827	1546	1751	1845	1509
Flt Permitted	0.50	1.00		0.54	1.00		0.39	1.00	1.00	0.35	1.00	1.00
Satd. Flow (perm)	922	1677		1018	1761		740	1827	1546	639	1845	1509
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	92	60	32	263	205	99	85	416	128	52	329	133
RTOR Reduction (vph)	0	26	0	0	25	0	0	0	77	0	0	90
Lane Group Flow (vph)	92	66	0	263	279	0	85	416	51	52	329	43
Confl. Peds. (#/hr)			1	1					3	3		
Heavy Vehicles (%)	4%	0%	19%	1%	0%	8%	0%	4%	2%	3%	3%	7%
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	16.1	11.8		22.9	15.2		24.5	20.2	20.2	21.9	18.9	18.9
Effective Green, g (s)	16.1	11.8		22.9	15.2		24.5	20.2	20.2	21.9	18.9	18.9
Actuated g/C Ratio	0.27	0.20		0.39	0.26		0.42	0.34	0.34	0.37	0.32	0.32
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	313	337		498	456		387	629	532	295	594	486
v/s Ratio Prot	0.02	0.04		c0.07	c0.16		c0.02	c0.23		0.01	0.18	
v/s Ratio Perm	0.06			0.14			0.08		0.03	0.06		0.03
v/c Ratio	0.29	0.20		0.53	0.61		0.22	0.66	0.10	0.18	0.55	0.09
Uniform Delay, d1	16.3	19.5		12.9	19.1		10.8	16.3	13.1	12.2	16.4	13.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.3		1.0	2.4		0.3	2.6	0.1	0.3	1.1	0.1
Delay (s)	16.9	19.8		13.9	21.6		11.1	19.0	13.1	12.5	17.5	14.0
Level of Service	B	B		B	C		B	B	B	B	B	B
Approach Delay (s)		18.3			18.0			16.7			16.1	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	17.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	58.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	400	56	144	431	68	253
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1597	1482	1743	1509	1504	1900
Flt Permitted	0.95	1.00	1.00	1.00	0.47	1.00
Satd. Flow (perm)	1597	1482	1743	1509	738	1900
Peak-hour factor, PHF	0.72	0.72	0.72	0.72	0.72	0.72
Adj. Flow (vph)	556	78	200	599	94	351
RTOR Reduction (vph)	0	24	0	439	0	0
Lane Group Flow (vph)	556	54	200	160	94	351
Heavy Vehicles (%)	13%	9%	9%	7%	20%	0%
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	27.5	27.5	16.5	16.5	25.2	25.2
Effective Green, g (s)	27.5	27.5	16.5	16.5	25.2	25.2
Actuated g/C Ratio	0.45	0.45	0.27	0.27	0.41	0.41
Clearance Time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	712	661	466	404	347	776
v/s Ratio Prot	c0.35		0.11		0.02	c0.18
v/s Ratio Perm		0.04		0.11	0.09	
v/c Ratio	0.78	0.08	0.43	0.40	0.27	0.45
Uniform Delay, d1	14.5	9.8	18.7	18.5	11.8	13.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.6	0.1	0.6	0.6	0.4	0.4
Delay (s)	20.1	9.9	19.3	19.2	12.2	13.7
Level of Service	C	A	B	B	B	B
Approach Delay (s)	18.8		19.2			13.4
Approach LOS	B		B			B

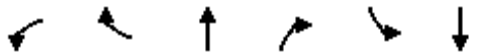
Intersection Summary			
HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	61.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	177	329	26	109	278	30
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	195	362	29	120	305	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			556		552	375
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			556		552	375
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		36	95
cM capacity (veh/h)			1025		481	676

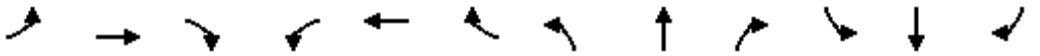
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	556	148	338
Volume Left	0	29	305
Volume Right	362	0	33
cSH	1700	1025	495
Volume to Capacity	0.33	0.03	0.68
Queue Length 95th (ft)	0	2	129
Control Delay (s)	0.0	1.9	26.6
Lane LOS		A	D
Approach Delay (s)	0.0	1.9	26.6
Approach LOS			D

Intersection Summary			
Average Delay	8.9		
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	290	207	846	374	306	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.8		5.4		5.7	5.4
Lane Util. Factor	1.00		1.00		1.00	1.00
Frpb, ped/bikes	0.99		0.98		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.94		0.96		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	1703		1771		1752	1881
Flt Permitted	0.97		1.00		0.07	1.00
Satd. Flow (perm)	1703		1771		121	1881
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	290	207	846	374	306	500
RTOR Reduction (vph)	17	0	10	0	0	0
Lane Group Flow (vph)	480	0	1210	0	306	500
Confl. Peds. (#/hr)		2		8	8	
Heavy Vehicles (%)	2%	0%	1%	2%	3%	1%
Turn Type					pm+pt	
Protected Phases	6		4		3	8
Permitted Phases					8	
Actuated Green, G (s)	35.1		55.2		82.3	82.3
Effective Green, g (s)	35.1		55.2		82.3	82.3
Actuated g/C Ratio	0.27		0.43		0.64	0.64
Clearance Time (s)	5.8		5.4		5.7	5.4
Vehicle Extension (s)	1.0		1.0		1.0	1.0
Lane Grp Cap (vph)	465		760		349	1204
v/s Ratio Prot	c0.28		c0.68		c0.15	0.27
v/s Ratio Perm					0.41	
v/c Ratio	1.03		1.59		0.88	0.42
Uniform Delay, d1	46.7		36.7		41.3	11.4
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	50.0		272.5		20.5	0.1
Delay (s)	96.8		309.2		61.8	11.4
Level of Service	F		F		E	B
Approach Delay (s)	96.8		309.2			30.6
Approach LOS	F		F			C

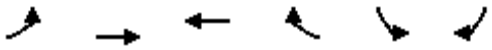
Intersection Summary			
HCM Average Control Delay	178.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.28		
Actuated Cycle Length (s)	128.6	Sum of lost time (s)	16.9
Intersection Capacity Utilization	127.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	643	27	182	394	2	50	6	295	1	4	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	0.98		1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Frt		1.00	0.85	1.00	1.00			1.00	0.85		0.98	
Flt Protected		1.00	1.00	0.95	1.00			0.96	1.00		0.99	
Satd. Flow (prot)		1862	1615	1770	1880			1819	1546		1849	
Flt Permitted		1.00	1.00	0.95	1.00			0.74	1.00		0.97	
Satd. Flow (perm)		1856	1615	1770	1880			1414	1546		1802	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	7	731	31	207	448	2	57	7	335	1	5	1
RTOR Reduction (vph)	0	0	9	0	0	0	0	0	288	0	1	0
Lane Group Flow (vph)	0	738	22	207	450	0	0	64	47	0	6	0
Confl. Peds. (#/hr)	2					2			3	3		
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	0%	2%	0%	2%	1%	0%	0%	0%	2%	0%	0%	0%
Turn Type	Perm		Prot	Prot			Perm		Perm	Perm		
Protected Phases		4	4	3	8			2			6	
Permitted Phases	4						2		2	6		
Actuated Green, G (s)		30.3	30.3	12.4	46.7			9.0	9.0		9.0	
Effective Green, g (s)		30.3	30.3	12.4	46.7			9.0	9.0		9.0	
Actuated g/C Ratio		0.48	0.48	0.19	0.73			0.14	0.14		0.14	
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0	4.0		4.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		883	768	345	1378			200	218		255	
v/s Ratio Prot			0.01	c0.12	0.24							
v/s Ratio Perm		c0.40						c0.05	0.03		0.00	
v/c Ratio		0.84	0.03	0.60	0.33			0.32	0.22		0.02	
Uniform Delay, d1		14.5	8.9	23.4	3.0			24.6	24.2		23.6	
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2		6.9	0.0	2.8	0.1			0.9	0.5		0.0	
Delay (s)		21.4	8.9	26.2	3.1			25.5	24.7		23.6	
Level of Service		C	A	C	A			C	C		C	
Approach Delay (s)		20.9			10.4			24.9			23.6	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	18.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	63.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	430	464	264	116	189	254
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	494	533	303	133	217	292
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	TWLTL			
Median storage veh)			2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	437				1825	303
vC1, stage 1 conf vol					303	
vC2, stage 2 conf vol					1522	
vCu, unblocked vol	437				1825	303
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	56				0	61
cM capacity (veh/h)	1134				109	741

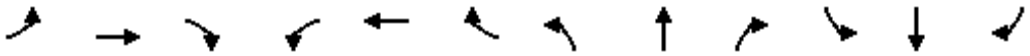
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	494	533	303	133	217	292
Volume Left	494	0	0	0	217	0
Volume Right	0	0	0	133	0	292
cSH	1134	1700	1700	1700	109	741
Volume to Capacity	0.44	0.31	0.18	0.08	1.99	0.39
Queue Length 95th (ft)	56	0	0	0	451	47
Control Delay (s)	10.6	0.0	0.0	0.0	543.3	13.0
Lane LOS	B				F	B
Approach Delay (s)	5.1		0.0		239.2	
Approach LOS					F	

Intersection Summary			
Average Delay	64.4		
Intersection Capacity Utilization	58.2%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	393	141	2	238	0	147	0	3	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	1	452	162	2	274	0	169	0	3	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	274			614			813	813	533	817	894	274
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	274			614			813	813	533	817	894	274
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			43	100	99	100	100	100
cM capacity (veh/h)	1301			975			299	314	551	295	282	770

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	615	276	172	0
Volume Left	1	2	169	0
Volume Right	162	0	3	0
cSH	1301	975	301	1700
Volume to Capacity	0.00	0.00	0.57	0.00
Queue Length 95th (ft)	0	0	83	0
Control Delay (s)	0.0	0.1	31.8	0.0
Lane LOS	A	A	D	A
Approach Delay (s)	0.0	0.1	31.8	0.0
Approach LOS			D	A

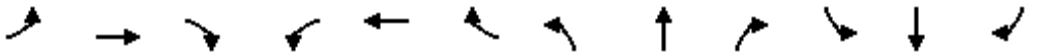
Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	97	278	3	2	200	78	3	0	0	99	0	50
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	103	296	3	2	213	83	3	0	0	105	0	53
Pedestrians					1							
Lane Width (ft)					12.0							
Walking Speed (ft/s)					4.0							
Percent Blockage					0							
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	296			299			815	804	298	763	764	254
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	296			299			815	804	298	763	764	254
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.4
p0 queue free %	92			100			99	100	100	65	100	93
cM capacity (veh/h)	1249			1274			260	292	745	299	308	770

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	402	298	3	159
Volume Left	103	2	3	105
Volume Right	3	83	0	53
cSH	1249	1274	260	376
Volume to Capacity	0.08	0.00	0.01	0.42
Queue Length 95th (ft)	7	0	1	51
Control Delay (s)	2.7	0.1	19.0	21.4
Lane LOS	A	A	C	C
Approach Delay (s)	2.7	0.1	19.0	21.4
Approach LOS			C	C

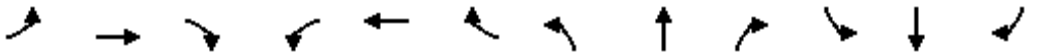
Intersection Summary			
Average Delay	5.3		
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	218	646	0	1	503	130	0	0	0	97	0	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0						4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00						1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00						1.00	1.00
Frt	1.00	1.00		1.00	0.97						1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)	1805	3610		1803	3409						1752	1615
Flt Permitted	0.95	1.00		0.95	1.00						0.76	1.00
Satd. Flow (perm)	1805	3610		1803	3409						1397	1615
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	253	751	0	1	585	151	0	0	0	113	0	152
RTOR Reduction (vph)	0	0	0	0	22	0	0	0	0	0	0	79
Lane Group Flow (vph)	253	751	0	1	714	0	0	0	0	0	113	73
Confl. Peds. (#/hr)			3	3								
Confl. Bikes (#/hr)			1			1			1			
Heavy Vehicles (%)	0%	0%	0%	0%	2%	3%	0%	0%	0%	3%	0%	0%
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	7	4		3	8			2			6	7
Permitted Phases							2			6		6
Actuated Green, G (s)	14.3	36.1		0.9	22.7						8.4	22.7
Effective Green, g (s)	14.3	36.1		0.9	22.7						8.4	22.7
Actuated g/C Ratio	0.25	0.63		0.02	0.40						0.15	0.40
Clearance Time (s)	4.0	4.0		4.0	4.0						4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0						3.0	3.0
Lane Grp Cap (vph)	450	2270		28	1348						204	751
v/s Ratio Prot	c0.14	0.21		0.00	c0.21							0.02
v/s Ratio Perm											c0.08	0.02
v/c Ratio	0.56	0.33		0.04	0.53						0.55	0.10
Uniform Delay, d1	18.8	5.0		27.8	13.3						22.8	10.9
Progression Factor	1.00	1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2	1.6	0.1		0.5	0.4						3.2	0.1
Delay (s)	20.4	5.1		28.3	13.6						26.0	11.0
Level of Service	C	A		C	B						C	B
Approach Delay (s)		8.9			13.7			0.0			17.4	
Approach LOS		A			B			A			B	

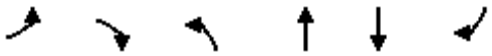
Intersection Summary			
HCM Average Control Delay	11.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	57.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	431	288	39	296	8	290	29	96	11	17	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	0.88		1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1900	1599	1805	3559		1785	1681		1805	1721	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.73	1.00		0.67	1.00	
Satd. Flow (perm)	1805	1900	1599	1805	3559		1370	1681		1281	1721	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	42	444	297	40	305	8	299	30	99	11	18	25
RTOR Reduction (vph)	0	0	180	0	2	0	0	65	0	0	16	0
Lane Group Flow (vph)	42	444	117	40	311	0	299	64	0	11	27	0
Confl. Peds. (#/hr)	2					2	2					2
Heavy Vehicles (%)	0%	0%	1%	0%	1%	0%	1%	0%	0%	0%	0%	0%
Turn Type	Prot		Perm	Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4				2			6		
Actuated Green, G (s)	3.8	21.3	21.3	2.4	19.9		18.5	18.5		18.5	18.5	
Effective Green, g (s)	3.8	21.3	21.3	2.4	19.9		18.5	18.5		18.5	18.5	
Actuated g/C Ratio	0.07	0.39	0.39	0.04	0.37		0.34	0.34		0.34	0.34	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	127	747	628	80	1307		468	574		437	587	
v/s Ratio Prot	c0.02	c0.23		0.02	0.09			0.04			0.02	
v/s Ratio Perm			0.07				c0.22			0.01		
v/c Ratio	0.33	0.59	0.19	0.50	0.24		0.64	0.11		0.03	0.05	
Uniform Delay, d1	24.0	13.0	10.8	25.3	11.9		15.0	12.2		11.9	11.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.5	1.3	0.1	4.8	0.1		2.9	0.1		0.0	0.0	
Delay (s)	25.5	14.3	10.9	30.2	12.0		17.9	12.3		11.9	12.0	
Level of Service	C	B	B	C	B		B	B		B	B	
Approach Delay (s)		13.6			14.0			16.2			12.0	
Approach LOS		B			B			B			B	

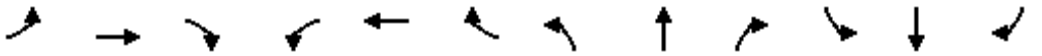
Intersection Summary			
HCM Average Control Delay	14.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	54.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	84	88	306	202	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	3	97	101	352	232	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				358		
pX, platoon unblocked	0.87					
vC, conflicting volume	789	235	238			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	684	235	238			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	88	92			
cM capacity (veh/h)	336	809	1329			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	100	101	352	238
Volume Left	3	101	0	0
Volume Right	97	0	0	6
cSH	772	1329	1700	1700
Volume to Capacity	0.13	0.08	0.21	0.14
Queue Length 95th (ft)	11	6	0	0
Control Delay (s)	10.4	7.9	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	10.4	1.8		0.0
Approach LOS	B			

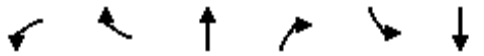
Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	31.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	105	214	90	110	139	53	69	289	171	93	371	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.99		1.00	1.00	0.96	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1802		1735	1788		1805	1881	1556	1799	1881	1579
Flt Permitted	0.54	1.00		0.33	1.00		0.26	1.00	1.00	0.39	1.00	1.00
Satd. Flow (perm)	1019	1802		605	1788		501	1881	1556	742	1881	1579
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	124	252	106	129	164	62	81	340	201	109	436	85
RTOR Reduction (vph)	0	21	0	0	19	0	0	0	137	0	0	58
Lane Group Flow (vph)	124	337	0	129	207	0	81	340	64	109	436	27
Confl. Peds. (#/hr)			1	1					12	12		
Confl. Bikes (#/hr)			3			1			1			2
Heavy Vehicles (%)	0%	0%	0%	4%	1%	2%	0%	1%	0%	0%	1%	0%
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)	21.6	17.4		21.6	17.4		23.6	19.4	19.4	23.6	19.4	19.4
Effective Green, g (s)	21.6	17.4		21.6	17.4		23.6	19.4	19.4	23.6	19.4	19.4
Actuated g/C Ratio	0.35	0.28		0.35	0.28		0.39	0.32	0.32	0.39	0.32	0.32
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	414	512		291	508		283	596	493	359	596	501
v/s Ratio Prot	0.02	c0.19		c0.03	0.12		0.02	0.18		c0.02	c0.23	
v/s Ratio Perm	0.09			0.13			0.09		0.04	0.10		0.02
v/c Ratio	0.30	0.66		0.44	0.41		0.29	0.57	0.13	0.30	0.73	0.05
Uniform Delay, d1	13.8	19.3		14.3	17.7		12.9	17.4	14.9	12.6	18.6	14.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	3.0		1.1	0.5		0.6	1.3	0.1	0.5	4.6	0.0
Delay (s)	14.2	22.3		15.4	18.3		13.4	18.7	15.0	13.1	23.2	14.6
Level of Service	B	C		B	B		B	B	B	B	C	B
Approach Delay (s)		20.2			17.2			16.8			20.3	
Approach LOS		C			B			B			C	

Intersection Summary			
HCM Average Control Delay	18.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	61.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	279	67	327	314	78	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1787	1615	1845	1569	1805	1881
Flt Permitted	0.95	1.00	1.00	1.00	0.30	1.00
Satd. Flow (perm)	1787	1615	1845	1569	572	1881
Peak-hour factor, PHF	0.81	0.81	0.81	0.81	0.81	0.81
Adj. Flow (vph)	344	83	404	388	96	258
RTOR Reduction (vph)	0	47	0	251	0	0
Lane Group Flow (vph)	344	36	404	137	96	258
Confl. Bikes (#/hr)				8		
Heavy Vehicles (%)	1%	0%	3%	0%	0%	1%
Turn Type		Perm		Perm	pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	18.4	18.4	20.8	20.8	31.4	31.4
Effective Green, g (s)	18.4	18.4	20.8	20.8	31.4	31.4
Actuated g/C Ratio	0.31	0.31	0.35	0.35	0.53	0.53
Clearance Time (s)	4.0	4.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	559	505	653	555	423	1004
v/s Ratio Prot	c0.19		c0.22		0.02	c0.14
v/s Ratio Perm		0.02		0.09	0.10	
v/c Ratio	0.62	0.07	0.62	0.25	0.23	0.26
Uniform Delay, d1	17.2	14.2	15.7	13.5	7.9	7.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.0	0.1	1.8	0.2	0.3	0.1
Delay (s)	19.2	14.3	17.5	13.7	8.2	7.5
Level of Service	B	B	B	B	A	A
Approach Delay (s)	18.2		15.6			7.7
Approach LOS	B		B			A

Intersection Summary			
HCM Average Control Delay	14.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	58.8	Sum of lost time (s)	14.0
Intersection Capacity Utilization	48.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Appendix L Mitigations at NE 199th Avenue/NE 58th Street (SR 500)

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	59	254	22	204	312	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	69	295	26	237	363	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			364		357	69
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			364		357	69
tC, single (s)			4.1		6.4	7.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	4.2
p0 queue free %			98		42	99
cM capacity (veh/h)			1206		624	778

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	69	295	263	371
Volume Left	0	0	26	363
Volume Right	0	295	0	8
cSH	1700	1700	1206	627
Volume to Capacity	0.04	0.17	0.02	0.59
Queue Length 95th (ft)	0	0	2	97
Control Delay (s)	0.0	0.0	1.0	18.7
Lane LOS			A	C
Approach Delay (s)	0.0		1.0	18.7
Approach LOS				C

Intersection Summary			
Average Delay	7.2		
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	177	329	26	109	278	30
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	195	362	29	120	305	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			556		371	195
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			556		371	195
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		50	96
cM capacity (veh/h)			1025		612	852

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	195	362	148	338
Volume Left	0	0	29	305
Volume Right	0	362	0	33
cSH	1700	1700	1025	629
Volume to Capacity	0.11	0.21	0.03	0.54
Queue Length 95th (ft)	0	0	2	80
Control Delay (s)	0.0	0.0	1.9	17.2
Lane LOS			A	C
Approach Delay (s)	0.0		1.9	17.2
Approach LOS				C

Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	43.7%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix M Proportion Share Calculations at NE 192nd Avenue/NE 13th Street

Proposed Proportionate Share Contribution at NE 192nd Avenue/NE 13th Avenue

Cost Estimate:

Item	Unit Cost	Length	Cost	Notes
Northbound right-turn lane and westbound right-turn lane	$ 280,000	1	$ 280,000	Cost estimate attached.
		Total	**$ 280,000**	

Note: Cost estimate may not account for all ROW impacts

Proportionate Share Calculation:

Intersection volume without development (2029 Background Scenario)	2208
Intersection volume with development (2029 Total Traffic Scenario)	2524
Trips added by development (2524-2208)	316
Intersection Capacity without Improvement (2018 Background Scenario)	1808
Additional volume accomodated with improvements (2524-1808)	716
Proportionate share cost per trip ($280,000/716)	$ 391
Proportionate share of capacity used by development (316/716)	0.441
Proposed proportionate share contribution ($391 per trip * 316 trips)	**$ 123,600**

Note: without improvement, intersection operates within standards under 2018 background conditions

Note: with proposed improvements, intersection operates within standards under 2029 total traffic conditions

OLSON ENGINEERING INC.

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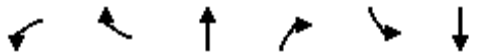
Green Mtn. - Right Turn Lane @ NE 192nd Avenue & NE 13th Street - Cost Estimate (Option I)
North Bound Right & West Bound Right

Item #	Description	Unit Of Measure	Quantity	Unit Price	Total Price
	GENERAL CONDITIONS				
1	Mobilization	LS	1	$ 10,000.00	$ 10,000.00
2	Clearing & Grubbing (Remove Hedge & Trees, etc.)	LS	1	$ 2,400.00	$ 2,400.00
3	Stripping 6" & Haul Off	CY	235	$ 9.00	$ 2,115.00
				Total	$ 14,515.00
	DEMOLITION				
4	AC Removal (Exist'g Edge Road & Exist'g Driveways To Ba	SF	2,070	$ 1.00	$ 2,070.00
5	Remove Exist'g Driveway Culvert (24 LF)	LS	1	$ 300.00	$ 300.00
6	Relocate Exist'g Mail Boxes	EA	5	$ 125.00	$ 625.00
7	Relocate Exist'g Signs	EA	3	$ 125.00	$ 375.00
				Total	$ 3,370.00
	EROSION CONTROL				
8	Silt Fence	LF	700	$ 1.75	$ 1,225.00
9	Hydroseed & Mulch Right - Of - Way	SF	14,000	$ 0.30	$ 4,200.00
10	Erosion Control Maintenance	LS	1	$ 1,600.00	$ 1,600.00
				Total	$ 7,025.00
	SITEWORK				
	North Bound Right & West Bound Right				
11	Sawcut	LF	930	$ 2.00	$ 1,860.00
12	Mass Grading & Haul Off	CY	480	$ 10.00	$ 4,800.00
13	Finish Grade	SF	6,345	$ 0.30	$ 1,903.50
14	Geotextile Fabric	SY	765	$ 0.90	$ 688.50
15	1¼"- Crushed Rock (0.85')	TN	385	$ 20.00	$ 7,700.00
16	Asphaltic Concrete (0.85') Class ½" 64-22 HMA	TN	410	$ 135.00	$ 55,350.00
17	Curb & Gutter	LF	840	$ 10.00	$ 8,400.00
18	Sidewalk / Pedestrian Ramp	SF	4,275	$ 4.00	$ 17,100.00
19	Detectable Warning Surface	SF	10	$ 25.00	$ 250.00
20	Driveway Drop	EA	5	$ 25.00	$ 125.00
21	Driveway Approach (5)	SF	560	$ 4.50	$ 2,520.00
22	Pedestrian/Signal Modifications	LS	1	$ 33,000.00	$ 33,000.00
23	Traffic Control	LS	1	$ 10,000.00	$ 10,000.00
				Total	$ 143,697.00
	SITEWORK				
	Pave Existing Driveways To Right - Of -Way				
24	Removal AC / Gravel (Back Of Sidewalk To Right - Of - Wa	SF	1,435	$ 1.00	$ 1,435.00
25	Finish Grade	SF	1,435	$ 0.30	$ 430.50
26	Geotextile Fabric	SY	175	$ 0.90	$ 157.50
27	1¼"- Crushed Rock (0.67')	TN	70	$ 20.00	$ 1,400.00
28	Asphaltic Concrete (0.25') Class ½" 64-22 HMA	TN	30	$ 135.00	$ 4,050.00
				Total	$ 7,473.00

	STORM						
29	Stormfilter Catch Basin (2 - Cart.)	EA	2	$	12,000.00	$	24,000.00
30	Infiltration Trench (50 LF)	EA	2	$	2,500.00	$	5,000.00
					Total	$	29,000.00
	STRIPING & SIGNAGE						
31	Solid Double Yellow Line	LF	470	$	1.00	$	470.00
32	Solid White Line	LF	810	$	0.50	$	405.00
33	White Thermoplastic Stop Bar (Extend Existing)	EA	1	$	660.00	$	660.00
34	Crosswalk Marking (Extend Existing	EA	1	$	750.00	$	750.00
					Total	$	2,285.00

Subtotal Construction Costs	$	207,365.00
Soft Cost (20%)	$	41,473.00
Contingency (15%)	$	31,104.75
Total Construction Costs	**$**	**279,942.75**

Appendix N Phase 1 Access Operations Worksheets



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	72	18	171	24	6	196
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	85	21	201	28	7	231
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	460	215			229	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	460	215			229	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	85	97			99	
cM capacity (veh/h)	560	830			1351	

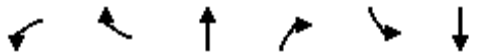
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	85	21	229	7	231
Volume Left	85	0	0	7	0
Volume Right	0	21	28	0	0
cSH	560	830	1700	1351	1700
Volume to Capacity	0.15	0.03	0.13	0.01	0.14
Queue Length 95th (ft)	13	2	0	0	0
Control Delay (s)	12.6	9.5	0.0	7.7	0.0
Lane LOS	B	A		A	
Approach Delay (s)	11.9		0.0	0.2	
Approach LOS	B				

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	21.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	24	6	189	8	2	266
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	28	7	222	9	2	313
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	545	227			232	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	545	227			232	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	99			100	
cM capacity (veh/h)	502	817			1348	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	35	232	2	313
Volume Left	28	0	2	0
Volume Right	7	9	0	0
cSH	544	1700	1348	1700
Volume to Capacity	0.06	0.14	0.00	0.18
Queue Length 95th (ft)	5	0	0	0
Control Delay (s)	12.1	0.0	7.7	0.0
Lane LOS	B		A	
Approach Delay (s)	12.1	0.0	0.1	
Approach LOS	B			

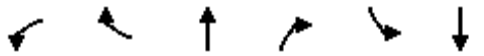
Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	24.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	48	12	153	81	20	165
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	56	14	180	95	24	194
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	469	228			275	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	469	228			275	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	98			98	
cM capacity (veh/h)	546	817			1299	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	56	14	275	24	194
Volume Left	56	0	0	24	0
Volume Right	0	14	95	0	0
cSH	546	817	1700	1299	1700
Volume to Capacity	0.10	0.02	0.16	0.02	0.11
Queue Length 95th (ft)	9	1	0	1	0
Control Delay (s)	12.3	9.5	0.0	7.8	0.0
Lane LOS	B	A		A	
Approach Delay (s)	11.8		0.0	0.8	
Approach LOS	B				

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	26.6%	ICU Level of Service	A
Analysis Period (min)	15		

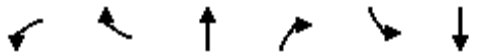


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	16	4	230	27	7	206
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	4	250	29	8	224
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	504	265			279	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	504	265			279	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	99			99	
cM capacity (veh/h)	525	774			1283	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	22	279	8	224
Volume Left	17	0	8	0
Volume Right	4	29	0	0
cSH	561	1700	1283	1700
Volume to Capacity	0.04	0.16	0.01	0.13
Queue Length 95th (ft)	3	0	0	0
Control Delay (s)	11.7	0.0	7.8	0.0
Lane LOS	B		A	
Approach Delay (s)	11.7	0.0	0.3	
Approach LOS	B			

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	23.7%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix O Full Build-Out Access Operations Worksheets



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	52	20	303	16	6	270
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	61	24	356	19	7	318
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	698	366			375	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	698	366			375	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	85	97			99	
cM capacity (veh/h)	407	684			1194	

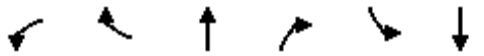
Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	61	24	375	325
Volume Left	61	0	0	7
Volume Right	0	24	19	0
cSH	407	684	1700	1194
Volume to Capacity	0.15	0.03	0.22	0.01
Queue Length 95th (ft)	13	3	0	0
Control Delay (s)	15.4	10.5	0.0	0.2
Lane LOS	C	B		A
Approach Delay (s)	14.0		0.0	0.2
Approach LOS	B			

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	0	2	87	0	33	1	286	27	10	312	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	1	0	2	102	0	39	1	336	32	12	367	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	785	762	368	748	746	352	368			368		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	785	762	368	748	746	352	368			368		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	69	100	94	100			99		
cM capacity (veh/h)	293	334	682	327	340	696	1201			1201		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	4	141	369	380
Volume Left	1	102	1	12
Volume Right	2	39	32	1
cSH	473	383	1201	1201
Volume to Capacity	0.01	0.37	0.00	0.01
Queue Length 95th (ft)	1	42	0	1
Control Delay (s)	12.7	19.8	0.0	0.3
Lane LOS	B	C	A	A
Approach Delay (s)	12.7	19.8	0.0	0.3
Approach LOS	B	C		

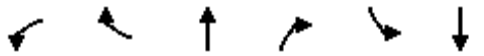
Intersection Summary				
Average Delay	3.3			
Intersection Capacity Utilization	44.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	17	7	306	5	2	397
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	20	8	360	6	2	467
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			None
Median storage veh)			2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	835	363			366	
vC1, stage 1 conf vol	363					
vC2, stage 2 conf vol	472					
vCu, unblocked vol	835	363			366	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	99			100	
cM capacity (veh/h)	542	686			1204	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	28	366	2	467
Volume Left	20	0	2	0
Volume Right	8	6	0	0
cSH	578	1700	1204	1700
Volume to Capacity	0.05	0.22	0.00	0.27
Queue Length 95th (ft)	4	0	0	0
Control Delay (s)	11.6	0.0	8.0	0.0
Lane LOS	B		A	
Approach Delay (s)	11.6	0.0	0.0	
Approach LOS	B			

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	30.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	157	59	253	48	18	396
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	185	69	298	56	21	466
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	834	326			354	
vC1, stage 1 conf vol	326					
vC2, stage 2 conf vol	508					
vCu, unblocked vol	834	326			354	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	65	90			98	
cM capacity (veh/h)	531	720			1216	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	185	69	354	21	466
Volume Left	185	0	0	21	0
Volume Right	0	69	56	0	0
cSH	531	720	1700	1216	1700
Volume to Capacity	0.35	0.10	0.21	0.02	0.27
Queue Length 95th (ft)	39	8	0	1	0
Control Delay (s)	15.4	10.5	0.0	8.0	0.0
Lane LOS	C	B		A	
Approach Delay (s)	14.0		0.0	0.3	
Approach LOS	B				

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	36.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	35	13	289	11	4	549
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	41	15	340	13	5	646
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1002	346			353	
vC1, stage 1 conf vol	346					
vC2, stage 2 conf vol	655					
vCu, unblocked vol	1002	346			353	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	91	98			100	
cM capacity (veh/h)	466	701			1217	

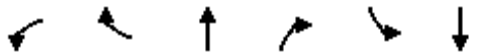
Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	56	353	5	646
Volume Left	41	0	5	0
Volume Right	15	13	0	0
cSH	513	1700	1217	1700
Volume to Capacity	0.11	0.21	0.00	0.38
Queue Length 95th (ft)	9	0	0	0
Control Delay (s)	12.9	0.0	8.0	0.0
Lane LOS	B		A	
Approach Delay (s)	12.9	0.0	0.1	
Approach LOS	B			

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	38.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	3	9	290	3	17	567
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	4	11	341	4	20	667
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1050	343			345	
vC1, stage 1 conf vol	343					
vC2, stage 2 conf vol	707					
vCu, unblocked vol	1050	343			345	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	98			98	
cM capacity (veh/h)	441	704			1226	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	14	345	20	667
Volume Left	4	0	20	0
Volume Right	11	4	0	0
cSH	613	1700	1226	1700
Volume to Capacity	0.02	0.20	0.02	0.39
Queue Length 95th (ft)	2	0	1	0
Control Delay (s)	11.0	0.0	8.0	0.0
Lane LOS	B		A	
Approach Delay (s)	11.0	0.0	0.2	
Approach LOS	B			

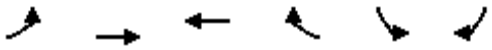
Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	10	3	290	10	6	565
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	12	4	341	12	7	665
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			TWLTL
Median storage veh)						2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1026	347			353	
vC1, stage 1 conf vol	347					
vC2, stage 2 conf vol	679					
vCu, unblocked vol	1026	347			353	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	99			99	
cM capacity (veh/h)	456	701			1217	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	15	353	7	665
Volume Left	12	0	7	0
Volume Right	4	12	0	0
cSH	496	1700	1217	1700
Volume to Capacity	0.03	0.21	0.01	0.39
Queue Length 95th (ft)	2	0	0	0
Control Delay (s)	12.5	0.0	8.0	0.0
Lane LOS	B		A	
Approach Delay (s)	12.5	0.0	0.1	
Approach LOS	B			

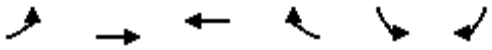
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	30	202	448	45	28	70
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	35	238	527	53	33	82
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	None			
Median storage veh)		2				
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	580				862	554
vC1, stage 1 conf vol					554	
vC2, stage 2 conf vol					308	
vCu, unblocked vol	580				862	554
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	96				94	85
cM capacity (veh/h)	1004				514	536

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	35	238	580	33	82
Volume Left	35	0	0	33	0
Volume Right	0	0	53	0	82
cSH	1004	1700	1700	514	536
Volume to Capacity	0.04	0.14	0.34	0.06	0.15
Queue Length 95th (ft)	3	0	0	5	13
Control Delay (s)	8.7	0.0	0.0	12.5	12.9
Lane LOS	A			B	B
Approach Delay (s)	1.1		0.0	12.8	
Approach LOS				B	

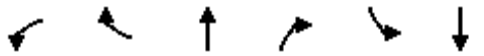
Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	37.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	27	204	407	5	17	86
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	32	240	479	6	20	101
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	485				785	482
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	485				785	482
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				94	83
cM capacity (veh/h)	1089				353	589

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	272	485	20	101
Volume Left	32	0	20	0
Volume Right	0	6	0	101
cSH	1089	1700	353	589
Volume to Capacity	0.03	0.29	0.06	0.17
Queue Length 95th (ft)	2	0	4	15
Control Delay (s)	1.2	0.0	15.8	12.4
Lane LOS	A		C	B
Approach Delay (s)	1.2	0.0	12.9	
Approach LOS			B	

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	43.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	30	11	281	53	20	335
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	35	13	331	62	24	394
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	803	362			393	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	803	362			393	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	98			98	
cM capacity (veh/h)	348	687			1177	

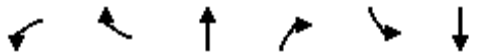
Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	35	13	393	418
Volume Left	35	0	0	24
Volume Right	0	13	62	0
cSH	348	687	1700	1177
Volume to Capacity	0.10	0.02	0.23	0.02
Queue Length 95th (ft)	8	1	0	2
Control Delay (s)	16.5	10.3	0.0	0.7
Lane LOS	C	B		A
Approach Delay (s)	14.8		0.0	0.7
Approach LOS	B			

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	44.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	0	1	50	0	19	2	316	89	33	332	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	1	0	1	59	0	22	2	372	105	39	391	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	920	950	391	899	898	424	392			476		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	920	950	391	899	898	424	392			476		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	77	100	96	100			96		
cM capacity (veh/h)	238	252	662	254	271	634	1178			1096		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	2	81	479	431
Volume Left	1	59	2	39
Volume Right	1	22	105	1
cSH	350	304	1178	1096
Volume to Capacity	0.01	0.27	0.00	0.04
Queue Length 95th (ft)	1	26	0	3
Control Delay (s)	15.4	21.1	0.1	1.1
Lane LOS	C	C	A	A
Approach Delay (s)	15.4	21.1	0.1	1.1
Approach LOS	C	C		

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	54.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	10	4	402	18	7	374
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	12	5	473	21	8	440
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			None
Median storage veh)			2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	940	484			494	
vC1, stage 1 conf vol	484					
vC2, stage 2 conf vol	456					
vCu, unblocked vol	940	484			494	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	99			99	
cM capacity (veh/h)	506	587			1080	

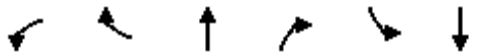
Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	16	494	8	440
Volume Left	12	0	8	0
Volume Right	5	21	0	0
cSH	527	1700	1080	1700
Volume to Capacity	0.03	0.29	0.01	0.26
Queue Length 95th (ft)	2	0	1	0
Control Delay (s)	12.1	0.0	8.4	0.0
Lane LOS	B		A	
Approach Delay (s)	12.1	0.0	0.2	
Approach LOS	B			

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	89	33	386	160	60	325
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	105	39	454	188	71	382
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1072	548			642	
vC1, stage 1 conf vol	548					
vC2, stage 2 conf vol	524					
vCu, unblocked vol	1072	548			642	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	76	93			93	
cM capacity (veh/h)	444	540			952	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	105	39	642	71	382
Volume Left	105	0	0	71	0
Volume Right	0	39	188	0	0
cSH	444	540	1700	952	1700
Volume to Capacity	0.24	0.07	0.38	0.07	0.22
Queue Length 95th (ft)	23	6	0	6	0
Control Delay (s)	15.6	12.2	0.0	9.1	0.0
Lane LOS	C	B		A	
Approach Delay (s)	14.7		0.0	1.4	
Approach LOS	B				

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	48.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	20	7	539	36	13	400
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	24	8	634	42	15	471
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1156	655			676	
vC1, stage 1 conf vol	655					
vC2, stage 2 conf vol	501					
vCu, unblocked vol	1156	655			676	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	98			98	
cM capacity (veh/h)	431	469			925	

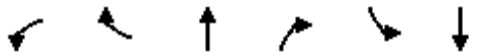
Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	32	676	15	471
Volume Left	24	0	15	0
Volume Right	8	42	0	0
cSH	441	1700	925	1700
Volume to Capacity	0.07	0.40	0.02	0.28
Queue Length 95th (ft)	6	0	1	0
Control Delay (s)	13.8	0.0	9.0	0.0
Lane LOS	B		A	
Approach Delay (s)	13.8	0.0	0.3	
Approach LOS	B			

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	18	47	527	8	43	377
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	21	55	620	9	51	444
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1169	625			629	
vC1, stage 1 conf vol	625					
vC2, stage 2 conf vol	545					
vCu, unblocked vol	1169	625			629	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	89			95	
cM capacity (veh/h)	422	489			963	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	76	629	51	444
Volume Left	21	0	51	0
Volume Right	55	9	0	0
cSH	468	1700	963	1700
Volume to Capacity	0.16	0.37	0.05	0.26
Queue Length 95th (ft)	14	0	4	0
Control Delay (s)	14.2	0.0	8.9	0.0
Lane LOS	B		A	
Approach Delay (s)	14.2	0.0	0.9	
Approach LOS	B			

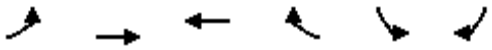
Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	45.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	54	16	520	25	14	381
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	64	19	612	29	16	448
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1108	626			641	
vC1, stage 1 conf vol	626					
vC2, stage 2 conf vol	481					
vCu, unblocked vol	1108	626			641	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	86	96			98	
cM capacity (veh/h)	446	487			953	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	82	641	16	448
Volume Left	64	0	16	0
Volume Right	19	29	0	0
cSH	455	1700	953	1700
Volume to Capacity	0.18	0.38	0.02	0.26
Queue Length 95th (ft)	16	0	1	0
Control Delay (s)	14.7	0.0	8.8	0.0
Lane LOS	B		A	
Approach Delay (s)	14.7	0.0	0.3	
Approach LOS	B			

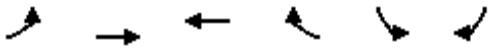
Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	39.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	98	555	298	121	82	82
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	115	653	351	142	96	96
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	None			
Median storage veh)		2				
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	493				1305	422
vC1, stage 1 conf vol					422	
vC2, stage 2 conf vol					884	
vCu, unblocked vol	493				1305	422
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	89				71	85
cM capacity (veh/h)	1081				334	636

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	115	653	493	96	96
Volume Left	115	0	0	96	0
Volume Right	0	0	142	0	96
cSH	1081	1700	1700	334	636
Volume to Capacity	0.11	0.38	0.29	0.29	0.15
Queue Length 95th (ft)	9	0	0	29	13
Control Delay (s)	8.7	0.0	0.0	20.1	11.7
Lane LOS	A			C	B
Approach Delay (s)	1.3		0.0	15.9	
Approach LOS				C	

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	88	548	370	17	10	49
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	104	645	435	20	12	58
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	455				1297	445
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	455				1297	445
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	91				93	91
cM capacity (veh/h)	1116				164	617

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	104	645	455	12	58
Volume Left	104	0	0	12	0
Volume Right	0	0	20	0	58
cSH	1116	1700	1700	164	617
Volume to Capacity	0.09	0.38	0.27	0.07	0.09
Queue Length 95th (ft)	8	0	0	6	8
Control Delay (s)	8.6	0.0	0.0	28.7	11.4
Lane LOS	A			D	B
Approach Delay (s)	1.2		0.0	14.4	
Approach LOS				B	

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	38.8%	ICU Level of Service	A
Analysis Period (min)	15		